

JOURNAL OF ORGANOMETALLIC CHEMISTRY

CUMULATIVE SUBJECT INDEX: VOL. 251 (1983)—275 (1984)

Aluminium

- Alkoxytrialkyl aluminates as reagents in asymmetric synthesis; formation of 2-hydroxy-2-methylbutanoic acids enriched in *S*- or *R*-enantiomers (D. Vegh, G. Boireau, E. Henry-Basch), (267) 127
- Alkyaluminium compounds, 1,6-addition to *para*-quinones of (Z. Florjańczyk, E. Szymańska-Zachara), (259) 127
- Alkyaluminoxanes, synthesis and structure of (M. Bolesławski, J. Serwatowski), (254) 159
- Aluminium; Annual Survey covering the year 1981 (J.D. Smith), (257) 17
- Aluminium and di- η^5 -cyclopentadienyl yttrium, synthesis and molecular structure of solvated hydride complexes of (V.K. Belsky, A.B. Erofeev, B.M. Bulychev, G.L. Soloveichik), (265) 123
- Alumohydride-yttrium complex with three-coordinated hydrogen atoms, crystal structure of $[(\eta^5\text{-C}_5\text{H}_5)_2\text{-Y}(\mu_3\text{-H})](\mu_2\text{-H})\text{AlH}_2\cdot\text{OC}_4\text{H}_1]_2$ (V.K. Bel'skii, B.M. Bulychev, A.B. Erofeev, G.L. Soloveichik), (268) 107
- Bimetallic hydride complex of titanium and aluminium, $[(\eta^5\text{-C}_5\text{H}_5)_2\text{Ti}(\mu\text{-H})_2\text{-AlH}_2]_2(\text{CH}_3)_2\text{NCH}_2\text{CH}_2\text{N}(\text{CH}_3)_2\text{C}_6\text{H}_6$, crystal and molecular structure of (E.B. Lobkovskii, G.L. Soloveichik, A.I. Sisov, B.M. Bulychev, A.I. Gusev, N.I. Kirillova), (265) 167
- Bis(dimethylmetal(III) glyoximato)metallate(II) (metal(III) = Al, Ga, In; metal(II) = Ni, Pd, Pt, Cu) (U. Kohler, H.-D. Hausen, J. Weidlein), (272) 337
- ($\eta^5\text{-C}_5\text{H}_5)_2\text{Ti}(\mu\text{-H})_2\text{AlCl}_2\cdot\text{O}(\text{C}_2\text{H}_5)_2$, crystal and molecular structure of (E.B. Lobkovskii, G.L. Soloveichik, B.M. Bulychev, R.G. Gerr, Yu.T. Struchkov), (270) 45
- Dicyclopentadienyldichlorotitanium-lithium aluminium hydride isomerisation catalyst, influence of the nature of unsaturated hydrocarbons on the catalytic activity of (K. Mach, H. Antropiusová, F. Tureček, P. Sedmera), (269) 39
- Dicyclopentadienylyttrium chloride complex with triethylaminalane, $[\eta\text{-}(\text{C}_5\text{H}_5)_2\text{-YCl}\cdot\text{AlH}_3\cdot\text{NEt}_3]_2$, crystal and molecular structure of (E.B. Lobkovsky, G.L. Soloveychik, B.M. Bulychev, A.B. Erofeev, A.I. Gusev, N.I. Kirillova), (254) 167
- Dimethylalkynylaluminium compounds, reactions with ketones of (K.B. Starowieyski, A. Bęcalska), (269) 223
- Ethylzinc hydroxide as intermediate in the reaction of zinc and water (W. Kuran, M. Czernecka), (263) 1
- Fluorosilyl-butylaminodichloroalane, synthesis and pyrolysis of; crystal structures of $[(\text{Me}_3\text{SiNMe})_2\text{SiNCMe}_3]_2$ and $(\text{Me}_3\text{CNHAICl}_2)_2$ (W. Clegg, M. Haase, U. Klingebiel, J.N. Neeman, G.M. Sheldrick), (251) 281
- Hydrolysis reaction mechanism of organo-aluminium compounds, ¹H NMR studies of the $\text{R}_3\text{Al}/\text{H}_2\text{O}$ reaction in polar solvents (M. Bolesławski, J. Serwatowski), (255) 269
- Hydrosilylation using tris(pentanedionato)-rhodium(III)-trialkyaluminium as catalyst (A.J. Cornish, M.F. Lappert), (271) 153
- Methyliron complex, reverse methyl migration to trimethylaluminium from; formation of $[\text{Fe}(\text{dmpe})_2(\text{acac})]^+ [\text{AlMe}_4]^-$ (S. Komiya, M. Katoh, T. Ikariya, R.H. Grubbs, T. Yamamoto, A. Yamamoto), (260) 115
- Nitrosylmolybdenum complexes as precatalysts for olefin metathesis; formation and stability of $[\text{Mo}^{\text{o}}\text{Cl}(\text{NO})]^-$ containing intermediate (K. Seyferth, R. Taube), (268) 155
- Organoauminium compounds, reactions with tetracyanoethylene and 7,7,8,8-tetracyanoquinodimethane of (Z. Florjańczyk, U. Iwaniak), (252) 275
- Rhenium-based catalyst used in heterogeneous metathesis of unsaturated esters (R.H.A. Bosma, G.C.N. van den Aardweg, J.C. Mol), (255) 159
- Selenium-containing free radicals, generation and stabilization by complex formation of (I.V. Olifirenko, I.P. Romm, E.N. Guryanova, V.V. Troitsky, L.M.

- Kataeva, V.A. Chernoplekova, E.G.
Kataev), (265) 27
- Trialkylaluminium and alkylaluminium chloride compounds, determination of molecular association determined from solubility parameters and related thermodynamic quantities in (J.E. House, Jr.), (263) 267
- 2,4,6-Tri-t-butylnitrosobenzene, paramagnetic species formed in the reaction of organoaluminium compounds with (Z. Florjańczyk, J. Sitkowska), (251) 1
- Trichloronitrosylmolybdenum(II) and dichlorodinitrosylmolybdenum(0) complexes, reactions with EtAlCl₂ of (K. Seyferth, R. Taube), (262) 17
- ### Antimony
- Antimony; Annual Survey covering the year 1982 (L.D. Freedman, G.O. Doak), (261) 31
- Bis(dimethyldibromostiborane)methane, [Me₂SbBr]₂CH₂, crystal and molecular structure of (W. Schwarz, W. Kolondra, J. Weidlein), (260) C1
- Cyclopentadienylnickel cations with Re₂E—E'R₂ as structural ligand (E,E' = P, As, Sb) (N. Kuhn, M. Winter), (256) C5
- Cyclopentadienylnickel compounds, cleavage reactions with nickel iodide of (N. Kuhn, M. Winter), (269) C47
- Dicyclopentadienylzirconium bis(diphenylarsenide) and bis(diphenylantimonide), [(η-C₅H₅)₂Zr(EPh₂)₂] (E = As, Sb), synthesis and chemical properties of (S.R. Wade, M.G.H. Wallbridge, G.R. Willey), (267) 271
- Dimethylarsino-, dimethylstibino- and dimethylbismuthino-bridged diastereoisomeric trinuclear complexes, preparation of (D. Greissinger, W. Malisch, H.-A. Kaul), (252) C23
- Iridium(I) complexes with tetrafluorobenzobarrelene (R. Usón, L.A. Oro, D. Carmona, M.A. Esteruelas), (263) 109
- Iron-coordinated dialkylaminosilyl ligands, anionic shifts to η⁵-cyclopentadienyl groups of (G. Thum, W. Ries, D. Greissinger, W. Malisch), (252) C67
- Monocyclic organotri- and organotetra-stibanes, synthesis of [(Me₃Si)₂CHSb]_n (n = 3,4) (H.J. Breunig, A. Soltani-Neshan), (262) C27
- Phenyl-substituted antimony(III) and antimony(V) chlorides and bromides, preparation of (M. Nunn, D.B. Sowerby, D.M. Wesolek), (251) C45
- Stibinidene complexes with trigonal planar coordinated antimony (U. Weber, L. Zsolnai, B. Sigwarth, G. Huttner), (260) 281
- Triaryl-phosphines, -arsines, and -stibines, symmetrical and unsymmetrical, one pot synthesis from the elements by the S_{RnL} mechanism of (E.R. Bornancini, R.A. Alonso, R.A. Rossi), (270) 177
- ### Arsenic
- η²-Acylcarbonylvanadium compounds, synthesis of (J. Schiemann, E. Weiss), (255) 179
- Arenechromium dimers, reductive elimination of dihydrogen from (T.E. Bitterwolf), (252) 305
- Arsenic; Annual Survey covering papers abstracted in volumes 92–94 of "Chemical Abstracts" (1980–81) (R.A. Zingaro, K.J. Irgolic), (257) 67
- 1H-1,3-Benzazarsoles, metallation and substitution reactions of λ³-As=C—N group in (J. Heinicke, A. Petrasch, A. Tzschach), (258) 257
- Benzenedithiolateiron complexes, [AsPh₄]₂[Fe(S₂C₆H₄)₂] and [Fe(S₂C₆H₄)(PMe₃)₃], synthesis and structure of (D. Sellmann, U. Kleine-Kleffmann, L. Zapf, G. Huttner, L. Zsolnai), (263) 321
- Bis(triphenylarsine)dichlorotricarbonyltungsten as catalyst in ring-opening polymerisation of norbornene in the presence of olefins (L. Bencze, A. Kraut-Vass), (270) 211
- Cryptands and spherands with arsenic, oxygen, sulphur and nitrogen as hetero elements, synthesis, structure and reaction behaviour of (J. Ellermann, A. Veit, E. Lindner, S. Hoehne), (252) 153
- Cyclopentadienylnickel cations with R₂E—E'R₂ as structural ligand (E,E' = P, As, Sb), (N. Kuhn, M. Winter), (256) C5
- Cyclopentadienylnickel compounds, cleavage reactions with nickel iodide of (N. Kuhn, M. Winter), (269) C47
- Cyclopentadienylnitrosylcarbonylisonitrile complexes of Group VI and cyclopentadienylidicarbonylisonitrile complexes of Group VII, chemistry of (H. Behrens, G. Landgraf, P. Merbach, M. Moll, K.-H. Trummer), (253) 217

- $[(\text{Diar})\text{Fe}(\text{CO})_2(\text{C}(\text{O})\text{Me})(\text{P-donor})]^+$
 BF_4^- salts, fast atom bombardment mass spectra of (B. Gregory, C.R. Jablonski, Y.-P. Wang), (269) 75
- Di-t-butylarsenidoiron complexes, preparation, quaternisation, sulphuration and thermal and photochemical treatment of (W. Angerer, M. Luksza, W. Malisch), (253) C36
- cis-Dichloro(*N*-thionitrosodimethylamine)-(triphenylarsine)palladium(II) complex, X-ray crystal and molecular structure of; synthesis and characterisation of neutral binuclear complexes of palladium(II) and cationic complexes of palladium(II) and platinum(II) containing *N*-thionitrosodimethylamine (G. Tresoldi, G. Bruno, P. Piraino, G. Faraone, G. Bombieri), (265) 311
- Dicyclopentadienylzirconium bis(diphenylarsenide) and bis(diphenylantimonide), $[(\eta\text{-C}_5\text{H}_5)_2\text{Zr}(\text{EPPh}_2)_2]$ ($\text{E} = \text{As, Sb}$), synthesis and chemical properties of (S.R. Wade, M.G.H. Wallbridge, G.R. Willey), (267) 271
- Dimethylarsino-, dimethylstibino- and dimethylbismuthino-bridged diastereoisomeric trinuclear complexes, preparation of (D. Greissinger, W. Malisch, H.-A. Kaul), (252) C23
- Diphenylphosphinyl diorganothioarsinates, sulphotropic rearrangement of; formation of diorganoarsenic(III) diphenyldithiophosphinates (L. Silaghi-Dumitrescu, I. Haiduc), (252) 295
- Hexacarbonyldiarsenicdicobalt, $\text{As}_2\text{Co}_2(\text{CO})_6$, preparation of polynuclear complexes from (M. Müller, H. Vahrenkamp), (252) 95
- Iridium(I) complexes with tetrafluorobenzobarrelene (R. Usón, L.A. Oro, D. Carmona, M.A. Esteruelas), (263) 109
- Metalloarsanes, $\text{Cp}(\text{CO})_3\text{W}-\text{AsR}_3$ ($\text{R} = \text{Me, t-Bu}$), carbon monoxide/isonitrile exchange in (M. Luksza, U. Wanka, W. Malisch), (266) 237
- Metalloarsinesulphides with trialkylphosphite substituted metal atoms; isomerisation under 1,5-migration from oxygen to sulphur of a methyl group (R. Janta, M. Luksza, W. Malisch, D. Kempf, G. Künzel), (266) C22
- Monohydridohexamethylbenzeneruthenium(II) complexes containing Group V donor ligands, synthesis of; isomerism arising from cyclometallation of a tertiary phosphine at aliphatic and aromatic carbon atoms in (M.A. Bennett, T.-N. Huang, J.L. Latten), (272) 189
- Nonacarbonyltris(μ -hydrido)(μ_3 -methylidyne)triruthenium clusters, relative rates of ligand substitution on; crystal structure of ($\mu\text{-H})_3\text{Ru}_3(\mu_3\text{-CPH})(\text{CO})_9(\text{AsPh}_3)_2$ (Z.A. Rahman, L.R. Beanan, L.M. Barvaro, S.P. Modi, J.B. Keister, M.R. Churchill), (263) 75
- Organosilicon, -germanium and -lead derivatives of dimethyl- and diphenyl-dithioarsinic acids (L.S. Dumitrescu, I. Haiduc), (259) 65
- Organotin dimethyl- and diphenyl-dithioarsinates, preparation and properties of; crystal structure of $(\text{CH}_3)_2\text{Sn}[\text{S}_2\text{As}(\text{CH}_3)_2]_2$ (L.S. Dumitrescu, I. Haiduc, J. Weiss), (263) 159
- Polymethylhydrogenidisiloxane, polymer-supported catalysts for the reaction with ethanol of (R.V. Parish, M.I. Vania), (263) 139
- Tetraarsenic trisulphide, cleavage by nickel moieties of (P. Stoppioni, M. Peruzzi), (262) C5
- Tetracarbonyl-molybdenum and -tungsten binuclear radical complexes with bridging N-heterocycles and Group VA ligand, ESR evidence for *cis*-configuration of (W. Kaim), (262) 171
- Triaryl-phosphines, -arsines and -stibines, symmetrical and unsymmetrical, one pot synthesis from the elements by the S_{RNl} mechanism of (E.R. Bornancini, R.A. Alonso, R.A. Rossi), (270) 177
- Tris(*p*-chlorophenyl)arsinoxide, structures of two polymorphic modifications of and comparison with the structure of tris(*p*-chlorophenyl)arsinsulphide (V.K. Belsky, V.E. Zavodnik), (265) 159
- ### Beryllium
- $(\text{Be}_2\text{C}_2)_n$ ring systems, electron precise versus electron deficient bonding in; crystal structure of $(\text{Me}_3\text{N})(\text{MeC}\equiv\text{C})\text{Be}(\mu\text{-C}\equiv\text{CMe})_2\text{Be}(\text{C}\equiv\text{CMe})(\text{NMe}_3)$ (N.A. Bell, I.W. Nowell, G.E. Coates, H.M.M. Shearer), (273) 179
- Beryllium; Annual Survey covering the years 1979–1981 (J.P. Oliver), (257) 1
- ### Bismuth
- Bismuth; Annual Survey covering the year 1982 (G.O. Doak, L.D. Freedman), (261) 59

Dimethylarsino-, dimethylstibino- and dimethylbismuthino-bridged diastereoisomeric trinuclear complexes, preparation of (D. Greissinger, W. Malisch, H.-A. Kaul), (252) C23

Metallochiral triorganobismuthines, synthesis of (P. Bras, A. van der Gen, J. Wolters), (256) C1

Methyl/trifluoromethyl organometallic compounds, synthesis by low temperature cocondensation of trifluoromethyl radicals and methylalkyl Main Group compounds of (M.A. Guerra, R.L. Armstrong, W.I. Bailey, Jr., R.J. Lagow), (254) 53

Phenylbismuth(III) and triphenylbismuth(V) complexes with oxine derivatives; crystal structure of chloro(2-methyl-8-quinolinato)triphenylbismuth(V) (G. Faraglia, R. Graziani, L. Volponi, U. Casellato), (253) 317

Triphenylbismuthane, cleavage reactions with potassium of; formation of tetraphenyldibismuthane and diphenyl-(ethyl)bismuthane (H.J. Breunig, D. Müller), (253) C21

Boron

3-Alkyl-3-borabicyclo[4.3.1]decane ate complexes, regioselective hydride abstraction reaction in (M.E. Gurskii, S.V. Baranin, A.I. Lutsenko, B.M. Mikhailov), (270) 17

η^2 -Alkyne-hexacarbonyldicobalt complexes with organometallic substituents (Si, Sn, B), preparation and NMR spectra of (P. Galow, A. Sebald, B. Wrackmeyer), (259) 253

Aminoboration of phenylisocyanate (R.H. Cragg, T.J. Miller), (255) 143

Aminoboration of phenyl isocyanate, kinetic studies of (R.H. Cragg, T.J. Miller), (260) 1

Aryl-alkyl-boron mixed model compound containing a 2-Me₂NCH₂C₆H₄ bifunctional ligand, synthesis and NMR study of (E. Kalbarczyk, S. Pasynkiewicz), (262) 11

Arylboronic acids, synthesis via reactions of borane with arylmagnesium halides of (G.W. Kabalka, U. Sastry, K.A.R. Sastry, F.F. Knapp, P.C. Srivastava), (259) 269

Arylboronic acids with intramolecular B—N interaction, synthesis through *ortho*-lithiation of substituted benzylamines (M. Lauer, G. Wulff), (256) 1

BCN- and BCP-sequenced boranes, preparation of (N.E. Miller), (269) 123

(BH₂CN)_n oligomer, explosions with (B. Györi, J. Emri, I. Fehér), (262) C7

Bis(η^5 -1,2-azaborolinyl)cobalt sandwich complexes, oxidation reactions of (G. Schmid, U. Höhner, D. Kampmann, D. Zaika, R. Boese), (256) 225

Bis(diphenylphosphino)amine, behaviour of di- μ -chlorobis[dicarbonylrhodium(I)] in reactions with (J. Ellermann, G. Szucsányi, K. Geibel, E. Wilhelm), (263) 297

Bis(phenylboronates) of *N,N'*-methylenebis(*N*-alkylhydroxylamines), transannular boron—nitrogen coordination in, formation and structure of (W. Kliegel), (253) 9

1-Boraadamantane, conversion to 1-azaadamantane of (B.M. Mikhailov, E.A. Shagova), (258) 131

1-Boraadamantane, reaction with aromatic nitriles of (B.M. Mikhailov, T.K. Baryshnikova), (260) 25

1-Boraadamantane, reaction with phosphorus ylides; synthesis of 4-alkyl-3-borahoadamantanes (M.E. Gurskii, D.G. Pershin, B.M. Mikhailov), (260) 17

3-Borolenes, catalytic olefin isomerisation of (G.E. Herberich, B. Hessner, D. Söhnen), (256) C23

Boron; Annual Survey covering the year 1982 II (K. Niedenzu), (261) 1

Boron: boranes in organic chemistry; Annual Survey covering the year 1982 (G.W. Kabalka), (274) 1

Carborane cage compounds containing polymetallic chains, synthesis of (M.N. Bochkarev, E.A. Fedorova, G.A. Razuvaev, V.I. Bregadze, V.Ts. Kampel), (265) 117

σ -(*o*-Carboran-9-yl)- and σ -(*m*-carboran-9-yl)- π -cyclopentadienyldicarbonylirons, syntheses of and rearrangement in reactions with bromine to π -(*o*-carboran-9-yl)cyclopentadienyl- and π -(*m*-carboran-9-yl)cyclopentadienyl-dicarbonyliron bromides (L.I. Zakharkin, A.I. Kovredov, V.A. Olshevskaya, V.A. Antonovich), (267) 81

9,12-*o*- and 9,10-*m*-Carboranyl-dithiols and -diselenols, synthesis from S₂Cl₂ or Se₂Cl₂ and *o*- and *m*-carboranes of (L.I. Zakharkin, I.V. Pisareva), (267) 73

o-Carboranylphosphine-palladium(II) and -platinum(II) complexes, intramolecular metallation of (V.N. Kalinin, A.V. Usatov, L.I. Zakharkin), (254) 127

- [*fac*-(CO)₃Re(CH₃CO)₃]BBr, crystal and molecular structure of and further refinement of the structure of [*fac*-(CO)₃Re(CH₃CO)₃]BCl (A.J. Baskar, C.M. Lukehart), (254) 149
- Cyano and isocyanide derivatives of boranes and the tetrahydroborate anion, preparation and properties of (B. Györi, J. Emri, I. Fehér), (255) 17
- 3-*n*⁵-Cyclopentadienyl-*n*⁵-(3)-1,2-dicarbollyliron(II)-1 group stabilising synthesis and reactions of stable vinyl cation (L.I. Zakharkin, V.V. Kobak), (270) 229
- 4,4-Dialkyl-8-methyl-3-borabicyclo-[4.3.1]decanes, synthesis using 7-methyl-3-borabicyclo[3.3.1]nonane of (L.S. Vasilyev, O.D. Smirnova, M.I. Struchkova, B.M. Mikhailov), (275) 19
- Diborane, reactions with aryl-organotin compounds of (G.M. Pickles, T. Spencer, F.G. Thorpe, A.B. Chopra, J.C. Podesta), (260) 7
- Dicyclopentadienylzirconium tetrahydridoborate, synthesis of (D. Männig, H. Nöth), (275) 169
- Lanthanides of the type RLnI, carboranyl derivatives of (G.Z. Suleimanov, V.I. Bregadze, N.A. Koval'chuk, Kh.S. Khalilov, I.P. Beletskaya), (255) C5
- Methoxyborabicyclo[3.3.1]-nonanes and -nonenes, homologation of and synthesis of 3-borabicyclo[4.3.1]-decane and -decene derivatives from (M.E. Gurskii, S.V. Baranin, B.M. Mikhailov), (270) 9
- 1-Methyl-3,4-benzo-1-telluracyclopentane and 1-phenyl-1-telluracyclopentane cations in their tetraphenylborate salts, crystal structures of (R.H. Jones, T.A. Hamor), (269) 11
- Molybdenum and tungsten chiral poly-(pyrazolyl)borate isonitrile complexes, synthesis of (E. Frauendorfer, J. Puga), (265) 257
- Organoborane and organoborate compounds containing the (C₄H₄-2-CH₂-NMe₂) ligand, structural aspects of (E. Kalbarczyk, S. Pasynkiewicz), (273) C23
- Organo-1,3,2-dioxasilacyclohexanes, ¹H NMR spectra of (R.H. Cragg, R.D. Lane), (268) 1
- 1,4-Pentadienylboranes, iodination of and formation of 2-substituted 1-iodo-1,4-pentadienes (B.M. Mikhailov, L.I. Lavrinovich), (268) 5
- 2-Phenyl-1,3,2-diazaboracycloalkanes, mass spectral study of (R.H. Cragg, M. Nazery, A.F. Weston), (263) 261
- 2-Substituted 1-iodo-4-hydroxymethyl-1,6-heptadienes, synthesis from 1-bora-2-cyclohexane compounds of (B.M. Mikhailov, L.I. Lavrinovich), (264) 289
- Tetrahydroborate copper(I) complexes, [(PR₃)₂Cu(*n*²-BH₄)] (R = Ph, Cy), reactivity towards CO₂, COS, and SCNPh of (C. Bianchini, C.A. Ghilardi, A. Meli, S. Midollini, A. Orlandini), (255) C27
- 1,2,3,4-Tetrahydro-1,10-phenanthroline-boron and -silicon complexes, multi-nuclear magnetic resonance of (G. Klebe, K. Hensen, J. von Jouanne), (258) 137
- Tin(II) acetylacetone in reaction with mercuric derivatives of carboranes (V.I. Bregadze, G.Z. Suleimanov, V.Ts. Kampel, M.V. Petriashvili, S.G. Mamedova, P.V. Petrovskii, N.N. Godovikov), (263) 131
- Tricarbonyl(1-methylborinato)chromium derivatives, synthesis of (G.E. Herberich, D. Söhnen), (254) 143
- Triethylborane, protonolysis with carboxylic acid of (H.C. Brown, N.C. Hébert), (255) 135
- Tris(pyrazolyl)borate(trimethyl)tin, a six-coordinate trialkyltin compound, synthesis and X-ray structure of (B.K. Nicholson), (265) 153
- Tris(tetracarbonylcobalt)chlorotin, interactions with tris(pyrazolyl)borate anion; formation of the anion [Sn₂Co₅Cl₂-(CO)₁₂]⁻ as the bis[tris(1-pyrazolyl)-borate]cobalt(III) salt, Co[HB(pz)₃]₂⁺, and X-ray crystal structure of (O.J. Curnow, B.K. Nicholson), (267) 257
- [Tris(trimethylsilyl)methyl]diphenylborane, preparation and crystal structure of (C. Eaborn, M.N.A. El-Kheli, P.B. Hitchcock, J.D. Smith), (272) 1
- Tris(Z-trimethylsilylprop-1-enyl)borane, [CH₃CH=CSi(CH₃)₃]₃B, crystal structure of (N.S. Hosmane, N. Sirmokadam, M.D. Walkinshaw, E.A.V. Ebsworth), (270) 1
- Vanadium complexes of 1-methyl- and 1-phenyl-borinate ions (G.E. Herberich, W. Boveleth, B. Hessner, W. Koch, E. Raabe, D. Schmitz), (265) 225

Cadmium

Mercury(II), cadmium(II), cobalt(II), and nickel(II) complexes of ambidentate sulphonium ylides, preparation of and coordination in (R.S. Tewari, A.K. Awasthi), (271) 403

Tertiary racemic phosphines and asymmetric chlorophosphines, direct synthesis of (W. Chodkiewicz, D. Guillerm, D. Jore, E. Mathieu, W. Wodzki), (269) 107

Cerium

1-Alkylcyclohex-2-enols, preparation of alkylbenzenes via tricarbonyliron complexes from (D. Fărăciu, G. Marino), (253) 243

Chromium

Alkenyl-chromium, -molybdenum and -tungsten complexes, *cis/trans*- and *E/Z*-isomerisation in (G. Grötsch, W. Malisch), (258) 297

Alkynylphosphine-substituted products of chromium and tungsten hexacarbonyl (A. Hengefeld, R. Nast), (267) 151

Antiferromagnetic cluster containing a heterometallic "bow-tie" Cr₄Mn framework, [Cp₂Cr₂(SCMe₃)₂(μ₃-S)₂]₂Mn, synthesis and molecular structure of (I.L. Eremenko, A.A. Pasynskii, G.Sh. Gasanov, B. Orazsakhatov, Yu.T. Struchkov, V.E. Shklover), (275) 183

Arenechromium dimers, reductive elimination of dihydrogen from (T.E. Bitterwolf), (252) 305

η⁶-Arenetricarbonylchromium(0) complex, evidence for reversible attack of a carbanion on (B. Ohlsson, C. Ullenius), (267) C34

Arenetricarbonylchromium complexes, electrochemical substitution of a CO group by a P ligand in (M.G. Peterleitner, M.V. Tolstaya, V.V. Krivykh, L.I. Denisovitch, M.I. Rybinskaya), (254) 313

Arenetricarbonylchromium complexes, recovery of chromium hexacarbonyl after nucleophilic reactions of (J.-C. Boutonnet, J. Levisalles, J.-M. Normant, E. Rose), (255) C21

Arenetricarbonylchromium complexes containing toluene, anisole, *N,N*-dimethylaniline, acetophenone and methylbenzoate thermochemistry of (G. Al-Takhin, J.A. Connor, H.A. Skinner, M.T. Zafarani-Moattar), (260) 189

Arenetricarbonyl-chromium, -manganese and -iron, dependence of electrophilicity of coordinated cyclic π-hydrocarbons on the metal in (Y.K. Chung, E.D. Honig, D.A. Schweigart), (256) 277

Arylmethyl and dibenzotropenyl carbonium complexes with tricarbonylchromium, kinetic and ¹³C NMR study of formation of (A. Ceccon, A. Gambaro, A. Venzo), (275) 209

Azidocarbonylmetal(0) complexes of chromium, molybdenum, tungsten and manganese, preparation and reactions of and coordination in (D. Sellmann, W. Weber, G. Liehr, H.P. Beck), (269) 155

π-Benzenedicarbonyl-1,3-dithianechromium(0) and π-methylbenzoatedicarbonyl-1,3-dithianechromium(0), crystal and molecular structure of (P.H. van Rooyen, J.L.M. Dillen, S. Lotz, M. Schindelutte), (273) 61

Benzenechromium derivatives, direct, indirect and assisted electrooxidation of, comparative study in acetonitrile and in *N,N*-dimethylformamide of (C. Degrand, A. Radecki-Sudre), (268) 63

Benzylidene-η⁵-tricarbonyl(cyclohexadienyl)chromium(0), ¹H NMR study of the structure of di- and tri-phenylmethyl anions in (A. Ceccon, A. Gambaro, A.M. Romanin, A. Venzo), (254) 199

Bis[cyclopentadienyl(t-butoxy)chromium]iron tetracarbonyl antiferromagnetic cluster containing a Cr₄Fe metallacycle, synthesis and molecular structure of (I.L. Eremenko, A.A. Pasynskii, Yu.V. Rakitin, O.G. Ellert, V.M. Novotortsev, V.T. Kalinnikov, V.E. Shklover, Yu.T. Struchkov), (256) 291

Bis(diisopropylamino)phosphine- and di-isopropylaminochlorophosphine-metal carbonyl complexes, formation and reactions of (R.B. King, W.-K. Fu), (272) C33

Bis(pentamethylcyclopentadienyl)-di-chromium and -dimolybdenum complexes with bridging sulphur ligands,

- investigation of the disulphur ligands in (H. Brunner, H. Kauermann, W. Meier, J. Wachter), (263) 183
- Carbonyl complexes as a mean to probe chelating ligand sites of phosphines on silica gel (M. Berglund, C. Andersson, R. Larsson), (258) 195
- Carbonyl-chromium, -molybdenum and -tungsten carbonyl derivatives of an unusual oxygen tripod ligand (W. Kläui, A. Müller, M. Scotti), (253) 45
- Carbonyl-chromium(0) and -tungsten(0) complexes with 1,2-benzenethiolato, 1,2-methylthiobenzenethiolato and 2,3,8,9-dibenzo-1,4,7,10-tetrathiadecane(2-) ligands, isolation and characterisation of (D. Sellmann, W. Ludwig), (269) 171
- Carbonyl-Group VI metal compounds containing the ligand bis(di-*o*-tolyl)-phosphinomethane, preparation and properties of; crystal and molecular structure of dicarbonylbis(di-*o*-tolyl)-phosphinomethanechromium (G.R. Clark, P.W. Clark), (255) 205
- Carbonylmetal(0) complexes with diphosphanes R(X)PP(X)R (R = aryl, X = Br, I, H, C₄H₉) as bridging ligands (A.-M. Hinke, A. Hinke, W. Kuchen), (258) 307
- Carbonyl-, nitrosylcarbonyl- and nitrosyl-metal complexes of bis(diphenylphosphino)amines (J. Ellermann, W. Wend), (258) 21
- Carbonylmetal compounds, novel electro-generation of reactive formylmetal complexes from (B.A. Narayanan, J.K. Kochi), (272) C49
- Carbyne-chromium and -tungsten dinuclear complexes containing halogen bridges, synthesis of (E.O. Fischer, J.K.R. Wanner), (252) 175
- 4-Chromanonechromium(0) tricarbonyl, ¹H NMR and X-ray crystal structure of (K.R. Stewart, S.G. Levine, A.T. McPhail), (263) 45
- Chromium(0)-induced cyclization of alkynes, alkoxyvinylcarbene and carbon monoxide to tricarbonyl(benzhydronone)chromium complexes (K.H. Dötz, W. Kuhn), (252) C78
- Chromium, molybdenum, and tungsten; Annual Survey covering the year 1981 (J.D. Atwood), (257) 105
- Chromium(0)-promoted intramolecular nucleophilic substitution of an aryl halide; preparation of chroman (R.P. Houghton, M. Voyle, R. Price), (259) 183
- Chromium—sulphur and chromium—selenium bonds, complex formation with, rearrangement reactions of and alkylidene addition to (W.A. Herrmann, J. Rohrmann, A. Schäfer), (265) C1
- Chromium tetracarbonyl complexes of 1,4,5,8-tetraazaphenanthrene and 1,4,5,8,9,12-hexaazatetraphenylenes, ¹³C NMR spectra of (N. Defay, D. Maetens, R. Nasielski-Hinkens), (251) 317
- (CO)₅CrC(OEt)SiPh₃, fragmentation and cleavage reactions of (U. Schubert, H. Hörnig), (273) C11
- [Cr(CO)₅]₂P-t-Bu, phosphinidene complex with ³¹P NMR shift outside the documented range (G. Huttner, J. Borm, L. Zsolnai), (263) C33
- Cyclopentadienyldicarbonyl ferriodithiocarbonic acid anion, reactions with metal compounds of (H. Stolzenberg, W.P. Fehlhammer, M. Monari, V. Zanotti, L. Busetto), (272) 73
- Cyclopentadienylnitrosylcarbonylisonitrile complexes of Group VI and cyclopentadienyldicarbonylisonitrile complexes of Group VII, chemistry of (H. Behrens, G. Landgraf, P. Merbach, M. Moll, K.-H. Trummer), (253) 217
- Cyclopentadienyltricarbonylmetal-chromium, -molybdenum and -tungsten functionally substituted derivatives (D.W. Macomber, M.D. Rausch), (258) 331
- Diazanorbornenepentacarbonyl-chromium and -tungsten compounds, contrasting photosubstitution reactions of (A. Albini, E. Fasani), (273) C26
- Dichloroheptafluoropropyltripyridine-chromium(III) and related compounds, synthesis and properties of (A.L. Marchese, B.O. West), (266) 61
- 2,3-Dimethyl-1,3-butadiene, addition-substitution reaction towards tricarbonyl-(*n*⁶-8,8-dimethylheptafulvene)chromium(0) of (E. Michels, C.G. Kreiter), (252) C1
- Dinuclear-chromium complex with a bridging bis-carbyne ligand, synthesis and molecular structure of (N.A. Ustynyuk, V.N. Vinogradova, V.G. Andrianov, Yu.T. Struchkov), (268) 73
- (Fluorenone)tricarbonylchromium, electrosynthesis of (C. Degrand, B. Gautheron, M. Bikrani, F. Gasquez, P.-L. Compagnon), (273) 319

- Hexacarbonyl-, dicyclohexatrienyl- and tricarbonylcyclohexatrienyl-chromium complexes, metal—carbon “bond strengths” in (M.J. Calhorda, C.F. Frazão, J.A.M. Simões), (262) 305
- Hexacarbonyldiarsenidacobalt, As_2Co_2 -(CO)₆, preparation of polynuclear complexes from (M. Müller, H. Vahrenkamp), (252) 95
- Hexacarbonyltungsten and some phosphine derivatives, ¹⁸³W NMR spectroscopy of (R.L. Keiter, D.G. Vander Velde), (258) C34
- Interaction of organometallic moieties with carbanions and other electron-rich centres (*Review*) (R.C. Kerber), (254) 131
- Magnesium hydride, catalysed addition to isoprene and styrene of (B. Bogdanović, M. Maruthamuthu), (272) 115
- [M(CO)₄(Ph₂PCH₂PPh₂-P,P')], conversion to [M(CO)₄{(PPh₂)₃CH-P,P'}]{[M(CO)₄-tripod]} (M = Cr, Mo, W) and subsequent conversion to phosphine oxides, phosphine sulphides and complexes with platinum(II) (S. Al-Jibori, B.L. Shaw), (273) 213
- (MeC₅H₄)₂Cr₂(μ-SCMe₃)(μ₃-S)₂Co(CO)₂ and (C₅H₅)₂Cr₂(μ-SCMe₃)(μ₃-S)₂Mn(CO)₃ clusters with triangular Cr₂M metal frames, synthesis, molecular structures and magnetic properties of (A.A. Pasynskii, I.L. Eremenko, B. Oraszakhatov, G.Sh. Gasanov, V.M. Novotortsev, O.G. Ellert, Z.M. Seifulina, V.E. Shklover, Yu.T. Struchkov), (270) 53
- Metal—metal heterodinuclear double bonds, access by high-yield coupling reactions to (W.A. Herrmann, C.E. Barnes, R. Serrano, B. Koumbouris), (256) C30
- N-Methylindoletricarbonylchromium, NMR and X-ray spectroscopic study of (J.-C. Boutonnet, J. Levisalles, E. Rose, G. Precigoux, C. Courseille, N. Platzer), (255) 317
- η^6 -[1-Methyl-1-(trimethylsilyl)dibenzosila-cyclopentadiene]chromium tricarbonyl, synthesis and reactions of (M. Ishikawa, T. Tabohashi), (271) C4
- Molybdenum- and chromium-sulphur clusters, formation of tri- and tetra-nuclear clusters with M₃S₄ or M₄S₄ backbones by reactions with carbonyl-chromium, -molybdenum and -tungsten complexes (H. Brunner, H. Kauermann, J. Wachter), (265) 189
- Multimetal complexes, assemblage using diposphoxane linkages (P—O—P) of (E.H. Wong, F.C. Bradley, L. Prasad, E.J. Gabe), (263) 167
- Pentacarbonyl-5-t-butyl-5-aza-2,8-dithia-1-stannobicyclo[3.3.0^{1,5}]octanechromium(0), synthesis, spectroscopic investigation and molecular structure of (A. Tzschach, K. Jurkschat, M. Scheer, J. Meunier-Piret, M. Van Meerssche), (259) 165
- Pentacarbonyl-chromium, -molybdenum and -tungsten mono- and di-nuclear complexes with the anion radicals of 2,1,3-benzoxadiazole, 2,1,3-benzothiadiazole and 2,1,3-benzoselenadiazole (W. Kaim), (264) 317
- Pentacarbonyl-chromium(0) and -tungsten(0) complexes of 2,4,6-trithiahexane and 2,4,6,8-tetrathianonane, dynamic NMR study of (E.W. Abel, M.A.Z. Chowdhury, K.G. Orrell, V. Sik), (262) 293
- Pentacarbonylchromium cyanide anion, anodic oxidation of (W.P. Fehlhammer, C. Monet), (260) C55
- Pentacarbonyl[diorganylarnino[methoxy-(phenyl)methyleneamino]carbene]-chromium complexes, Lewis-acid-induced fragmentation of (R. Märkl, H. Fischer), (267) 277
- Pentacarbonyl-halophosphane-chromium complexes, cathodic reduction of (H.P. Fritz, T. Schöttle), (265) 175
- Pentacarbonyl(phenylthiophenylselenido)-chromium, molecular structure of (D. Neugebauer, U. Schubert), (256) 43
- Pentanuclear cyclopentadienyl-t-butyl-thiolate-sulphide chromium cluster [Cp₂Cr₂(μ₂-SCMe₃)(μ₃-S)₂]₂Cr with a “bow-tie” frame, synthesis and structure of (A.A. Pasynskii, I.L. Eremenko, B. Oraszakhatov, G.Sh. Gasanov, V.E. Shklover, Yu.T. Struchkov), (269) 147
- 1,2-Phenyl and 1,2-sulphinatophenyl photochemical, thermal and SO₂-induced migration from lead to transition metals in the system [(η⁵-C₅H₅)M(CO)_n-PbPh₃] (M = Fe, Cr, Mo, W) (K.H. Pannell, R.N. Kapoor), (269) 59
- Phenylbis(*trans*-halotetracarbonyl)metal-carbyne complexes and their perdeuterated derivatives, vibrational spectra of (N.Q. Dao, H. Fevrier, M. Jouan, E.O. Fischer, W. Röll), (275) 191

- Phospholes, reactions with carbonylmetals under CO pressure of; formation of phosphole- $2H$ derivatives (F. Mercier, F. Mathey), (263) 55
- Stibnidene complexes with trigonal planar coordinated antimony (U. Weber, L. Zsolnai, G. Huttner), (260) 281
- μ_3 -Sulphide clusters containing chromium and cobalt atoms, transformation by treatment with pivalic acid; molecular structures of the pseudotetrahedral cluster $Cp_3Cr(\mu_3-O)Co(CO)_3 \cdot Me_3 \cdot CCOOH \cdot 0.5C_6H_6$ and the heterometallic "bow-tie" cluster ($Cp_2Cr_2 \cdot SCMe_3)_2(\mu_3-S)_2Co$ (I.L. Eremenko, A.A. Pasynskii, G.Sh. Gasanov, B. Orazsakhatov, Yu.T. Struchkov, V.E. Shklover), (275) 71
- Sulphur dioxide complexes, *O*-silylation of (W.A. Schenk, F.-E. Baumann), (260) C6
- Sulphur dioxide electron-rich complexes, synthesis, structure and isomerisation of (W.A. Schenk, F.-E. Baumann), (256) 261
- Tellurium bridges in organometal complexes, formation, protonation and molecular geometry of (W.A. Herrmann, J. Rohrmann, M.L. Ziegler, T. Zahn), (273) 221
- Tetrachloromethane addition to alkenes in the presence of $[Cr(CO)_3(\eta^6-C_{10}H_8)]$, mechanism of (W.J. Bland, R. Davis, J.L.A. Durrant), (260) C75
- Tetramethyleneethylene-bridged carbonyl-chromocene stable complex, $(CH_3)_4 \cdot C_2(C_5H_4)_2Cr(CO)$, synthesis and molecular structure of (H. Schwemlein, L. Zsolnai, G. Huttner, H.H. Brintzinger), (256) 285
- Tricarbonylchromium, effect on base strengths of tropone and 2-alkoxy-troponones of π -complexation with (K. Lal, N.T. Leckey, W.E. Watts), (254) 193
- Tricarbonylchromium in activation reactions of aromatic rings (J.-F. Halet, J.-Y. Saillard, B. Caro, J.-Y. Le Bihan, S. Top, G. Jaouen), (267) C37
- Tricarbonylchromium anionic complexes of fluoradene, substituted fluorenes and indene; structure of ion pairs and $\eta^6 \rightarrow \eta^5$ rearrangements (N.A. Ustynyuk, Yu.F. Oprunenko, S.G. Malyugina, O.I. Trifonova, Yu.A. Ustynyuk), (270) 185
- Tricarbonylchromium complexes of substituted anilines and fluorobenzenes, synthesis and characterisation of (C.A.L. Mahaffy), (262) 33
- Tricarbonyl-chromium, -molybdenum and -tungsten complexes of tropone, relative base strength of (K. Lal, N.T. Leckey, W.E. Watts), (258) 205
- Tricarbonyl(cyclopentadienyl)metallate anions of chromium, molybdenum and tungsten, improved synthesis of (U. Behrens, F. Edelmann), (263) 179
- Tricarbonyl(1-methylborinato)chromium derivatives, synthesis of (G.E. Herberich, D. Söhnken), (254) 143
- Tricarbonyltropyliummetal complexes, prediction of nucleophilic sites in and application to attack by methoxide on (D.A. Brown, N.J. Fitzpatrick, M.A. McGinn), (275) C5
- Triethylaluminium, interaction with acetylacetones of transition metals of (F.K. Schmidt, G.V. Ratovskii, T.V. Dmitrieva, I.N. Ivleva, Yu.G. Borodko), (256) 309
- β -Trimethylphosphino(trimethylsiloxy)-vinylchromium, $Cp(CO)(NO)Cr^-C(OSiMe_3)=CH-^+PMe_3$, isolation and degradation reactions of (H. Blau, K.-H. Griessmann, W. Malisch), (264) C1
- Trinuclear heterometallic clusters with four different skeletal atoms, synthesis of (P. Thometzek, H. Werner), (252) C29
- Tris(1,10-phenanthroline)potassium salt of μ -hydridobis[pentacarbonylchromium(0)], crystal and molecular structure of (G. Bombieri, G. Bruno, M.D. Grillone, G. Polizzotti), (273) 69
- Tris(3,3,4,4-tetramethyl-3,4-dihydridoazete)bis(tricarbonylchromium), $(N_2C_2Me_4)_3[Cr(CO)_3]_2$, crystal and molecular structure of (B. Bovio), (252) 71
- Tropylium cation and its tricarbonylchromium complex, comparison of the stability and reactivity in solution of (C.A. Bunton, M.M. Mhala, J.R. Moffatt, W.E. Watts), (253) C33
- ### Cobalt
- μ_1 - and μ_3 -(η^2 -acetylene)cobalt complexes, ^{13}C — ^{13}C coupling constants in (S. Aime, D. Osella, E. Giannello, G. Granozzi), (262) C1
- Alkylcobalt complexes in catalytic cycles for hydrogenation of alkenes (T.S.

- Janik, M.F. Pyszczek, P.S. Sullivan, J.D. Atwood), (272) 427
- Alkylidene-cobalt complexes, synthesis, structure and reactions of (W.A. Herrmann, C. Bauer, J.M. Huggins, H. Pfisterer, M.L. Ziegler), (258) 81
- μ -Alkylidene-cobalt triply-bridged complexes, synthesis and structure of (W.A. Herrmann, J.M. Huggins, C. Bauer, M.L. Ziegler, H. Pfisterer), (262) 253
- η^2 -Alkyne-hexacarboxyldicobalt complexes with organometallic substituents (Si, Sn, B), preparation and NMR spectra of (P. Galow, A. Sebald, B. Wrackmeyer), (259) 253
- Alkyne-ruthenium-cobalt mixed-metal clusters: $\text{NET}_4[\text{RuCo}_3(\mu\text{-CO})_2(\text{CO})_8 \cdot (\mu_4\text{-}\eta^2\text{-PhC}\equiv\text{CPh})]$ and $\text{RuCo}_2(\text{CO})_9 \cdot (\mu_3\text{-}\eta^2\text{-PhC}\equiv\text{CPh})$, synthesis and structure of (P. Braunstein, J. Rose, O. Bars), (252) C101
- Allylcobaloximes with *para*-substituted benzenesulphonyl chloride, thermal and photochemical reactions under aerobic and anaerobic conditions of (S. Roy, D.B. Gupta, S. Chaklanobis), (269) 201
- Atom-transfer redox reactions of nitrite anion with transition metal carbonyl cations (F.J. Lalor, L.H. Brookes), (251) 327
- Bis(η^5 -1,2-azaborolinyl)cobalt sandwich complexes, oxidation reactions of (G. Schmid, U. Höhner, D. Kampmann, D. Zaika, R. Boese), (256) 225
- Bis(triphenylphosphine)platinum insertion into inorganic triatomic rings coordinated to metal-ligand moieties (M. Di Vaira, S. Moneti, M. Peruzzini, P. Stoppioni), (266) C8
- Carbenium ion structure of $[\text{Os}_3\text{H}_3(\text{CO})_9 \cdot \text{CCR}_2]^+$ complexes, applications of the ^{187}Os nucleus (A.A. Koridze, O.A. Kizas, N.E. Kolobova, P.V. Petrovskii, E.I. Fedin), (265) C33
- Carbonylcobalt complexes, electrochemical study of ligand exchange reactions in (P. Reeb, Y. Mugnier, C. Moise, E. Laviron), (273) 247
- Carbonyl-cobalt(II) and -nickel(II) compounds, reversible arene-carbon monoxide exchange in (T.J. Groshens, K.J. Klabunde), (259) 337
- Carbonylcobalt(I) substituted complexes, synthesis and ^{31}P NMR characterisation of (N. España, P. Gomez, P. Royo, A. Vazquez De Miguel), (256) 141
- Carbonyl-, nitrosylcarbonyl- and nitrosylmetal complexes of bis(diphenylphosphino)amines (J. Ellermann, W. Wend), (258) 21
- Carbonylmetal ions, evidence for a negative charge on hydrogen for (R.L. Sweany, J.W. Owens), (255) 327
- Carboxylic methyl esters, homologation via reductive carbonylation catalysed by a cobalt-ruthenium mixed catalyst (H. Kheradmand, A. Kiennemann, G. Jenner), (251) 339
- $[(\eta^5\text{-C}_5\text{Me}_5)\text{M}(\mu\text{-CO})]_2$ ($\text{M} = \text{Rh}, \text{Co}$), addition of alkynes under formation of metallacyclic structures to (W.A. Herrmann, C. Bauer, A. Schäfer), (256) 147
- $[\text{CNCH}_2\text{Co}(\text{COOCH}_3)(\text{CO})_3]^-$, formation and reactivity of (F. Francalanci, A. Gardano, L. Abis, M. Foà), (251) C5
- Cobalt or cobalt and iron substituted silicon, germanium and tin complexes, electrochemical reduction of (C. Combers, R.J.P. Corriu, G. Dabosi, B.J.L. Henner, R. Martineau), (270) 131
- Cobalt acetate promoted homologation of methanol in the presence of iodine (P. Andrianary, G. Jenner, A. Kiennemann), (252) 209
- Cobalt-catalysed methanol homologation, intermediates in; labelling studies with deuterated methanol and methyl iodide (M. Röper, H. Loevenich), (255) 95
- Cobalt complexes with thioformaldehyde, selenoformaldehyde and dimethoxy-carboxyl ligands (L. Hofmann, H. Werner), (255) C41
- Cobalt, rhodium and iridium; Annual Survey covering the year 1982 (J.T. Mague), (261) 103
- Cobalt(II) tetracarbonylcobaltate ion pairs, electron transfer phenomena in (G. Fachinetti, F. Del Cima, G. Braca, T. Funaioli), (275) C25
- Cobalt unsaturated trinuclear clusters, metal-bonded hydrogen atom in; crystal structure of $\text{HCo}_3(\text{CO})_6(\text{PPh}_3)_3$ (P. Bradamante, P. Pino, A. Stefani, G. Faschinetti, P.F. Zanazzi), (251) C47
- Cobaltacyclopentadiene and dinuclear cobalt complexes, preparation and X-ray crystallography of (H. Yamazaki, Y. Wakatsuki), (272) 251
- Cobalt(*o*-catecholate) complex, $[\eta^5\text{-C}_5\text{(CH}_3)_5]\text{Co}(\text{O}_2\text{C}_6\text{H}_4)$, crystal and molecular structure of (E.J. Miller, A.L. Rheingold, T.B. Brill), (273) 377

- Cobaltocene, displacement of C_5H_5 by a diene moiety in (D.W. Slocum, T.R. Engelmann, R.L. Fellows, M. Moronski, S. Duraj), (260) C21
- Cobaltocene and nickelocene, reactivity towards secondary phosphinic chalcogenides, route to polydentate oxygen and sulphur ligands (W. Kläui, W. Eberspach, R. Schwarz), (252) 347
- $\text{Co}-\text{C}$ bond behaviour in a series of alkyl-cobalt complexes, in the presence of MeSnCl_3 or Me_2SnCl_2 (M.H. Darbieu, G. Cros), (252) 327
- $\text{Co}_3(\text{C}_5\text{Me}_5)_3[\mu_3-\text{CCH}_3]_2$, synthesis and X-ray structure of; conversion of ethylene directly into a carbyne ligand (R.B.A. Pardy, G.W. Smith, M.E. Vickers), (252) 341
- $\text{Co}(\eta^5\text{C}_5\text{Me}_5)(\text{R}_2\text{PCH}_2\text{CH}_2\text{PR}_2)$, synthesis and structural characterisation of; photoelectron spectroscopy of pentamethylcyclopentadienylphosphine-cobalt complexes (N. Dudeney, J.C. Green, P. Grebenik, O.N. Kirchner), (252) 221
- Cyclopentadienylcobalt optically active complexes, preparation, properties and conformation of (H. Brunner, G. Riepl, R. Benn, A. Rufińska), (253) 93
- Cyclopentadienylidicarbonyl ferriodithiocarbonic acid anion, reactions with metal compounds of (H. Stolzenberg, W.P. Fehlhammer, M. Monari, V. Zanotti, L. Busetto), (272) 73
- Cyclopentadienylidicarbonylirontetracarbonylcobalt, $(\eta^5\text{C}_5\text{H}_5)\text{Fe}(\text{CO})_2\text{Co}(\text{CO})_4$, evidence for two photochemical pathways of (S.C. Fletcher, M. Poliakoff, J.J. Turner), (268) 259
- Cyclopentadienyltricarbonylmolybdenum cation, reactions with methylcarbonyl complexes, cobaltocene, nickelocene and cyclopentadienylidicarbonylcobalt of; structure of acetylene-bridged $[(\pi\text{-C}_5\text{H}_5)(\text{CO})_2\text{FeC}(\text{CH}_3)\text{OMo}(\text{CO})_3-(\pi\text{-C}_5\text{H}_5)]^+\text{SbF}_6^-$ (K. Sünkel, U. Nagel, W. Beck), (251) 227
- Dicarbonyl- and diethylene-pentamethylcyclopentadienylcobalt complexes, oxidative additions of pseudohalogens to (S. Delgado, J. Macazaga, J.R. Masaguer), (268) 79
- Dicarbonylpentamethylcyclopentadienylcobalt, $(\eta^5\text{C}_5\text{Me}_5)\text{Co}(\text{CO})_2$, reactions with XCN ($\text{X} = \text{Br}, \text{I}$) and INCO (J. Macazaga, S. Delgado, J.R. Masaguer), (259) 233
- Dicobalt octacarbonyl, reaction with acetylene and CO at low temperature and pressure, formation of cyclic enone products (N.E. Schore, B.E. La Belle, M.J. Knudsen, H. Hope, X.-J. Xu), (272) 435
- Dicyclopentadienylnickel, problematic reagent in cluster synthesis (M. Mlekuz, P. Bougeard, M.J. McGlinchey, G. Jaouen), (253) 117
- Dithiocarbamate-cyclopentadienylcobalt(III) complexes, $[\text{Co}(\eta^5\text{C}_5\text{H}_5)(\text{L})-\text{(S}_2\text{CNR}_2)]$, formation, structure and spectra of (J. Doherty, A.R. Manning), (253) 81
- Formylmethyl(tetraphenylporphinato)-cobalt(III), crystal and molecular structure of (H. Masuda, T. Taga, H. Sugimoto, M. Mori), (273) 385
- Hexacarbonyldiarsenicdicobalt, $\text{As}_2\text{Co}_2\text{(CO)}_6$, preparation of polynuclear complexes from (M. Müller, H. Vahrenkamp), (252) 95
- Hydridodicobalt cation $[(\text{C}_5\text{H}_5\text{Co})_2\text{-}(\mu\text{-PM}_2)_2\text{-}(\mu\text{-H})]^+$, reactions with $\text{C}_2(\text{CO}_2\text{Me})_2$ of; formation and X-ray structure of $\text{O}=\text{C}(\text{OMe})\text{CH}=\text{C}(\text{CO}_2\text{Me})\text{-PM}_2$, dinuclear complex with 6-electrons ligands (R. Zolk, H. Werner), (252) C53
- Mercury(II), cadmium(II), cobalt(II), and nickel(II) complexes of ambidentate sulphonium ylides, preparation of and coordination in (R.S. Tewari, A.K. Awasthi), (271) 403
- Metal—metal heterodinuclear double bonds, access by high-yield coupling reactions to (W.A. Herrmann, C.E. Barnes, R. Serrano, B. Koumbouris), (256) C30
- μ -Methylene-cobalt and -rhodium complexes electron-impact decomposition pathways of (K.K. Mayer, E. Fischer, C. Bauer, W.A. Herrmann), (260) 235
- Mixed metal clusters with 3 or 4 different metals containing the $\text{Ph}_2\text{PCH}_2\text{PPH}_2$ (dppm) ligand, synthesis of (P. Braunstein, C. de Méric de Bellefon, M. Ries), (262) C14
- Mono- and bis-(trialkylphosphine)cyclopentadienyl-cobalt and -rhodium derivatives, reactions with CSSe and CSe_2 , of (O. Kolb, H. Werner), (268) 49
- Nonacarbonylhydrotricobalt, stoichiometric hydroformylation of olefins mediated by (P. Bradamante, A. Stefani, G. Fachinetti), (266) 303

- Octacarbonyldicobalt-catalysed hydroformylation of olefins in hydrocarbon solvents, UV and IR study of the mechanism of (M.F. Mirbach), (265) 205
- Organocobalt complexes as catalysts in synthesis of pyridine derivatives; correlation between ^{13}C and ^{59}Co NMR data in (H. Bönnemann, W. Brijoux, R. Brinkmann, W. Meurers, R. Mynott, W. von Philipsborn, T. Egolf), (272) 231
- Organocobalt tetracoordinated complexes, $[\text{CoR}_2\text{L}_2]$, structure of (G. Muller, J. Sales, J. Vinaixa), (273) 255
- Organometallic cluster paramagnetic anions, reaction with molecular oxygen of (A. Darchen, C. Mahé, H. Patin), (251) C9
- Pentamethylcyclopentadienyl:rhodium tri-nuclear, homo- and hetero-metal-di-nuclear complexes; crystal structure of $\text{C}_5\text{Me}_5[\text{P}(\text{OMe})_3]\text{Rh}(\mu\text{-CO})_2\text{RhC}_5\text{Me}_5$ (H. Werner, B. Klingert, R. Zolk, P. Thometzek), (266) 97
- Phosphine stability under hydroformylation conditions (T. Sakakura, T.-A. Kobayashi, T. Hayashi, Y. Kawabata, M. Tanaka, I. Ogata), (267) 171
- Phosphinecarbonylcobalt chiral catalysts, asymmetric hydrogenation of $\alpha\beta$ unsaturated ketones with (P. Le Maux, G. Simonneaux), (252) C60
- (Propargyl)dicobalt hexacarbonyl cations, ^{13}C NMR study of (S. Padmanabhan, K.M. Nicholas), (268) C23
- μ_3 -Sulphide clusters containing chromium and cobalt atoms, transformation by treatment with pivalic acid; molecular structure of the pseudotetrahedral cluster $\text{Cp}_3\text{Cr}_3(\mu_3\text{-O})(\text{CO})_3 \cdot \text{Me}_3\text{CCOOH} \cdot 0.5\text{C}_6\text{H}_6$ and the heterometallic “bowtie” cluster $(\text{Cp}_2\text{Cr}_2\text{SCMe}_3)_2(\mu_3\text{-S})_4\text{Co}$ (I.L. Eremenko, A.A. Pasynskii, G.Sh. Gasanov, B. Orazsakhatov, Yu.T. Struchkov, V.E. Shklover), (275) 71
- Tetracarbonylcobalt and dimethylphenylphosphinetricarbonylcobalt anions, electrochemical oxidation of (Y. Mugnier, P. Reeb, C. Moise, E. Laviron), (254) 111
- Thiocarbonylcobalt complex, $[(\text{np}_3)\text{Co}(\text{CS})]\text{BPh}_4^-$, synthesis of; reaction of (np_3) CoH with heterocumulenes (np_3 = tris(2-diphenylphosphinoethyl)amine), (C. Bianchini, D. Masi, C. Mealli, A. Meli, M. Sabat, G. Scapacci), (273) 91
- Thioketene-cobalt complexes, preparation, structure and properties of (D. Wormsbächer, R. Drews, F. Edelmann, U. Behrens), (270) 93
- Tricobaltcarbon clusters, nitrosyl derivatives of (S.P. Colbran, B.H. Robinson, J. Simpson), (265) 199
- Triethylaluminium, interaction with acetylacetones of transition metals of (F.K. Schmidt, G.V. Ratovskii, T.V. Dmitrieva, I.N. Ivleva, Yu.G. Borodko), (256) 309
- Trihydrosilyl complexes of iron, preparation and metallation with octacarbonyldicobalt of (H.-U. Wekel, W. Malisch), (264) C10
- Tris(diphenylphosphino)methane complexes with transition metals (J.T. Mague, S.E. Dessens), (262) 347
- Tris(tetracarbonylcobalt)chlorotin, interactions with tris(pyrazolyl)borate anion; formation of the anion $[\text{Sn}_2\text{Co}_5\text{Cl}_2(\text{CO})_1]^-$ as the bis(tris(1-pyrazolyl)-borate)cobalt(III) salt, $\text{Co}[\text{HB}(\text{pz})_3]_2^+$, and X-ray crystal structure of (O.J. Curnow, B.K. Nicholson), (267) 257
- ## Copper
- Alkyne π -complexes of copper(I) trifluoromethanesulphonate, synthesis and metal-catalysed C—H bond activation of (J.G. Hefner, P.M. Zizelman, L.D. Durfee, G.S. Lewandos), (260) 369
- Allenylcopper(I) compounds, use in synthesis of 2-alkynylsulphinamides and 2,5-dihydroisothiazole S-oxides of (K. Ruitenberg, P. Vermeer), (256) 175
- Bis(dimethylmetal(III) glyoximato)metallate(II) (metal(III) = Al, Ga, In; metal(II) = Ni, Pd, Pt, Cu) (U. Kohler, H.-D. Hausen, J. Weidlein), (272) 337
- Bis(diphenylphosphino)methane complexation of reaction products from the reaction of arylcopper(I) compounds and carbon disulphide (A. Camus, N. Marsich, G. Pellizer), (259) 367
- Bis(phenylethynyl)aurate(I) complex anion, prepared by ethynylation reactions using bis(phenylethynyl)cuprate-(I) complex (O.M. Abu-Salah, A.R. Al-Ohaly), (255) C39
- Bis(phenylethynyl)aurate(I) complex anion, reactivity of; synthesis and characterisation of di- and tri-nuclear Group

- IB metal arylacetylide (O.M. Abu-Salah), (270) C26
- Carbon dioxide-copper and -thallium as organometallic compounds, mass spectrometric investigations and calculations on (Yu.S. Nekrasov, Yu.A. Borisov, S.Yu. Silvestrova, T.V. Lysyak, Yu.Ya. Kharitonov, I.S. Kolomnikov), (269) 323
- Copper-carbon bond, insertion of formaldehyde into (P. Leoni, M. Pasquali), (255) C31
- Copper(I) catalysts for quantitative hydrosilylation of acetophenone with diphenylsilane (H. Brunner, W. Miehling), (275) C17
- Cyclopentadienyl-, pentamethylcyclopentadienyl- and alkylethenyl-trialkylphosphine-copper and -gold complexes, synthesis and properties of; crystal structure of $C_5H_5AuPPr-i_3$, (H. Werner, H. Otto, T. Ngo-Khac, C. Burschka), (262) 124
- Cyclopropane carboxylates, asymmetric synthesis of; catalysis of diazoacetate reactions by copper(II) Schiff base complexes derived from α -amino acids (D.A. Laidler, D.J. Milner), (270) 121
- Heteropentametallic clusters containing three different metals, $MCo_3(CO)_{12} \cdot M'L$ ($M = Fe, Ru$; $M' = Cu, Ag$), synthesis of (P. Braunstein, J. Rosé), (262) 223
- Lithium dialkylcuprate addition to chiral oxazolidine in ether and hexane (J. Berlan, Y. Besace, D. Prat, G. Pourcelot), (264) 399
- Lithium organocuprates in reaction with $CH_3C(=O)CH=CHCH=CHCH_3$ (F. Barbot, A. Kadib-Elban, P. Miginiac), (255) 1
- Mixed-metal clusters containing single $M(PPh_3)$ fragment ($M = Cu, Ag, Au$), structural similarities and differences among (I.D. Salter, F.G.A. Stone), (260) C71
- Olefin-copper(I) π -complex formation in conjugate addition of lithium dimethylcuprate to t-butyl cinnamate (G. Hallnemo, T. Olsson, C. Ullénus), (265) C22
- Organocyanocuprates, formation and reactions with organic halides of (L. Hamon, J. Levisalles), (251) 133
- Organocyanocuprates, reactions with α -halo ketones of (L. Hamon, J. Levisalles), (253) 259
- Palladium-catalysed cross-coupling reactions of mesitylcopper with aryl iodides (N.A. Bumagin, I.O. Kalinovskii, I.P. Beletskaya), (267) C1
- Stereoselective addition of organocuprates to a chiral $\alpha-\beta$ ethylene oxazolidine, mechanism, nature and reactivity of the intermediates in (J. Berlan, Y. Besace, G. Pourcelot, P. Cresson), (256) 181
- α -Stannylinvinyl anionoids of 1,1-bis(trimethylstannylyl)alkenes, formation of (T.N. Mitchell, A. Amamria), (252) 47
- Tetrahydroborate copper(I) complexes, $[(PR_3)_2Cu(\eta^2\text{-BH}_4)]$ ($R = Ph, Cy$), reactivity towards CO_2 , COS, and SCNPh of (C. Bianchini, C.A. Ghilardi, A. Meli, S. Midollini, A. Orlandini), (255) C27
- Tetrahydrofuran adduct of lithium bis[tris(trimethylsilyl)methyl]cuprate, $[Li(THF)_4][Cu\{C(SiMe_3)_3\}_2]$, preparation and crystal structure of (C. Eaborn, P.B. Hitchcock, J.D. Smith, A.C. Sullivan), (263) C23
- Tetrameric dibenzo[*a,e*]cyclooctatetraene-copper(I) chloride, synthesis and X-ray analysis of (T.C.W. Mak, H.N.C. Wong, K.H. Sze, L. Book), (255) 123
- Thiothiatriazolato- and alkynyl-copper(I) complexes, synthesis and reactivity of (G. La Monica, G. Ardizzoia, S. Cenini, F. Porta), (273) 263
- Trialkyl- and dialkyl-tin sulphides, desulphurisation reactions of (G.A. Razuvaev, V.I. Shcherbakov, I.K. Grigor'eva), (264) 245

Dyspromium

- Early lanthanocene chlorides, stabilisation using ring-bridged dicyclopentadiene ligand of (C. Qian, C. Ye, H. Lu, Y. Li, Y. Huang), (263) 333

Erbium

- Early lanthanocene chlorides, stabilisation using ring-bridged dicyclopentadiene ligand of (C. Qian, C. Ye, H. Lu, Y. Li, Y. Huang), (263) 333
- Tris[(1,2-dimethoxyethane)lithium] hexamethyltutetate(III), synthesis and structure of (H. Schumann, H. Lauke, E. Hahn, J. Pickardt), (263) 29

Europium

Chiral ruthenium complexes, asymmetric synthesis by; enantioface discriminating isomerisation of olefins (U.

Matteoli, M. Bianchi, P. Frediani, G. Menchi, C. Botteghi, M. Marchetti), (263) 243

Lanthanides of the type RLnI, carboranyl derivatives of (G.Z. Suleimanov, V.I. Bregadze, N.A. Koval'chuk, Kh.S. Khalilov, I.P. Beletskaya), (255) C5

Gadolinium

Early lanthanocene chlorides, stabilisation using ring-bridged dicyclopentadiene ligand of (C. Qian, C. Ye, H. Lu, Y. Li, Y. Huang), (263) 333

Organolanthanide halides, preparation by oxidative addition by alkyl halides to metallic lanthanides of (B.A. Dolgoplosk, E.I. Tinyakova, I.N. Markevich, T.V. Soboleva, G.M. Chernenko, O.K. Sharaev, V.A. Yakovlev), (255) 71

Gallium

Bis(dimethylmetal(III) glyoximato)metallate(II) (metal(III) = Al, Ga, In; metal(II) = Ni, Pd, Pt, Cu) (U. Kohler, H.-D. Hausen, J. Weidlein), (272) 337

Chloro(methyl)(organylthio)gallanes, formation and reactions of (G.G. Hoffmann), (273) 187

Diphenylalkylthio- and diphenylarylthiogallanes, preparation and properties of; crystal structure of diphenylethylthiogallane (G.G. Hoffmann, C. Burschka), (267) 229

Gallium(III)porphyrins having a metal—carbon bond, synthesis and physicochemical characterisation of (A. Coutsolelos, R. Guillard), (253) 273

Trimethylindium and trimethylgallium, synthesis of adducts of (A.C. Jones, N.D. Gerrard, D.J. Cole-Hamilton, A.K. Holliday, J.B. Mullin), (265) 9

General

Carbometallation, addition of organometallic compounds to isolated multiple

bonds in functionally substituted compounds (*Review*) (J.V.N. Vara Prasad, C.N. Pillai), (259) 1

Germanium

Aroyl-silanes, -germanes and -stannanes, ESR investigation of paramagnetic species derived from (A. Alberti, G. Seconi, G.F. Pedulli, A. Degl'Innocenti), (253) 291

Carbonylvanadium complexes, ^{51}V NMR spectroscopic investigation of vanadium—metal bonds in (R. Talay, R. Rehder), (262) 25

Carborane cage compounds containing polynuclear chains, synthesis of (M.N. Bochkarev, E.A. Fedorova, G.A. Razuvaev, V.I. Bregadze, V.Ts. Kampel), (265) 117
 $[(\text{CF}_3)_3\text{GePt}(\text{PPh}_3)_3]\text{Hg}$, synthesis, structure and reactivity of (M.N. Bochkarev, N.L. Ermolaev, L.N. Zakharov, Yu.N. Safyanov, G.A. Razuvaev, Yu.T. Struchkov), (270) 289

Cobalt or cobalt and iron substituted silicon, germanium and tin complexes, electrochemical reduction of (C. Combes, R.J.P. Corriu, G. Dabosi, B.J.L. Henner, R. Martineau), (270) 131

Cyclopentadienylnitrosylcarbonylisonitrile complexes of Group VI and cyclopentadienyldicarbonylisonitrile complexes of Group VII, chemistry of (H. Behrens, G. Landgraf, P. Merbach, M. Moll, K.-H. Trummer), (253) 217

3,3-Dialkyl-3-germethylketanes, synthesis and UV spectra of (J. Barrau, G. Rima, J. Satgé), (252) C73

Di-t-butylgermanium dihydroxide and oxide, preparation and structure of (H. Puff, S. Franken, W. Schuh, W. Schwab), (254) 33

3-(2,5-Dihydrofuryl)-silanes and -germanes, synthesis and transformations under catalytic hydrogenation conditions of (E. Lukevics, V.N. Gevorgyan, Y.S. Goldberg, M.V. Shymanska), (263) 283

Dimethyl derivatives of Main Group IV elements ionic decomposition processes of (L. Langó, L. Szepes, P. Császár, G. Innorta), (269) 133

Diorganyl-substituted silicon—germanium—oxygen cyclooctanes, preparation

- and structure of (H. Puff, M.P. Böckmann, T.R. Kök, W. Schuh), (268) 197
- 1,2-Disila- and 1,2-digermana-4-cyclohexenes, formation of R₂M=MR₂ compounds from (A. Marchand, P. Gerval, F. Duboudin, M. Joanny, P. Mazerolles), (267) 93
- Distannanes containing Cp(CO)₂Fe groups, synthesis by electrochemical reduction reactions of (C. Combes, R.J.P. Corriu, G. Dabosi, B.J.L. Henner, M. Martineau), (270) 141
- Germanium-73 and other Main Group IV element NMR chemical shifts, relation between (P.J. Watkinson, K.M. Mackay), (275) 39
- Germanium-iron carbonyl clusters and germanium-iron-manganese carbonyl clusters, preparation and crystal structure of Ge[Fe(CO)₄]₄(2Fe—Fe) and Ge{[(η⁵-CH₃C₅H₄)Mn(CO)₂[Fe(CO)₄]₃]}₂(Mn—Fe + Fe—Fe) (D. Melzer, E. Weiss), (255) 335
- Germanium—manganese double bonds in [(η⁵-C₅H₅)Mn(CO)]₂ and [(η⁵-C₅H₅)-Mn(CO)₂]₃Ge; GeH₂ bridged compound: [(η⁵-C₅H₅)₂V]₂GeH₂, preparations of (D. Melzer, E. Weiss), (263) 67
- Germatrane derivatives, crystal and molecular structures of (S.N. Gurkova, A.I. Gusev, V.A. Sharapov, V.N. Alekseev, T.K. Gar, N.J. Chromova), (268) 119
- Germylmercury compounds, oxidative-reductive transmetallation reactions with bis(ethylbenzene)vanadium and vanadocene of (M.N. Bochkarev, L.V. Pankratov, V.K. Cherkasov, G.A. Razuvaeva, V.N. Latyaeva, A.N. Lineva), (263) 21
- Group IVB substituents, theoretical study of effects on proton affinity of alcohols and amines (R. Ponec, V. Chvalovský, M.G. Voronkov), (264) 163
- Group IVB tetraphenyl derivatives, UV gas-phase photoelectron spectra of (I. Novak, A.W. Potts), (262) 17
- Hexakis(t-butylgermanium sesquioxide), new cluster compound (H. Puff, S. Franken, W. Schuh), (256) 23
- Hexaorganodisilanes and -digermanes, preparation and reversible dissociation reactions of (W.P. Neumann, K.-D. Schultz, R. Vieler), (264) 179
- Hexaphenyldigermane, selective cleavage reactions of (D. Simon, K. Häberle, M. Dräger), (267) 133
- Hexaphenylethane analogs, Ph₃Pb—MPh₃, M = Pb, Sn, Ge, Si, preparation and characterisation of (N. Kleiner, M. Dräger), (270) 151
- Main Group IV elements, relation between element NMR chemical shifts in (T.N. Mitchell), (255) 279
- Manganese insertion into Group IVB—carbon bonds, preparation of complexes from and mechanism of the deinsertion reaction (E. Colomer, R.J.P. Corriu, A. Vioux), (267) 107
- σ-Methylplatinum(IV) and π-methylene-platinum(II) complex formation in photochemical and thermal reactions of PtCl₆²⁻ with methyl- and ethyl-tin and -germanium derivatives (G.B. Shul'pin, G.V. Nizova, A.N. Kitaigorodskii, M.V. Serdobov), (275) 273
- Organosilicon, -germanium and -lead derivatives of dimethyl- and diphenyl-dithioarsinic acids (L.S. Dumitrescu, I. Haiduc), (259) 65
- Pentakis(methoxycarbonyl)cyclopentadienyl-substituted germanium(II) and tin(II) compounds, X-ray crystal structure of bis[pentakis(methoxycarbonyl)cyclopentadienyl]tin(II) (P. Jutzi, F.-X. Kohl, E. Schlüter, M.B. Hursthouse, N.P.C. Walker), (271) 393
- Pentamethylcyclopentadienyl-silanes and -germanes, synthesis and dynamic behaviour of (P. Jutzi, H. Saleska, D. Bühl, H. Grohe), (252) 29
- Phenaza(oxa-, thia-)elementines of Group IV, structure and intramolecular electronic effects in (V.K. Belsky, I.E. Saratov, V.O. Reikhsfeld, A.A. Simonenko), (258) 283
- Polygermanes, thermal and photochemical reactions of (P. Rivière, A. Castel, J. Satgé, D. Guyot), (264) 193
- Regiospecific synthesis of aromatic compounds via organometallic intermediates; 1,3,5-(trimethylmetal(IV))benzene compounds (G.J. Chen, C. Tamborski), (251) 149
- Selenium-containing free radicals, generation and stabilization by complex formation of (I.V. Olifirenko, I.P. Romm, E.N. Guryanova, V.V. Troitsky, L.M. Kataeva, V.A. Chernoplekova, E.G. Kataev), (265) 27
- Sil- and germ-atranones, synthesis and ¹H, ¹³C, ¹⁵N, and ²⁹Si NMR spectra of (E. Kupče, E. Liepinšh, A. Lapsina, G. Zelchan, E. Lukevics), (251) 15

- Silicon and germanium unsaturated compounds of the types $R_2E=C(SiR_3)_2$ and $R_2E=N(SiR)_3$ ($E = Si, Ge$) (*Review*) (N. Wiberg), (273) 141
- Silylamides of Group IVA and IVB elements with spirobicycloheptane structure (H. Bürger, W. Geschwandtner, G.R. Liewald), (259) 145
- Silyl- and germyl-trifluoromethylacetylenes (1,1,1-trifluoro-4-silabut-2-yne and 1,1,1-trifluoro-4-germabut-2-yne), preparation and properties of; molecular structure of silyl trifluoromethylacetylene determined by electron diffraction (D.W.W. Anderson, S. Cradock, E.A.V. Ebsworth, A.R. Green, D.W.H. Rankin, A.G. Robiette), (271) 235
- Sulphur—Group IVB element bonds, X-ray diffraction study of; crystal and molecular structures of methylthiotriphenyl-methane, -silicon, -germanium, -tin and -lead (G.D. Andreotti, G. Bocelli, G. Calestani, P. Sgarabotto), (273) 31
- $\Delta^{1,7}2,2,6,6$ -Tetramethyl-4-thia-8,8,9,9-tetrachloro-8,9-digermabicyclo[5.2.0]-nonene, crystal and molecular structure of (A.A. Espenbetov, Yu.T. Struchkov, S.P. Kolesnikov, O.M. Nefedov), (275) 33
- Tetraphenylcyclopentadienyl derivatives of Group IVB elements, unusual reaction with isopropylidenediphenylphosphorane of (I.V. Borisova, Yu.N. Luzikov, N.N. Zemlyansky, Yu.A. Ustynguk, I.P. Beletskaya), (268) 11
- Tetra-*o*-tolylgermanium, structure of (V.K. Belsky, A.A. Simonenko, V.O. Reikshfeld), (265) 141
- Tin—tin long-range coupling constants, two-bond coupling via carbon (T.N. Mitchell, A. Amamria, B. Fabisch, H.G. Kuivila, T.J. Karol, K. Swami), (259) 157
- Trialkyl- and dialkyl-tin sulphides, desulphurisation reactions of (G.A. Razuvayev, V.I. Shcherbakov, I.K. Grigor'eva), (264) 245
- Triethyl-germane and -silane complexes with electron-donating solvents, IR study of formation of (S.Ya. Khorshev, V.L. Tsvetkova, A.N. Egorochkin), (264) 169
- Triethylgermyl radicals, influence of the magnetic field on reactions of (M.B. Taraban, T.V. Leshina, K.M. Salikhov, R.Z. Sagdeev, Yu.N. Molin, O.I. Margorskaya, N.S. Vyazankin), (256) 31
- β -Trimethylsilylamine-oxyl and related amine-N-oxyls, ESR study on and unusual conformational preference of the β -silyl group in (M. Kira, H. Osawa, H. Sakurai), (259) 51
- ## Gold
- Au_2Os mixed-metal carbonyl clusters, structure and bonding in; crystal and molecular structure of $[Os(CO)_4\cdot\{AuPPh_3\}_2]$ (B.F.G. Johnson, J. Lewis, P.R. Raithby, A. Sanders), (260) C29
- $[Au_6(PPh_3)_6](NO_3)_3 \cdot 3CH_2Cl_2$, edge-shared bitetrahedral gold clusters, synthesis and structural characterisation of (C.E. Briant, K.P. Hall, D.M.P. Mingos), (254) C18
- $[Au_2Pt_2(PPh_3)_4(CN-xylyl)_4](PF_6)_2$, platinum-gold cluster with a flattened butterfly geometry, synthesis and structural characterisation of (C.E. Briant, D.I. Gilmour, D.M.P. Mingos), (267) C52
- Bis-carbene-gold(I) complex, $\{[(trans,trans-p-CH_3C_6H_4NH)_2Cl_2Au]BF_4\}$, crystal structure of (G. Banditelli, F. Bonati, S. Calogero, G. Valle), (275) 153
- Bis(phenylethyynyl)aurate(I) complex anion, prepared by ethynylation reactions using bis(phenylethyynyl)cuprate(I) complex (O.M. Abu-Salah, A.R. Al-Ohaly), (255) C39
- Bis(phenylethyynyl)aurate(I) complex anion, reactivity of; synthesis and characterisation of di- and tri-nuclear Group IB metal arylacetylides (O.M. Abu-Salah), (270) C26
- Carbonylvanadium complexes, ^{51}V NMR spectroscopic investigation of vanadium—metal bonds in (R. Talay, D. Rehder), (262) 25
- Cyclopentadienyl-, pentamethylcyclopentadienyl- and alkylethenyl-trialkylphosphine-copper and -gold complexes, synthesis and properties of; crystal structure of $C_5H_5AuPPr-i_3$ (H. Werner, H. Otto, T. Ngo-Khac, C. Burschka), (262) 123
- 2-[Dimethylamino)methyl]phenylgold-(III) complexes, synthesis and reactions of (J. Vicente, M.T. Chicote, M.D. Bermudez), (268) 191

- Ethyngylgold(I) complexes, preparation and reactions of (R.J. Cross, M.F. Davidson, A.J. McLennan), (265) C37
- Gold cluster high nuclearity compounds, molecular orbital analysis of bonding in (K.P. Hall, D.I. Gilmour, D.M.P. Mingos), (268) 275
- Gold-containing pyrazolines, formation characteristics of (F. Bonati, A. Burini, B.R. Pietroni, M. Felici), (273) 275
- High-molecular weight complexes containing metal clusters, utility of fast atom bombardment mass spectrometry for characterisation of (T. Blumenthal, M.I. Bruce, O. bin Shawkataly, B.N. Green, I. Lewis), (269) C10
- Mixed-metal clusters containing single $M(PPh_3)$ fragment ($M = Cu, Ag, Au$), structural similarities and differences among (I.D. Salter, F.G.A. Stone), (260) C71
- Mono-, di- and tri-auration of $H_4Ru_4\text{-}(CO)_{12}$ with $[\{Au(PPh_3)\}_3O][BF_4]$; X-ray structure of $HRu_4Au_3(CO)_{12}\text{-}(PPh_3)_3$ (M.I. Bruce, B.K. Nicholson), (252) 243
- ortho*-, *meta*- and *para*-Nitrophenylgold(I) complexes, preparation and reactions of (J. Vicente, A. Arcas, M.T. Chicote), (252) 257
- 4,4'-Octafluorobiphenylgold(I) complexes (R. Usón, A. Laguna, I. Colera, E. De Jesús), (263) 121
- Polynuclear perhalophenyl-palladium and gold derivatives with dppm bridges; crystal and molecular structure of $trans-C_6F_5Au(\mu\text{-dppm})Pd(C_6F_5)_2\text{-}(\mu\text{-dppm})AuC_6F_5$ (dppm = $Ph_2PCH_2\text{-}PPh_2$) (R. Usón, A. Laguna, J. Forniés, I. Valenzuela, P.G. Jones, G.M. Sheldrick), (273) 129
- $[Pt_3Au(\mu_2\text{-CO})_3\text{(PCy}_3)_4]PF_6$, tetrahedral platinum-gold cluster, synthesis and structural characterisation of (C.E. Bryant, R.W.M. Wardle, D.M.P. Mingos), (267) C49
- Triphenylphosphine-gold clusters, reactivity towards isopropyl isocyanide of (W. Bos, J.J. Bour, J.W.A. van der Velden, J.J. Steggerda, A.L. Casalnuovo, L.H. Pignolet), (253) C64
- Triruthenium anion, reaction with $[O\{Au(PPh_3)\}_3][BF_4]$ of; synthesis and structure of $Ru_3Au_3(\mu_3\text{-}2\eta^1,\eta^3\text{-}C_{12}H_{15})\text{-}(CO)_8(PPh_3)_3$ (M.I. Bruce, O. bin Shawkataly, B.K. Nicholson), (275) 223

Hafnium

- η^5 -Cyclopentadienyl-titanium, -zirconium and -hafnium trihalide complexes, He(I) and He(II) photoelectron spectra of (A. Terpstra, J.N. Louwen, A. Oskam, J.H. Teuben), (260) 207
- Metallaselenaferrocenophanes, $Fe(\eta^5\text{-}C_5H_4Se)_2M(\eta^5\text{-}C_5H_4R)_2$ ($M = Zr, Hf$), synthesis and variable temperature 1H NMR of (B. Gautheron, G. Tainturier), (262) C30
- Silylamides of Group IVA and IVB elements with spirobicycloheptane structure (H. Bürger, W. Geschwandtner, G.R. Liewald), (259) 145

Holmium

- Early lanthanocene chlorides, stabilisation using ring-bridged dicyclopentadiene ligand of (C. Qian, C. Ye, H. Lu, Y. Li, Y. Huang), (263) 333
- Organolanthanide halides, preparation by oxidative addition by alkyl halides to metallic lanthanides of (B.A. Dolgoplosk, E.I. Tinyakova, I.N. Markevich, T.V. Soboleva, G.M. Chernenko, O.K. Sharaev, V.A. Yakovlev), (255) 71
- Photogenerated transient zirconocene and hafnocene, reactions with elemental selenium; synthesis and characterisation of $[(\eta^5\text{-}t\text{-BuC}_5H_4)_2M(\mu\text{-Se})]_2$ ($M = Zr, Hf$) (B. Gautheron, G. Tainturier, S. Pouly), (268) C56

Indium

- Bis(dimethylmetal(III) glyoximato)metalate(II) (metal(III) = Al, Ga, In; metal(II) = Ni, Pd, Pt, Cu) (U. Kohler, H.-D. Hausen, J. Weidlein), (272) 337
- Lewis-acid-base adduct of methylindium dichloride and t-butylamine, preparation by hydrolysis of dimethylbis(t-butylamino)silane in the presence of methylindium dichloride of (M. Veith, O. Recktenwald), (264) 19
- Trimethylindium and trimethylgallium, synthesis of adducts of (A.C. Jones, N.D. Gerrard, D.J. Cole-Hamilton, A.K. Holliday, J.B. Mullin), (265) 9

Iridium

- η^5 -Arene(pentamethylcyclopentadienyl)-iridium dication, double nucleophilic attack on (S.L. Grundy, P.M. Maitlis), (272) 265
- Barreleneiridium(I) complexes, crystal structures of $[\text{Ir}(\text{Me}_3\text{TFB})(\eta^5\text{-C}_5\text{H}_4\text{-Me}_2)]\text{ClO}_4$ and $[\text{Ir}(\text{TFB})(\eta^5\text{-PhNPh}_2)]\text{BF}_4 \cdot \text{CH}_2\text{Cl}_2$ (TFB = tetrafluorobenzobarrelene) (R. Usón, L.A. Oro, D. Carmona, M.A. Esteruelas, C. Foces-Foces, F.H. Cano, S. García-Blanco, A. Vázquez de Miguel), (273) 111
- Bis(*cis*-1,2-bis(diphenylphosphino)ethylene)disulphur nitride iridium tetraphenylborate, preparation and molecular structure of (F. Cecconi, C.A. Ghilardi, S. Midollini, S. Monetti, A. Orlandini), (275) C22
- Bis(triphenylphosphinetricarbonyliridium), reactions with substituted acetylenes of; synthesis, crystal and molecular structure of diphenylacetylene/bis-(triphenylphosphinedicarbonyliridium)-benzene (1/1) (M. Angoletta, P.L. Bellon, F. Demartin), (267) 199
- Carbonyliridiums in alkaline solution, homogeneous catalysis of the water gas shift reaction by (D.M. Vandenberg, T.M. Suzuki, P.C. Ford), (272) 309
- Carbonyl-rhodium and -iridium compounds and $[\text{Rh}(\text{diene})\text{L}_1]^+$ as catalysts in homogeneous catalytic reduction of benzalacetone with carbon monoxide and water (J. Kaspar, R. Spogliarich, A. Cernogoraz, M. Graziani), (255) 371
- Chlorocarbonyliridium derivatives, formation from powdered iridium, chlorine and carbon monoxide of (F. Canziani, M. Tuissi, M. Angoletta), (256) 169
- Chlorocyclooctadienemethylimidazoyl-iridium, reactions with methyl- and phenyl-lithium under formation of iridacyclopentadienyl complexes of (J. Müller, C. Hänsch, J. Pickhardt), (259) C21
- Cobalt, rhodium and iridium; Annual Survey covering the year 1982 (J.T. Mague), (261) 103
- (Cyclopentadienyl)(triisopropyl)diphenylacetyleneiridium complexes, synthesis, reactivity and formation of an isomeric iridaindene compound of (H. Werner, A. Höhn), (272) 105
- σ -Cyclopropaneiridium complex, forma-
- tion by intramolecular activation of a cyclopropylphosphine rearrangement to a chelating σ -vinyl complex (W.J. Youngs, B.L. Simms, J.A. Ibers), (272) 295
- Dialkylphosphine oxides and alkylalkyl-phosphonites, oxidative addition to iridium(I) of (T.R.B. Mitchell), (270) 245
- Dihydridoiridium diolefin complexes with sulphur ligands, formation and reactions of (J.C. Rodriguez, C. Claver, A. Ruiz), (272) C67
- Dimethyl(dimethylsulphoxide)penta-methylcyclopentadienyl-rhodium and -iridium, reactions with acids of (M. Gómez, P.I.W. Yarrow, A. Vázquez de Miguel, P.M. Maitlis), (259) 237
- Dinuclear rhodium, iridium and iron complexes, theoretical semi-empirical study of concerted oxidative additions to (A. Sevin, Yu. Hengtai, P. Chaquin), (262) 392
- Diolefin cationic iridium(I) complexes with sulphur ligands (C. Claver, J.C. Rodriguez, A. Ruiz), (251) 369
- Hydroxymethyliridium(III) compound, formation and addition of the O—H bond to bound acetonitrile of (D.L. Thorn, J.C. Calabrese), (272) 283
- $[\text{Ir}(\text{acac-C}^3)(\text{COC})(\text{phen})]$, synthesis and crystal structure of (L.A. Oro, D. Carmona, M.A. Esteruelas, C. Foces-Foces, F.H. Cano), (258) 357
- $[\text{IrCl}(\text{SnCl}_3)(\text{HgCl})(\text{CO})(\text{PR}_3)]$ complexes, Raman and NMR spectroscopy of (M. Kretschmer, P.S. Pregosin, P. Favre, C.W. Schlaepfer), (253) 17
- $\text{Ir}_4(\text{CO})_8[\text{P}(\text{CH}_3)_2\text{C}_6\text{H}_5]_4 \cdot 2\text{C}_6\text{H}_6$, crystal and molecular structure of (A.J. Blake, A.G. Osborne), (260) 227
- $\text{IrH}[o\text{-C}_6\text{H}_4\text{OP}(\text{OPh})_2]_2[\text{P}(\text{OPh})_3]$ and $\text{Ir}(\text{CH}_2\text{SiMe}_3)(\text{CO})[\text{P}(\text{OMe})_3]_3$, reaction products of the system $\text{Ir}(\text{CH}_2\text{EMe}_3)(\text{CO})(\text{PPh}_3)_2/\text{P}(\text{OR})_3$ ($E = \text{C, Si}$; $R = \text{Ph, Me}$), (L. Dahlenburg, F. Mirzaei), (251) 125
- Iridium(I) and iridium(II) monohapto pyrazolates, preparation, properties and chemical behaviour of (A.L. Bandini, G. Banditelli, F. Bonati, G. Minghetti, F. Demartin, M. Manassero), (269) 91
- $[\text{Ir}(\text{TFB})(\text{arene})]\text{BF}_4$ (TFB = tetrafluorobenzobarrelene, arene = $1,4\text{-Me}_2\text{C}_6\text{H}_4$, C_6Me_6), crystal structures of (R. Usón, L.A. Oro, D. Carmona, M.A. Esteruelas,

- C. Foces-Foces, F.H. Cano, S. Garcia-Blanco), (254) 249
- $\text{IrX}(\text{PPh}_3)_3/\text{LiR}$ ($X = \text{Br}, \text{Cl}; R = \text{alkyl, aryl}$) system (L. Dahlenburg), (251) 347
- Metal—metal heterodinuclear double bonds, access by high-yield coupling reactions to (W.A. Herrmann, C.E. Barnes, R. Serrano, B. Koumbouris), (256) C30
- Methanol as hydrogen donor in the presence of Rh, Ru or Ir complexes as catalysts (T.A. Smith, P.M. Maitlis), (269) C7
- Methyleneiridium(I) terminal complex, $\text{Ir}(\text{=CH}_2)\text{I}(\text{CO})(\text{PPh}_3)_2$, rearrangement to *ortho*-metallated phosphorus ylide complex (G.R. Clark, W.R. Roper, A.H. Wright), (273) C17
- Organoiridium(I) compounds $\text{Ir}(R)[\text{PhP}(\text{CH}_2\text{CH}_2\text{CH}_2\text{PPh}_2)_2]$ ($R = \text{alkyl, aryl}$) (E. Arpac, L. Dahlenburg), (251) 361
- 1-Phenylpropyllithium, formation from benzyllithium and ethylene in THF of (A. Maercker, R. Stötzel), (254) 1
- Phosphite-induced CO insertion and C—H addition reactions of *ortho*-alkyl-substituted aryliridium compounds, intermediates in (L. Dahlenburg, F. Mirzaei), (251) 113
- Phosphite-induced CO insertion and C—H addition reactions of *ortho*-alkyl-substituted aryliridium compounds; synthesis and structure of $\text{IrH}[\text{C}(\text{O})\text{C}_6\text{H}_3\text{-Et-6-CHR-2}][\text{P}(\text{OMe})_3]$, ($R = \text{CH}_3, \text{H}$) (L. Dahlenburg, F. Mirzaei), (251) 103
- Phosphonite and phosphinite-induced CO insertion and C—H addition reactions of *ortho*-methyl-substituted aryliridium compounds; reversible CH_3 -metallation in $\text{IrH}[\text{C}(\text{O})\text{C}_6\text{H}_3\text{Me}_2\text{-4,6-CH}_2\text{-2}]\text{-}(\text{Ph}_2\text{POMe})_3$ (L. Dahlenburg), (251) 215
- Polymethylhydrogendisiloxane, polymer-supported catalysts for the reaction with ethanol of (R.V. Parish, M.I. Vania), (263) 139
- Rhodium and iridium complexes containing nitrosoarene ligands, preparation and characterization of (G. Vasapollo, P. Giannoccaro, C.F. Nobile, F. Allegretta), (270) 190
- Selenocarbonyl complexes of iridium(I) and iridium(III), synthesis and reactions of $\text{IrCl}(\text{CSe})(\text{PPh}_3)_2$ (W.R. Roper, K.G. Town), (252) C97
- Seven-membered ring metal chelate complexes, conformational equilibria in (P.A. Chaloner), (266) 191
- Silica-supported catalysts for reactions between ethanol and polymethylhydrogensiloxane, evaluation of (R.V. Parish, M.I. Vania), (260) 41
- Tetrafluorobenzobarreleneiridium(I) complexes (R. Usón, L.A. Oro, D. Carmona, M.A. Esteruelas), (263) 109
- Tetrairidium carbonyl clusters of mono- and di-olefins (R. Ros, F. Canziani, R. Roulet), (267) C9
- ## Iron
- N*-Acetyl derivatives of 3-ferrocenyl-5-*p*-bromophenyl- and 3-*p*-bromophenyl-5-ferrocenylpyrazolines-2, X-ray determination of geometries in the molecules of (V.G. Andrianov, Yu.T. Struchkov, V.N. Postnov, E.I. Klimova, V.A. Sazonova), (272) 81
- Acyl ligands, elaboration of; preparation and reactivity of the anion $[(\eta^5\text{-C}_5\text{H}_5\text{-Fe}(\text{CO})(\text{PPh}_3)(\text{COCH}_3))^-]$ (N. Aktoglu, H. Felkin, G.J. Baird, S.G. Davies, O. Watts), (262) 49
- μ -(Alkoxyimethanethione-*C,S*)- μ -(methylthio)-1,1,1,2,2,2-hexacarboonyldiiron complexes, controlled replacement of CO by thermal activation or electron-transfer catalysis in (A. Darchen, E.K. Lhadi, H. Patin), (259) 189
- μ -(Alkoxyimethanethione-*C,S*)- μ -(methylthio)-1-trimethylphosphite-1,1,2,2,2-pentacarboonyldiiron, preparation and structure of (E.K. Lhadi, H. Patin, A. Benoit, J.-Y. Le Marouille, A. Darchen), (259) 321
- Alkyl(aryl)iron(III) porphyrins with a metal—carbon σ bond, synthesis and ^1H NMR characterisation of (P. Cocolios, G. Lagrange, R. Guillard), (253) 65
- 1-Alkylcyclohex-2-enols, preparation of alkylbenzenes via tricarbonyliron complexes from (D. Fărcașiu, G. Marino), (253) 243
- Alkyne- and vinylidene-substituted homo- and hetero-metallic clusters, reactivity towards molecular hydrogen in homogeneous conditions of (M. Castiglioni, R. Giordano, E. Sappa), (258) 217
- Arenechromium dimers, reductive elimination of dihydrogen from (T.E. Bitterwolf), (252) 305

- Arenetricarbonyl-chromium, -manganese and -iron, dependence of electrophilicity of coordinated cyclic π -hydrocarbons on the metal in (Y.K. Chung, E.D. Honig, D.A. Schweigart), (256) 277
- Arylfrocenes, conformational analysis using Mössbauer, ^1H NMR and ^{13}C NMR spectroscopy of (R.M.G. Roberts, J. Silver, B. Yamin), (270) 221
- Arylfrocenes and ferrocene analogues of chalcones, cyclic voltammetry of; substituent effects on the electron distribution in ferrocene derivatives (A.G. Nagy, S. Toma), (266) 257
- Aryliron derivatives, $[\text{Fe}(\text{Ar})(\text{CO})\text{L}- (\eta^5\text{-C}_5\text{H}_5)]$, Mössbauer, ^{13}C NMR and IR spectroscopic studies of (I.R. Butler, W.E. Lindsell, M.J.K. Thomas), (262) 59
- Atom-transfer redox reactions of nitrite anion with transition metal carbonyl cations (F.J. Lalor, L.H. Brookes), (251) 327
- Azaferrocene, metallation of (N.I. Pyshnograeva, V.N. Setkina, D.N. Kursanov), (251) C41
- Benzenedithiolateiron complexes, $[\text{AsPh}_3]_2[\text{Fe}(\text{S}_2\text{C}_6\text{H}_4)_2]$ and $[\text{Fe}(\text{S}_2\text{C}_6\text{H}_4)(\text{PMe}_3)_3]$, synthesis and structure of (D. Sellmann, U. Kleine-Kleffmann, L. Zapf, G. Huttner, L. Zsolnai), (263) 321
- Benzene-iron reactions, matrix isolation Mössbauer investigation of (S.F. Parker, C.H.F. Peden), (272) 411
- (Benzylideneacetone)carbonylphosphine-iron(0) complexes, photolytic preparation of; molecular structures of $\text{Fe}(\text{CO})_2(\text{PEt}_3)(\text{BDA})$ and $\text{Fe}(\text{CO})_2(\text{PPhMe}_2)(\text{BDA})$ (BDA = benzylidene-acetone) (E.J.S. Vichi, P.R. Raithby, M. McPartlin), (256) 111
- Biferrocenium mixed-valence salts, anomalous temperature dependence of electrical conductivity in (S. Iijima, Y. Tanaka), (270) C11
- 3,3-Bis(bromomethyl)-1,5-dithia[5](1,1')-ferrocenophane, synthesis and bridge reversal barrier of (B. Czech, A. Piorko, R. Annunziata), (255) 365
- Bis[cyclopentadienyl(t-butoxy)chromium]iron tetracarbonyl antiferromagnetic cluster containing a Cr_2Fe metalacycle, synthesis and molecular structure of (I.L. Eremenko, A.A. Pasynskii, Yu.V. Rakitin, O.G. Ellert, V.M. Novotortsev, V.T. Kalinnikov, V.E. Shklover, Yu.T. Struchkov), (256) 291
- Bis(diisopropylaminophosphine- and diisopropylaminochlorophosphine-metal carbonyl complexes, formation and reactions of (R.B. King, W.-K. Fu), (272) C33
- Bis(pentamethylcyclopentadienyldicarbonyliron), oxidative cleavage of the Fe–Fe bond using ferrocinium ion; facile route to the synthetically useful complexes $[\text{C}_5\text{Me}_5\text{Fe}(\text{CO})_2(\text{solvent})]^+$ (D. Catheline, D. Astruc), (266) C11
- N,N*-Bis(trimethylsilyl)enamines, preparation via iron carbonyl photocatalysed isomerisation of unsaturated amines (R.J.P. Corriu, V. Huynh, J.J.E. Moreau, M. Pataud-Sat), (255) 359
- 1,3-Bis(trimethylsilyl)propenes, formation of silylbutadienes in reactions with carbonyl compounds with fluoride ion catalysts of (R. Corriu, N. Escudié, C. Guérin), (264) 207
- (μ -Butatriene)hexacarbonyliiron complex, conformation determined by ^1H NMR studies in three nematic phases of (S. Arumugam, A.C. Kunwar, C.L. Khetrapal), (265) 73
- Carbonyl-germanium-iron clusters and carbonyl-germanium-iron-manganese clusters, preparation and crystal structure of $\text{Ge}[\text{Fe}(\text{CO})_4]_2(2\text{Fe}-\text{Fe})$ and $\text{Ge}[(\eta^5\text{-CH}_3\text{C}_5\text{H}_4)\text{Mn}(\text{CO})_2[\text{Fe}(\text{CO})_4]]-(\text{Mn}-\text{Fe} + \text{Fe}-\text{Fe})$ (D. Melzer, E. Weiss), (255) 335
- Carbonyliiron complexes, influence of substituents on $\eta^3:\eta^1 \rightleftharpoons \eta^2$ -tautomerism in (L.V. Rybin, N.A. Stelzer, I.A. Garbusova, B.V. Lokshin, M.I. Rybinskaya), (265) 295
- Carbonyliiron complexes, thermodynamic characteristics of $\eta^3:\eta^1 \rightleftharpoons \eta^2$ -tautomerism in (M.I. Rybinskaya, L.V. Rybin, N.A. Stelzer, L.A. Garbusova, B.V. Lokshin), (265) 291
- Carbonyl-iron and -ruthenium complexes, CO insertion in metal–carbon bonds of (M. Pańkowski, M. Bigorgne), (251) 333
- Carbonyliiron-carbonylmolybdenum-fluorophosphine complex, $(\text{CO})_4\text{FeP}(\text{N}(\text{C}_6\text{H}_5)\text{PF}_2)_3\text{Mo}(\text{CO})_3$, synthesis of (R.B. King, M. Shimura), (256) 71
- Carbonylmetal complexes, novel electro-generation of reactive formylmetal complexes from (B.A. Narayanan, J.K. Kochi), (272) C49

- Carbonyl-, nitrosylcarbonyl- and nitrosyl-metal complexes of bis(diphenylphosphino)amines (J. Ellermann, W. Wend), (258) 21
- Carbonylmethyl ions, evidence for a negative charge on hydrogen for (R.L. Sweany, J.W. Owens), (255) 327
- σ -(*o*-Carboran-9-yl)- and σ -(*m*-carboran-9-yl)- π -cyclopentadienylidicarbonylirons, syntheses of and rearrangement in reactions with bromine to π -(*o*-carboran-9-yl)cyclopentadienyl- and π -(*m*-carboran-9-yl)cyclopentadienyl-dicarbonyliron bromides (L.I. Zakharin, A.I. Kovredov, V.A. Olshevskaya, V.A. Antonovich), (267) 81
- (μ -C₇H₇)(μ -CO)Fe(CO)₂Rh(dppe), synthesis and structure of (G.-Y. Lin, J. Takats), (269) C4
- η^5 -C₅H₅COOH(CO)₂Fe- η^1 -R (R = Ph, C₆H₄Mn(CO)₃, CH₂Ph) carboxylic acids, preparation of (T.Yu. Orlova, V.N. Setkina, D.N. Kursanov), (267) 309
- [(η^5 -C₅H₅)Fe(L)₂CO]⁺ (L = tertiary phosphine), reductions of; product control by variation of phosphine ligands (S.G. Davies, S.J. Simpson), (268) C53
- Chiral N-(ferrocenylalkyl)hydroxylamines, synthesis of (H. Martin, R. Herrmann, I. Ugi), (269) 87
- (η^5 -C₅H₅)NiRu₃(μ -H)(CO)₉(μ_4 - η)(C=CHBu-t) and related compounds, "olefin metathesis" reactions of (M. Castiglioni, R. Giordano, E. Sappa), (275) 119
- Cobalt or cobalt and iron substituted silicon, germanium and tin complexes, electrochemical reduction of (C. Combes, R.J.P. Corriu, G. Dabosi, B.J.L. Henner, R. Martineau), (270) 131
- Condensed-ring ferrocenophanes containing two bridges (M. Hisatome, J. Watanabe, K. Yamakawa), (266) 159
- Cp_xFe₂(CO)_{4-x}(CS)_x (x = 1, 2), preparation, structure and fluxional behaviour of isonitrile derivatives of (J.A.S. Howell, P. Mathur, R. Kumar, A.R. Manning, F.S. Stephens), (262) 227
- (η^5 -C₅R₅)₂Fe₂(CO)₄(μ -CO)(μ -CH₂) (R = H, CH₃), convenient one-pot synthesis using chloromethyl pivalate of (M.E. Wright, G.O. Nelson), (265) 371
- Cryptands containing metallocene units, structure determination by polarisation transfer sequences and 2-D NMR (P.D. Beer, J. Elliot, P.J. Hammond, C. Dudman, C.D. Hall), (263) C37
- (Cycloheptatriene)tricarbonyliiron derivatives, intermolecular metal transfer reactions and metal hydride shift isomerisation in (Z. Goldschmidt, Y. Bakal, D. Hoffer, A. Eisenstadt, P.F. Lindley), (258) 53
- Cyclohexadienyliron complexes bearing exocyclic double bonds, Michael addition reactions of (J.F. Helling, U.S. Gill), (264) 353
- Cyclopentadienylcarbonyliiron complexes, cyclopentadienyl ring metallation in (T.Yu. Orlova, V.N. Setkina, V.F. Sizoi, D.N. Kursanov), (252) 201
- (η^5 -Cyclopentadienyl)(η^1 -cymantrenyl)-iron dicarbonyl and -(triphenylphosphine)iron carbonyl, X-ray structure of (A.S. Batsanov, Yu.T. Struchkov), (266) 295
- 3- η^5 -Cyclopentadienyl- η^5 -(3)-1,2-dicarbolyliron(II)-1 group stabilising synthesis and reactions of stable vinyl cation (L.I. Zakharkin, V.V. Kobak), (270) 229
- Cyclopentadienylidicarbonyliiron dithiocarbonic acid anion, reactions with metal compounds of (H. Stolzenberg, W.P. Fehlhammer, M. Monari, V. Zanotti, L. Busetto), (272) 73
- Cyclopentadienylidicarbonyliiron dimethyl-triphenyldisilane, (η^5 -C₅H₅)Fe(CO)₂-SiMe₂-SiPh₃, synthesis and crystal structure of (L. Párkányi, K.H. Pannell, C. Hernandez), (252) 127
- Cyclopentadienylidicarbonylirontetracarbonylcobalt, (η^5 -C₅H₅)Fe(CO)₂Co(CO)₄, evidence for two photochemical pathways of (S.C. Fletcher, M. Poliakoff, J.J. Turner), (268) 259
- Cyclopentadienyl(methoxyethenyl)bis-(trimethylphosphine)iron, Cp(Me₃P)₂-Fe-C(OMe)=CH₂, "ylidic" reactivity of, proton abstraction from and carbon disulphide addition to (G. Grötsch, W. Malisch), (262) C38
- Cyclopentadienyltricarbonylmolybdenum cation, reactions with methylcarbonyl complexes, cobaltocene, nickelocene and cyclopentadienylidicarbonylcobalt of; structure of acetylene-bridged [(π -C₅H₅)(CO)₂FeC(CH₃)OMo(CO)₃- $\langle\pi$ -C₅H₅)]⁺ SbF₆⁻ (K. Sünkel, U. Nagel, W. Beck), (251) 227
- [(Diars)Fe(CO)₂C(O)Me(P-donor)]⁺ BF₄⁻ salts, fast atom bombardment mass spectra of (B. Gregory, C.R. Jablonski, Y.-P. Wang), (269) 75

- Di-t-butylarsenoidoiron complexes, preparation, quaternisation, sulphuration and thermal and photochemical treatment of (W. Angerer, M. Luksza, W. Malisch), (253) C36
- Dicarbonyl(η^4 -cyclohexadiene)triphenylphosphineiron, acetylation of (A.J. Birch, W.D. Raverty, A.-Y. Hsu, A.J. Pearson), (260) C59
- Dicarbonyl(η^5 -cyclopentadienyl)(trimethylsilyl)iron, iron–silicon bond cleavage using tetrabutylammonium fluoride in (D.F. Marten, S.M. Wilburn), (251) 71
- Di- μ -chlorobis(dimethylaminomethyl-ferrocenyl-C,N)dipalladium, chiral anionic complex of hexacoordinated palladium(II) synthesized from (V.I. Sokolov, K.S. Nechaeva, O.A. Reutov), (253) C55
- Dicyclopentadienyltetracarbonyldiiron, [$\text{Fe}_2(\eta\text{-C}_5\text{H}_5)_2(\text{CO})_4$], oxidative cleavage by strong acids in acetonitrile solution of (B. Callan, A.R. Manning), (252) C81
- η^4 -(1,3-Diene)tricarbonyliron(0) complexes, complexes derived by nucleophilic addition/carbonylation of (M.F. Semmelhack, J.W. Herndon), (265) C15
- Dienetricarbonyliron derivatives of 1-phenyl-3,4-dimethylphosphole, synthesis and reactivity of (C.C. Santini, F. Mathey), (266) 285
- Di-, tri- and tetra-ferrocene mixed-valence derivatives, near-IR spectra of (F. Delgado-Peña, D.R. Talham, D.O. Cowan), (253) C43
- Diferrocenyl monocations and related species, stabilisation and electron transfer in (D. Bickar, B. Lukas, G. Neshvad, R.M.G. Roberts, J. Silver), (263) 225
- Diiron hexacarbonyl complexes from azomethynes and azines, mass spectra of (A.I. Mikaya, V.G. Zaikin, V.V. Trusov, A.I. Nekhaev, V.D. Tyurin), (254) 339
- [1,1-Dimercurio]ferrocenophanebis(dimethylaminomethyl) derivative, mono- and di-cationic species of (D.A. Lemenovskii, I.F. Urazowski, T.V. Baukova, I.L. Arkhipov, R.A. Stukan, E.G. Perevalova), (264) 283
- 2-[Dimethylamino)methyl]-1-hydroxy-ferrocene and its derivatives, syntheses and properties of (M. Onishi, K. Hiraki, A. Iwamoto), (262) C11
- Dimethylarsino-, dimethylstibino- and dimethylbismuthino-bridged diastereo-isomeric trinuclear complexes, preparation of (D. Greissinger, W. Malisch, H.-A. Kaul), (252) C23
- 1,12-Dimethyl-2,11-dithia-5,8-dioxa[12]- $(1,1')$ ferrocenophane, crystal and molecular structure of the *meso*-diastereoisomer of (P.L. Bellon, F. Demartin, V. Scatturin, B. Czech), (265) 65
- Dinuclear rhodium, iridium and iron complexes, theoretical semi-empirical study of concerted oxidative additions to (A. Sevin, Yu. Hengtai, P. Chaquin), (262) 392
- triangulo*-Diplatinum-iron, isomeric *triangulo*-platinum-palladium-iron complexes and related mixed-metal clusters (M.C. Grossel, R.P. Moulding, K.R. Seddon), (253) C50
- Dodecacarbonyl-irondiruthenium and -diironruthenium, ligand substitution with tertiary phosphines and phosphites in (T. Venäläinen, T. Pakkanen), (266) 269
- Dodecacarbonyl-triruthenium and -triiron and mixed metal dodecacarbonyls supported on γ -Al₂O₃, hydrogenation of pentynes and pentadienes catalysed by (P.M. Lausarot, G.A. Vaglio, M. Valle), (275) 233
- η^4 -Enonedicarbonyliron-phosphine and -phosphite complexes, kinetics and mechanism of diene exchange in (J.A.S. Howell, J.C. Kola, D.T. Dixon, P.M. Burkinshaw, M.J. Thomas), (266) 83
- η^4 -Enonedicarbonyliron-phosphine and -phosphite complexes, solution structure and fluxional behaviour of (J.A.S. Howell, D.T. Dixon, J.C. Kola), (266) 69
- Ethylene- and 1,3-butadiene-coordinated iron(0) complexes having dimethyl-phenylphosphine ligands, preparation and properties of (S. Komiya, H. Minato, T. Ikariya, T. Yamamoto, A. Yamamoto), (254) 83
- ⁵⁷Fe Mössbauer spectroscopy used in assigning types of iron carbonyl units in iron-containing clusters (R.P. Brint, M.P. Collins, T.R. Spalding, F.A. Deeney), (258) C57
- Fe(bipy)₂(CNCH₃)₂(BF₄)₂, photolysis in acetonitrile of (L.L. Constanzo, S. Giuffrida, G. De Guidi, G. Condorelli), (273) 81
- Fe₃[μ_2 - η^6 -*o*-C₆H₄CH₂N(N=CHC₅H₅)](CO)₈, trinuclear *ortho*-metalated product

- from benzalazine and $\text{Fe}_3(\text{CO})_{12}$, (N.S. Nametkin, V.D. Tyurin, V.V. Trusov, A.M. Krapivin), (254) 243
- $[\text{Fe}(\eta\text{-C}_5\text{H}_5)(\text{CO})_3][\text{FeCl}_4]$ and $[\text{M}(\text{CO})_5\text{Cl}]$ ($\text{M} = \text{Mn, Re}$), convenient high yield syntheses of (A.R. Manning, G. McNally, R. Davis, C.C. Rowland), (259) C15
- $[\text{Fe}_4(\text{CO})_{12}(\text{CCH}_3)]^+$, protonation and pyrolysis of (P.L. Bogdan, K.H. Whitmire, J.W. Kolis, D.F. Shriver, E.M. Holt), (272) 169
- $\text{Fe}_2(\text{CO})_6(\mu\text{-COCH}_2\text{H}_5)(\mu\text{-C}(\text{C}_6\text{H}_5)\text{C}(\text{C}_6\text{H}_5)\text{H})$, C-C formation at a diiron centre by intramolecular coupling of ethoxycarbonyl and 1,2-diphenylethenyl ligands in; X-ray crystal structure of hexacarbonyl- μ -(1 η^2 -2-diphenyl-3-ethoxy- η^2 - η^1 -allyl)diiron (J. Ros, R. Mathieu, X. Solans, M. Font-Altaba), (260) C40
- Ferriotris(dimethylamino)silane, $\text{Cp}(\text{CO})_2\text{Fe-Si}(\text{NMe}_2)_3$, synthesis and reactions with iodomethane of (G. Thum, W. Malisch), (264) C5
- Ferrocene; Annual Survey covering the year 1982 (G. Marr, B.W. Rockett), (257) 209
- Ferrocene, use in organometallic synthesis of; two-step preparation of cyclopentadienyliron acetonitrile and phosphine cations via photolysis of cyclopentadienyliron tricarbonyl or arene cations (D. Catheline, D. Astruc), (272) 417
- Ferrocene complexes, Mössbauer studies on; relationships between oxidation potentials and quadrupole splittings (R.M.G. Roberts, J. Silver), (263) 235
- Ferrocene and cymantrene derivatives of divalent ytterbium, synthesis and ^1H NMR spectra of (G.Z. Suleimanov, P.V. Petrovskii, Yu.S. Bogachev, I.L. Zhuravleva, E.I. Fedin, I.P. Beletskaya), (262) C35
- Ferrocene heterodisubstituted derivatives, β -lactamic antibiotics, properties and reactions of (C. Simionescu, T. Lixandru, L. Tătaru, I. Mazilu, M. Văjă, S. Luca), (252) C43
- Ferrocenecarboxylic acids, synthesis and cyclization of (V. Rapić, L. Korontoš), (260) 219
- [4][3][4][3](1,2,3,4)Ferrocenophane, synthesis and X-ray structure of (M. Hisatome, J. Watanabe, K. Yamakawa, K. Kozawa, T. Uchida), (262) 365
- Ferrocenyl bridged ketones, Mössbauer study of (A.G. Nagy), (270) 327
- α -Ferrocenyl carbocations, ^{57}Fe NMR shifts, and ^{57}Fe , ^{13}C coupling constants in; direct metal participation in stabilisation of metallocenyl carbocations (A.A. Koridze, N.M. Astakhova, P.V. Petrovskii), (254) 345
- Ferrocenyl ketones, ^{13}C chemical shifts and carbonyl stretching frequencies as structural probes for (R.J. Janson, R.M.G. Roberts), (260) 307
- Ferrocenyl ketones and carbenium ions steric and polar factors in (G. Neshvad, R.M.G. Roberts, J. Silver), (260) 319
- Formyl- and acetyl-tetracarbonyliron complexes, theoretical determination of thermodynamic stabilities of (A. Dedieu, S. Nakamura), (260) C63
- α -Halocarbeneporphyriniron complexes, reactions with alcohols and thiols under formation of new porphyrin complexes of (J.-P. Battioni, D. Dupré, G. Guérin, D. Mansui), (265) 53
- Haloferrocenes, electronic structure studied by He(I) photoelectron spectroscopy (T. Vondrák), (275) 93
- η^6 -Heterocycle- η^5 -cyclopentadienyliron hexafluorophosphates, ring-opening reactions of (C.C. Lee, A. Piórkó, B.R. Steele, U.S. Gill, R.G. Sutherland), (256) 303
- Heteropentametallic clusters containing three different metals, $\text{MCo}_3(\text{CO})_{12}\text{-M}'\text{L}$ ($\text{M} = \text{Fe, Ru}; \text{M}' = \text{Cu, Ag}$), synthesis of (P. Braunstein, J. Rosé), (262) 223
- Hydridocyclopentadienyliron dicarbonyl and its role in olefin hydroformylation (B.-H. Chang, P.C. Coil, M.J. Brown, K.W. Barnett), (270) C23
- Interaction of organometallic moieties with carbanions and other electron-rich centres (Review) (R.C. Kerber), (254) 131
- Iron; Annual Survey covering the year 1982 (J.J. Alexander), (274) 331
- Iron and molybdenum hydrides, intermolecular reduction of CO by (C. Lapinte, D. Astruc), (260) C13
- Iron-ruthenium centre, organic chemistry of (B.P. Gracey, S.A.R. Knox, K.A. MacPherson, A.G. Orpen, S.R. Stobart), (272) C45
- Iron and ruthenium electron-rich η^1 -cyano complexes, preparation and properties of (G.J. Baird, S.G. Davies), (262) 215
- Iron, ruthenium and osmium; Annual Survey for the year 1978 (J.A. McCleverty), (274) 241

- Iron-coordinated dialkylaminosilyl ligands, anionic shifts to η^5 -cyclopentadienyl groups of (G. Thum, W. Ries, D. Greissinger, W. Malisch), (252) C67
- Ketenes and tricarbonyl(η^4 -polyene)iron complexes, regio- and stereo-specific cycloadditions of; structural evidence for a concerted 2 + 2 mechanism (Z. Goldschmidt, S. Antebi, D. Cohen, I. Goldberg), (273) 347
- $[(Me_3C_5)Fe(CO)_2L]^+$ ($L = CO, PPh_3, PMe_3$) and $[(Me_3C_5)Fe(CO)(Ph_2PCH_2-CH_2PPh_2)]^+$, preparation and hydride reduction of (S.G. Davies, S.J. Simpson, S.E. Thomas), (254) C29
- $(Me_2SiCH_2CH_2SiMe_2)(C_5H_4Fe(CO)_2)_2$, cyclopentadienyl-bridged complex, preparation and reactivity of (K.D. Janda, W.W. McConnell, G.O. Nelson, M.E. Wright), (259) 139
- Metal—metal heterodinuclear double bonds, access by high-yield coupling reactions to (W.A. Herrmann, C.E. Barnes, R. Serrano, B. Koumbouris), (256) C30
- Metalaselenafiocenophanes, $Fe(\eta^5-C_5H_4-Se)_2M(\eta^5-C_5H_4R)_2$ ($M = Zr, Hf$), synthesis and variable temperature 1H NMR of (B. Gautheron, G. Tainturier), (262) C30
- Metalloarsanes, $Cp(CO)_3W-AsR_3$ ($R = Me, t\text{-}Bu$), carbon monoxide/isonitrile exchange in (M. Luksza, U. Wanka, W. Malisch), (266) 237
- Metalloenylpyrazolines, asymmetric induction in the synthesis of (V.N. Postnov, V.G. Andrianov, Yu.T. Struchkov, A.M. Baran, V.A. Sazonova), (262) 201
- α -Methoxyalkyliron complexes, preparation of; precursors of secondary carbeneiron complexes (C.P. Casey, W.H. Miles), (254) 333
- Methyl- and acetyl-dicarbonyl(η^5 -cyclopentadienyl)iron complexes in PVC film matrices at 12–200 K (R.H. Hooker, A.J. Rest, I. Whitwell), (266) C27
- Methyliron complex, reverse methyl migration to trimethylaluminium from; formation of $[Fe(dmpe)_2(acac)]^+$ $[AlMe_4]^-$ (S. Komiya, M. Katoh, T. Ikariya, R.H. Grubbs, T. Yamamoto, A. Yamamoto), (260) 115
- Mixed metal cluster complexes of osmium with cobalt and iron, synthesis of (W.A.G. Graham, J.R. Moss), (270) 237
- Mono-, bis- and tris-trimethylphosphine-iron(II) complexes, $(\eta^5-C_5Me_5)Fe-(PMMe_3)_x(CO)_y(NCMe)_z^+ PF_6^-$ ($x + y + z = 3$), synthesis of (D. Catheline, D. Astruc), (269) C33
- Multibridged ferrocenophanes, bridge rearrangements in the presence of aluminium chloride in (M. Hisatome, Y. Kawajiri, J. Watanabe, M. Yoshioka, K. Yamakawa), (266) 147
- Multimetall complexes, assemblage using diphosphoxane linkages (P—O—P) of (E.H. Wong, F.C. Bradley, L. Prasad, E.J. Gabe), (263) 167
- Nitrosylalkyl(aryl)ferricporphyrine complexes with metal—carbon bonds, preparation and characterisation of (G. Lagrange, P. Cocolios, R. Guillard), (260) C16
- Nonacarbonyl-diiron and -diruthenium, stabilisation by bridging diphosphorus ligands of (G. de Leeuw, J.S. Field, R.H. Haines, B. McCulloch, E. Meintjes, C. Monberg, G.M. Olivier, P. Ramdial, C.N. Sampson, B. Sigwarth, N.D. Steen, K.G. Moodley), (275) 99
- Organoiron thiolate complexes, alkylation of (P.M. Treichel, M.S. Schmidt, S.D. Koehler), (258) 209
- Organometallic cluster paramagnetic anions, reaction with molecular oxygen of (A. Darchen, C. Mahé, H. Patin), (251) C9
- Organometallic compounds, IR laser pyrolysis and isotopic labelling of (N.J. Bristow, B.D. Moore, M. Polyakov, G.J. Ryott, J.J. Turner), (260) 181
- Pentacarbonyliron as catalyst precursor in hydrogenation of *N*-benzylideneaniline with molecular hydrogen (M.A. Radhi, L. Markó), (262) 359
- Pentacarbonyliron in reaction with ethyl-enetrithiocarbonate; structure of $[Fe_5(CO)_9\{CS(CH_2)_2S\}S]$ containing a μ_2 -dithiocarbene ligand (G.J. Kruger, L. Linford, H.G. Raubenheimer, A.A. Chalmers), (262) 69
- 1,2-Phenyl and 1,2-sulphinatophenyl photochemical, thermal and SO_2 -induced migrations from lead to transition metals in the system $[(\eta^5-C_5H_5)-M(CO)_n PbPh_3]$ ($M = Fe, Cr, Mo, W$) (K.H. Pannell, R.N. Kapoor), (269) 59
- Phosphafiocenanes and their protonated derivatives, Mössbauer studies on (B. Lukas, R.M.G. Roberts, J. Silver, A.S. Wells), (256) 103

- (Phosphonium)iron tetracarbonyl cationic complexes, structure/reactivity relationships for (A.H. Cowley, R.A. Kemp, E.A.V. Ebsworth, D.W.H. Rankin, M.D. Walkinshaw), (265) C19
- Phospholes, reactions with carbonylmetals under CO pressure of; formation of phosphole-*2H* derivatives (F. Mercier, F. Mathey), (263) 55
- [RhFe₅(CO)₁₆]⁻ and [Rh₅Fe(CO)₁₆]⁻ clusters with a specific disorder of the metal polyhedron, X-ray investigation of (Yu.L. Slovokhotov, Yu.T. Struchkov, V.E. Lopatin, S.P. Gubin), (266) 139
- μ_3 -Sulphur-bridged trinuclear manganese—iron cluster, preparation and chemical properties of (A. Winter, L. Zsolnai, G. Huttner), (269) C29
- TeMnFe₂ tetrahedral cluster compound, preparation and crystal structure of (W.A. Herrmann, C. Hecht, M.L. Ziegler, T. Zahn), (273) 323
- Tetracarbonylthiocarbonyliron, reactions with mercury chloride in various solvents of (W. Petz), (270) 81
- Thioetherthiol ligands and their carbonyl-iron(II), -molybdenum(0) and -molybdenum(II) complexes, synthesis of (D. Sellmann, U. Kleine-Kleffmann), (258) 315
- Thioceteneiron cluster, (CH₃)₄C₆H₆CS-(PPh₃)₂(CO)₄Fe₂, reaction with excess thiocetene under formation of a vinylidene complex (H. Umland, U. Behrens), (273) C39
- (μ_3 -Thio)(μ_3 -organophosphido)tris(tricarbonyliron)(2*Fe*—*Fe*) complexes, synthesis and crystal structure of (E. Lindner, G.A. Weiss, W. Hiller, R. Fawzi), (255) 245
- Thiophosphinito complexes of iron, preparation, reactive behaviour and mass, IR and NMR spectra of (E. Lindner, C.-P. Krieg), (269) 65
- Transition metal ions as homogeneous catalysts in cleavage of C—N bond of tertiary amines by acid anhydrides (Bui The Kai, A. Arcelli), (252) C9
- Tricarbonyl(cycloheptatriene)iron, addition of carbonylcarbenes to; X-ray structure of tricarbonyl[(η -5,6,7,8)-2,3-diphenyl-4*H*-cyclohepta[*b*]furan]-iron (Z. Goldschmidt, S. Antebi, I. Goldberg), (260) 105
- Tricarbonylcyclohexadieneiron carbinol, proton elimination in conversion into an endocyclic cation from (B.M.R. Bandara, A.J. Birch), (265) C6
- Tricarbonyl(cyclohexadienyl)iron(I⁺) substituted salts, barriers to Fe(CO)₃ rotation in (L. Harland, G.R. Stephenson, M.J. Whittaker), (263) C30
- Tricarbonyl[(1,2,3,4- η)-3,7,7-trimethylcycloheptatriene]iron, synthesis and cycloaddition reactions of (Z. Goldschmidt, S. Antebi), (259) 119
- Tricobaltcarbon clusters, nitrosyl derivatives of (S.P. Colbran, B.H. Robinson, J. Simpson), (265) 199
- (Triene)tricarbonyliron acyclic electron-deficient derivatives, thermal *cis*→*trans* and metal shift isomerisations in (Z. Goldschmidt, Y. Bakal), (269) 191
- Triethylaluminium, interaction with acetylacetones of transition metals of (F.K. Schmidt, G.V. Ratovskii, T.V. Dmitrieva, I.N. Ivleva, Yu.G. Borodko), (256) 309
- 1,3,5-Triferrocenyl-4-(1-ferrocenylethyl)cyclohexane, cyclodimerization of 1-methyl-1,3-diferrocenylallyl cation into (E.I. Klimova, A.N. Pushin, V.A. Sazonova), (270) 319
- Trihydrosilyl complexes of iron, preparation and metallation with dicobalt octacarbonyl of (H.-U. Wekel, W. Malisch), (264) C10
- Trimethylvinylsilane, reaction with S₈ in the presence of dodecacarbonyliron, synthesis of trimethylsilyl- μ -S,S'-ethylenedithiolatohexacarbonyliron and 1-methyl-3-trimethylsilyl-2,5-dithiacyclopentane (E.A. Chernyshev, O.V. Kuz'min, A.V. Lebedev, A.I. Gusev, M.G. Los', N.V. Alekseev, N.S. Nametkin, V.D. Tyurin, A.M. Krapivin, N.A. Kubasova, V.G. Zaikin), (252) 143
- Trimethylvinylsilane, reaction with S₈ in the presence of dodecacarbonyltriiron, synthesis of cyclic polysulphides by (E.A. Chernyshev, O.V. Kuz'min, A.V. Lebedev, A.I. Gusev, N.I. Kirillova, N.S. Nametkin, V.D. Tyurin, A.M. Krapivin, N.A. Kubasova), (252) 133
- Trinuclear clusters containing Fe₃(CO)₉- $\langle\mu_3\text{-CCH}_3\rangle$ unit, carbide formation and simultaneous intramolecular carbide-ethyldyne coupling as result of reduction of (D. De Montauzon, R. Mathieu), (252) C83
- Tris(diphenylphosphino)methane complexes with transition metals (J.T. Mague, S.E. Dessens), (262) 347

η^6 -Xanthene- and -thioxanthene- η^5 -cyclopentadienyliron cations, keto complexes from and reactions of the fluorenone and xanthone complexes (C.C. Lee, U.S. Gill, R.G. Sutherland), (267) 157

Lanthanum

Lanthanum tris[cyclopentadienylmolybdenotrincarbonylate] tetrahydrofuranate, (THF)₅La[CpMo(CO)₃]₃ · THF, synthesis and molecular structure of (A.A. Pasynskii, I.L. Eremenko, G.Z. Suleimanov, Yu.A. Nuriev, I.P. Beletskaya, V.E. Shklover, Yu.T. Struchkov), (266) 45

Lead

Bis(triorganometal) and diorganometal 1,3-thiolates, (R₃M)₂(C₆H₅XS₂) and R₂M(C₆H₅XS₂) (M = Sn, Pb; X = H, Cl), preparation and spectra of (K. Grätz, F. Huber, A. Silvestri, R. Barbieri), (273) 283

Carbonylvanadium complexes, ⁵¹V NMR spectroscopic investigation of vanadium—metal bonds in (R. Talay, D. Rehder), (262) 25

Germanium-73 and other Main Group IV element NMR chemical shifts, relation between (P.J. Watkinson, K.M. Mackay), (275) 39

Group IVB tetraphenyl derivatives, UV gas-phase photoelectron spectra of (I. Novak, A.W. Potts), (262) 17

Hexaphenylethane analogues, Ph₃Pb—MPh₃, M = Pb, Sn, Ge, Si, preparation and characterisation of (N. Kleiner, M. Dräger), (270) 151

Lead; Annual Survey covering the year 1982 (J. Wolters, D. de Vos), (274) 211

Main Group IV elements, relation between element NMR chemical shifts in (T.N. Mitchell), (255) 279

Methyl/trifluoromethyl organometallic compounds, synthesis by low temperature cocondensation of trifluoromethyl radicals and methylalkyl Main Group compounds of (M.A. Guerra, R.L. Armstrong, W.I. Bailey, Jr., R.J. Lagow), (254) 53

Organic-silicon, -germanium and -lead derivatives of dimethyl- and diphenyl-di-

thioarsinic acids (L. Silaghi-

Dumitrescu, I. Haiduc), (259) 65

1,2-Phenyl and 1,2-sulphinatophenyl photochemical thermal and SO₂-induced migrations from lead to transition metals in the system [(η^5 -C₅H₅)M(CO)_n · PbPh₃] (M = Fe, Cr, Mo, W) (K.H. Pannell, R.N. Kapoor), (269) 59

Sulphur—Group IVB element bonds, X-ray diffraction study of; crystal and molecular structures of methylthiotriphenyl-methane, -silicon, -germanium, -tin and -lead (G.D. Andreotti, G. Bocelli, G. Calestrani, P. Sgarabotto), (273) 31

Trimethylsilyl-substituted plumbocenes, synthesis of (P. Jutzi, E. Schlüter), (253) 313

Lithium

(η^2 -1,3-Alkadiene)(η^5 -cyclopentadienyl)-methylnickel complexes, preparation of (H. Lehmkuhl, F. Danowski, R. Benn, A. Rufińska, G. Schroth, R. Myrott), (254) C11

Allyl-alkali-metal compounds, ¹³C NMR investigation of the geometry of (H. Ahlbrecht, K. Zimmermann, G. Boche, G. Decher), (262) 1

Allyllithium and solvated allyllithium species, MNDO study of the position of hydrogen atoms in (G. Decher, G. Boche), (259) 31

Arylboronic acids with intramolecular B—N interaction, synthesis through *ortho*-lithiation of substituted benzylamines (M. Lauer, G. Wulff), (256) 1

Azaferrocene, metallation of (N.I. Pyshnograeva, V.N. Setkina, D.N. Kursanov), (251) C41

1H-1,3-Benzazoles, metallation and substitution reactions of λ^3 -As=C—N group in (J. Heinicke, A. Petrasch, A. Tzschach), (258) 257

Benzyl- and related alkyl-lithiums, simple electrostatic model for (R.J. Bushby, M.P. Tytko), (270) 265

1,3-Bis(trimethylsilyl)propenes, formation of silylbutadienes in reactions with carbonyl compounds with fluoride ion catalysts of (R. Corriu, N. Escudié, C. Guérin), (264) 207

Bis- and tris-(trimethylsilyl)silacyclohexadienes, formation and reactions of (G. Märkl, H. Höllriegl, W. Schlosser), (260) 129

- t-Butyl lithiocycloalkanecarboxylates, O-metalled structure of (L. Gorrichon, P. Maroni, C. Zedde, A. Dobrev), (252) 267
- Butyllithium/potassium t-alkoxide reaction mixtures, ESR study of the nature of the counterion in (D. Wilhelm, T. Clark, P.v.R. Schleyer, J.L. Courtneidge, A.G. Davies), (273) C1
- β -Carbonyl phosphonates, formation from lithiated phosphonate carbanions from (E. Elia Aboujaoude, N. Collignon, P. Savignac), (264) 9
- Chloroallyllithium and *gem*-chloro(methylallyllithium, secondary and tertiary Z-allylic chloride and Z-vinylic chloride formation from (B. Mauze, P. Ongoka, L. Miginiac), (264) 1
- Chlorocyclooctadienemethylimidazoyl-iridium, reactions with methyl- and phenyl-lithium under formation of iridacyclopentadienyl complexes of (J. Müller, C. Hänsch, J. Pickardt), (259) C21
- 9-(*N,N*-Dialkylamino)-9-phosphabicyclo[4.2.1]nona-2,4,7-triene, 9-halo-9-phosphabicyclo[4.2.1]nona-2,4,7-triene, reactions with cyclooctatetraenylolithium and nucleophilic substitution of (G. Märkl, B. Alig), (273) 1
- Dicyclopentadienyldichlorotitanium-lithium aluminium hydride isomerisation catalyst, influence of the nature of unsaturated hydrocarbons on the catalytic activity of (K. Mach, H. Antropiusová, F. Tureček, P. Sedmera), (269) 39
- η^4 -(1,3-Diene)tricarbonyliron(0) complexes, complexes derived by nucleophile addition/carbonylation of (M.F. Semmelhack, J.W. Herndon), (265) C15
- trans*-Difluoroalkenes, preparation from chlorotrifluoroethylene via difluoro-vinylsilicon intermediates of (S. Martin, R. Sauvêtre, J.-F. Normant), (264) 155
- 1,1-Dimethyl-2-phenylsilacyclopentane, ring-opening and metallation reactions with methylolithium in THF of (A. Maercker, R. Stötzel), (269) C40
- 1,1-Dimethyl- and 1,1-diphenyl-silacyclopentane, degenerate ligand exchange reactions upon treatment with perdeuterated alkylolithiums of (A. Maercker, R. Stötzel), (273) C57
- Gallium(III) porphyrins having a metal–carbon σ bond, synthesis and physicochemical characterisation of (A. Coutsolelos, R. Guillard), (253) 273
- Halosilanols and halofluorsilanes, synthesis of (O. Graalmann, U. Klingebiel), (275) C1
- Hexamethylsilsirane, nucleophilic ring opening by alkylolithium reagents of (D. Seyferth, G.H. Wiseman, D.C. Annarelli, M.L. Shannon), (264) 149
- Hexa-9-phenanthrylcyclotristannane, preparation and reactions of (J. Fu, W.P. Neumann), (272) C5
- (E)(Z)-Isomeric alkenylzirconocene complexes, formation of (P. Czisch, G. Erker), (253) C9
- Lanthanides of the type RLnI, carboranyl derivatives of (G.Z. Suleimanov, V.I. Bregadze, N.A. Koval'chuk, Kh.S. Khalilov, I.P. Beletskaya), (255) C5
- Lithium dialkylcuprate addition to chiral oxazolidine in ether and hexane (J. Berlan, Y. Besace, D. Prat, G. Pourcelot), (264) 399
- Lithium naphthalenide in tetrahydrofuran, single-titration method for determination of (C.G. Screttas, M. Micha-Screttas), (252) 263
- Lithium organocuprates in reaction with CH₃C(=O)CH=CHCH=CHCH₃ (F. Barbot, A. Kadib-Elban, P. Miginiac), (255) 1
- Methoxyborabicyclo[3.3.1]-nonanes and -nonenes, homologation of and synthesis of 3-borabicyclo[4.3.1]-decane and -decene derivatives from (M.E. Gurskii, S.V. Baranin, B.M. Mikhailov), (270) 9
- Methyl- and halo-substituted 1-silacyclo-2-hexenes, preparation of (R. Münstedt, D. Wrobel, U. Wannagat), (271) 181
- α -Monohaloalkyllithiums, preparation and epoxidation reactions of (R. Tarhouni, B. Kirschleger, J. Villieras), (272) C1
- Monohydridohexamethylbenzeneruthenium(II) complexes containing Group V donor ligands, synthesis of; isomerism arising from cyclometallation of a tertiary phosphine at aliphatic and aromatic carbon atoms in (M.A. Bennett, T.-N. Huang, J.L. Latten), (272) 189
- Olefin-copper(I) π -complex formation in conjugate addition of lithium dimethylcuprate to t-butyl cinnamate (G. Hallnemo, T. Olsson, C. Ullenius), (265) C22
- Organoborane and organoborate compounds containing the (C₆H₄-2-CH₂-NMe₂) ligand, structural aspects of (E. Kalbarczyk, S. Pasynkiewicz), (273) C23

- α -Phosphoramidolithium substituted allylic carbanions as homoenolate reagents with benzophenone (P. Coutrot, J.R. Dormoy, A. Moukimou), (258) C25
- Regiospecific synthesis of aromatic compounds via organometallic intermediates; *p*-substituted benzenes (L.S. Chen, G.J. Chen, C. Tamborksi), (251) 139
- Silaethene tetrahydrofuranate, preparation and structure of (N. Wiberg, G. Wagner, G. Müller, J. Riede), (271) 381
- Silicinium ylid dimerisation by methanide and silylamine migration (W. Clegg, U. Klingebiel, G.M. Sheldrick, D. Stalke), (265) 17
- Silylamides of Group IVA and IVB elements with spirobicycloheptane structure (H. Bürger, W. Geschwandtner, G.R. Liewald), (259) 145
- (*N*-Silyl)bis(diphenylphosphino)amines and bis(*N*-silyl)diphenylphosphino- amines, isomerism and conformation of (H. Schmidbaur, S. Lauteschläger, F.H. Köhler), (271) 173
- Simplest metallocene derivative; X-ray structure of $[\text{Li}\{\eta\text{-C}_5\text{H}_4(\text{SiMe}_3)\}\{\text{NMe}_2\text{-}(\text{CH}_2)_2\text{NMe}_2\}](\text{LiCp}'(\text{TMEDA}))$ (M.F. Lappert, A. Singh, L.M. Engelhardt, A.H. White), (262) 271
- Tertiary racemic phosphines and asymmetric chlorophosphines, direct synthesis of (W. Chodkiewicz, D. Guillerm, D. Jore, E. Mathieu, W. Wodzki), (269) 107
- Tetrahydrofuran adduct of lithium bis[tris(trimethylsilyl)methyl]cuprate, $[\text{Li}(\text{THF})_4][\text{Cu}\{\text{C}(\text{SiMe}_3)_3\}_2]$, preparation and crystal structure of (C. Eaborn, P.B. Hitchcock, J.D. Smith, A.C. Sullivan), (263) C23
- Thioanisolyl complexes of lithium, mercury and zinc, preparation and characterisation of (R. Taube, D. Steinborn, B. Adler), (275) 1
- Tricarbonylcyclohexadieneiron carbinol, proton elimination in conversion into an endocyclic cation from (B.M.R. Bandara, A.J. Birch), (265) C6
- β -Trimethylphosphonio(α -trimethylsiloxy)-vinyl complexes in cleavage reactions of carbonyl groups (H. Blau, K.-H. Griessmann, W. Malisch), (263) C5
- Trimethylsilyl groups, addition to guaiaculene of (G. Felix, J. Dunoguès, M. Petraud, B. Barbe), (258) C49

- Tris[(1,2-dimethoxyethane)lithium]hexamethylacetate(III), synthesis and structure of (H. Schumann, H. Lauke, E. Hahn, J. Pickardt), (263) 29
- [Tris(trimethylsilyl)methyl]lithium, improvements in preparation and use of (Z.H. Aiube, C. Eaborn), (269) 217

Lutetium

- Cyclopentadienyllutetium derivatives of triphenylmethylenephosphorane, preparation and ^1H and ^{13}C NMR spectra of (H. Schumann, F.W. Reier), (269) 21
- Dicyclopentadienyl(alkyl)lutetinylmethylnetriorganophosphoranes, zwitterionic complexes, synthesis and NMR spectra of (H. Schumann, F.W. Reier, M. Detlaff), (255) 305
- Early lanthanocene chlorides, stabilisation using ring-bridged dicyclopentadiene ligand of (C. Qian, C. Ye, H. Lu, Y. Li, Y. Huang), (263) 333
- Tricyclopentadienyluranium(IV)-alkyl and -dialkylamide derivatives, facile insertion of CO into U—C and U—N bonds of (G. Paolucci, G. Rosetto, P. Zanella, K. Yünlü, R.D. Fischer), (272) 363
- Tris[(1,2-dimethoxyethane)lithium]hexamethylacetate(III), synthesis and structure of (H. Schumann, H. Lauke, E. Hahn, J. Pickardt), (263) 29

Magnesium

- Arylboronic acids, synthesis via reactions of borane with arylmagnesium halides of (G.W. Kabalka, U. Sastry, K.A.R. Sastry, F.F. Knapp, P.C. Srivastava), (259) 269
- $\text{C}_4\text{Ph}_3\text{TiCl}_3 \cdot \text{Mg}_2\text{Cl}_3(\text{THF})_6$, crystal structure and reactivity of (M.E.E. Meijer-Veldman, J.L. de Boer, H.J. de Liefde Meijer, A.M.M. Schreurs, J. Kroon, A.L. Spek), (269) 255
- Dialkylmagnesium, reactions with carbon monoxide of (P. Sobota, M. Nowak, W. Kramarz), (275) 161
- "Di-9-phenanthryltin", chromatographic and instrumental analysis and degradation of (W.P. Neumann, J. Fu), (273) 295
- Gallium(III) porphyrins having a metal—carbon σ bond, synthesis and physico-

- chemical characterisation of (A. Coutsolelos, R. Guillard), (253) 273
- (E)(Z)-Isomeric alkenylzirconocene complexes, formation of (P. Czisch, G. Erker), (253) C9
- Lithium organocuprates in reaction with $\text{CH}_3\text{C}(=\text{O})\text{CH}=\text{CHCH}=\text{CHCH}_3$ (F. Barbot, A. Kadib-Elban, P. Miginiac), (255) 1
- Magnesium hydride, catalysed addition to isoprene and styrene of (B. Bogdanović, M. Maruthamuthu), (272) 115
- Metallochiral triorganobismuthines, synthesis of (P. Bras, A. van der Gen, J. Wolters), (256) C1
- Methyl- and halo-substituted 1-silacyclo-2-hexenes, preparation of (R. Münstedt, D. Wrobel, U. Wannagat), (271) 181
- Monocyclic organotri- and organotetra-stibanes, synthesis of $[(\text{Me}_3\text{Si})_2\text{CHSb}]_n$ ($n = 3, 4$) (H.J. Breunig, A. Soltani-Neshan), (262) C27
- α -Stannylyvinyl anionoids of 1,1-bis(trimethylstannyl)alkenes, formation of (T.N. Mitchell, A. Amamria), (252) 47
- Tetraphenylporphyrinetic compounds, alkylation and reduction by Grignard reagents of (C. Cloutour, C. Debaig-Valade, C. Gacherieu, J.-C. Pommier), (269) 239
- Vinyl- and allyl-titanium bonds, addition of ethylene to (H. Lehmkühl, E. Janssen, R. Schwickardi), (258) 171
- ## Manganese
- μ -(1-2- η :2-3- η -Allene)octacarbonyldimanganese(0), photochemical synthesis of (M. Leyendecker, C.G. Kreiter), (260) C67
- Allenylidene- and vinylidene-manganese complexes, protonation of; crystal and molecular structure of $[\text{Cp}(\text{CO})_2\text{-Mn}\equiv\text{CH}=\text{CPh}_2]^+\text{BF}_4^-$ (N.E. Kolobova, L.L. Ivanov, O.S. Zhvanko, O.M. Khitrova, A.A. Batsanov, Yu.T. Struchkov), (262) 39
- Antiferromagnetic cluster containing a heterometallic “bow-tie” Cr_4Mn framework, $[\text{Cp}_2\text{Cr}_2(\text{SCMe}_3)(\mu_3\text{-S})_2]_2\text{Mn}$, synthesis and molecular structure of (I.L. Eremenko, A.A. Pasynskii, G.Sh. Gasanov, B. Oratzsakhatov, Yu.T. Struchkov, V.E. Shklover), (275) 183
- Arenetricarbonyl-chromium, -manganese and -iron, dependence of electrophilicity of coordinated cyclic π -hydrocarbons on the metal in (Y.K. Chung, E.D. Honig, D.A. Schweigart), (256) 277
- Azidocarbonylmetal(0) complexes of chromium, molybdenum, tungsten and manganese, preparation and reactions of and coordination in (D. Sellmann, W. Weber, G. Liehr, H.P. Beck), (269) 155
- Bis(pentamethylcyclopentadienyl)-dichromium and -dimolybdenum complexes with bridging sulphur ligands, investigation of the disulphur ligands in (H. Brunner, H. Kauermann, W. Meier, J. Wachter), (263) 183
- 1,3-Bis(trimethylsilyl)propenes, formation of silylbutadienes in reactions with carbonyl compounds with fluoride ion catalysts of (R. Corriu, N. Escudié, C. Guérin), (264) 207
- Carbonylmanganese(I) derivatives with σ -bonded alkynyl ligands; crystal structure of $[\text{Co}_3(\text{CO})_6][\text{PhC}\equiv\text{CMn}(\text{CO})_4\cdot\{\text{P}(\text{C}_6\text{H}_{11})_3\}]$ (G.A. Carriedo, V. Riera, D. Miguel, A.M.M. Lanfredi, A. Tiripicchio), (272) C17
- Carbonylmetal compounds, novel electro-generation of reactive formylmetal complexes from (B.A. Narayanan, J.K. Kochi), (272) C49
- Carbonylmetal ions, evidence for a negative charge on hydrogen for (R.L. Sweany, J.W. Owens), (255) 327
- $\eta^5\text{-C}_5\text{H}_5\text{COOH}(\text{CO})\text{Fe}\text{-}\eta^1\text{-R}$ ($\text{R} = \text{Ph}$, $\text{C}_5\text{H}_4\text{Mn}(\text{CO})_3$, CH_2Ph) carboxylic acids, preparation of (T.Yu. Orlova, V.N. Setkina, D.N. Kursanov), (267) 309
- $(\eta^5\text{-C}_5\text{H}_5)\text{Mn}(\text{CO})(\text{Ph}_2\text{PCH}_2\text{CH}_2\text{PPh}_2)$, formation of geometrical isomers during protonation of (B.V. Lokshin, M.G. Yezernitskaya), (256) 89
- $(\eta^5\text{-C}_5\text{H}_5)\text{MnOs}_3(\mu_2\text{-CH}=\text{CHPh})(\mu\text{-H})(\mu\text{-CO})(\text{CO})_{11}$, unusual metallic cluster, synthesis and crystal and molecular structures of (A.B. Antonova, S.V. Kovalenko, E.D. Korniyets, A.A. Johansson, Yu.T. Struchkov, A.I. Yanovsky), (267) 299
- $(\eta^5\text{-Cyclopentadienyl})(\eta^1\text{-cymantrenyl})\text{-iron dicarbonyl and -(triphenylphosphine)iron carbonyl}$, X-ray structures of (A.S. Batsanov, Yu.T. Struchkov), (266) 295

- π -Cyclopentadienyl(dicarbonyl)[aryl-(halogeno)carbene]-manganese and -rhenium complexes, synthesis, properties and spectra of (E.O. Fischer, J. Chen, K. Scherzer), (253) 231
- Cyclopentadienyldicarbonyl ferriodithiocarbonic acid anion, reactions with metal compounds of (H. Stolzenberg, W.P. Fehlhammer, M. Monari, V. Zanotti, L. Busetto), (272) 73
- Cyclopentadienyldicarbonylmanganese alkylisocyanide complexes, catalytic synthesis of; crystal structure of ($\eta^5\text{-C}_5\text{H}_5$) $\text{Mn}(\text{CO})_2(\text{CNBu}^\ddagger)$ (G.W. Harris, J.C.A. Boeyens, N.J. Coville), (255) 87
- Cyclopentadienyldicarbonylmanganese-phosphonium ylide complexes; X-ray crystal and molecular structure of ($\eta\text{-C}_5\text{H}_5$) $(\text{CO})_2\text{Mn}^-\text{C}(\text{P}^*\text{Ph}_3)=\text{C}=\text{CPh}_2\cdot\text{CH}_2\text{Cl}_2$ (N.E. Kolobova, L.L. Ivanov, O.S. Zhvanko, O.M. Khitrova, A.S. Batsanov, Yu.T. Struchkov), (265) 271
- η -Cyclopentadienylmanganese complexes, reactions with mercury trifluoroacetate of (L.G. Kuzmina, A.G. Ginzburg, Yu.T. Struchkov, D.N. Kursanov), (253) 329
- Cyclopentadienylnitrosylcarbonylisonitrile complexes of Group VI and cyclopentadienyldicarbonylisonitrile complexes of Group VII, chemistry of (H. Behrens, G. Landgraf, P. Merbach, M. Moll, K.-H. Trummer), (253) 217
- Cyclopentadienyltricarbonylmanganese derivatives, ion-molecule reactions with 18-crown-6 in the gas-phase of (D.V. Zagorevskii, Yu.S. Nekrasov), (267) 121
- Cyclopentadienyltricarbonylmolybdenum cation, reactions with methylcarbonyl complexes, cobaltocene, nickelocene and cyclopentadienyldicarbonylcobalt of; structure of acetylene-bridged [$(\pi\text{-C}_5\text{H}_5)(\text{CO})_2\text{FeC}(\text{CH}_3)\text{OMo}(\text{CO})_3\text{-}(\pi\text{-C}_5\text{H}_5)]\text{SbF}_6^-$ (K. Sünkel, U. Nagel, W. Beck), (251) 227
- Dithiolene complexes, synthesis, substitution reactions and crystal structure of (E. Lindner, I.P. Butz, S. Hoehne, W. Hiller, R. Fawzi), (259) 99
- [$\text{Fe}(\eta\text{-C}_5\text{H}_5)(\text{CO})_3\text{][FeCl}_4\text{]$ and [$\text{M}(\text{CO})_5\text{Cl}$] ($\text{M} = \text{Mn, Re}$), convenient high yield syntheses of (A.R. Manning, G. McNally, R. Davis, C.C. Rowland), (259) C15
- Ferrocene and cymantrene derivatives of divalent ytterbium, synthesis and ^1H NMR spectra of (G.Z. Suleimanov, P.V. Petrovskii, Yu.S. Bogachev, I.L. Zhuravleva, E.I. Fedin, I.P. Beletskaya), (262) C35
- α -Ferrocenyl carbocations, ^{57}Fe NMR shifts and ^{57}Fe , ^{13}C coupling constants in; direct metal participation in stabilization of metallocenyl carbocations (A.A. Koridze, N.M. Astakhova, P.V. Petrovskii), (254) 345
- Germanium-iron carbonyl clusters and germanium-iron-manganese carbonyl clusters, preparation and crystal structure of $\text{Ge}[\text{Fe}(\text{CO})_4]_4(2\text{Fe}-\text{Fe})$ and $\text{Ge}\{(\eta^5\text{-CH}_2\text{C}_5\text{H}_4)\text{Mn}(\text{CO})_2[\text{Fe}(\text{CO})_4]\}_2(\text{Mn}-\text{Fe} + \text{Fe}-\text{Fe})$ (D. Melzer, E. Weiss), (255) 335
- Germanium-manganese double bonds in $[(\eta^5\text{-C}_5\text{H}_5)\text{Mn}(\text{CO})]_2$ and $[(\eta^5\text{-C}_5\text{H}_5)\text{Mn}(\text{CO})_2]_2\text{Ge}$; GeH_2 bridged compound: $[(\eta^5\text{-C}_5\text{H}_5)_2\text{V}]_2\text{GeH}_2$, preparation of (D. Meltzer, E. Weiss), (263) 67
- Halotricarbonylmanganese chelate complexes with phosphino-thioformamide and -thiofermimido ester, ^1H , ^{13}C , ^{31}P and ^{55}Mn NMR spectroscopic investigations of (U. Kunze, A. Bruns, D. Rehder), (268) 213
- Heptacarbonyl- μ -(2,5:2-5- η -2,4-hexadiene-2,5-diyl)dimanganese, synthesis and molecular structure of (M. Leyendecker, W.S. Sheldrick, C.G. Kreiter), (270) C37
- Heterobimetallic compounds, protonation of metal-metal bonds linked by a heterodifunctional ligand in (C.P. Casey, R.M. Bullock), (251) 245
- Hydrosilylation catalysis via silylmanganese carbonyl complexes, thermal vs. photochemical activation (S.L. Pratt, R.A. Faltynek), (258) C5
- Interaction of organometallic moieties with carbanions and other electron-rich centres (Review) (R.C. Kerber), (254) 131
- Manganaphosphacycloalkanes, insertion of CO_2 into (A. Behr, U. Kanne, G. Thelen), (269) C1
- Manganese, technetium, and rhenium; Annual Survey covering the year 1982 (P.M. Treichel), (261) 69
- Manganese insertion into Group IVB-carbon bonds, preparation of complexes from and mechanism of the deinsertion reaction (E. Colomer, R.J.P. Corriu, A. Vioux), (267) 107

- Metallacarbene complexes, synthesis, structural chemistry and high-pressure carbonylation of (W.A. Herrmann, J. Plank, G.W. Kriegbaum, M.L. Ziegler, H. Pfisterer, J.L. Atwood, R.D. Rogers), (264) 327
- Metal—metal heterodinuclear double bonds, access by high-yield coupling reactions to (W.A. Herrmann, C.E. Barnes, R. Serrano, B. Koumbouris), (256) C30
- 3-Methylphosphacylantrene, structure and conformation of (N. Suryaprakash, A.C. Kunwar, C.L. Khetrapal), (275) 53
- Mixed metal clusters with 3 or 4 different metals containing the $\text{Ph}_2\text{PCH}_2\text{PPh}_2$ - (dppm) ligand, synthesis of (P. Braunstein, C. de Méric de Bellefon, M. Ries), (262) C14
- Organometallic compounds, IR laser pyrolysis and isotopic labelling of (N.J. Bristow, B.D. Moore, M. Polyakoff, G.J. Ryott, J.J. Turner), (260) 181
- Pentacarbonylphenylmanganese, photochemical reactions with 6,6-dimethyl- and 6,6-diphenyl-fulvenes of (C.G. Kreiter, W. Lipps), (253) 339
- $[\eta^5\text{-}1,2,3,4,5\text{-Pentakis(carbomethoxy)-cyclopentadienyl}]$ tricarbonylmanganese(I), synthesis, spectroscopy and reactivity of (C. Arsenault, P. Bougeard, B.G. Sayer, S. Yeroushalmi, M.J. McGlinchey), (265) 283
- Pentamethylcyclopentadienylrhodium tri-nuclear, homo- and hetero-metal-dinuclear complexes, crystal structure of $\text{C}_5\text{Me}_5[\text{P}(\text{OMe})_3]\text{Rh}(\mu\text{-CO})_2\text{RhC}_5\text{Me}_5$ (H. Werner, B. Klingert, R. Zolk, P. Thometzek), (266) 97
- Ruthenium—manganese complexes, unexpected phosphido-bridged complex with metal—metal bond (S. Sabo, B. Chaudret, D. Gervais), (258) C19
- Stibinidene complexes with trigonal planar coordinated antimony (U. Weber, L. Zsolnai, G. Huttner), (260) 281
- μ_3 -Sulphur-bridged trinuclear manganese—iron cluster, preparation and chemical properties of (A. Winter, L. Zsolnai, G. Huttner), (269) C29
- TeMnFe_2 tetrahedral cluster compound, preparation and crystal structure of (W.A. Herrmann, C. Hecht, M.L. Ziegler, T. Zahn), (273) 323
- cis*-Tetracarbonylhydrogenbis(diphenyl-
- phosphinito-*P*)manganese(I), $(\text{CO})_4\text{-Mn}[\text{P}(\text{C}_6\text{H}_5)_2\text{O}_2\text{H}]$, unsymmetrical hydrogen bridge in (R. Fawzi, W. Hiller, I.-P. Lorenz, J. Mohyla, C. Zeiher), (262) C43
- Tetraethylidiphosphite(tedip)-bridged di-nuclear manganese(I) carbonyl complexes, synthesis of μ -hydride-bromide compounds; crystal structures of $\text{Mn}_2(\mu\text{-Br})_2(\text{CO})_4$ (tedip)₂ and $\text{Mn}_2(\mu\text{-H})(\mu\text{-Br})(\text{CO})_4$ (tedip)₂ (J. Gimeno, V. Riera, M.A. Ruiz, A.M.M. Lanfredi, A. Tiripichio), (268) C13
- (2,2,6,6-Tetramethylpiperidinyl-1-oxo-*O,N*)tricarbonylmanganese(0), synthesis and X-ray structure of; side-on coordination of the nitroxyl radical to manganese (P. Jaitner, W. Huber, G. Huttner, O. Scheidsteger), (259) C1
- Thiazylbis(trifluoromethyl) nitroxide cationic transition metal complexes (G. Hartmann, R. Mews, G.M. Sheldrick), (252) 195
- Transition metal-substituted phosphoranes, reactivity of; crystal and molecular structure of 2-pentacarbonylmanganese-1,3,2-benzodioxaphosphole-2-oxide (S.S.C. Chu, R.D. Rosenstein, M. Lattman, B.N. Anand), (265) 45
- Trialkylphosphinedihalomanganese compounds, reversible binding of carbon monoxide in the solid state and in solution by (C.A. McAuliffe, D.S. Barratt, C.G. Benson, A. Hosseiny, M.G. Little, K. Minten), (258) 35
- Tricarbonylcyclopentadienylmanganese derivatives, chemical ionisation of (J. Müller, C. Hänsch), (262) 323
- β -Trimethylphosphonio(α -trimethylsiloxy)-vinyl complexes in cleavage reactions of carbonyl groups (H. Blau, K.-H. Griessmann, W. Malisch), (263) C5
- cis*-Triphenylphosphinetetracarbonylmanganese hydride, *cis*- $\text{HMn}(\text{CO})_4\text{PPh}_3$, photocatalysis of hydrogenation and isomerisation of alkenes by (P.L. Bogdan, P.J. Sullivan, T.A. Donovan, Jr., J.D. Atwood), (269) C51
- η^6 -Veratrolemanganese tricarbonyl tetrafluoroborate, preparation and reactivity of (A.J. Pearson, I.C. Richards), (258) C41

Mercury

- Bis(β -alkoxyalkyl)mercurials, ESR of photolysis of (A.J. Bloodworth, A.G.

- Davies, R.A. Savva, J.N. Winter), (253) 1
- Carbonyl-molybdenum(0) substituted complexes, $\text{Mo}(\text{CO})_2(\text{PPh}_3)_2(\text{DAB})$ and $\text{Mo}(\text{CO})_4(\text{DAB})$ ($\text{DAB} = 1,4$ -diazabutadiene), reactions with HgX_2 ($\text{X} = \text{Cl}, \text{I}, \text{SCN}$) and SnCl_4 of (M. Iglesias, A. Llorente, C. Del Pino, A. Santos), (256) 75
- Carborane cage compounds containing polymetallic chains, synthesis of (M.N. Bochkarev, E.A. Fedorova, G.A. Razuvaeve, V.I. Bregadze, V.Ts. Kampel), (265) 117
- $[(\text{CF}_3)_3\text{GePt}(\text{PPh}_3)_2]_2\text{Hg}$, synthesis, structure and reactivity of (M.N. Bochkarev, N.L. Ermolaev, L.N. Zakharov, Yu.N. Sufyanov, G.A. Razuvaeve, Yu.T. Struchkov), (270) 289
- Chlorinated organic derivatives containing Mo—Hg and W—Hg bonds, importance of the steric effects in stabilisation of (O. Rossell, M. Seco, P. Braunstein), (273) 233
- η -Cyclopentadienylmanganese complexes, reactions with mercury trifluoroacetate of (L.G. Kuzmina, A.G. Ginzburg, Yu.T. Struchkov, D.N. Kursanov), (253) 329
- Demercuration reactions of the complexes $[(\text{PPh}_3)_2\text{RPt}-\text{HgR}']$ containing platinum—mercury bonds (M. Crespo, O. Rossell, J. Sales, M. Seco), (273) 415
- [1,1-Dimercuro]ferrocenophanebis(dimethylaminomethyl) derivative, mono- and di-cationic species of (D.A. Lemenovskii, I.F. Urazowski, T.V. Baukov, I.L. Arkhipov, R.A. Stukan, E.G. Perevalova), (264) 283
- 2-[Dimethylamino)methyl]phenylgold-(III) complexes, synthesis and reactions of (J. Vicente, M.T. Chicote, M.D. Bermudez), (268) 191
- Di-trans- β -styrylmercury, crystal and molecular structure of (B. Teclé, K.F. Siddiqui, C. Ceccarelli, J.P. Oliver), (255) 11
- Divinylmercury functionally substituted compounds, synthesis of (R.S. Varma, S.A. Kunda, G.W. Kabalka), (272) 331
- Ferroocene and cymantrene derivatives of divalent ytterbium, synthesis and ^1H NMR spectra of (G.Z. Suleimanov, P.V. Petrovskii, Yu.S. Bogachev, I.L. Zhuravleva, E.I. Fedin, I.P. Beletskaya), (262) C35
- Germylmercury compounds, oxidative—reductive transmetallation reactions with bis(ethylbenzene)vanadium and vanadocene of (M.N. Bochkarev, L.V. Pankratov, V.K. Cherkasov, G.A. Razuvaeve, V.N. Latyaeva, A.N. Lineva), (263) 21
- $[\text{IrCl}(\text{SnCl}_3)(\text{HgCl})(\text{CO})(\text{PR}_3)_2]$ complexes, synthesis, Raman and NMR spectroscopy of (M. Kretschmer, P.S. Pregosin, P. Favre, C.W. Schlaepfer), (253) 17
- Lanthanum tris[cyclopentadienylmolybdenotricarbonylate[tetrahydrofuranate, $(\text{THF})_5\text{La}[\text{CpMo}(\text{CO})_3]_3 \cdot \text{THF}$], synthesis and molecular structure of (A.A. Pasynskii, I.L. Eremenko, G.Z. Suleimanov, Yu.A. Nuriev, I.P. Beletskaya, V.E. Shklover, Yu.T. Struchkov), (266) 45
- Mercurimethanes, $\text{CH}_{4-n}(\text{HgX})_n$ ($\text{X} = \text{Cl}, \text{Br}, \text{I}, \text{CN}, \text{SCN}$), UV spectra of (D.K. Breitinger, W. Kress), (256) 217
- Mercury(II), cadmium(II), cobalt(II), and nickel(II) complexes of ambidentate sulphonium ylides, preparation of and coordination in (R.S. Tewari, A.K. Awasthi), (271) 403
- Mercury-bridged, nitrosyl-substituted tri-ruthenium carbonyl clusters, synthesis and X-ray crystal structure of $[\text{Ru}_3(\text{NO})(\text{CO})_9]_2\text{Hg}$ (M.P. Gómez-Sal, B.F.G. Johnson, J. Lewis, P.R. Raithby, S.N.A.B. Syed-Mustafa), (272) C21
- Mercury(II) salt reduction by CO in aqueous media, promoting effect of benzene on (V.A. Golodov, E.L. Kuksenko), (262) 137
- (Metalla)neopentyl-tin and -mercury derivatives, multinuclear NMR spectroscopy of (T.N. Mitchell, B. Fabisch), (269) 249
- Methyl/trifluoromethyl organometallic compounds, synthesis by low temperature cocondensation of trifluoromethyl radicals and methylalkyl Main Group compounds of (M.A. Guerra, R.L. Armstrong, W.I. Bailey, Jr., R.J. Lagow), (254) 53
- ortho*-, *meta*- and *para*-Nitrophenylgold(I) complexes, preparation and reactions of (J. Vicente, A. Arcas, M.T. Chicote), (252) 257
- Organomercury fulminates, reactions with acetylene derivatives of (F. De Sarlo, A. Guarna, A. Goti, A. Brandi), (269) 115
- Phenylene and biphenylene substituted

- mercurials, preparation and mass spectral characterisation of (N.A.A. Al-Jabar, A.G. Massey), (275) 9
- Platinum(II) and mercury(II), organic group transfer reactions between (R.J. Cross, A.J. McLennan), (255) 113
- Polygermanes, thermal and photochemical reaction of (P. Rivière, A. Castel, J. Satgé, D. Guyot), (264) 193
- Pt—Hg—Pt containing heterotrimetallic complexes; crystal structure of $[(\text{PPPh}_3)_2(2,4,6-\text{C}_6\text{H}_3\text{Cl}_3)\text{Pt}]_2\text{Hg}$ (O. Rossell, M. Seco, I. Torra, X. Solans, M. Font-Altaba), (270) C63
- Silylmercury and organomercury derivatives, ^{199}Hg FT NMR study of (M.J. Albright, T.F. Schaaf, A.K. Hovland, J.P. Oliver), (259) 37
- Tetracarbonyl-molybdenum and -tungsten complexes with 2,2'-bipyridine, 1,10-phenanthroline and 2,9-dimethyl-1,10-phenanthroline ligands, reactions with mercury halides and pseudohalides of (M.P. Pardo, M. Cano), (260) 81
- Tetracarbonylthiocarbonyliron, reactions with mercury chloride in various solvents of (W. Petz), (270) 81
- Tetrakis(anionomercuri)methanes, IR, Raman and force field studies of (J. Mink, Z. Meić, M. Gál, B. Korpar-Čolig), (256) 203
- Thioanisolyl complexes of lithium, mercury and zinc, preparation and characterisation of (R. Taube, D. Steinborn, B. Adler), (275) 1
- Tin(II) acetylacetone in reaction with mercuric derivatives of carboranes (V.I. Bregadze, G.Z. Suleimanov, V.Ts. Kampel, M.V. Petriashvili, S.G. Mamedova, P.V. Petrovskii, N.N. Godovikov), (263) 131
- Tricarbonylphosphine complexes of molybdenum(0), reactions with mercury chloride of (M. Panizo, M. Cano), (266) 247
- Trimercurred acetaldehyde; crystal structure of $[\text{OHg}(\text{CCHO})\text{NO}_3 \cdot \text{H}_2\text{O}$ (D. Grdenič, M. Sikirica, D. Matković-Čalogović, A. Nagl), (253) 283
- cules of (V.G. Andrianov, Yu.T. Struchkov, V.N. Postnov, E.I. Klimova, V.A. Sazonova), (272) 81
- $(\eta^2\text{-1,2-Alkadiene})(\eta^5\text{-cyclopentadienyl})$ -methylnickel complexes, preparation of (H. Lehmkuhl, F. Danowski, R. Benn, A. Rufińska, G. Schrotth, R. Mynott), (254) C11
- Arenechromium dimers, reductive elimination of dihydrogen from (T.E. Bitterwolf), (252) 305
- Arenecyclopentadienylruthenium cations, reactivity of (N.A. Vol'kenau, I.N. Bolesova, L.S. Shul'pina, A.N. Kitaigorodskii), (267) 313
- Arylferrocenes, conformational analysis using Mössbauer, ^1H NMR and ^{13}C NMR spectroscopy of (R.M.G. Roberts, J. Silver, B. Yamin), (270) 221
- Arylferrocenes and ferrocene analogues of chalcones, cyclic voltammetry of; substituent effects on the electron distribution in ferrocene derivatives (A.G. Nagy, S. Toma), (266) 257
- Azaferrocene, metallation of (N.I. Pyshnograeva, V.N. Kursanov, D.N. Kursanov), (251) C41
- Biferrocenium mixed-valence salts, anomalous temperature dependence of electrical conductivity in (S. Iijima, Y. Tanaka), (270) C11
- Bis(alkylcyclopentadienyl)tungsten dihalides, intermolecular interaction with tetracyanoethylene and tetracyanoquinodimethane studied by UV absorption spectroscopy of (A.A. Tumanov, L.N. Zakharov, P.G. Sennikov, A.N. Egorochkin, G.A. Razuvayev, A.S. Smirnov, V.A. Dodonov), (263) 213
- Bis($\eta^5\text{-1,2-azaborolinyl}$)cobalt sandwich complexes, oxidation reactions of (G. Schmid, U. Höhner, D. Kampmann, D. Zaika, R. Boese), (256) 225
- 3,3-Bis(bromomethyl)-1,5-dithia[5](1,1')-ferrocenophane, synthesis and bridge reversal barrier of (B. Czech, A. Piorko, R. Annunziata), (255) 365
- Bis(pentamethylcyclopentadienylcarbonyliron), oxidative cleavage of the Fe—Fe bond using ferrocinium ion; facile route to the synthetically useful complexes $[\text{C}_5\text{Me}_5\text{Fe}(\text{CO})_2(\text{solvent})]^+$ (D. Catheline, D. Astruc), (266) C11
- 5,5',12,12'-Bis(triseleno)bis(naphthacene-6,11-quinone) 1/1 molecular complex with benzonitrile, $(\text{C}_{18}\text{H}_8\text{Se}_3\text{O}_2)_2$,

Metallocenes

N-Acetyl derivatives of 3-ferrocenyl-5-p-bromophenyl- and -3-p-bromophenyl-5-ferrocenylpyrazolines-2, X-ray determination of geometries in the mole-

- (C₆H₅CN), crystal structure of (R.P. Shibaeva, V.F. Kaminskii, E.E. Kostyuchenko, E.B. Yagubskii), (260) 293
- Chiral *N*-(ferrocenylalkyl)hydroxylamines, synthesis of (H. Martin, R. Herrmann, I. Ugi), (269) 87
- Cobaltocene, displacement of C₅H₅ by a diene moiety in (D.W. Slocum, T.R. Engelmann, R.L. Fellows, M. Moronski, S. Duraj), (260) C21
- Cobaltocene and nickelocene, reactivity towards secondary phosphinic chalcogenides, route to polydentate oxygen and sulphur ligands (W. Kläui, W. Eberspach, R. Schwarz), (252) 347
- Condensed-ring ferrocenophanes containing two bridges (M. Hisatome, J. Watanabe, K. Yamakawa), (266) 159
- C₄Ph₄TiCl₃ · Mg₂Cl₃(THF)₆, crystal structure and reactivity of (M.E.E. Meijer-Veldman, J.L. de Boer, H.J. de Liefde Meijer, A.M.M. Schreurs, J. Kroon, A.L. Spek), (269) 255
- (η⁵-C₅R₅)₂Fe₂(CO)₂(μ-CO)(μ-CH₂) (R = H, CH₃), convenient one-pot synthesis using chloromethyl pivalate of (M.E. Wright, G.O. Nelson), (263) 371
- Cryptands containing metallocene units, structure determination by polarisation transfer sequences and 2-D NMR (P.D. Beer, J. Elliot, P.J. Hammond, C. Dudman, C.D. Hall), (263) C37
- Cyclopentadienylcyclooctatetraene compounds of titanium, cyclic voltammetry of (E. Samuel, D. Guery, J. Vedel), (263) C43
- Cyclopentadienylnickel complexes, coordination of tetraphenyldiphosphane in (N. Kuhn, M. Winter), (254) C15
- Cyclopentadienylnickel compounds, cleavage reactions with nickel iodide of (N. Kuhn, M. Winter), (269) C47
- η⁵-Cyclopentadienyl-titanium, -zirconium and -hafnium trihalide complexes, He(I) and He(II) photoelectron spectra of (A. Terpstra, J.N. Louwen, A. Oskam, J.H. Teuben), (260) 207
- Cyclopentadienyltricarbonylmanganese derivatives, ion-molecule reactions with 18-crown-6 in the gas-phase of (D.V. Zagorevskii, Yu.S. Nekrasov), (267) 121
- Cyclopentadienyltricarbonylmolybdenum cation, reactions with methylcarbonyl complexes, cobaltocene, nickelocene and cyclopentadienylcarbonylcobalt of; structure of acetylene-bridged [(π-C₅H₅)(CO)₂FeC(CH₃)OMo(CO)₃ · (π-C₅H₅)]⁺ SbF₆⁻ (K. Sünkel, U. Nagel, W. Beck), (251) 227
- Dicarbonyl(pentacyclopentadienyl)ruthenium complexes, ylid reactions of (A. Stasunik, W. Malisch), (270) C56
- Dicarbonylzirconocene(II), [Zr{η-C₅H₅ · (SiMe₃)₂}₂(CO)₂], synthesis and characterisation of; precursor to various zirconocene(II and IV) complexes (A. Antíñolo, M.F. Lappert, D.J.W. Winterborn), (272) C37
- Di-μ-chlorobis(dimethylaminomethyl-ferrocenyl-C,N)dipalladium, chiral anionic complex of hexacoordinated palladium(II) synthesized from (V.I. Sokolov, K.S. Nechaeva, O.A. Reutov), (253) C55
- Dicyclopentadienyl dichloroniobium, electrogeneration of an unusual niobium(III) anionic dimer of (A. Fakhr, Y. Mugnier, R. Broussier, B. Gautheron), (269) 53
- Dicyclopentadienyl dichlorotitanium-lithium aluminium hydride isomerisation catalyst, influence of the nature of unsaturated hydrocarbons on the catalytic activity of (K. Mach, H. Antropiusová, F. Tureček, P. Sedmera), (269) 39
- Dicyclopentadienylnickel, problematic reagent in cluster synthesis (M. Mlekuz, P. Bougeard, M.J. McGlinchey, G. Jaouen), (253) 117
- Dicyclopentadienyl(thioketene)vanadium complexes, synthesis and structure of (R. Drews, D. Wormsbächer, U. Behrens), (272) C40
- Di-η⁵-cyclopentadienyltin(II) ring-bridged derivatives of α,α'-dicyclopentadienyl-*ortho*-, *meta*- and *para*-xylene (T.S. Dory, J.J. Zuckermann), (264) 295
- 1,3-Dienezirconium complexes, preparation from dicyclopentadienyl dichlorozirconium and vinylzirconium and derivatives of (R. Beckhaus, K.-H. Thiele), (268) C7
- Di-, tri- and tetra-ferrocene mixed-valence derivatives, near-IR spectra of (F. Delgado-Peña, D.R. Talham, D.O. Cowan), (253) C43
- Diferrocenyl monocations and related species, stabilisation and electron transfer in (D. Bickar, B. Lukas, G. Neshvad, R.M.G. Roberts, J. Silver), (263) 225
- [1,1-Dimercurio] ferrocenophanebis(dimethylaminomethyl) derivative, mono-

- and di-cationic species of (D.A. Lemenovskii, I.F. Urazowski, T.V. Baukova, I.L. Arkhipov, R.A. Stukan, E.G. Perevalova), (264) 283
- 2-[Dimethylamino)methyl]-1-hydroxy-ferrocene and its derivatives, syntheses and properties of (M. Onishi, K. Hiraki, A. Iwamoto), (262) C11
- 1,12-Dimethyl-2,11-dithia-5,8-dioxa[12]-(1,1')ferrocenophane, crystal and molecular structure of the *meso*-diastereoisomer of (P.L. Bellon, F. Demartin, V. Scatturin, B. Czech), (265) 65
- Early lanthanocene chlorides, stabilisation using ring-bridged dicyclopentadiene ligand of (C. Qian, C. Ye, H. Lu, Y. Li, Y. Huang), (263) 333
- Ferrocene; Annual Survey covering the year 1982 (G. Marr, B.W. Rockett), (257) 209
- Ferrocene, use in organometallic synthesis of; two-step preparation of cyclopentadienyliron acetonitrile and phosphine cations via photolysis of cyclopentadienyliron tricarbonyl of arene cations (D. Catheline, D. Astruc), (272) 417
- Ferrocene complexes, Mössbauer studies on; relationships between oxidation potentials and quadrupole splittings (R.M.G. Roberts, J. Silver), (263) 235
- Ferrocene and cymantrene derivatives of divalent ytterbium, synthesis and ¹H NMR spectra of (G.Z. Suleimanov, P.V. Petrovskii, Yu.S. Bogachev, I.L. Zhuravleva, E.I. Fedin, I.P. Beletskaya), (262) C35
- Ferrocene heterodisubstituted derivatives, β -lactamic antibiotics, properties and reactions of (C. Simionescu, T. Lixandru, L. Tătaru, I. Mazilu, M. Vătă, S. Luca), (252) C43
- Ferrocencarboxylic acids, synthesis and cyclization of (V. Rapić, L. Korontoš), (260) 219
- [4][3][4][3](1,2,3,4)Ferrocenophane, synthesis and X-ray structure of (M. Hisatome, J. Watanabe, K. Yamakawa, K. Kozawa, T. Uchida), (262) 365
- FerrocenyI bridged ketones, Mössbauer study of (A.G. Nagy), (270) 327
- α -Ferrocenyl carbocations, ⁵⁷Fe NMR shifts and ⁵⁷Fe, ¹³C coupling constants in; direct metal participation in stabilisation of metallocenyl carbocations (A.A. Koridze, N.M. Astakhova, P.V. Petrovskii), (254) 345
- Ferrocenyl ketones, ¹³C chemical shifts and carbonyl stretching frequencies as structural probes for (R.J. Janson, R.M.G. Roberts), (260) 307
- Ferrocenyl ketones and carbenium ions, steric and polar factors in (G. Neshvad, R.M.G. Roberts, J. Silver), (260) 319
- Germanium—manganese double bonds in $[(\eta^5\text{-C}_5\text{H}_5)\text{Mn}(\text{CO})_2]$, and $[(\eta^5\text{-C}_5\text{H}_5)_2\text{Mn}(\text{CO})_2]_2\text{Ge}$; GeH_2 bridged compound: $[(\eta^5\text{-C}_5\text{H}_5)_2\text{V}]_2\text{GeH}_2$, preparations of (D. Meltzer, E. Weiss), (263) 67
- Germylmercury compounds, oxidative-reductive transmetallation reactions with bis(ethylbenzene)vanadium and vanadocene of (M.N. Bochkarev, L.V. Pankratov, V.K. Cherkasov, G.A. Razuvaev, V.N. Latyaeva, A.N. Lineva), (263) 21
- Haloferrocenes, electronic structure studied by He(I) photoelectron spectroscopy of (T. Vondrák), (275) 93
- Hydridotantalacyclopropane complex from photo-induced β -hydride elimination of di- η^5 -cyclopentadienylethyl(tcarbonyl)tantalum, formation and characterisation of (M.E. Eichner, H.G. Alt, M.D. Rausch), (264) 309
- (E)(Z)-Isomeric alkenylzirconocene complexes, formation of (P. Czisch, G. Erker), (253) C9
- Metallaselenafrocenophanes, $\text{Fe}(\eta^5\text{-C}_5\text{H}_4\text{-Se})_2\text{M}(\eta^5\text{-C}_5\text{H}_4\text{R})_2$ ($\text{M} = \text{Zr}, \text{Hf}$), synthesis and variable temperature ¹H NMR of (B. Gautheron, G. Tainturier), (262) C30
- Metalloencylpnazolines, asymmetric induction in the synthesis of (V.N. Postnov, V.G. Andrianov, Yu.T. Struchkov, A.M. Baran, V.A. Sazonova), (262) 201
- Multibridged ferrocenophanes, bridge rearrangements in the presence of aluminium chloride in (M. Hisatome, Y. Kawajiri, J. Watanabe, M. Yoshioka, K. Yamakawa), (266) 147
- Nickelocene, reductive substitution of; interception of a monohydride intermediate in hydrogenation of 2,3,4,5-tetraphenylcyclopentadienone (D.W. Slocum, M. Moronski, R. Gooding, S. Duraj), (260) C26
- Niobocene heteronuclear derivatives containing Nb—Sn bond, synthesis, molecular structures and PMR spectra of (Yu.V. Skripkin, O.G. Volkov, A.A.

- Pasynskii, A.S. Antsyshkina, L.M. Dikareva, V.N. Ostriкова, M.A. Porai-Koshits, S.L. Davydova, S.G. Sakharov), (263) 345
- Niobocene sulphide dimer, synthesis and molecular structure of (Yu.V. Skripkin, I.L. Eremenko, A.A. Pasynskii, Yu.T. Struchkov, V.E. Shklover), (267) 285
- Pentakis(methoxycarbonyl)cyclopentadienyl-substituted germanium(II) and tin(II) compounds, X-ray crystal structure of bis[pentakis(methoxycarbonyl)cyclopentadienyl]tin(II) (P. Jutzi, F.-X. Kohl, E. Schlüter, M.B. Hursthouse, N.P.C. Walker), (271) 393
- Phenylimidodecamethylvanadocene, synthesis, X-ray structure and reactions of (S. Gambarotta, A. Chiesi-Villa, C. Guastini), (270) C49
- Phosphaferrocenes and their protonated derivatives, Mössbauer studies on (B. Lukas, R.M.G. Roberts, J. Silver, A.S. Wells), (256) 103
- Photogenerated transient zirconocene and hafnocene, reactions with elemental selenium; synthesis and characterisation of $[(\eta^5\text{-t-BuC}_5\text{H}_4)_2\text{M}(\mu\text{-Se})]_2$ ($\text{M} = \text{Zr}$, Hf) (B. Gautheron, G. Tainturier, S. Pouly), (268) C56
- Polythia[n]ruthenocenophanes, syntheses of (S. Akabori, H. Munegumi, S. Saito, M. Sato), (272) C54
- Rhodium substituted salts, synthesis and properties of (J.E. Sheats, W.C. Spink, R.A. Nabinger, D. Nicol, G. Hlatky), (251) 93
- Simplest metallocene derivative; X-ray structure of $[\text{Li}[\eta\text{-C}_5\text{H}_4(\text{SiMe}_3)]\{\text{NMe}_2\text{-}(\text{CH}_2)_2\text{NMe}_2\}]$ ($\text{LiCp}'(\text{TMEDA})$) (M.F. Lappert, A. Singh, L.M. Engelhardt, A.H. White), (262) 271
- Tetramethylene-bridged titanocene and zirconocene derivatives, synthesis via reductive fulvene coupling of (H. Schwemlein, H.H. Brintzinger), (254) 69
- Tetramethylene-ethylene-bridged chromocene carbonyl stable complex, $(\text{CH}_3)_4\text{C}_2\text{-}(\text{C}_5\text{H}_4)_2\text{Cr}(\text{CO})$, synthesis and molecular structure of (H. Schwemlein, L. Zsolnai, G. Huttner, H.H. Brintzinger), (256) 285
- Titanium complexes in cyclotrimerization of substituted acetylenes to arenes (M.E.E. Meijer-Veldman, H.J. de Liefde Meijer), (260) 199
- Tricyclopentadienylvanadium, NMR spec-
- troscopic investigation of η^1/η^5 -ligand exchange in (F.H. Köhler, W.A. Geike), (256) C27
- 1,3,5-Triferrocenyl-4-(1-ferrocenyleth- enyl)cyclohexene, cyclodimerization of 1-methyl-1,3-diferrocenylallyl cation into (E.I. Klimova, A.N. Pushin, V.A. Sazonova), (270) 319
- Trimethylsilyl-substituted plumbocenes, synthesis of (P. Jutzi, E. Schlüter), (253) 313
- Vanadium complexes of 1-methyl- and 1-phenyl-borinate ions (G.E. Herberich, W. Boveleth, B. Hessner, W. Koch, E. Raabe, D. Schmitz), (265) 225
- Zirconocene chloride-ketene dinuclear complex, synthesis by carbonylation of diphenylphosphinomethylzirconium derivative and structure of (R. Choukroun, F. Dahan, D. Gervais), (266) C33
- ## Molybdenum
- Alkenyl-chromium, -molybdenum and -tungsten complexes, *cis/trans*- and *E/Z*-isomerisation in (G. Grötsch, W. Malisch), (258) 297
- Arenediazomolybdenum(0) complexes, reactions with halogens, tin(IV) halides, mercury(II) halides and related reagents of (F.J. Lalor, M.E. Deane, D.M. Condon), (259) 305
- Arenetricarbonyl-chromium, -manganese and -iron, dependence of electrophilicity of coordinated cyclic π -hydrocarbons on the metal in (Y.K. Chung, E.D. Honig, D.A. Schweigart), (256) 277
- Azidocarbonylmetal(0) complexes of chromium, molybdenum, tungsten and manganese, preparation and reactions of and coordination in (D. Sellmann, W. Weber, G. Liehr, H.P. Beck), (269) 155
- Benzotriazole coordination in carbonyl complexes of molybdenum (G.G. Aleksandrov, V.N. Babin, A.P. Kharchevnikov, Yu.T. Struchkov, N.S. Kochetkova), (266) 109
- Bis(cyclopentadienylidicarbonylmolybdenum) ligands, activation of carbodiimides with retention of the Mo—Mo bonds by (H. Brunner, B. Hoffmann, J. Wachter), (252) C35

- Bis(dicarbonylcyclopentadienylmolybdenum) ($Mo \equiv Mo$), interaction with P_4 and formation of $P_n[Mo(CO)_2(\eta^5-C_5H_5)]_{4-n}$ ($n = 2, 3$) (O.J. Scherer, H. Sitzmann, G. Wolmershäuser), (268) C9
- Bis(diisopropylamino)phosphine- and diisopropylaminochlorophosphine-metal carbonyl complexes, formation and reactions of (R.B. King, W.-K. Fu), (272) C33
- Bis(pentamethylcyclopentadienyl)-dichromium and -dimolybdenum complexes with bridging sulphur ligands, investigation of the disulphur ligands in (H. Brunner, H. Kauermann, W. Meier, J. Wachter), (263) 183
- Carbonyl complexes as a means to probe chelating ligand sites of phosphines on silica gel (M. Berglund, C. Andersson, R. Larsson), (258) 195
- Carbonylchloro(η^5 -cyclopentadienyl)-molybdenum and -tungsten chiral complexes with *N,N*-diphenylphosphino- α -amino acid esters, ($\eta^5-C_5H_5$)(CO)(Cl)-M(Ph₂P)₂NCHR₂CO₂Me (M = Mo, W) (H.-G. Fick, W. Beck) (252) 83
- Carbonyl-chromium, -molybdenum and -tungsten derivatives of an unusual oxygen tripod ligand (W. Kläui, A. Müller, M. Scotti), (253) 45
- Carbonyliron-carbonylmolybdenum-fluorophosphine complex, (CO)₄FeP-[N(C₆H₅)PF₆]₂Mo(CO)₃, synthesis of (R.B. King, M. Shimura), (256) 71
- Carbonyl-, nitrosylcarbonyl- and nitrosyl-metal complexes of bis(diphenylphosphino)amines (J. Ellermann, W. Wend), (258) 21
- Carbonylmolybdenum(0) substituted complexes, Mo(CO)₂(PPh₃)₂(DAB) and Mo(CO)₄(DAB) (DAB = 1,4-diazabutadiene), reactions with HgX₂ (X = Cl, I, SCN) and SnCl₄ of (M. Iglesias, A. Llorente, C. Del Pino, A. Santos), (256) 75
- Carbonyl-molybdenum and -tungsten complexes, observation of tetrafluoroborate coordination by ¹⁹F and ³¹P NMR spectroscopy (K. Sünkel, G. Urban, W. Beck), (252) 187
- Carbonyl-molybdenum and -tungsten complexes with macrocyclic thiaether ligands (C.G. Young, J.A. Broomhead, C.J. Boreham), (260) 91
- Chlorinated organic derivatives containing Mo—Hg and W—Hg bonds, importance of the steric effects in their stabilisation (O. Rossell, M. Seco, P. Braunstein), (273) 233
- μ -Chlorobis[(η^3 -allyl)-2,2'-bipyridyldicarbonylmolybdenum(II)] tetrafluoroborate, synthesis and structure of (M.D. Curtis, N.A. Fotinos), (272) 43
- Chromium, molybdenum, and tungsten; Annual Survey covering the year 1981 (J.D. Atwood), (257) 105
- Cyclisation and fragmentation of organoazides in reactions with Mo=Mo and W=W bonds (W.A. Herrmann, G.W. Kriechbaum, R. Dammel, H. Bock, M.L. Ziegler, H. Pfisterer), (254) 219
- Cyclopentadienyldicarbonyl ferriodithiocarbonic acid anion, reactions with metal compounds of (H. Stolzenberg, W.P. Fehlhammer, M. Monari, V. Zanotti, L. Busetto), (272) 73
- Cyclopentadienylnitrosylcarbonylisonitrile complexes of Group VI and cyclopentadienyldicarbonylisonitrile complexes of Group VII, chemistry of (H. Behrens, G. Landgraf, P. Merbach, M. Moll, K.-H. Trummer), (253) 217
- Cyclopentadienyltricarbonylmetal-chromium, -molybdenum and -tungsten functionally substituted derivatives (D.W. Macomber, M.D. Rausch), (258) 331
- Cyclopentadienyltricarbonylmolybdenum cation, reactions with methylcarbonyl complexes, cobaltocene, nickelocene and cyclopentadienyldicarbonylcobalt of; structure of acetylene-bridged [(π -C₅H₅)(CO)₂FeC(CH₃)OMo(CO)₃-(π -C₅H₅)]⁺ SbF₆⁻ (K. Sünkel, U. Nagel, W. Beck), (251) 227
- 1,4-Diazabutadiene-tetracarbonylmolybdenum and -triphenylphosphinedicarbonylmolybdenum complexes, reactions with molecular halogens of (M. Iglesias, A. Llorente, C. Del Pino, A. Santos), (263) 193
- Dicarbonyl(η^4 -diene)bis(trimethylphosphite)-molybdenum(0) and -tungsten(0), dynamic behaviour of (S. Özkar, C.G. Kreiter), (256) 57
- Di- π -cyclopentadienylalkyl-molybdenum and -tungsten compounds, ESR studies of the radiolysis of (M.M. Maguire, H. Do, S.K. Nguyen, C. Vo, D. Smith, G. Koher, G. Doutt, M.C.R. Symons), (269) 183
- Di- η^5 -cyclopentadienyldihydromolybdenum in fragmentation reactions of phosphorus ylids, with [Me₃PCH₂R]-

- [HMnCp_2] ($\text{R} = \text{H}, \text{Me}_3\text{Si}$) as intermediates (K. Fiederling, I. Grob, W. Malisch), (255) 299
- Di- η^5 -cyclopentadienyl- N -(α,α' -dimethylmethoxy)pyrazolatomolybdenum(IV) hexafluorophosphate and di- η^5 -cyclopentadienylbispyrazolatomolybdenum(IV), stereochemistry and molecular structure of (M.A.A.F. De C.T. Carondo, A.M.T.S. Domingos), (253) 53
- Dicyclopentadienylhexacarbonyl-dimolybdenum and -ditungsten, primary CO dissociation pathway in photochemistry of (R.H. Hooker, K.A. Mahmoud, A.J. Rest), (254) C25
- Di- η^5 -cyclopentadienylmolybdenum dihydride and acetylenedicarbonic acid dimethyl ester, stereochemistry of the insertion product of; crystal and molecular structure of di- η^5 -cyclopentadienylhydrido[η^1 -{1,2-bis(methoxy-carbonyl)-(Z)-vinyl}]molybdenum (G.E. Herberich, B. Hessner, J. Okuda), (254) 317
- Dimethylarsino-, dimethylstibino- and dimethylbismuthino-bridged diastereoisomeric trinuclear complexes, preparation of (D. Greissinger, W. Malisch, H.-A. Kaul), (252) C23
- Group VI metal carbonyls containing the ligand bis(di-o-tolyl)phosphinomethane, preparation and properties of; crystal and molecular structure of dicarbonyl-bis(di-o-tolyl)phosphinomethanechromium (G.R. Clark, P.W. Clark), (255) 205
- Heterobimetallic compounds, protonation of metal-metal bonds linked by a heterodifunctional ligand in (C.P. Casey, R.M. Bullock), (251) 245
- Hexacarbonyldiarsenicdicoalt, $\text{As}_2\text{Co}_2(\text{CO})_6$, preparation of polynuclear complexes from (M. Müller, H. Vahrenkamp), (252) 95
- Hydrogen transfer reaction of allylic alcohols catalysed by a molybdenum complex (Y. Lin, X. Lu), (251) 321
- Interaction of organometallic moieties with carbanions and other electron-rich centres (*Review*) (R.C. Kerber), (254) 131
- Iron and molybdenum hydrides, intermolecular reduction of CO by (C. Lapinte, D. Astruc), (260) C13
- Lanthanum tris[cyclopentadienylmolybdenotricarbonylate] tetrahydrofuranate, ($(\text{THF})_5\text{La}[\text{CpMo}(\text{CO})_3]_3 \cdot \text{THF}$, synthesis and molecular structure of (A.A. Pasynskii, I.L. Eremenko, G.Z. Suleimanov, Yu.A. Nuriev, I.P. Beletskaya, V.E. Shklover, Yu.T. Struchkov), (266) 45
- $\text{M}(\text{CO})_3\text{L}_3$ ($\text{L} = \text{Py}, \text{M} = \text{Mo}, \text{W}; \text{L} = \text{NH}_3, \text{M} = \text{Mo}$) and $\text{M}(\text{CO})_4(2\text{-MePy})_2$ ($\text{M} = \text{Mo}, \text{W}$), reactions with HgX_2 ($\text{X} = \text{Cl}, \text{CN}, \text{SCN}$) of (M.A. Lobo, M.F. Perpiñan, M.P. Pardo, M. Cano), (254) 325
- $[\text{M}(\text{CO})_4(\text{Ph}_2\text{PCH}_2\text{PPh}_2\text{-}P,P')]$, conversion to $[\text{M}(\text{CO})_4\{\text{(PPh}_2)_2\text{CH-P,P'}\}][\text{M}(\text{CO})_4\text{-}(\text{tripod})]$ ($\text{M} = \text{Cr}, \text{Mo}, \text{W}$) and subsequent conversion to phosphine oxides, phosphine sulphides and complexes with platinum(II) (S. Al-Jibori, B.L. Shaw), (273) 213
- Metalloarsinesulphides with trialkylphosphite substituted metal atoms; isomerisation under 1,5-migration from oxygen to sulphur of a methyl group (R. Janta, M. Luksha, W. Malisch, D. Kempf, G. Künzel), (266) C22
- Metallochloraphosphanes, stabilisation by the tricarbonyl(pentamethylcyclopentadienyl)-molybdenum or -tungsten moieties of (R. Maisch, M. Barth, W. Malisch), (260) C35
- Molybdenum and tungsten chiral poly-(pyrazolyl)borate isonitrile complexes, synthesis of (E. Frauendorfer, J. Puga), (265) 257
- Molybdenum and tungsten complexes with η^3 -trimethylsiloxybutenone ligands, preparation by silylation of phosphonium metallates of (G. Grötsch, W. Malisch, H. Blau), (252) C19
- Molybdenum and tungsten dinitrogen complexes, trimethylsilylation of (M. Hidai, K. Komori, T. Kodama, D.-M. Jin, T. Takahashi, S. Sugiura, Y. Uchida, Y. Mizobe), (272) 155
- Molybdenum(II) and tungsten(II) seven-coordinate cations containing alkyl isocyanide and bidentate N-heterocyclic ligands, isolation of (A. Bell, R.A. Walton), (263) 359
- Molybdenum-rhodium bimetallic complexes, synthesis using as ligands electron-rich molybdenum(0) complexes containing an η^6 -methylidiphenylphosphine ligand (R. Luck, R.H. Morris), (255) 221
- Molybdenum- and chromium-sulphur clus-

- ters, formation of tri- and tetra-nuclear clusters with M_3S_4 or M_4S_4 backbones by reactions with carbonyl-chromium, -molybdenum and -tungsten complexes (H. Brunner, H. Kauermann, J. Wachter), (265) 189
- trans*-Mo(N_3)₂(Ph₂PCH₂CH₂PPh₂)₂, reactions with allyl alcohols, allyl ethers and allylamines of (T. Tatsumi, K. Hashimoto, H. Tominaga, Y. Mizuta, K. Hata, M. Hidai, Y. Uchida), (252) 105
- $\text{MoOOCH}_2\text{CH}_2$, mechanism of epoxide formation from (K.F. Purcell), (252) 181
- Multimetal complexes, assemblage using diphosphoxane linkages (P—O—P) of (E.H. Wong, F.C. Bradley, L. Prasad, E.J. Gabe), (263) 167
- Nitrosylmolybdenum complexes as pre-catalysts in olefin metathesis (K. Seyferth, R. Taube), (262) 191
- Nitrosylmolybdenum complexes as pre-catalysts for olefin metathesis; formation and stability of [Mo⁰Cl(NO)]-containing intermediate (K. Seyferth, R. Taube), (268) 155
- Pentacarbonyl-chromium, -molybdenum and -tungsten mono- and di-nuclear complexes with the anion radicals of 2,1,3-benzoxadiazole, 2,1,3-benzothiadiazole and 2,1,3-benzoselenadiazole (W. Kaim), (264) 317
- Peroxonickel-dibromomolybdenum bi-metallic system, olefin epoxidation followed by epoxide transformation into 1,2-dibromoalkane by (H. Arzoumanian, R. Lai, J. Metzger, J.-F. Petrigiani), (267) 207
- 1,2-Phenyl and 1,2-sulphinatophenyl photochemical, thermal and SO₂-induced migrations from lead to transition metals in the system [(η^5 -C₅H₅)M(CO)_n·PbPh₃] (M = Fe, Cr, Mo, W) (K.H. Pannell, R.N. Kapoor), (269) 59
- Phospholes, reactions with carbonylmetals under CO pressure of; formation of phosphole-2H derivatives (F. Mercier, F. Mathey) (263) 55
- Sulphur dioxide complexes, O-silylation of (W.A. Schenk, F.-E. Baumann), (260) C6
- Sulphur dioxide electron-rich complexes, synthesis, structure and isomerisation of (W.A. Schenk, F.-E. Baumann), (256) 261
- Tellurium bridges in organometal com-
- plexes, formation, protonation and molecular geometry of (W.A. Herrmann, J. Rohrmann, M.L. Ziegler, T. Zahn), (273) 221
- Tetracarbonyl-molybdenum and -tungsten binuclear radical complexes with bridging N-heterocycles and Group VA ligands, ESR evidence for *cis*-configuration of (W. Kaim), (262) 171
- Tetracarbonyl-molybdenum and -tungsten complexes with 2,2'-bipyridine, 1,10-phenanthroline and 2,9-dimethyl-1,10-phenanthroline ligands, reactions with mercury halides and pseudothalides of (M.P. Pardo, M. Cano), (260) 81
- Thioetherthiol ligands and their iron(II), molybdenum(0) and molybdenum(II) carbonyl complexes, synthesis of (D. Sellmann, U. Kleine-Kleffmann), (258) 315
- Tricarbonyl-chromium, -molybdenum and -tungsten complexes of tropone, relative base strength of (K. Lal, N.T. Leckey, W.E. Watts), (258) 205
- π -Tricarbonylchromium-phenyldimethyl-sulphonium tetrafluoroborate, electrochemical reduction in dimethyl sulfoxide of (A. Ceccon, A. Gambaro, A.M. Romanin, A. Venzo), (254) 207
- Tricarbonylcycloheptadienyl-molybdenum and -tungsten tetrafluoroborates, spectroscopic evidence for intermediates in reactions with alkoxides of (D.A. Brown, N.J. Fitzpatrick, W.K. Glass, T.H. Taylor), (275) C9
- Tricarbonyl(cyclopentadienyl)metallate anions of chromium, molybdenum and tungsten, improved synthesis of (U. Behrens, F. Edelmann), (263) 179
- Tricarbonylphosphine complexes of molybdenum(0), reactions with mercury chloride of (M. Panizo, M. Cano), (266) 247
- Tricarbonylpyridine complexes, (NN)(py)-M(CO)₃ (M = Mo, W; NN = 2,2-bipyridine, 1,10-phenanthroline), reactions with mercuric derivatives of (M.P. Pardo, M. Cano), (270) 311
- Tricarbonyltropyliummetal complexes, prediction of nucleophilic sites in and application to attack by methoxide on (D.A. Brown, N.J. Fitzpatrick, M.A. McGinn), (275) C5
- Trichloronitrosylmolybdenum(II) and dichlorodinitrosylmolybdenum(0) complexes, reactions with EtAlCl₂ of (K. Seyferth, R. Taube), (262) 179

Trinuclear heterometallic clusters with four different skeletal atoms, synthesis of (P. Thometzek, H. Werner), (252) C29

Tris(diphenylphosphino)methane complexes with transition metals (J.T. Mague, S.E. Dessens), (262) 347

η^2 -Vinyl-metal complexes, isomerism and fluxional behaviour in; crystal and molecular structures of isomers of $[\text{MoCl}\{\eta^2\text{-C}(\text{CF}_3)\text{C}(\text{CF}_3)(\text{PET}_3)\}(\text{CF}_3\text{C}\equiv\text{CCF}_3)(\eta^5\text{C}_5\text{H}_5)]$ (J.L. Davidson, W.F. Wilson, L. Manojlović-Muir, K.W. Muir), (254) C6

Ylidic metallacyclopropane complexes, formation of a three-membered ring from a five-membered vinyl ketone complex; molecular structure of $(\text{C}_5\text{H}_5)\text{W}(\text{CO})_2[(\text{PMe}_3)\text{HC}\text{—CH}(\text{COMe})]$ (H.G. Alt, U. Thewalt), (268) 235

Neodymium

Carbon dioxide fixation by lanthanide complexes (M.N. Bochkarev, E.A. Fedorova, Yu.F. Radkov, S.Ya. Korshev, G.S. Kalinina, G.A. Razuvaev), (258) C29

Early lanthanocene chlorides, stabilisation using ring-bridged dicyclopentadiene ligand of (C. Qian, C. Ye, H. Lu, Y. Li, Y. Huang), (263) 333

Organolanthanide halides, preparation by oxidative addition of alkyl halides to metallic lanthanides of (B.A. Dolgoplosk, E.I. Tinyakova, I.N. Markovich, T.V. Soboleva, G.M. Chernenko, O.K. Sharaev, V.A. Yakovlev), (255) 71

Nickel

$(\eta^2\text{-1,3-Alkadiene})(\eta^5\text{-cyclopentadienyl})$ -methylnickel complexes, preparation of (H. Lehmkuhl, F. Danowski, R. Benn, A. Rufifiska, G. Schroth, R. Mynott), (254) C11

Alkyne- and vinylidene-substituted homo- and hetero-metallic clusters, reactivity towards molecular hydrogen in homogeneous conditions of (M. Castiglioni, R. Giordano, E. Sappa), (258) 217

η^3 -Allylbromo(ligand)nickel(II) complexes, $\text{C}_5\text{H}_6\text{NiBrL}$, EI-mass spectra of (N. Stransky, R. Herzschuh, J.-P. Gehrke, R. Taube), (270) 357

η^3 -Allylnickel(II) halide dimers, $(\text{C}_5\text{H}_5\text{-NiX})_2$ ($\text{X} = \text{Cl}, \text{Br}, \text{I}$), EI-mass spectra of (N. Stransky, R. Herzschuh, J.-P. Gehrke, R. Taube), (270) 353

Aryl and vinyl halides, HOMO coupling promoted by ligand modified NiCRA ($\text{NaH—RONa—Ni(OAc)}_2$) (R. Vanderesse, J.-J. Brunet, P. Caubère), (264) 263

Bis(dimethylmetal(III) glyoximato)metallate(II) (metal(III) = Al, Ga, In; metal(II) = Ni, Pd, Pt, Cu) (U. Kohler, H.-D. Hausen, J. Weidlein), (272) 337

1,3-Bis[(diphenylphosphine)methyl]benzene, facile cyclometallation reaction of (H. Rimml, L.M. Venanzi), (259) C6

Bis(diphenylphosphino)amide-platinum, -palladium and -nickel complexes; crystal structure of $[\text{CH}_3\text{N}[(\text{C}_6\text{H}_5)_2\text{P}]]_2\text{-Pd}^{2+}\cdot 2\text{SO}_4\text{F}^-$ (H. Schmidbaur, S. Lauteschläger, B. Milewski-Mahrla), (254) 59

Carbonyl-cobalt(II) and -nickel(II) compounds, reversible arene—carbon monoxide exchange in (T.J. Groshens, K.J. Klabunde), (259) 337

$(\eta\text{-C}_5\text{H}_5)\text{NiOs}_3(\text{CO})_9(\mu\text{-H})_3$ supported complex as hydrogenation catalyst, methanation of carbon monoxide and dioxide at atmospheric pressure (P. Moggi, G. Albanesi, G. Predieri, E. Sappa), (252) C89

$[\text{C}_5\text{H}_5\text{Ni(RTe—TeR)}]\text{BF}_4^-$, chemistry of (N. Kuhn, M. Winter), (252) C86

$(\eta^5\text{-C}_5\text{H}_5)\text{NiRu}_3(\mu\text{-H})(\text{CO})_9(\mu_4\text{-}\eta^2)(\text{C}=\text{CHBu-t})$ and related compounds, “olefin metathesis” reactions of (M. Castiglioni, R. Giordano, E. Sappa), (275) 119

Cobaltocene and nickelocene, reactivity towards secondary phosphinic chalcogenides, route to polydentate oxygen and sulphur ligands (W. Kläui, W. Eberspach, R. Schwarz), (252) 347

Cyclopentadienylnickel cations with $\text{R}_2\text{E—E'}\text{R}'_2$ as structural ligand ($\text{E}, \text{E}' = \text{P}, \text{As}, \text{Sb}$) (N. Kuhn, M. Winter), (256) C5

Cyclopentadienylnickel complexes, coordination of tetraphenyldiphosphane in (N. Kuhn, M. Winter), (254) C15

Cyclopentadienylnickel complexes with bulky phosphanes, synthesis and reactivity of (N. Kuhn, N. Heuser, M. Winter) (267) 221

Cyclopentadienylnickel complexes with hexaalkylphosphoric acid ligands, syn-

- thesis and reactivity of (N. Kuhn, M. Winter), (252) C5
- Cyclopentadienylnickel compounds, cleavage reactions with nickel iodide of (N. Kuhn, M. Winter), (269) C47
- Cyclopentadienyltricarbonylmolybdenum cation, reactions with methylcarbonyl complexes, cobaltocene, nickelocene and cyclopentadienyldicarbonylcobalt of; structure of acetylene-bridged $[(\pi\text{-C}_5\text{H}_5)(\text{CO})_2\text{Fe}(\text{CH}_3)\text{OMo}(\text{CO})_3(\pi\text{-C}_5\text{H}_5)]^+$ SbF_6^- (K. Sünkel, U. Nagel, W. Beck), (251) 227
- Diazanickelacyclopentanone, preparation from nickel(0), imines and isocyanates of (H. Hoberg, K. Sümmermann), (253) 383
- Di(1,4-bis(diethylphosphino)butane)-nickel(0), mechanism of oxidative addition of benzonitriles to (G. Favero, A. Morvillo), (260) 363
- cis*-Dicarboxylic acid derived from tetramethylethylenediaminenickel(0) and 1,3-butadiene in the presence of CO_2 (H. Hoberg, B. Apotecher), (270) C15
- Dicyclopentadienylnickel, problematic reagent in cluster synthesis (M. Mlekuz, P. Bougeard, M.J. McGlinchey, G. Jaouen), (253) 117
- Dienecarboxylic acid amides, formation from 1,3-dienes, carbon monoxide and nickel(II) complexes of (H.J. Riegel, H. Hoberg), (260) 121
- Ligand-nickel(0) systems, oxidative coupling of 1,2-dienes with isocyanates under formation of nickela complexes from (H. Hoberg, K. Sümmermann), (275) 239
- Ligand-nickel(0) systems, reactions with 1,3-dienes in the presence of CO_2 of; formation of nickela carboxylates (H. Hoberg, D. Schaefer, B.W. Oster), (266) 313
- Mercury(II), cadmium(II), cobalt(II), and nickel(II) complexes of ambidentate sulphonium ylides, preparation and coordination in (R.S. Tewari, A.K. Awasthi), (271) 403
- Metalloarsanes, $\text{Cp}(\text{CO})_3\text{W}-\text{AsR}_3$, ($\text{R} = \text{Me, t-Bu}$), carbon monoxide/isonitrile exchange in (M. Luksza, U. Wanka, W. Malisch), (266) 237
- 3-Methylbut-2-yn-3-ol/Ni(COD)₂/P system, ligand properties and catalysing effects of (W. Hartmann, K.D. Preuss, H. Singer), (258) 235
- π -Methylenecyclopropanebis(triphenyl-
- phosphine)nickel, preparation and properties of (L.S. Isaeva, T.A. Peganova, P.V. Petrovskii, D.B. Furman, S.V. Zotova, A.V. Kudryashev, O.V. Bragin), (258) 367
- [$\text{N}(\text{CH}_2\text{CH}_2\text{PPh}_2)_3\text{Ni}$, reactivity towards CS_2 , SCNPh , and COS ; structure of the $\eta^2\text{-S,C}$ -bonded phosphoniadithiomethyl ester complex ($\text{Ph}_2\text{PCH}_2\text{CH}_2\text{N}(\text{CH}_2\text{CH}_2\text{PPh}_2)_2\text{Ni}(\text{CS}_2\text{Me})\text{BPh}_4^-$] (C. Bianchini, C.A. Ghilardi, A. Meli, A. Orlandini), (270) 251
- Nickel-catalysed linear oligomerisation of 1-butene, influence of olefinic and diketonate ligands in (W. Keim, A. Behr, G. Kraus), (251) 377
- Nickel(II) complexes, reaction behaviour of 2-butyne with sec-amines and carbon monoxide in (H. Hoberg, F.J. Fañanás), (262) C24
- Nickel(0) coupling of benzaldehyde with isocyanates, formation of nickela heterocycles by (H. Hoberg, K. Sümmermann), (264) 379
- Nickel(II)-induced carbonylation of 1,2-dienes (F.J. Fañanás, H. Hoberg), (275) 249
- Nickel(0)-induced C—C coupling between carbon dioxide and alkynes or alkenes (H. Hoberg, D. Schaefer, G. Burkhart, C. Krüger, M.J. Ramão), (266) 203
- Nickel(0)-induced C—C coupling between 1,2-dienes and carbon dioxide (H. Hoberg, B.W. Oster), (266) 321
- Nickel(0)-induced C—C coupling of CO_2 with ethylene or mono- and di-substituted alkenes (H. Hoberg, D. Schaefer), (251) C51
- Nickel(0) insertion into carbon—halogen bonds of *p*-halo-substituted aromatic compounds, electrochemical reduction of (J.F. Fauvarque, C. Chevrot, A. Jutand, M. François, J. Perichon), (264) 273
- Nickel(II) metalloformate, thermally stable compound and its platinum(II) analogue (D.M. Grove, G. van Koten, H.J.C. Ubbels, R. Zoet, A.L. Spek), (263) C10
- Nickela compounds as intermediates of [2 + 2 + 2']-cycloaddition of alkynes containing isocyanates to 2-pyridones (H. Hoberg, B.W. Oster), (252) 359
- Nickela heterocyclic compounds from nickel(0) and phenyl isocyanate (H. Hoberg, B.W. Oster, C. Krüger, Y.H. Tsay), (252) 365

- Nickelocene, reductive substitution of; interception of a monohydride intermediate in hydrogenation of 2,3,4,5-tetraphenylcyclopentadienone (D.W. Slocum, M. Moronski, R. Gooding, S. Duraj), (260) C26
- $\text{Ni}(\text{CO})_{4-n}[\text{P}(\text{C}\equiv\text{CC}_6\text{H}_5)_m(\text{C}_6\text{H}_5)_{3-m}]_n$ ($n = 2, 3, 4; m = 3, 2, 1$) (A. Hengefeld, R. Nast), (252) 375
- trans*-NiRR'L, ($R, R' = 2$ -tolyl, 2,6-dimethoxy-3-bromophenyl, trichlorovinyl; L = t-methylphosphines), isolation and isomerization of (M. Wada, M. Kumazoe), (259) 245
- Oxidative coupling of carbon monoxide to nickel, formation of oxalic acid derivatives by (H. Hoberg, F.J. Fañanás, H.J. Riegel), (254) 267
- Palladium- and nickel-catalysed sequential reactions of organic bromides, bicyclo[2.2.1]hept-2-ene or bicyclo[2.2.1]-hepta-2,5-diene and alkynes (M. Catellani, G.P. Chiusoli, A. Mari), (275) 129
- cis*- and *trans*-1,3-Pentadiene, hydrogenation in the presence of ($\eta^1\text{-C}_5\text{H}_5$) NiOs_3 -($\mu\text{-H}$) $_3(\text{CO})_6$ of (M. Castiglioni, R. Giordano, E. Sappa, G. Predieri, A. Tiripicchio), (270) C7
- Peroxonickel-dibromomolybdenum bimetallic system, olefin epoxidation followed by epoxide transformation into 1,2-dibromoalkane by (H. Arzoumanian, R. Lai, J. Metzger, J.-F. Petrigiani), (267) 207
- Phosphalkene-nickel(0) complex formation, influence of the P ligand on the η^1 and η^2 coordination mode in (T.A. van der Knaap, L.W. Jenneskens, H.J. Meeuwissen, F. Bickelhaupt, D. Walther, E. Dinjus, E. Uhlig, A.L. Spek), (254) C33
- Phosphinomethyl-substituted zirconium compounds, synthesis, reactions with CO and molecular structure of $\{[(\text{C}_5\text{H}_5)_2\text{Zr}(\text{CH}_2\text{PMe}_2)_2]\}_2\text{Ni}$ (H.H. Karsch, G. Müller, C. Krüger), (273) 195
- P_4Se_3 cage molecule as ligand; crystal structure of $[\{\text{N}(\text{CH}_2\text{CH}_2\text{PPh}_2)_3\}\text{Ni}(\text{P}_4\text{Se}_3)] \cdot 2\text{C}_6\text{H}_6$ (M. Di Vaira, M. Peruzzini, P. Stoppioni), (258) 373
- Sorbic acid, preparation from piperylene, CO_2 , isomeric nickel complexes and maleic anhydride of (H. Hoberg, D. Schaefer), (255) C15
- Tetraarsenic trisulphide, cleavage by nickel moieties of (P. Stoppioni, M. Peruzzi), (262) C5
- Trialkylphosphinetricarbonylnickel complexes, influence of substituents on basicity of (T. Bartik, T. Himmller, H.-G. Schulte, K. Seevogel), (272) 29
- Triethylaluminium, interaction with acetylacetones of transition metals of (F.K. Schmidt, G.V. Ratovskii, T.V. Dmitrieva, I.N. Ivleva, Yu.G. Borodko), (256) 309
- Trimethylphosphane in reaction with $[\text{C}_5\text{H}_5\text{Ni}(\text{C}_5\text{H}_5)]\text{BF}_4^-$ (N. Kuhn, U. Schwenk, M. Winter, R. Mynott), (260) C43
- Tris(triphenylphosphine)bromonickel, oxidative addition reactions with aryl halides of (M. Anton, N. Clos, G. Muller), (267) 213
- ## Niobium
- Bis(methylcyclopentadienyl)carbonylchloroniobium, electrogeneration of (A. Fakhr, Y. Mugnier, H. Broussier, B. Gautheron, E. Laviron), (255) C8
- Bromodicyclopentadienylniobium complexes (L. Acedo, A. Otero, P. Royo), (258) 181
- Dicyclopentadienyldichloroniobium, electrogeneration of an unusual niobium(III) anionic dimer of (A. Fakhr, Y. Mugnier, R. Broussier, B. Gautheron), (269) 53
- Dicyclopentadienylniobium chiral complexes, oxidation and reduction of the niobium atom with thionyl chloride (R. Broussier, J.D. Olivier, B. Gautheron), (251) 307
- Halodicyclopentadienyl-niobium(V) and -tantalum(V) mixed complexes, preparation of (A. Antónolo, M. Fajardo, A. Otero, P. Royo), (265) 35
- Niobocene heteronuclear derivatives containing Nb-Sn bonds, synthesis, molecular structures and PMR spectra of (Yu.V. Skripkin, O.G. Volkov, A.A. Pasynskii, A.S. Antsyshkina, L.M. Dikareva, V.N. Ostrikova, M.A. Porai-Koshits, S.L. Davydova, S.G. Sakharov), (263) 345
- Niobocene sulphide dimer, synthesis and molecular structure of (Yu.V. Skripkin, I.L. Eremenko, A.A. Pasynskii, Yu.T. Struchkov, V.E. Shklover), (267) 285

Organoniobium-carbon disulphide complexes, alkylation and reactions with NaBH_4 of; evidence for an $\eta^2\text{-CH}(\text{S})\text{-SR}$ ligand (J. Amaudrut, A. Kadmiri, J. Sala-Pala, J.E. Guerchais), (266) 53

Tetraethylammonium tricarbonyl- η^5 -cyclopentadienyltriphenylstannylniobate(I), $[(\text{C}_2\text{H}_5)_4]\text{[Nb}(\eta^5\text{-C}_5\text{H}_5)\{\text{Sn}(\text{C}_6\text{H}_5)_3\}(\text{CO})_3]$, crystal and molecular structure of (F. Näumann, J. Kopf, D. Rehder), (267) 249

Tricarbonylcyclopentadienylniobium, derivatives containing a niobium—metal bond, preparation and ^{93}Nb NMR of (I. Pforr, F. Näumann, D. Rehder), (258) 189

Osmium

Arenetricarbonyl-chromium, -manganese and -iron, dependence of electrophilicity of coordinated cyclic π -hydrocarbons on the metal in (Y.K. Chung, E.D. Honig, D.A. Schweigart), (256) 277

Arylthiocarbonylosmium(II) complexes, structure and migratory-insertion reactions of; structure of $\text{Osi}(\eta^2\text{-CSR})(\eta^1\text{-O}_2\text{CCF}_3)(\text{CO})(\text{PPh}_3)_2$ (G.R. Clark, T.J. Collins, K. Marsden, W.R. Roper), (259) 215

Au_2Os mixed-metal carbonyl clusters, structure and bonding in; crystal and molecular structure of $[\text{Os}(\text{CO})_6\{\text{AuPPh}_3\}_2]$ (B.F.G. Johnson, J. Lewis, P.R. Raithby, A. Sanders), (260) C29

Benzolbis(dimethylphosphonato)osmium(II) complexes, synthesis and structures of (U. Schubert, R. Werner, L. Zinner, H. Werner), (253) 363

Carbenium ion structure of $[\text{Os}_3\text{H}_3(\text{CO})_9\text{CCR}_2]^+$ complexes, applications of the ^{187}Os nucleus (A.A. Koridze, O.A. Kizas, N.E. Kolobova, P.V. Petrovskii, E.I. Fedin), (265) C33

Carbonyl-mixed-metal hydrides containing tungsten, synthesis and characterisation of; X-ray crystal structure of $[(\text{Ph}_3\text{P})_2\text{N}][\text{Os}_3\text{WH}(\text{CO})_4]$ (M. Fajardo, M.P. Gómez-Sal, B.F.G. Johnson, J. Lewis, P.R. Raithby), (272) C57

($\eta^5\text{-C}_5\text{H}_5$) $\text{MnOs}_3(\mu_2\text{-CH=CHPh})(\mu\text{-H})(\mu\text{-CO})(\text{CO})_{11}$, unusual metallic cluster, synthesis and crystal and molecular structures of (A.B. Antonova, S.V. Kovalenko, E.D. Korniyets, A.A.

Johansson, Yu.T. Struchkov, A.I. Yanovksy), (267) 299

($\eta\text{-C}_5\text{H}_5$) $\text{NiOs}_3(\text{CO})_9(\mu\text{-H})_3$ supported complex as hydrogenation catalyst, methanation of carbon monoxide and dioxide at atmospheric pressure (P. Moggi, G. Albanesi, G. Predieri, E. Sappa), (252) C89

($\eta^5\text{-C}_5\text{H}_5$) $\text{NiRu}_3(\mu\text{-H})(\text{CO})_9(\mu_4\text{-}\eta^2)(\text{C}=\text{CHBu-t})$ and related compounds, "olefin metathesis" reactions of (M. Castiglioni, R. Giordano, E. Sappa), (275) 119

($\text{CO})_5\text{OsRu}(\text{CO})_3(\text{SiCl}_3)(\text{Br})$, dissociation and isomerisation of (M.M. Fleming, R.K. Pomeroy, P. Rushman), (273) C33

Dimolybdenum-triruthenium and dimolybdenum-triosmium complexes, $[\text{Mo}_2\text{M}_3(\eta^5\text{-C}_5\text{H}_5)_2(\text{CO})_{15}(\text{t-BuCP})]$ ($\text{M} = \text{Ru}, \text{Os}$), synthesis of; crystal and molecular structure of di- η^5 -cyclopentadienyltetracarbonyl- μ -(3,3-dimethyl-1-phosphabutyne)-triangulo-triosmium(0), $[\text{Mo}_2(\eta^5\text{-C}_5\text{H}_5)_2(\text{CO})_4(\mu\text{-t-BuCP})\text{Os}_3(\text{CO})_{11}]$ (R. Bartsch, P.B. Hitchcock, M.F. Meidine, J.F. Nixon), (266) C41

Fluorochlorocarbeneosmium complex, $\text{OsCl}_2(\text{CFCl})(\text{CO})(\text{PPh}_3)_2$, and structure of fluoroalkoxycarbeneruthenium complex, $\text{RuCl}_2(\text{CFOCH}_2\text{CMe}_3)(\text{CO})(\text{PPh}_3)_2$ (S.V. Hoskins, E.A. Paupit, W.R. Roper, J.M. Waters), (269) C55

($\mu_2\text{-H}$) $\text{Os}_3\text{SW}(\eta^5\text{-C}_5\text{H}_5)(\text{CO})_{11}$, pyramidal cluster, trapped synthesis and X-ray structure of (G. Süss-Fink, U. Thewalt, H.-P. Klein), (262) 315

Hydridotriosmium complexes containing isomeric μ -carboxamido, $\{\mu(\text{O},\text{C})\text{-O=C}(\text{NHR})\}$, μ -formamido, $\{\mu(\text{O},\text{N})\text{-O=C(H)N(R)}\}$, and μ -iminyl, $\{\mu(\text{C},\text{N})\text{-C}(\text{OR}')=\text{NR}\}$ groups, synthesis of; crystal and molecular structures of $\text{Os}_3\{\mu\text{-H}, \mu\text{-C}(\text{OR}')=\text{NCH}_3\}(\text{CO})_{10}$, ($\text{R}' = \text{C}(=\text{O})\text{NHCH}_3$) (Y.-C. Lin, A. Mayr, C.B. Knobler, H.D. Kaesz), (272) 207

Hydroxo-bridged arene-ruthenium and -osmium complexes, structural characterisation and reactions of (R.O. Gould, C.L. Jones, T.A. Stephenson, D.A. Tocher), (264) 365

Iron, ruthenium and osmium; Annual Survey for the year 1978 (J.A. McCleverty), (274) 241

$[\text{M}_3(\mu_3\text{-C}_6\text{H}_4)(\mu\text{-PPh}_2)_2(\text{CO})_6]$ ($\text{M} = \text{Ru}, \text{Os}$), crystal structure of (M.I. Bruce,

- J.M. Guss, R. Mason, B.W. Skelton, A.H. White), (251) 261
- 2-Methylimidazolyl-triosmium cluster complex, (μ -H)Os₃(CO)₁₀[μ -3,4- η^2 -C₃N₂H₂(2-CH₃)], crystal structure of (M.R. Churchill, J.R. Missert), (256) 349
- Mixed metal cluster complexes of osmium with cobalt and iron, synthesis of (W.A.G. Graham, J.R. Moss), (270) 237
- Nitrosyl derivatives of high nuclearity carbonyl clusters; synthesis and X-ray analysis of [(Ph₃P)₂N]⁺ salts of [Os₁₀C-(CO)₂₄(μ_2 -NO)]⁻ and [Os₁₀C(CO)₂₃⁺(NO)]⁻ (B.F.G. Johnson, J. Lewis, W.J.H. Nelson, J. Puga, D. Braga, K. Henrick, M. McPartlin), (266) 173
- Nitrosyl-diazoalkane unusual reaction; structure and reactivity of aldoxime-dinitrogen complex, OsCl₂(N₂)[N(OH)-CHCO₂Et](PPPh₃)₂ (M.A. Gallop, C.E.F. Rickard, W.R. Roper), (269) C21
- Olefinic tertiary phosphine-containing complexes, X-ray structures of OsBr-(sp)(η -C₅H₅) and Ru(η^3 -S₂CCHMe-C₆H₄PPPh₂-2)(η -C₅H₅) (M.I. Bruce, T.W. Hambley, M.R. Snow, A.G. Swincer), (273) 361
- Organometallic compounds, IR laser pyrolysis and isotopic labelling of (N.J. Bristow, B.D. Moore, M. Polyakoff, G.J. Ryott, J.J. Turner), (260) 181
- [OsCl₂(COD)]_x polymer as a route to hydrazine- and hydrazone-osmium(II) complexes; crystal structure of [Os(COD)(CNBu^t)₂(NH₂N=CMe₂)₂]- (BPh₄)₂ · (acetone)₂ (H.E. Oosthuizen, E. Singleton, J.S. Field, G.C. van Niekerk), (272) C25
- Os₆(CO)₁₄(μ_2 -PPPh₂)₂(μ_3 -S)₃(μ_4 -S), synthesis and crystal and molecular structure of (R.D. Adams, I.T. Horváth, B.E. Segmüller), (262) 243
- Osmium(II) complex with PIPh ligand and terminal phenylphosphinidene complex intermediate, synthesis of (D.S. Bohle, W.R. Roper), (273) C4
- cis- and trans-1,3-Pentadiene, hydrogenation in the presence of (η^5 -C₅H₅)NiOs₃(μ -H)₃(CO)₉ of (M. Castiglioni, R. Giordano, E. Sappa, G. Predieri, A. Tiripicchio), (270) C7
- Phosphorus ligand substitution in penta-nuclear osmium cluster carbonyls;
- crystal and molecular structures of [Os₅H₂(CO)₁₄(PEt₃)] and [Os₅H₂(CO)₁₃(PEt₃)P(OMe)₃] (B.F.G. Johnson, J. Lewis, P.R. Raithby, M.J. Rosales), (259) C9
- Rhodium-triosmium heteronuclear cluster, (μ -H)Os₃Rh(CO)₉(η^3 -C₆H₄Me), structure of (M.R. Churchill, C. Bueno), (256) 357
- Ruthenium and osmium; Annual Survey for the year 1982 (J.B. Keister), (274) 457
- Triosmium clusters, interaction with heterocyclic thioamides of; X-ray crystal structure of (μ -H)Os₃(CO)₁₀ μ -SC=NCH₂CH₂S (A.M. Brodie, H.D. Holden, J. Lewis, M.J. Taylor), (253) C1
- Triosmium clusters, studies of nucleophilic additions at bridging vinyl ligands in (A.J. Deeming, P.J. Manning), (265) 87
- Unsaturated mixed-metal cluster anion, electrochemical reduction of; synthesis and X-ray crystal structure of [(Ph₃P)₂N][Os₃H(CO)₁₀]₂Ag] (M. Fajardo, M.P. Gómez-Sal, H.D. Holden, B.F.G. Johnson, J. Lewis, R.C.S. McQueen, P.R. Raithby), (267) C25
- ## Palladium
- π -Allylpalladium chloride complexes containing a cyclopropane ring, syntheses of (C.A. Horiuchi, J.Y. Satoh), (258) C45
- Allylpalladium(II) complexes derived from 1,2,6-heptatriene and 1,2,8-nonatriene (J. Powell, N.I. Dowling), (264) 387
- η^3 -Allylpalladium complexes of different phosphines, intramolecular mobility studied by two dimensional NMR spectroscopy of (H. Meyer, A. Zschunke), (269) 209
- Arenediazonium salts, formylation with carbon monoxide and silyl hydrides under palladium catalysis of (K. Kikukawa, T. Totoki, F. Wada, T. Matsuda), (270) 283
- N-(Benzylidene)benzylamines, cyclometalation reactions with palladium compounds of (J. Albert, J. Granell, J. Sales), (273) 393
- trans-Bis(2H-azirine)palladium dichloride complexes, preparation and opening of their azirine rings in benzene of (P. Faria Dos Santos Filho, U. Schuchardt), (263) 385

- Bis(dimethylmetal(III) glyoximato)metalate(II) (metal(III) = Al, Ga, In; metal(II) = Ni, Pd, Pt, Cu) (U. Kohler, H.-D. Hausen, J. Weidlein), (272) 337
- Bis(diphenylphosphino)amide-platinum, -palladium and -nickel complexes; crystal structure of $[\text{CH}_3\text{N}[(\text{C}_6\text{H}_5)_2\text{P}]_2 \cdot \text{Pd}^{2+} \cdot 2\text{SO}_4\text{F}^-$ (H. Schmidbaur, S. Lauteschläger, B. Milewski-Mahrla), (254) 59
- 1,3-Bis[(diphenylphosphino)methyl]benzene, facile cyclometallation reaction of (H. Rimml, L.M. Venanzi), (259) C6
- Bis(pentafluorophenyl)palladium(II) derivatives with N-donor ligands (G. Lopez, G. Garcia, C. De Haro, G. Sanchez, M.C. Vallejo) (263) 247
- 1,3-Bis(trimethylsilylallyl)propene, functionalised vinylsilanes prepared by reaction with tetrachlorodilithiumpalladium from (R.J.P. Corriu, N. Escudie, C. Guerin), (271) C7
- Carbonylphosphinepalladium 10-vertex cluster with minimal P-n-Bu₃ content, synthesis and X-ray structure of (E.G. Mednikov, N.K. Eremenko, Yu.L. Slovokhotov, Yu.T. Struchkov, S.P. Gubin), (258) 247
- σ -Carboranylphosphine-palladium(II) and -platinum(II) complexes, intramolecular metallation of (V.N. Kalinin, A.V. Usatov, L.I. Zakharkin), (254) 127
- Chloropalladation of 7-methylene-1-phenylbicyclo[4.1.0]heptane, an intermediate containing carbonium ion character (W.A. Donaldson), (269) C25
- Cyclopalladated primary, secondary and tertiary benzylamines, and benzal-imines, synthesis of (P.W. Clark, S.F. Dyke), (259) C17
- η^5 -Cyclopentadienyl and η^3 -allyl ligands, electronic effects on the nature of metal-olefin bonds in; reversal of related olefin affinity of palladium(II) and platinum(II) ions (H. Kurosawa, N. Asada, A. Urabe, M. Emoto), (272) 321
- Di- μ -chlorobis(dimethylaminomethylferrocenyl-C,N)dipalladium, chiral anionic complex of hexacoordinated palladium(II) synthesized from (V.I. Sokolov, K.S. Nechaeva, O.A. Reutov), (253) C55
- cis-Dichloro-N-thionitrosodimethylamine-(triphenylarsine)palladium(II) complex, X-ray crystal and molecular structure of; synthesis and characterisation of neutral binuclear complexes of palladium(II) and cationic complexes of palladium(II) and platinum(II) containing N-thionitrosodimethylamine (G. Tresoldi, G. Bruno, P. Piraino, G. Faraone, G. Bombieri), (265) 311
- triangulo-Diplatinum-iron, isomeric triangulo-platinum-palladium-iron clusters (M.C. Grossel, R.P. Moulding, K.R. Seddon), (253) C50
- Hydrosilanes, reactions with trifluoropropene and pentafluorostyrene catalysed by ruthenium, rhodium and palladium complexes of (I. Ojima, T. Fuchikawa, M. Yatabe), (260) 335
- Hydroxy-enylpalladium(II) derivatives, preparation and reaction of (E. Rotondo, F.C. Priolo, A. Donato, R. Pietropaolo), (251) 273
- Lithium chloride-induced dissociation of cyclopalladated ligands from chloro-(ligand-C,N)triphenylphosphinepalladium(II) complexes in acetic acid solvent (A.D. Ryabov), (268) 91
- [MCl{C₆H₅N(6-Cl)-C'²⁻}(PR_3)₂] (M = Pd, Pt; PR₃ = PPh₃, PMePh₂ or (PR_3)₂ = dppe), synthesis and characterisation of (A. Mantovani), (255) 385
- 1-Methylpyrid-6-one-2-yl-palladium(II) and -platinum(II) compounds, preparation and reactions of (B. Crociani, F. Di Bianca, A. Giovenco, A. Scrivanti), (269) 295
- Mixed metal clusters with 3 or 4 different metals containing the Ph₂PCH₂PPh₂- (dppm) ligand, synthesis of (P. Braunstein, C. de Méric de Bellefon, M. Ries), (262) C14
- Multimetal complexes, assemblage using diphosphoxane linkages (P—O—P) of (E.H. Wong, F.C. Bradley, L. Prasad, E.J. Gabe), (263) 167
- Neopentylpalladium complexes, preparation and reactions of (P. Diversi, D. Fasce, R. Santini), (269) 285
- 5-Nitro-8-(2-[2.2.1]bicycloheptyl)-1,2,3,4,4a,8b-hexahydro-1,4-methanobiphenylene, palladium catalysed preparation and X-ray structure of (G. Bocelli, M. Catellani, G.P. Chiusoli, S. Larocca), (265) C9
- Octamethyl-1,2-disilacyclobutane, chemistry and Si—Si cleavage and insertion reactions of (D. Seyforth, E.W. Goldman, J. Escudie), (271) 337
- Organodisilanes, reactions with dienes cat-

- alysed by transition metal complexes of; preparation of 1,8-bis(trimethylsilyl)octa-2,6-diene and its use in the synthesis of *d*-muscone (H. Sakurai, Y. Eriyama, Y. Kamiyama, Y. Nakadaira), (264) 229
- C(1)-Palladated 1-amino-3-one-1-butene compounds, convenient synthetic route by insertion of isocyanides into 2-one-1-propyl-palladium(II) bonds for (R. Bertani, C.B. Castellani, B. Crociani), (269) C15
- Palladium-assisted organic reactions, di- μ -chloro-bis(*N,N*-dialkylbenzylamine-2-*C,N*)dipalladium(II) complexes in reaction with acyl chlorides (P.W. Clark, H.J. Dyke, S.F. Dyke, G. Perry), (253) 399
- Palladium-assisted organic reactions, iso-quinoline ring synthesis (N. Barr, S.F. Dyke, S.N. Quessy), (253) 391
- Palladium(II) carboxylates, mechanism of reactions with carbon monoxide in nonaqueous media of (T.A. Stromnova, M.N. Vargaftik, I.I. Moiseev), (252) 113
- Palladium-catalysed arylations of alkenes with bromobenzoic acid derivatives, preparation of non-symmetrically-substituted divinylbenzenes from (A. Spencer), (265) 323
- Palladium-catalysed carbonylation inducing diyne ring closure (G.P. Chiusoli, M. Costa, E. Masarati, G. Salerno), (255) C35
- Palladium-catalysed carboxylation of aromatic compounds with carbon dioxide (H. Sugimoto, I. Kawata, H. Taniguchi, Y. Fujiwara), (266) C44
- Palladium-catalysed conjugate addition type reaction of aryl iodides with α,β -unsaturated aldehydes (S. Cacchi, F. La Torre, G. Palmieri), (268) C48
- Palladium-catalysed cross-coupling reactions of mesitylcopper with aryl iodides (N.A. Bumagin, I.O. Kalinovskii, I.P. Beletskaya), (267) C1
- Palladium-catalysed efficient arylation of alkenes with aryl bromides (A. Spencer), (258) 101
- Palladium-catalysed homogeneous arylation of activated alkenes with aryl chlorides (A. Spencer), (270) 115
- Palladium-catalysed one-step synthesis of aromatic acids from aromatic compounds with carbon monoxide (Y. Fujiwara, I. Kawata, H. Sugimoto, H. Taniguchi), (256) C35
- Palladium-catalysed reaction of butadiene and carbon dioxide (A. Behr, K.-D. Juszak), (255) 263
- Palladium-catalysed reaction of nucleophiles with diacetals of allylic 1,1-diols (X. Lu, Y. Huang), (268) 185
- Palladium-catalysed sequence, oxidative addition, insertion, cyclization and amination in (M. Catellani, G.P. Chiusoli), (275) 257
- Palladium(II) complexes, in regio-selective introduction of *O*-nucleophiles into β -myrcene and *trans*-ocimene (M. Takahashi, H. Urata, H. Suzuki, Y. Moro-Oka, T. Ikawa), (266) 327
- Palladium(0) complexes, reactions with carbon disulphide of (D.H. Farrar, R.R. Gukathasan, K. Won), (275) 263
- Palladium complexes of silica-supported poly- γ -cyanopropylsiloxane and poly- γ -aminopropylsiloxane, hydrogenation of aldehydes and ketones by (Y.-Z. Zhou, Y.-Y. Jiang), (251) 31
- Palladium(II) cyclometallated benzylidene-aniline Schiff bases, relative rates for synthesis of *ortho*-substituted carbomethoxy derivatives via CO insertion into (P.S. Pregosin, R. Rüedi), (273) 401
- Palladium and gold polynuclear perhalophenyl derivatives with dppm bridges; crystal and molecular structure of *trans*-C₆F₅Au(μ -dppm)Pd(C₆F₅)₂(μ -dppm)AuC₆F₅ (dppm = Ph₂PCH₂-PPh₂) (R. Usón, A. Laguna, J. Forniés, I. Valenzuela, P.G. Jones, G.M. Sheldrick), (273) 129
- Palladium-graphite and related heterogeneous catalysts, nucleophilic substitution reactions of allylic esters catalysed by (G.P. Boldrini, D. Savoia, E. Tagliavini, C. Trombini, A. Umani-Ronchi), (268) 97
- Palladium- and nickel-catalysed sequential reactions of organic bromides, bicyclo-[2.2.1]hept-2-ene or bicyclo[2.2.1]-hepta-2,5-diene and alkynes (M. Catellani, G.P. Chiusoli, A. Mari), (275) 129
- Palladium(0) and palladium(II) as catalysts in rearrangements of (*E,Z*)-4-acetyl-[¹⁷O]oxyhepta-2,5-diene, mechanistic deductions from observations by ¹⁷O NMR spectroscopy (E. Curzon, B.T. Golding, C. Pierpont, B.W. Waters), (262) 263
- Palladium zwitterionic complexes, forma-

- tion of, bridge cleavage in, and isonitrile elimination from; X-ray structure of $[(\text{tetramethylethylenediamine})\text{Pd}^+ \cdot \{\mu\text{-C}(\text{C}_6\text{F}_5)=\text{NMe}\}_2\text{Pd}^-\text{Cl}_2]$ (R. Usón, J. Fornies, P. Espinet, E. Lalinde, P.G. Jones, G.M. Sheldrick), (253) C47
- $[\text{Pd}(\text{C}_6\text{F}_5)_2(\text{CNR})_2]$, reactions with $[\text{PdCl}_2 \cdot (\text{NCPH})_2]$ of; insertion of $p\text{-MeC}_6\text{H}_4\text{NC}$ into $\text{Pd}-\text{C}_6\text{F}_5$ bonds (R. Usón, J. Fornies, P. Espinet, E. Lalinde), (254) 371
- $\text{Pd}(\eta^2\text{-CSe}_2)$, $\text{Pt}(\eta^2\text{-CSe}_2)$ and $\text{Pt}(\eta^2\text{-CSSe})$ complexes with mono- and bi-dentate phosphorus ligands, synthesis of (H. Werner, M. Ebner), (258) C52
- Pentafluorophenyl binuclear palladium(I) derivatives, insertion vs. coordination of isocyanides in (R. Usón, J. Fornies, P. Espinet, F. Martínez, C. Fortuño, B. Menjón), (256) 365
- Phosphinepalladium zerovalent complexes, hydrogen—deuterium exchange reactions catalysed by (G.K. Anderson, A.A. Phipps), (266) C15
- 2-Picolyl-bridged palladium(II) complex, reactions with pyrazole derivatives of (M. Onishi, K. Hiraki, T. Itoh, Y. Ohama), (254) 381
- Platinum and palladium homobinuclear complexes with carbon monoxide, reactions of (P. Dagnac, R. Turpin, R. Poilblanc), (253) 123
- N*-Protected aminoacid derivatives, synthesis from *N*-substituted phthalimides catalysed by Rh and Pd complexes of (G. Delogu, G. Faedda, S. Gladiali), (268) 167
- 2-Pyridyl-palladium(II) and -platinum(II) complexes, protonation and methylation reactions of (B. Crociani, F. Di Bianca, A. Giovenco, A. Scrivanti), (251) 393
- 2-(1-Pyrrolyl)pyridine, cyclometallation of the pyrrole ring with palladium(II) and rhodium(II) in (M. Nonoyama), (262) 407
- Six-membered palladacyclic complexes, attempts of preparation via ligand exchange reactions of (A.D. Ryabov, G.M. Kazankov), (268) 85
- $[(\text{Terdentate ligand})\text{M}(\mu\text{-H})\text{M}(\text{terdentate ligand})]^-$ cations ($\text{M} = \text{Pd, Pt}$), stable binuclear complex containing $\text{M}-\text{H}-\text{M}$ bonds (H. Rimml, L.M. Venanzi), (260) C52
- N*-Thionitrosodimethylamine-palladium(II) and -platinum(II) complexes, ligating properties of thionitrosoamines (G. Tresoldi, G. Bruno, F. Crucitti, P. Piraino), (252) 381
- Triethylaluminium, interaction with acetylacetones of transition metals of (F.K. Schmidt, G.V. Ratovskii, T.V. Dmitrieva, I.N. Ivleva, Yu.G. Borodko), (256) 309
- Trinuclear heterometallic clusters with four different skeletal atoms, synthesis of (P. Thometzek, H. Werner), (252) C29
- Vinyltrimethylsilane, reaction with arene-diazonium tetrafluoroborates under palladium(0) catalysis of (K. Kikukawa, K. Ikenaga, K. Kono, K. Toritani, F. Wada, T. Matsuda), (270) 277
- Xylylisocyanide platinum and palladium complexes (A. Christofides), (259) 355
- ## Phosphorus
- η^3 -Acryloyl complexes, $[(\eta^5\text{-C}_5\text{H}_5)(\text{CO})\text{L}=\text{C}(\text{CF}_3)\text{C}(\text{CF}_3)\text{H}]^-$ ($\text{L} = \text{CO, P(OMe)}_3$), X-ray structure and phosphine and phosphite substitution reactions of (F.Y. Pétillon, J.-L. Le Quéré, F. Le Floch-Pérennou, J.-E. Guerchais, M.-B. Gomes de Lima, L. Manojlović-Muir, K.W. Muir, D.W.A. Sharp), (255) 231
- Acyl ligands, elaboration of; preparation and reactivity of the anion $[(\eta^5\text{-C}_5\text{H}_5)\text{Fe}(\text{CO})(\text{PPh}_3)(\text{COCH}_3)]^-$ (N. Aktoglu, H. Felkin, G.J. Baird, S.G. Davies, O. Watts), (262) 49
- η^2 -Acylcarbonylvanadium compounds, synthesis of (J. Schiemann, E. Weiss), (255) 179
- $[\text{Ag}_2\text{Pt}_4(\mu_3\text{-S})_4(\text{PPh}_3)_8](\text{BF}_4)_4 \cdot 0.25\text{CHCl}_3$, synthesis and characterisation of (C.E. Briant, T.S.A. Hor, N.D. Howells, D.M.P. Mingos), (256) C15
- Alkenyl-chromium, -molybdenum and -tungsten complexes, *cis/trans*- and *E/Z*-isomerisation in (G. Grötsch, W. Malisch), (258) 297
- Alkynylphosphine-substituted products of chromium and tungsten hexacarbonyls (A. Hengefeld, R. Nast), (267) 151
- μ -(Alkoxymethanethione-*C,S*)- μ -(methylthio)-1-trimethylphosphite-1,1,2,2,2-pentacarbonyldiiron, preparation and

- structure of (E.K. Lhadi, H. Patin, A. Benoit, J.-Y. Le Marouille, A. Darchen), (259) 321
- Alkylcobalt complexes in catalytic cycles for hydrogenation of alkenes (T.S. Janik, M.F. Pyszczek, P.S. Sullivan, J.D. Atwood), (272) 427
- Alkylidene-cobalt complexes, synthesis, structure and reactions of (W.A. Herrmann, C. Bauer, J.M. Huggins, H. Pfisterer, M.L. Ziegler), (258) 81
- Allyllithium and solvated allyllithium species, MNDO study of the position of hydrogen atoms in (G. Decher, G. Boche), (259) 31
- Arenechromium dimers, reductive elimination of dihydrogen from (T.E. Bitterwolf), (252) 305
- Arenetricarbonylchromium complexes, electrochemical substitution of a CO group by a P ligand in (M.G. Peterleitner, M.V. Tolstaya, V.V. Krivkh, L.I. Denisovitch, M.I. Rybinskaya), (254) 313
- Arenetricarbonyl-chromium, -manganese and -iron, dependence of electrophilicity of coordinated cyclic π -hydrocarbons on the metal in (Y.K. Chung, E.D. Honig, D.A. Schweigart), (256) 277
- Arylthiocarbonylosmium(II) complexes, structure and migratory-insertion reactions of; structure of Os(η^2 -CSR)(η^1 -O₂CCF₃)(CO)(PPh₃)₂ (G.R. Clark, T.J. Collins, K. Marsden, W.R. Roper), (259) 215
- [Au₆(PPh₃)₆](NO₃)₂ · 3CH₂Cl₂, edge-shared bitetrahedral gold cluster, synthesis and structural characterisation of (C.E. Birant, K.P. Hall, D.M.P. Mingos), (254) C18
- [Au₂Pt₂(PPh₃)₄(CN-xylyl)₄](PF₆)₂, platinum-gold cluster with a flattened butterfly geometry, synthesis and structural characterisation of (C.E. Birant, D.I. Gilmour, D.M.P. Mingos), (267) C52
- 1H-1,3-Benzazarsoles, metallation and substitution reactions of λ^3 -As=C—N group in (J. Heinicke, A. Petrasch, A. Tzschach), (258) 257
- Benzene carbon—hydrogen bond activation using Ru(C₆Me₆)[PH(C₆H₁₁)₂]H₂ (R.H. Morris, M. Shiralian), (260) C47
- Benzenedithiolateiron complexes, [As-Ph₄]₂[Fe(S₂C₆H₄)₂] and [Fe(S₂C₆H₄)-PMe₃]₃, synthesis and structure of (D. Sellmann, U. Kleine-Kleffmann, L. Zapf, G. Huttner, L. Zsolnai), (263) 321
- Benzolbis(dimethylphosphonato)osmium(II) complexes, synthesis and structures of (U. Schubert, R. Werner, L. Zinner, H. Werner), (253) 363
- (Benzylideneacetone)carbonylphosphineiron(0) complexes, photolytic preparation of; molecular structures of Fe(CO)₂(PEt₃)₂(BDA) and Fe(CO)₂(PPhMe₂)(BDA) (BDA = benzylidene-acetone) (E.J.S. Vichi, P.R. Raithby, M. McPartlin), (256) 111
- Bis(cis-1,2-bis(diphenylphosphino)ethylene)disulphur nitride iridium teraphenylborate, preparation and molecular structure of (F. Cecconi, C.A. Ghilardi, S. Midollini, S. Monetti, A. Orlandini), (275) C22
- Bis(dicarbonylcyclopentadienylmolybdenum) (Mo=Mo), interaction with P_n and formation of P_n[Mo(CO)₂(η^5 -C₅H₅)_{4-n}] (n = 2, 3) (O.J. Scherer, H. Sitzmann, G. Wolmershäuser), (268) C9
- Bis(dicarbonyldichlorobis(trimethylphosphine)ruthenium, and dicarbonyldichlorobis(trimethylphosphine)ruthenium preparation of; alcoholysis of triethylsilanes catalysed by (Me₃P)₂-Ru(CO)₂Cl₂ (J. Lippold, H. Singer), (266) C5
- Bis(diphenylphosphino)amide-platinum, -palladium and -nickel complexes; crystal structure of {CH₃N[(C₆H₅)₂P]₂}₂Pd²⁺ · 2SO₃F⁻ (H. Schmidbaur, S. Lauteschläger, B. Milewski-Mahrila), (254) 59
- Bis(diphenylphosphino)amine, behaviour of di- μ -chlorobis[dicarbonylrhodium(I)] in reactions with (J. Ellermann, G. Szuccányi, K. Geibel, E. Wilhelm), (263) 297
- Bis(diphenylphosphino)methane complexation of reaction products from the reaction of arylcopper(I) compounds and carbon disulphide (A. Camus, N. Marsich, G. Pellizer), (259) 367
- Bis(diphenylphosphinomethyl)amino acid rhodium complexes, preparation and activity in enantioselective hydration of (K. Kellner, W. Hanke, A. Tzschach, Zs. Nagy-Magos, L. Markó), (268) 175
- 1,3-Bis[(diphenylphosphino)methyl]-

- benzene, facile cyclometallation reaction of (H. Rimml, L.M. Venanzi), (259) C6
- 4,5-Bis(diphenylphosphinomethyl)-2,2-dimethyl-1,3-dioxolaneethyleneplatinum(0), olefin displacement under mild conditions from (J.M. Brown, S.J. Cook, S.J. Kimber), (269) C58
- Bis(diphenylphosphinomethyl)phenyl-phosphine-bridged trinuclear rhodium complexes, reactivity of; cluster families related by reversible carbon monoxide binding and oxidative addition (A.L. Balch, R.R. Guimerans, M.M. Olmstead), (268) C38
- Bis(pentamethylcyclopentadienylcarbonyliron), oxidative cleavage of the Fe—Fe bond using ferrocinium ion; facile route to the synthetically useful complexes $[C_5Me_5Fe(CO)_2(\text{solvent})]^+$ (D. Catheline, D. Astruc), (266) C11
- Bis(pentamethylcyclopentadienyl- μ -dimethylphosphinerothodium), addition and insertion reactions of oxygen and its congeners to the Rh_2P_2 unit in (B. Klingert, H. Werner), (252) C47
- Bis(phenylethylnyl)aurate(I) complex anion, prepared by ethynylation reactions using bis(phenylethylnyl)cuprate-(I) complex (O.M. Abu-Salah, A.R. Al-Ohaly), (255) C39
- Bis(phosphine)platinum complexes, oxidative addition—reductive elimination sequences in photochemistry of (C. Bartocci, A. Maldotti, S. Sostero, O. Traverso), (253) 253
- Bis(triphenylphosphine)(η -cyclohexa-1,3-diene)rhenium trihydride, crystal structure of (D. Baudry, M. Ephritikhine, H. Felkin, Y. Dromzee, Y. Jeannin), (272) 403
- Bis(triphenylphosphine)platinum insertion into inorganic triatomic rings coordinated to metal—ligand moieties (M. Di Vaira, S. Moneti, M. Peruzzini, P. Stoppioni), (266) C8
- Bis(triphenylphosphinetricarbonyliridium), reactions with substituted acetylenes of; synthesis, crystal and molecular structure of diphenylacetylene/bis-(triphenylphosphinedicarbonyliridium)-benzene (1/1) (M. Angoletta, P.L. Bellon, F. Demartin), (267) 199
- 1-Boraadamantane, reaction with phosphorus ylides; synthesis of 4-alkyl-3-borahomoadamantanes (M.E. Gurskii, D.G. Pershin, V.M. Mikhailov), (260) 17
- Buta-1,3-diene, reactions with ruthenium atoms of, synthesis of $[\text{RuL}(\eta^4-C_4H_6)_2]$ ($L = \text{PF}_3, \text{CO}, (\text{CH}_3)_3\text{CNC}$) (D. Minniti, P.L. Timms), (258) C12
- Carbonyl complexes as a mean to probe chelating ligand sites of phosphines on silica gel (M. Berglund, C. Andersson, R. Larsson), (258) 195
- Carbonylchlorobis(dimethylphenylphosphine)(η^3 -pentadienyl)ruthenium, preparation and ^1H NMR spectra of (M. De Los Angeles Pas-Sandoval, P. Powell), (252) 205
- Carbonylchloro(η^5 -cyclopentadienyl)-molybdenum and tungsten chiral complexes with N,N -diphenylphosphino- α -amino acid esters, ($\eta^5-C_5H_5$)-(CO)(Cl)M(Ph₂P)₂NCHRCO₂Me (M = Mo, W) (H.-G. Fick, W. Beck), (252) 83
- μ -Carbonyl- μ -chlorodi[μ -bis(diphenylphosphino)amine- P,P']bis[carbonylrhodium(I)]chloride/methanol, crystal and molecular structure of (G. Liehr, G. Szucsányi, J. Ellermann), (265) 95
- [1-Carbonyl-1-(η^5 -cyclopentadienyl)-2,2-diphenyl-3-methyl-1-trimethylphosphine-1-tungsta-2-phosphabicyclo-[1.1.0]butan-4-one] hexafluorophosphate, synthesis of an η^2 -phosphinocarbene complex by decarbonylation of (F.R. Kreissl, M. Wolfgruber, W.J. Sieber), (270) C4
- [1-Carbonyl-1- η^5 -cyclopentadienyl-1-trimethylphosphinetungsta-2,2-dimethylphospho-3-methylbicyclo[1.1.0]butan-4-one] chloride, preparation, spectra and X-ray analysis of (F.R. Kreissl, M. Wolfgruber, W. Sieber, K. Ackermann), (252) C39
- Carbonyliron-carbonylmolybdenum-fluorophosphine complex, $(\text{CO})_4\text{FeP}-[\text{N}(\text{C}_6\text{H}_5)\text{PF}_2]_3\text{Mo}(\text{CO})_3$, synthesis of (R.B. King, M. Shimura), (256) 71
- Carbonylmetal(0) complexes with diphosphanes $R(X)\text{PP}(X)R$ ($R = \text{aryl}$, $X = \text{Br}, \text{I}, \text{H}, \text{C}_4\text{H}_9$) as bridging ligands (A.-M. Hinke, A. Hinke, W. Kuchen), (258) 307
- Carbonyl-, nitrosylcarbonyl- and nitro-syl-metal complexes of bis(diphenylphosphino)amines (J. Ellermann, W. Wend), (258) 21
- Carbonylmolybdenum(0) substituted complexes, $\text{Mo}(\text{CO})_2(\text{PPh}_3)_2(\text{DAB})$ and $\text{Mo}(\text{CO})_4(\text{DAB})$ ($\text{DAB} = 1,4$ -diazabutadiene), reactions with HgX_2

- (X = Cl, I, SCN) and SnCl_4 of (M. Iglesias, A. Llorente, C. Del Pino, A. Santos), (256) 75
- Carbonyl-molybdenum and -tungsten complexes, observation of tetrafluoroborate coordination by ^{19}F and ^{31}P NMR spectroscopy of (K. Sünkel, G. Urban, W. Beck), (252) 187
- β -Carbonyl phosphonates, formation from lithiated phosphonate carbanions from (E. Elia Aboujaoude, N. Collignon, P. Savignac), (264) 9
- Carbonylrhodium(I) complexes with (*S,S*)-donor ligands and tertiary phosphines, synthesis and study of (J. V. Heras, E. Pinilla, P. Ovejero), (269) 277
- Carbonylvanadium complexes, ^{51}V NMR spectroscopic investigation of vanadium—metal bonds in (R. Talay, D. Rehder), (262) 25
- Carborane cage compounds containing polynuclear chains, synthesis of (M.N. Bochkarev, E.A. Fedorova, G.A. Razuvaev, V.I. Bregadze, V.Ts. Kampel), (265) 117
- α -Carboranylphosphine-palladium(II) and -platinum(II) complexes, intramolecular metallation of (V.N. Kalinin, A.V. Usatov, L.I. Zakharkin), (254) 127
- ($\mu\text{-C}_5\text{H}_5$) $(\mu\text{-CO})\overline{\text{Fe}(\text{CO})_2\text{Rh(dppe)}}$, synthesis and structure of (G.-Y. Lin, J. Takats), (269) C4
- [($\eta^5\text{C}_5\text{H}_5$) $\text{Fe}(\text{L})_2\text{CO}$] $^+$ (L = tertiary phosphine), reduction of; product control by variation of phosphine ligands (S.G. Davies, S.J. Simpson), (268) C53
- ($\eta^5\text{C}_5\text{H}_5$) $\text{Mn}(\text{CO})(\text{Ph}_2\text{PCH}_2\text{CH}_2\text{PPh}_2)$, formation of geometrical isomers during protonation of (B.V. Lokshin, M.G. Yezernitskaya), (256) 89
- Chlorocarbonylrhodium(I) complexes containing 1,3-di-*t*-butyl-2,4-dihalo-cyclodiphosphazanes (PXN-t-Bu_2)₂ (X = Cl, F) and related ligands, synthesis and ^{31}P NMR spectra of (J.C.T.R. Burckett St. Laurent, J. Sinclair, J.F. Nixon), (262) 379
- [$(\text{C}_6\text{H}_5)_3\text{P}]_2\text{N}^+[(\text{o phen})(\text{CO})(\text{CN})_2\text{W}-(\text{O}:\text{C}:\text{CC}_6\text{H}_5)]^-$ (o phen = 1,10-phenanthroline), anionic η^2 -ketene complex, isolation and characterization of (E.O. Fischer, A.C. Filippou, H.G. Alt, K. Ackermann), (254) C21
- Cobalt complexes with thioformaldehyde, selenoformaldehyde and dimethoxycar-
- bonyl ligands (L. Hofmann, H. Werner), (255) C41
- Cobalt unsaturated trinuclear clusters, metal-bonded hydrogen atom in; crystal structure of $\text{HCo}_3(\text{CO})_6(\text{PPh}_3)_3$ (P. Bradamante, P. Pino, A. Stefani, G. Fachinetti, P.F. Zanazzi), (251) C47
- Cobaltacyclopentadiene and dinuclear cobalt complexes, preparation and X-ray crystallography of (H. Yamazaki, Y. Wakatsuki), (272) 251
- Cobaltocene and nickelocene, reactivity towards secondary phosphinic chalcogenides, route to polydentate oxygen and sulphur ligands (W. Kläui, W. Eberspach, R. Schwarz), (252) 347
- $\text{Co}(\eta\text{-C}_5\text{Me}_5)(\text{R}_2\text{PCH}_2\text{CH}_2\text{PR}_2)$, synthesis and structural characterization of; photoelectron spectroscopy of pentamethylcyclopentadienylphosphine-cobalt complexes (N. Dudeney, J.C. Green, P. Grebenik, O.N. Kirchner), (252) 221
- Copper(I) catalysts for quantitative hydro-silylation of acetophenone with diphenylsilane (H. Brunner, W. Miehling), (275) C17
- [$\text{Cr}(\text{CO})_5\text{J-P-t-Bu}$, phosphinidene complex with ^{31}P NMR shift outside the documented range (G. Huttner, J. Borm, L. Zsolnai), (263) C33
- (1,5-Cyclooctadiene)-(*S*)-*N*-(diphenylphosphino)-2-diphenylphosphinoxy-methylpyrrolidinerhodium(I) perchlorate, asymmetric hydrogenation catalysed by aminophosphine-phosphiniterhodium complexes and crystal structure of (E. Cesariotti, A. Chiesa, G. Ciani, A. Sironi), (251) 79
- Cyclopentadienylcobalt optically active complexes, preparation, properties and conformation of (H. Brunner, G. Riepl, R. Benn, A. Rufińska), (253) 93
- ($\eta^5\text{-Cyclopentadienyl})(\eta^1\text{-cymantrenyl})$ -iron dicarbonyl and -(triphenylphosphine)iron carbonyl, X-ray structures of (A.S. Batsanov, Yu.T. Struchkov), (266) 295
- Cyclopentadienylcarbonylmanganese-phosphonium ylide complexes; X-ray crystal and molecular structure of ($\eta\text{-C}_5\text{H}_5$) $(\text{CO})_2\text{Mn}^+\text{C}(\text{P}^+\text{Ph}_3)=\text{C}=\text{CpH}_2\cdot\text{CH}_2\text{Cl}_2$ (N.E. Kolobova, L.L. Ivanov, O.S. Zhvanko, O.M. Khitrova, A.S. Batsanov, Yu.T. Struchkov), (265) 271

- Cyclopentadienyltutetium derivatives of triphenylmethylenephosphorane, preparation and ^1H and ^{13}C NMR spectra of (H. Schumann, F.W. Reier), (269) 21
- Cyclopentadienyl(methoxyethenyl)bis(trimethylphosphine)iron, $\text{Cp}(\text{Me}_3\text{P})_2\text{Fe}-\text{C}(\text{OMe})=\text{CH}_2$, "ylidic" reactivity of, proton abstraction from and carbon disulphide addition to (G. Grötsch, W. Malisch), (262) C38
- Cyclopentadienylnickel cations with $\text{R}_1\text{E}-\text{E}'\text{R}_2$ as structural ligand ($\text{E}, \text{E}' = \text{P, As, Sb}$) (N. Kuhn, M. Winter), (256) C5
- Cyclopentadienylnickel complexes, coordination of tetraphenyldiphosphane in (N. Kuhn, M. Winter), (254) C15
- Cyclopentadienylnickel complexes with bulky phosphanes, synthesis and reactivity of (N. Kuhn, N. Heuser, M. Winter), (267) 221
- Cyclopentadienylnickel complexes with hexaalkylphosphoric acid ligands, synthesis and reactivity of (N. Kuhn, M. Winter), (252) C5
- Cyclopentadienylnickel compounds, cleavage reactions with nickel iodide of (N. Kuhn, M. Winter), (269) C47
- Cyclopentadienylnitrosylcarbonylisonitrile complexes of Group VI and cyclopentadienyldicarbonylisonitrile complexes of Group VII, chemistry of (H. Behrens, G. Landgraf, P. Merbach, M. Moll, K.-H. Trummer), (253) 217
- Cyclopentadienylruthenium complexes with chelating diamines and diolefins; crystal structures of $[\text{Ru}(\text{nbd})(\text{PPh}_3)_2(\eta\text{-C}_5\text{H}_4)]\text{ClO}_4$ and $[\text{Ru}[(\eta^6\text{-C}_6\text{H}_5)_2\text{PO}](\eta\text{-C}_5\text{H}_4)]\text{ClO}_4$; new mode of coordination of triphenylphosphine oxide (R. Usón, L.A. Oro, M.A. Ciriano, M.M. Naval, M.C. Apreda, C. Foces-Foces, F.H. Cano, S. García-Blanco), (256) 331
- Cyclopentadienyl-, pentamethylcyclopentadienyl- and alkylethenyl-trialkyl-phosphine-copper and -gold complexes, synthesis and properties of; crystal structure of $\text{C}_5\text{H}_5\text{AuPPr-i}_3$ (H. Werner, H. Otto, T. Ngo-Khac, C. Burschka), (262) 123
- (Cyclopentadienyl)(triisopropyl)diphenyl-acetyleneiridium complexes, synthesis, reactivity and formation of an isomeric iridaindene compound of (H. Werner, A. Höhn), (272) 105
- σ -Cyclopropaneiridium complex, formation by intramolecular activation of a cyclopropylphosphine rearrangement to a chelating σ -vinyl complex (W.J. Youngs, B.L. Simms, J.A. Ibers), (272) 295
- 9-(*N,N*-Dialkylamino)-9-phosphabicyclo[4.2.1]nona-2,4,7-triene, 9-halo-9-phosphabicyclo[4.2.1]nona-2,4,7-triene, reactions with cyclooctatetraenyllithium and nucleophilic substitution of (G. Märkl, B. Alig), (273) 1
- Dialkylphosphine oxides and alkyl alkylphosphonites, oxidative addition to iridium(I) of (T.R.B. Mitchell), (270) 245
- 1,4:3,6-Dianhydro-2,5-dideoxy-2,5-bis(diphenylphosphino)-L-iditol, chiral ligand for asymmetric hydrogenation, preparation with rhodium complexes as catalysts of (J. Bakos, B. Heil, L. Markó), (253) 249
- $[(\text{Diars})\text{Fe}(\text{CO})_2(\text{C}(\text{O})\text{Me})(\text{P-donor})]^+$ BF_4^- salts, fast atom bombardment mass spectra of (B. Gregory, C.R. Jablonski, Y.-P. Wang), (269) 75
- 1,4-Diazabutadiene-tetracarbonylmolybdenum and -triphenylphosphinedicarbonylmolybdenum complexes, reactions with molecular halogens of (M. Iglesias, A. Llorente, C. Del Pino, A. Santos), (263) 193
- Di(1,4-bis(diethylphosphino)butane)-nickel(0), mechanism of oxidative addition of benzonitriles to (G. Favero, A. Morvillo), (260) 363
- Dicarbonyl(η^4 -cyclohexadiene)triphenylphosphineiron, acetylation of (A.J. Birch, W.D. Raverty, A.-Y. Hsu, A.J. Pearson), (260) C59
- α -[Dicarbonyl(η^5 -cyclopentadienyl)trimethylphosphin tungstena]- α -(4-methylphenyl)acetic acid methyl ester, X-ray analysis of (W.J. Sieber, M. Wolfsgruber, F.R. Kreissl, O. Orama), (270) C41
- Dicarbonyl(η^4 -diene)bis(trimethylphosphite)-molybdenum(0) and -tungsten(0), dynamic behaviour of (S. Özkar, C.G. Kreiter), (256) 57
- Dicarbonyl(pentamethylcyclopentadienyl)ruthenium complexes, ylid reactions of (A. Stasunik, W. Malisch), (270) C56
- Dicarbonyl(η^5 -pentamethylcyclopentadienyl)ruthenium ions, $[\text{C}_5\text{Me}_5(\text{CO})_2]$

- Ru^+ , reactivity of (A. Stasunik, D.R. Wilson, W. Malisch), (270) C18
- Dicyclopentadienyl(alkyl)lutetium-methinyltriorganophosphoranes, zwitterionic complexes, synthesis and NMR spectra of (H. Schumann, F.W. Reier, M. Dettlaff), (255) 305
- Di- η^5 -cyclopentadienyldihydridomolybdenum in fragmentation reactions of phosphorus ylids, with $[\text{Me}_3\text{PCH}_2\text{R}]$ - $[\text{HMnCp}_2]$ ($\text{R} = \text{H}, \text{Me}_3\text{Si}$) as intermediates (K. Fiederling, I. Grob, W. Malisch), (255) 299
- Dieneiron tricarbonyl derivatives of 1-phenyl-3,4-dimethylphosphole, synthesis and reactivity of (C.C. Santini, F. Mathey), (266) 285
- Dimethylarsino-, dimethylstibino- and dimethylbismuthino-bridged diastereoisomeric trinuclear complexes, preparation of (D. Greissinger, W. Malisch, H.-A. Kaul), (252) C23
- Dimolybdenum-triruthenium and dimolybdenum-triosmium complexes, $[\text{Mo}_2\text{M}_3(\eta^5\text{-C}_5\text{H}_5)_2(\text{CO})_5(\text{t-BuCP})]$ ($\text{M} = \text{Ru}, \text{Os}$); synthesis of; crystal and molecular structure of di- η^5 -cyclopentadienyltetracarbonyl- μ -(3,3-di-methyl-1-phosphabutyne)-triangulo-triosmium(0), $[\text{Mo}_2(\eta^5\text{-C}_5\text{H}_5)_2(\text{CO})_4(\mu\text{-t-BuCP})\text{Os}_3(\text{CO})_{11}]$, (R. Bartsch, P.B. Hitchcock, M.F. Meidine, J.F. Nixon), (266) C41
- Diorganophosphinoalkyl dimethyltin chloride, synthesis, structure and reactivity of (W. Weichmann), (262) 279
- Diphenyl(ethenylphenyl)phosphinedeca-carbonyltriruthenium, binuclear complex obtained from; isolation and X-ray structure of $\text{Ru}_2(\mu\text{-}\eta^1,\eta^3\text{-MeCC}_6\text{-H}_4\text{PPh}_2)(\text{CO})_6$ (M.I. Bruce, M.L. Williams, B.K. Nicholson), (258) 63
- Diphenylphosphinyl diorganodithioarsinates, sulphotropic rearrangement of; formation of diorganoarsenic(III) diphenyldithiophosphinates (L. Silaghi-Dumitrescu, I. Haiduc), (252) 295
- Diplatinum complex containing one bridging and two chelating dppm ligands; X-ray structure analysis of $[\text{Pt}_2(\text{dppm})_3][\text{PF}_6]_2$ ($\text{dppm} = \text{Ph}_2\text{PCH}_2\text{PPh}_2$) (S.I. Al-Resayes, P.B. Hitchcock, J.F. Nixon), (267) C13
- η^4 -Enonedicarbonyliron-phosphine and -phosphite complexes, kinetics and mechanism of diene exchange in (J.A.S. Howell, J.C. Kola, D.R. Dixon, P.M. Burkinshaw, M.J. Thomas), (266) 83
- η^4 -Enonedicarbonyliron-phosphine and -phosphite complexes, solution structure and fluxional behaviour of (J.A.S. Howell, D.T. Dixon, J.C. Kola), (266) 69
- Ethylene- and 1,3-butadiene-coordinated iron(0) complexes having dimethyl-phenylphosphine ligands, preparation and properties of (S. Komiya, H. Minato, T. Ikariya, T. Yamamoto, A. Yamamoto), (254) 83
- Ethylnylgold(I) complexes, preparation and reactions of (R.J. Cross, M.F. Davidson, A.J. McLennan), (265) C37
- Ferriotris(dimethylamino)silane, $\text{Cp}^-(\text{CO})_2\text{Fe}-\text{Si}(\text{NMe}_2)_3$, synthesis and reactions with iodomethane of (G. Thum, W. Malisch), (264) C5
- Ferrocene, use in organometallic synthesis of; two-step preparation of cyclopentadienyliron acetonitrile and phosphine cations via photolysis of cyclopentadienyliron tricarbonyl of arene cations (D. Catheline, D. Astruc), (272) 417
- Fluorochlorocarbeneosmium complex, $\text{OsCl}_2(\text{CFCl})(\text{CO})(\text{PPPh}_3)_2$, and structure of fluoroalkoxycarbeneruthenium complex, $\text{RuCl}_3(\text{CFOCH}_2\text{CMe}_3)(\text{CO})(\text{PPPh}_3)_2$ (S.V. Hoskins, E.A. Pauptit, W.R. Roper, J.M. Waters), (269) C55
- Gold cluster high nuclearity compounds, molecular orbital analysis of bonding in (K.P. Hall, D.I. Gilmour, D.M.P. Mingos), (268) 275
- Group VI metal carbonyls containing the ligand bis(di-o-tolyl)phosphinomethane, preparation and properties of; crystal and molecular structure of dicarbonylbis(di-o-tolyl)phosphinomethanechromium (G.R. Clark, P.W. Clark), (255) 205
- Halonanosilanes and halofluorosilanes, synthesis of (O. Graalmann, U. Klingebiel), (275) C1
- Halotricarbonylmanganese chelate complexes with phosphino-thioformamide and -thioformimidio esters, ^1H , ^{13}C , ^{31}P and ^{55}Mn NMR spectroscopic investigations of (U. Kunze, A. Bruns, D. Rehder), (268) 213
- Hexacarbonyldiarseniedicobalt, $\text{As}_2\text{Co}_2(\text{CO})_6$, preparation of polynuclear

- complexes from (M. Müller, H. Vahrenkamp), (252) 95
- Hexacarbonyltungsten and some phosphine derivatives, ^{183}W NMR spectroscopy of (R.L. Keiter, D.G. Vander Velde), (258) C34
- High molecular weight complexes containing metal clusters, utility of fast atom bombardment mass spectrometry for characterization of (T. Blumenthal, M.I. Bruce, O. bin Shawkatally, B.N. Green, I. Lewis), (269) C10
- Homoleptic isocyanide complexes, [Re-(CNR)₆]PF₆ (R = Me, Ph, 4-MeC₆H₄), vibrational spectra of (C.J. Cameron, R.A. Walton, D.A. Edwards), (262) 335
- $\text{H}_4\text{Ru}_4(\text{CO})_9(\text{PMe}_2\text{Ph})[\text{P}(\text{OC}_6\text{H}_4\text{Me}-p)_3]-[\text{P}(\text{OCH}_2)_3\text{CET}]$, X-ray structure of (M.I. Bruce, B.K. Nicholson, J.M. Patrick, A.H. White), (254) 361
- Hydridodicobalt cation $[(\text{C}_5\text{H}_5\text{Co})_2(\mu-\text{PMe}_2)_2(\mu-\text{H})]^+$, reactions with C₂(Co₂Me)₂ of; formation and X-ray structure of O=C(OMe)CH=C(CO₂Me)PMe₂ dinuclear complex with 6-electron ligands (R. Zolk, H. Werner), (252) C53
- Hydridotetrakis(triphenylphosphine)rhodium(I), homomolecular esterification of aldehydes catalysed by (M. Massouï, D. Beaupère, L. Nadjo, R. Uzan), (259) 345
- Hydrogenation of ketones with PPh₃-containing rhodium catalysts (S. Törös, L. Kollár, B. Heil, L. Markó), (253) 375
- Hydrosilylation of C=C bonds, catalysis by phosphineruthenium complexes of (R. Marciniec, J. Guliński), (253) 349
- Hydroxymethyliridium(III) compound, formation and addition of the O—H bond to bound acetonitrile of (D.L. Thorn, J.C. Calabrese), (272) 283
- Ir₄(CO)₉[P(CH₃)₂C₆H₅]₄ · 2C₆H₆, crystal and molecular structure of (A.J. Blake, A.G. Osborne), (260) 227
- IrH[*o*-C₆H₄OP(OPh)₂]₂[P(OPh)₃] and Ir-(CH₂SiMe₃)(CO)[P(OMe)₃]₃, reaction products of the system Ir(CH₂EMe₃)-(CO)PPh₃)₂/P(OR)₃ (E = C, Si; R = Ph, Me), (L. Dahlenburg, F. Mirzaei), (251) 125
- Iridium(I) complexes with tetrafluorobenzobarrelene (R. Usón, L.A. Oro, D. Carmona, M.A. Esteruelas), (263) 109
- Iridium(I) terminal methylene complex, Ir(=CH₂)I(CO)(PPh₃)₂, rearrangement to *ortho*-metallated phosphorus ylide complex (G.R. Clark, W.R. Roper, A.H. Wright), (273) C17
- IrX(PPh₃)₃/LiR (X = Br, Cl; R = alkyl, aryl) system (L. Dahlenburgh), (251) 347
- Ligand-nickel(0) systems in reactions with 1,3-dienes in the presence of CO₂, formation of nickelcarboxylates (H. Hoberg, D. Schaefer, B.W. Oster), (266) 313
- Lithium chloride-induced dissociation of cyclopalladated ligands from chloro(ligand-C₂N)-triphenylphosphine palladium(II) complexes in acetic acid solvent (A.D. Ryabov), (268) 91
- Manganaphosphacycloalkanes, insertion of CO₂ into (A. Behr, U. Kanne, G. Thelen), (269) C1
- Manganese(I) carbonyls, with σ -bonded alkynyl ligands; crystal structure of [Co₂(CO)₄] [PhC≡CMn(CO)₄[P(C₆H₁₁)₃]] (G.A. Carriero, V. Riera, D. Miguel, A.M.M. Lanfredi, A. Tiripicchio), (272) C17
- [M₃(*p*-C₆H₄)(μ -PPh₂)₂(CO)₇] (M = Ru, Os), crystal structure of (M.I. Bruce, J.M. Guss, R. Mason, B.W. Skelton, A.H. White), (251) 261
- [MCl{C₅H₅N(6-Cl)-C²}(PR_3)₂] (M = Pd, Pt; PR₃ = PPh₃, PMePh₂ or (PR_3)₂ = dppe), synthesis and characterization of (A. Mantovani), (255) 385
- [M(CO)₄(Ph₂PCH₂PPh₂-*P,P'*)], conversion to [M(CO)₄[(PPh₂)₂CH-*P,P'*]] {[M-(CO)₄(tripod)]} (M = Cr, Mo, W) and subsequent conversion to phosphine oxides, phosphine sulphides and complexes with platinum(II) (S. Al-Jibori, B.L. Shaw), (273) 213
- [$(\text{Me}_5\text{C}_5)\text{Fe}(\text{CO})_2\text{L}]^+$ (L = CO, PPh₃, PMe₃) and [$(\text{Me}_5\text{C}_5)\text{Fe}(\text{CO})(\text{Ph}_2\text{PCH}_2\text{CH}_2\text{PPh}_2)]^+$, preparation and hydride reduction of (S.G. Davies, S.J. Simpson, S.E. Thomas), (254) C29
- Metalloarsinesulphides with trialkylphosphite substituted metal atoms; isomerisation under 1,5-migration from oxygen to sulphur of a methyl group (R. Janta, M. Lukcsa, W. Malisch, D. Kempf, G. Künzel), (266) C22
- Metallo dichlorophosphanes, stabilization by the tricarbonyl(pentamethylcyclopentadienyl)-molybdenum or -tungsten moieties of (R. Maisch, M. Barth, W. Malisch), (260) C35

- Methanol, homologation in the gas phase with supported liquid phase catalyst, $\text{RuCl}_2(\text{CO})_2(\text{PPh}_3)_2 + \text{CoI}_2$ of (W. Strohmeier, G. Herrlein), (263) C1
- 3-Methylbut-2-yn-3-ol/ $\text{Ni}(\text{COD})_2/\text{P}$ system, ligand properties and catalysing effects of (W. Hartmann, K.D. Preuss, H. Singer), (258) 235
- π -Methylenecyclopropanebis(triphenylphosphine)nickel, preparation and properties of (L.S. Isaeva, T.A. Peganova, P.V. Petrovskii, D.B. Furman, S.V. Zotova, A.V. Kudryashev, O.V. Bargin), (258) 357
- 3-Methylphosphacylantrene, structure and conformation of (N. Suryaprakash, A.C. Kunwar, C.L. Khetrapal), (275) 53
- Methyl/trifluoromethyl organometallic compounds, synthesis by low temperature cocodensation of trifluoromethyl radicals and methylalkyl Main Group compounds of (M.A. Guerra, R.L. Armstrong, W.I. Bailey, Jr., R.J. Lagow), (254) 53
- Mixed-metal carbonyl hydrides containing tungsten, synthesis and characterization of; X-ray crystal structure of $[(\text{Ph}_3\text{P})_2\text{N}] [\text{Os}_2\text{WH}(\text{CO})_{14}]$ (M. Fajardo, M.P. Gomez-Sal, B.F.G. Johnson, J. Lewis, P.R. Raithby), (272) C57
- Mixed metal clusters with 3 or 4 different metals containing the $\text{Ph}_2\text{PCH}_2\text{PPh}_2$ (dppm) ligand, synthesis of (P. Braunstein, C. de Méric de Bellefon, M. Ries), (262) C14
- Molybdenum and tungsten complexes with η^3 -trimethylsiloxybutenone ligands, preparation by silylation of phosphonium metallates of (G. Grötsch, W. Malisch, H. Blau), (252) C19
- Molybdenum-rhodium bimetallic complexes, synthesis using as ligands electron-rich molybdenum(0) complexes containing an η^6 -methylidiphenylphosphine ligand of (R. Luck, R.H. Morris), (255) 221
- Monoalkylplatinum(II) complexes with tertiary phosphine ligands, mechanism of thermolysis of; methyl radical elimination from $\text{trans-Pt}(\text{I})(\text{Cd}_3)[\text{P}(\text{CH}_3)_2]_2$ (A. Morville, A. Turco), (258) 383
- Mono-, di- and tri-auration of $\text{H}_4\text{Ru}_{4-}(\text{CO})_{12}$ with $[\{\text{Au}(\text{PPh}_3)\}_3\text{O}][\text{BF}_4]$; X-ray structure of $\text{HRu}_4\text{Au}_3(\text{CO})_{12-}$ (PPh_3)₃ (M.I. Bruce, B.K. Nicholson), (252) 243
- Monocyclopentadienylvanadium dihalide bis-phosphine complexes, preparation and characterization of; crystal structure of ($\eta^5\text{-C}_5\text{H}_5$) $\text{VCl}_2(\text{PMc}_3)_2$ (J. Nieman, J.H. Teuben, J.C. Huffman, K.G. Caulton), (255) 193
- Monohydridohexamethylbenzeneruthenium(II) complexes containing Group V donor ligands, synthesis of; isomerism arising from cyclometallation of a tertiary phosphine at aliphatic and aromatic carbon atoms in (M.A. Bennett, T.-N. Huang, J.L. Latten), (272) 189
- Mono- and di-nuclear rhodium complexes of *meso*- and *dl*-1,1,4,7,10,10-hexaphenyl-1,4,7,10-tetraphosphadecane, stereochemical control of reactivity and complexation geometry of (J.M. Brown, L.R. Canning), (267) 179
- Mono- and bis-(trialkylphosphine)cyclopentadienyl-cobalt and -rhodium derivatives, reactions with CS₂ and CSe₂ of (O. Kolb, H. Werner), (268) 49
- Mono-, bis- and tris-trimethylphosphine-iron(II) complexes, ($\eta^5\text{-C}_5\text{Me}_5$) $\text{Fe}-(\text{PMe}_3)_x(\text{CO})_y(\text{NCMe})_z + \text{PF}_6^-$ ($x + y + z = 3$), synthesis of (D. Catheline, D. Astruc), (269) C33
- trans*- $\text{Mo}(\text{N}_2)_2(\text{Ph}_2\text{PCH}_2\text{CH}_2\text{PPh}_2)_2$, reactions with allyl alcohols, allyl ethers and allylamines of (T. Tatsumi, K. Hashimoto, H. Tominaga, Y. Mizuta, K. Hata, M. Hidai, Y. Uchia), (252) 105
- Multimetal complexes, assemblage using diphosphoxane linkages (P—O—P) of (E.H. Wong, F.C. Bradley, L. Prasad, E.J. Gabe), (263) 167
- $[\text{N}(\text{CH}_2\text{CH}_2\text{PPh}_2)_3]\text{Ni}$, reactivity towards CS₂, SCNPh, and COS; structure of $\eta^2\text{-S,C-bonded phosphoniodithiomethyl ester complex}$ ($\text{Ph}_2\text{PCH}_2\text{CH}_2\text{N}-(\text{CH}_2\text{CH}_2\text{PPh}_2)_2\text{Ni}(\text{CS}_2\text{Me})\text{BPh}_4$ (C. Bianchini, C.A. Ghilardi, A. Meli, A. Orlandini), (270) 251
- Nickel(0)-induced C—C coupling between carbon dioxide and alkynes or alkenes (H. Hoberg, D. Schaefer, G. Burkhardt, C. Krüger, M.J. Ramão), (266) 203
- Nickel(0) insertion into carbon—halogen bonds of *p*-halo-substituted aromatic compounds, electrochemical reduction of (J.F. Fauvarque, C. Chevrot, A.

- Jutand, M. François, J. Perichon), (264) 273
- Nickela heterocyclic compounds from nickel(0) and phenyl isocyanate (H. Hoberg, B.W. Oster, C. Krüger, Y.H. Tsay), (252) 365
- $\text{Ni}(\text{CO})_{4-n}[\text{P}(\text{C}\equiv\text{CC}_6\text{H}_5)_m(\text{C}_6\text{H}_5)_{3-m}]_n$ ($n = 2, 3, 4; m = 3, 2, 1$) (A. Hengefeld, R. Nast), (252) 375
- trans*-NiRR'L₂ ($R, R' = 2$ -tolyl, 2,6-dimethoxy-3-bromophenyl, trichlorovinyl; L = t-methylphosphines), isolation and isomerization of (M. Wada, M. Kumazoe), (259) 245
- Nitrosyl derivatives of high nuclearity carbonyl clusters; synthesis and X-ray analysis of $[(\text{Ph}_3\text{P})_2\text{N}]^+$ salts of $[\text{Os}_{10}\text{C}(\text{CO})_{24}(\mu_2\text{-NO})]^-$ and $[\text{Os}_{10}\text{C}(\text{CO})_{23}(\text{NO})]^-$ (B.F.G. Johnson, J. Lewis, W.J.H. Nelson, J. Puga, D. Braga, K. Henrick, M. McPartlin), (266) 173
- Nitrosylmolybdenum complexes as precatalysts in olefin metathesis (K. Seyferth, R. Taube), (262) 191
- Nonacarbonyl-diiron and -diruthenium, stabilization by bridging diphosphorus ligands of (G. de Leeuw, J.S. Field, R.J. Haines, B. McCulloch, E. Meintjies, C. Monberg, G.M. Olivier, P. Ramdial, C.N. Sampson, B. Sigwart, N.D. Steen, K.G. Moodley), (275) 99
- Organoiridium(I) compounds $\text{Ir}(\text{R})[\text{PhP}(\text{CH}_2\text{CH}_2\text{CH}_2\text{PPh}_2)_2]$ ($\text{R} = \text{alkyl, aryl}$) (E. Arpac, L. Dahlenburg), (251) 361
- $\text{Os}_6(\text{CO})_{14}(\mu_2\text{-PPh}_2)_2(\mu_3\text{-S})_3(\mu_4\text{-S})$, synthesis and crystal and molecular structure of (R.D. Adams, I.T. Horváth, B.E. Segmüller), (262) 243
- Osmium(II) complex with PIPh ligand and terminal phenylphosphinidene complex intermediate, synthesis of (D.S. Bohle, W.R. Roper), (273) C4
- Oxidative coupling of carbon monoxide to nickel, formation of oxalic acid derivatives by (H. Hoberg, F.J. Fañanás, H.J. Riegel), (254) 267
- Palladium-catalysed cross-coupling reactions of mesitylcopper with aryl iodides (N.A. Bumagin, I.O. Kalinovskii, I.P. Beletskaya), (267) C1
- $\text{Pd}(\eta^2\text{-CSe}_2)^-$, $\text{Pt}(\eta^2\text{-CSe}_2)$ - and $\text{Pt}(\eta^2\text{-CSe}_2)$ complexes with mono- and bi-dentate phosphorus ligands, synthesis of (H. Werner, M. Ebner), (258) C52
- Pentacarbonyl-halophosphane-chromium complexes, cathodic reduction of (H.P. Fritz, T. Schöttle), (265) 175
- Pentacarbonyl(triphenylphosphine)tungsten and pentacarbonyl(methoxy-phenyl)methylene)tungsten, enthalpy of formation of (G. Al-Takhin, J.A. Connor, G. Filcher, H.A. Skinner), (265) 263
- Pentamethylcyclopentadienylrhodium trinuclear, homo- and hetero-metal-dinuclear complexes; crystal structure of $\text{C}_5\text{Me}_5[\text{P}(\text{OMe})_3]\text{Rh}(\mu\text{-CO})_2\text{RhC}_5\text{Me}_5$ (H. Werner, B. Klingert, R. Zolk, P. Thometzek), (266) 97
- Peroxonickel-dibromomolybdenum bimetallic system, olefin epoxidation followed by epoxide transformation into 1,2-dibromoalkane by (H. Arzoumanian, R. Lai, J. Metzger, J.-F. Petrignani), (267) 207
- Phosphaalkene-nickel(0) complex formation, influence of the P ligand on the η^1 and η^2 coordination mode in (T.A. van der Knaap, L.W. Jenneskens, H.J. Meeuwissen, F. Bickelhaupt, D. Walther, E. Dinjus, E. Uhlig, A.L. Spek), (254) C33
- Phosphaferrocenes and their protonated derivatives, Mössbauer studies on (B. Lukas, R.M.G. Roberts, J. Silver, A.S. Wells), (256) 103
- (Phosphonium)iron tetracarbonyl cationic complexes, structure/reactivity relationships for (A.H. Cowley, R.A. Kemp, E.A.V. Ebsworth, D.W.H. Rankin, M.D. Walkinshaw), (265) C19
- Phosphido-bridged clusters derived from $\text{Ru}_3(\text{CO})_9(\text{PPh}_3)_3$, photoinduced formation of; crystal and molecular structure of $\text{Ru}_3(\mu\text{-H})(\mu\text{-PPh}_2)_3(\text{CO})_7$ (R.P. Rosen, G.L. Geoffroy, C. Bueno, M.R. Churchill, R.B. Ortega), (254) 89
- Phosphinecobalt carbonylchiral catalysts, asymmetric hydrogenation of $\alpha\beta$ unsaturated ketones with (P. Le Maux, G. Simonneaux), (252) C60
- Phosphinepalladium zerovalent complexes, hydrogen—deuterium exchange reactions catalysed by (G.K. Anderson, A.A. Phipps), (266) C15
- Phosphinerhodium complexes as homogeneous catalysts in stereoselective hydrogenation of cyclic ketones (S. Törös, L. Kollár, B. Heil, L. Markó), (255) 377
- Phosphine-substituted ruthenium carbonyl carboxylates (M. Bianchi, P. Frediani, U. Matteoli, G. Menchi,

- F. Piacenti, G. Petrucci), (259) 207
- Phosphinomethyl-substituted zirconium compounds, synthesis, reactions with CO and molecular structure of $\{[(C_5H_5)_2Zr(CH_2PMe_2)_2]_2Ni\}$** (H.H. Karsch, G. Müller, C. Krüger), (273) 195
- Phosphinylketenyltungsten complex, $\eta^5-C_5H_5(CO)[P(CH_3)_3]ClW[O=C=C-(C_6H_4CH_3)P(CH_3)_2]$, γ -lactone formation with (M. Wolfgruber, F.R. Kreissl), (258) C9**
- Phosphite-induced CO insertion and C—H addition reactions of *ortho*-alkyl-substituted aryliridium compounds, intermediates in (L. Dahlenburg, F. Mirzaei), (251) 113**
- Phosphite-induced CO insertion and C—H addition reactions of *ortho*-alkyl-substituted aryliridium compounds; synthesis and structure of $IrH[C(O)C_6H_3-Et-6-CHR-2][P(OMe)_3]$ ($R = CH_3, H$)** (L. Dahlenburg, F. Mirzaei), (251) 103
- Phosphonite and phosphinite-induced CO insertion and C—H addition reactions of *ortho*-methyl-substituted aryliridium compounds; reversible CH_3 -metallation in $IrH[C(O)C_6H_2Me-4,6-CH_2-2](Ph_2-POMe)_3$** (L. Dahlenburg), (251) 215
- Phosphonous chiral esters, one-pot synthesis and conversion into asymmetric phosphines of (W. Chodkiewicz), (273) C55**
- α -Phosphoramidolithium substituted allylic carbanions as homoenolate reagents with benzophenone (P. Coutrot, J.R. Dormoy, A. Moukimou), (258) C25**
- Phosphorus ligand substitution in penta-nuclear osmium cluster carbonyls; crystal and molecular structures of $[Os_5H_2(CO)_4(PEt_3)_2]$ and $[Os_5H_2(CO)_1_3(PEt_3)P(OMe)_3]$** (B.F.G. Johnson, J. Lewis, P.R. Raithby, M.J. Rosales), (259) C9
- Platinacyclobutan-3-one complexes, synthesis of; X-ray crystal structure of 2,4-diacetyl-1,1-bis(triphenylphosphine)platinacyclobutan-3-one (R.D.W. Kemmitt, P. McKenna, D.R. Russell, L.J.S. Sherry), (253) C59**
- Platinum(I) complex containing bis(di-phenylphosphino)methanide ligand, $[Pt_2(PPh_3)_2(\mu-Ph_2PCHPPh_2)(\mu-Ph_2-PCH_2PPh_2)][PF_6]$; preparation and X-ray crystal structure of (M.P. Brown, A. Yavari, L. Manojlović-Muir, K.W. Muir), (256) C19**
- Platinum(0)-containing diphosphines, mixed ligand complexes of (H.C. Clark, P.N. Kapoor, I.J. McMahon), (265) 107**
- Poly(methylhydrogen-disiloxane), polymer-supported catalysts for the reaction with ethanol of (R.V. Parish, M.I. Vania), (263) 139**
- trans*- $[(PPh_3)_2Pt(CH_2SR)Cl]$ ($R = Me, Ph, C_6H_4Me-p$), preparation and reactions of (H.D. McPherson, J.L. Wardell), (254) 261**
- Propionylruthenium complexes derived from reaction of ethylene and $RuHCl(CO)_2(PPh_3)_2$ (K.R. Grundy, J. Jenkins), (265) 77**
- P_4Se_3 cage molecule as ligand; crystal structure of $[\{N(CH_2CH_2PPh_2)_3\}Ni(P_4Se_3)] \cdot 2C_6H_6$** (M. Di Vaira, M. Peruzzini, P. Stoppioni), (258) 373
- $[Pt_3Au(\mu_2-CO)_3(PCy_3)_4]PF_6$, tetrahedral platinum-gold cluster, synthesis and structural characterization of (C.E. Briant, R.E.M. Wardle, D.M.P. Mingos), (267) C49**
- cis*- and *trans*- $[PtH(C_6Cl_5)(PEt_3)_2]$, preparation of, and "hydride-donor capacity" of *trans*- $[PtH(C_6X_5)(PEt_3)_2]$ complexes ($X = F, Cl$) (D. Carmona, S. Chaloupka, J. Jans, R. Thouvenot, L.M. Venanzi), (275) 303**
- Pt—Hg—Pt containing heterotrimetallic complexes; crystal structure of $[(PPh_3)_2(2,4,6-C_6H_2Cl_3)Pt]_2Hg(O, Rossell, M. Seco, I. Torra, X. Solans, M. Font-Altaba), (270) C63$**
- $[Rh_2Cl_2(CO)_2\{\mu-(PhO)_2PN(Et)P(OPh)_2\}_2]$, reduction products of; crystal structure of $[Rh_2HgCl(\mu-H)-(CO)_2\{\mu-(PhO)_2PN(Et)P(OPh)_2\}_2]$ (J.S. Field, R.J. Haines, E. Meintjes, B. Sigwarth, P.H. Van Rooyen), (268) C43**
- Rhenium dinuclear complex containing a λ^3 -diazadiphosphetidine, synthesis and structure of (O.J. Scherer, R. Anselmann, W.S. Sheldrick), (263) C26**
- cis*- and *trans*- $[RhI(CO)(PAr_3)_2]$ ($Ar =$ aryl), preparation and ready dissociation in solution of (F.R. Hartley, S.G. Murray, D.M. Potter), (254) 119**
- Rhodium and iridium carbonyls and $[Rh(\text{diene})L_2]^+$ as catalysts in homogeneous catalytic reduction of benzal-acetone with carbon monoxide and water (J. Kaspar, R. Spogliarich, A. Cernogoraz, M. Graziani), (255) 371**

- $\text{Rh}(\text{oq})(\text{CO})\text{P}(o\text{-BrC}_6\text{F}_4)\text{Ph}_2]$ type complexes, cyclometallation reactions in; molecular structure of $\text{Rh}(\text{oq})_2[\text{P}(o\text{-C}_6\text{H}_4)\text{Ph}_2]$ (oq = 8-hydroxyquinolinate) (F.L. Barceló, J.C. Besteiro, P. Lahuerta, C. Foces-Foces, F.H. Cano, M. Martinez-Ripoli), (270) 343
- $[\text{Ru}_4(\text{CO})_6\{\text{P}(\text{OMe})_3\}_2](\mu_3\text{C}_5\text{H}_5)_2(\eta\text{-C}_5\text{H}_5)_2$, X-ray structure of (N.D. Feasey, N.J. Forrow, G. Hogarth, S.A.R. Knox, K.A. MacPherson, M.J. Morris, A.G. Orpen), (267) C41
- $\text{Ru}_4(\mu_4\text{-}\eta^2\text{P-HC}\equiv\text{CC}_6\text{H}_4\text{PPh}_2)(\text{CO})_{11} \cdot 0.5\text{CH}_2\text{Cl}_2$, synthesis and structure of (M.I. Bruce, E. Horn, M.R. Snow, M.L. Williams), (255) 255
- $[\text{RuRh}_4(\text{CO})_9(\mu_2\text{-CO})_6]^{2-}$, synthesis of; X-ray crystal structure of bis(triphenylphosphine)iminium salt of (A. Fumagalli, G. Ciani), (272) 91
- Ruthenium trichloride reduction with sodium sand in trimethylphosphine and trimethylphosphine/cyclopentene mixture, formation of $(\text{PMMe}_3)_3\text{HRu}(\mu\text{-CH}_2\text{PMMe}_3)_3$ and $\text{Ru}(\eta^1\text{-C}=\text{CH}(\text{CH}_2)_3(\text{PMMe}_3)_4\text{H}$ from (C.E. Graimann, M.L.H. Green), (275) C12
- Selenocarbonyl complexes of iridium(I) and iridium(III), synthesis and reactions of $\text{IrCl}(\text{CSe})(\text{PPh}_3)_2$ (W.R. Roper, K.G. Town), (252) C97
- Silica-supported catalysts for reactions between ethanol and polymethylhydrogensiloxane, evaluation of (R.V. Parish, M.I. Vania), (260) 41
- (*N*-Silyl)bis(diphenylphosphino)amines and bis(*N*-silyl)diphenylphosphino- amines, isomerism and conformation of (H. Schmidbaur, S. Lauteschläger, F.H. Köhler), (271) 173
- Sorbic acid, preparation from piperylene, CO_2 , isomeric nickel complexes and maleic anhydride of (H. Hoberg, D. Schaefer), (255) C15
- Sulphur dioxide complexes, *O*-silylation of (W.A. Schenk, F.-E. Baumann), (260) C6
- Sulphur dioxide electron-rich complexes, synthesis, structure and isomerisation of (W.A. Schenk, F.-E. Baumann), (256) 261
- Tertiary racemic phosphines and asymmetric chlorophosphines, direct synthesis of (W. Chodkiewicz, D. Guillerm, D. Jore, E. Mathieu, W. Wodzki), (269) 107
- Tetraarsenic trisulphide, cleavage by nickel moieties of (P. Stoppioni, M. Peruzzi), (262) C5
- Tetracarbonylcobalt, role of the cation in reactions with $\text{RuCl}_3 \cdot x\text{H}_2\text{O}$ of; synthesis and molecular structure of $[\text{N}(\text{PPh}_3)_2]_2[\text{Ru}_4(\mu\text{-Cl})_4(\mu\text{-CO})_2(\text{CO})_8]$ (P. Braunstein, J. Rose, Y. Desausoy, J.-P. Mangeot), (256) 125
- Tetracarbonylcobalt and dimethylphenylphosphinetricarbonylcobalt anions, electrochemical oxidation of (Y. Mugnier, P. Reeb, C. Moise, E. Lavori), (254) 111
- cis*-Tetracarbonylhydrogenbis(diphenylphosphinato-*P*)manganese(I), $(\text{CO})_4\text{Mn}[(\text{P}(\text{C}_6\text{H}_5)_2\text{O})_2\text{H}]$, unsymmetrical hydrogen bridge in (R. Fawzi, W. Hiller, I.-P. Lorenz, J. Mohyla, C. Zeiher), (262) C43
- Tetracarbonyl-molybdenum and -tungsten binuclear radical complexes with bridging N-heterocycles and Group VA ligand, ESR evidence for *cis*-configuration of (W. Kaim), (262) 171
- Tetraethylidiphosphite(tedip)-bridged dinuclear manganese(I) carbonyl complexes, synthesis of μ -hydride-bromide compounds; crystal structures of $\text{Mn}_2(\mu\text{-Br})_2(\text{CO})_4$ (tedip)₂ and $\text{Mn}_2(\mu\text{-H})(\mu\text{-Br})(\text{CO})_4$ (tedip)₂ (J. Gimeno, V. Riera, M.A. Ruiz, A.M.M. Lansfredi, A. Tiripicchio), (268) C13
- Tetramethylidiphosphine, semi-empirical SCF-MO study of mass spectral fragmentation of (J.R. Bews, C. Glidewell), (255) 49
- Tetraphenylcyclopentadienyl derivatives of Group IVB elements, unusual reaction with isopropylidenetriphenylphosphorane of (I.V. Borisova, Yu.N. Luzikov, N.N. Zemlyansky, Yu.A. Ustynyuk, I.P. Beletskaya), (268) 11
- Thiocarbonylruthenium(II) complexes; synthesis of $\text{RuCl}_2(\text{CS})(\text{H}_2\text{O})(\text{PPh}_3)_2$ and $\text{RuHCl}(\text{CS})(\text{PPh}_3)_3$ (P.J. Brothers, W.R. Roper), (258) 73
- Thioetherthiol ligands and their iron(II), molybdenum(0) and molybdenum(II) carbonyl complexes, synthesis of (D. Sellmann, U. Kleine-Kleffmann), (258) 315
- Thioketene-cobalt complexes, preparation, structure and properties of (D. Wormsbächer, R. Drews, F. Edelmann, U. Behrens), (270) 93
- Thioketeneiron cluster, $(\text{CH}_3)_4\text{C}_6\text{H}_6\text{CS-Ph}_3)_2(\text{CO})_4\text{Fe}_2$, reaction with excess

- thioketene under formation of a vinylidene complex (H. Umland, U. Behrens), (273) C39
- (μ_3 -Thio)(μ_3 -organophosphido)tris(tricarbonyliron)(2Fe—Fe) complexes, synthesis and crystal structure of (E. Lindner, G.A. Weiss, W. Hiller, R. Fawzi), (255) 245
- Thiophosphinito complexes of iron, preparation, reactive behaviour and mass, IR and NMR spectra of (E. Lindner, C.P. Krieg), (269) 65
- Ti(CH₃)(PH₃)₂(X)₂Y (X = Cl, H; Y = Cl), intramolecular CH...M interaction in and ab initio MO study of structure of (S. Obara, N. Koga, K. Morokuma), (270) C33
- Transition metal-substituted phosphoranes, reactivity of; crystal and molecular structure of 2-pentacarbonylmanganese-1,3,2-benzodioxaphosphole-2-oxide (S.S.C. Chu, R.D. Rosenstein, M. Lattman, B.N. Anand), (265) 45
- Trialkylphosphinetricarbonylnickel complexes, influence of substituents on basicity of (T. Bartik, T. Himmmer, H.-G. Schulte, K. Seevogel), (272) 29
- Trialkyl- and dialkyl-tin sulphides, desulphuration reactions of (G.A. Razuvayev, V.I. Shcherbakov, I.K. Grigor'eva), (264) 245
- Triaryl-phosphines, -arsines and -stibines, symmetrical and unsymmetrical, one pot synthesis from the elements by the S_{RN}1 mechanism of (E.R. Bornancini, R.A. Alonso, R.A. Rossi), (270) 177
- Tributyltin derivatives of phosphorus oxy acids, ¹¹⁹Sn, ³¹P NMR and ^{119m}Sn Mössbauer study of autoassociation of (S.J. Blunden, R. Hill, D.G. Gillies), (270) 39
- Tricarbonyl(cyclopentadienyl)metallate anions of chromium, molybdenum and tungsten, improved synthesis of (U. Behrens, F. Edelmann), (263) 179
- Tricarbonyl(1-methylborinato)chromium derivatives, synthesis of (G.E. Herberich, D. Söhnen), (254) 143
- Tricarbonylphosphine complexes of molybdenum(0), reactions with mercury chloride of (M. Panizo, M. Cano), (266) 247
- Trichloro-1,6-bis(diphenylphosphino)-*trans*-hex-3-enerhodium(III) and dichlorocarbonyl-1,6-bis(diphenylphosphino)-*trans*-hex-3-eneruthenium(II), X-ray structures of (G.R. Clark, K. Marsen), (265) 215
- Trichloronitrosylmolybdenum(II) and dichlorodinitrosylmolybdenum(0) complexes, reactions with EtAlCl₂ of (K. Seyferth, R. Taube), (262) 179
- Trihydridodienerhenium complexes, (Ph_3P)_n-1,3-diene)Re₃, structure and dynamic behaviour in solution of (D. Baudry, M. Ephritikhine, H. Felkin, J. Zakrzewski), (272) 391
- Trihydrosilyl complexes of iron, preparation and metallation with dicobalt octacarbonyl of (H.-U. Wekel, W. Malisch), (264) C10
- Triisopropyl- and tricyclohexyl-phosphineruthenium complexes, deuteration with C₆D₆ and C₇D₈ as the deuterium source of (B. Chaudret), (268) C33
- Trimethylphosphane in reaction with [C₅H₅Ni(C₆H₅)]BF₄ (N. Kuhn, U. Schwenk, M. Winter, R. Mynott), (260) C43
- β -Trimethylphosphonio(α -trimethylsiloxy)vinyl complexes in cleavage reactions of carbonyl groups (H. Blau, K.-H. Griessmann, W. Malisch), (263) C5
- β -Trimethylphosphonio(trimethylsiloxy)-vinylchromium, Cp(CO)(NO)Cr—C—(OSiMe₃)=CH \rightarrow PM₃, isolation and degradation reactions of (H. Blau, K.-H. Griessmann, W. Malisch), (264) C1
- Trimethyltin-diorganothiophosphinates, preparation and vibrational spectra of; crystal structure of Me₃SnOSPMe₂ (A.-F. Shihada, H.A.-A. Jassim, F. Weller), (268) 125
- Trinuclear heterometallic clusters with four different skeletal atoms, synthesis of (P. Thometzek, H. Werner), (252) C29
- Triorganotin(IV) O,O-alkylene dithiophosphates, preparation of (R.J. Rao, G. Srivastava, R.C. Mehrotra), (258) 155
- Triosmium clusters, studies of nucleophilic additions at bridging vinyl ligands in (A.J. Deeming, P.J. Manning), (265) 87
- Triphenylphosphine-gold clusters, reactivity towards isopropyl isocyanide of (W. Bos, J.J. Bour, J.W.A. van der Velden, J.J. Steggerda, A.L. Casalnuovo, L.H. Pignolet), (253) C64

- Triphenylphosphine oxide adduct of tri-3-thienyltin bromide, $\text{Ph}_3\text{PO} \cdot \text{SnBr}(\text{C}_4\text{H}_3\text{S})_3$, crystal and molecular structure of (D.W. Allen, D.J. Derbyshire, I.W. Nowell, J.S. Brooks), (260) 263
- cis*-Triphenylphosphinetetracarbonyl-manganese hydride, *cis*- $\text{HMn}(\text{CO})_4\text{PPH}_3$, photocatalysis of hydrogenation and isomerisation of alkenes by (P.L. Bogdan, P.J. Sullivan, T.A. Donovan, Jr., J.D. Atwood), (269) C51
- Triruthenium anion, reaction with $[\text{O}\{\text{Au}(\text{PPh}_3)\}_3][\text{BF}_4]$, synthesis and structure of $\text{Ru}_3\text{Au}_3(\mu_3\text{-}2\eta^1,\eta^3\text{-C}_2\text{H}_{15})(\text{CO})_5(\text{PPh}_3)_3$ of (M.I. Bruce, O. bin Shawkataly, B.K. Nicholson), (275) 223
- Tris(diphenylphosphino)methane complexes with transition metals, (J.T. Mague, S.E. Dessens), (262) 347
- Tris(pentafluorophenyl)platinate(II) complexes (R. Usón, J. Forniés, M. Thomás, R. Fandos), (263) 253
- Tris(trimethylsilyl)chlorosilane, reactions with sodium and potassium phosphides under formation of a polycyclic silylphosphane $\text{P}_6\text{Si}_4(\text{SiMe}_3)_8$ of (K. Hessler), (266) C1
- Tris(triphenylphosphine)bromonickel, oxidative addition reactions with aryl halides of (M. Anton, N. Clos, G. Muller), (267) 213
- Tris(triphenylphosphine)dichlororuthenium, tetrahaloalkane addition to alkenes in the presence of (W.J. Bland, R. Davis, J.L.A. Durrant), (267) C45
- Tris(triphenylphosphine)-1,5-dimethyl-1,2,4,3-triazaphospholeplatinum(0), $[\text{Pt}(\text{PPh}_3)_3\text{P}=\text{NN}(\text{Me})\text{C}(\text{Me})=\text{N}]$, X-ray molecular structure of (J.G. Kraaijkamp, G. van Koten, K. Vrieze, D.M. Grove, E.A. Klop, A.L. Spek, A. Schmidpeter), (256) 375
- Tris(triphenylphosphine)rhodium as hydrogenation catalyst in *ortho*- and *para*-hydrogen equilibration in solution (J.M. Brown, L.R. Canning, A.J. Downs, A.M. Forster), (255) 103
- Unsaturated mixed-metal cluster anion, electrochemical reduction of; synthesis and X-ray crystal structure of $[(\text{Ph}_3\text{P})_7\text{N}] [\{\text{Os}_2\text{H}(\text{CO})_{10}\}_2\text{Ag}]$ (M. Fajardo, M.P. Gómez-Sal, H.D. Holden, B.F.G. Johnson, J. Lewis, R.C.S. McQueen, P.R. Raithby), (267) C25
- η^2 -Vinyl-metal complexes, isomerism and fluxional behaviour in; crystal and molecular structures of isomers of $[\text{MoCl}\{\eta^2\text{-C}(\text{CF}_3)_2\text{C}(\text{CF}_3)(\text{PET}_3)\}(\text{CF}_3\text{-C}\equiv\text{CCF}_3)(\eta^5\text{-C}_5\text{H}_5)]$ (J.L. Davidson, W.F. Wilson, L. Manojlović-Muir, K.W. Muir), (254) C6
- $[\text{WH}_2\text{Cl}_2(\text{PMe}_2\text{Ph})_4]$, crystal structure and dehydrogenation generating a reactive metal centre of (H. Dadkhah, N. Kashef, R.L. Richards, D.L. Hughes, A.J.L. Pombeiro), (255) C1
- η^6 -Xanthene- and -thioxanthene- η^5 -cyclopentadienyliron cations, keto complexes from and reactions of the fluorenone and xanthone complexes (C.C. Lee, U.S. Gill, R.G. Sutherland), (267) 157
- Ylidic metallacyclopropane complexes, formation of a three-membered ring from a five-membered vinylketone complex; molecular structure of $\text{C}_5\text{H}_5\text{W}(\text{CO})_2[(\text{PMe}_3)\text{HC}-\text{CH}(\text{COMe})]$ (H.G. Alt, U. Thewalt), (268) 235
- Zirconium(IV) heterobimetallic complex with rhodium(I), unexpected formation of monomeric *trans*- $[(\eta^5\text{-C}_5\text{H}_5)_2\text{Zr}(\text{CH}_2\text{PPh}_3)_2\text{Rh}(\text{CO})\text{Cl}]$ (R. Choukroun, D. Gervais), (266) C37
- Zirconocene chloride-ketene dinuclear complex, synthesis by carbonylation of diphenylphosphinomethylzirconium derivative and structure of (R. Choukroun, F. Dahan, D. Gervais), (266) C33

Platinum

- σ -Acetylplatinum(IV) complex, preparation from PtCl_6^{2-} and acetone and detection of platinum(III) compounds by ESR (G.V. Nizova, M.V. Serdobov, A.T. Nikitaev, G.B. Shul'pin), (275) 139
- $[\text{Ag}_2\text{Pt}_4(\mu_3\text{-S})_4(\text{PPh}_3)_8](\text{BF}_4)_2$, 0.25 CHCl_3 , synthesis and characterisation of (C.E. Briant, T.S.A. Hor, N.D. Howells, D.M.P. Mingos), (256) C15
- σ -Arylplatinum(IV) complexes, preparation and ^{199}Pt and ^{13}C NMR spectra of (A.N. Kitaigorodskii, V.M. Nekipelov, A.T. Nikitaev, G.B. Shul'pin), (275) 295
- $[\text{Au}_2\text{Pt}_2(\text{PPh}_3)_4(\text{CN-xylyl})_4](\text{PF}_6)_2$, platinum-gold cluster with a flattened butterfly geometry, synthesis and structural characterisation of (C.E. Briant, D.I. Gilmour, D.M.P. Mingos), (267) C52

- Bis(dimethylmetal(III) glyoximato)-metallate(II) (metal(III) = Al, Ga, In; metal(II) = Ni, Pd, Pt, Cu) (U. Kohler, H.-D. Hausen, J. Weidlein), (272) 387
- Bis(diphenylphosphino)amide-platinum, -palladium and -nickel complexes; crystal structure of $[\text{CH}_3\text{N}[(\text{C}_6\text{H}_5)_2\text{P}]_2\text{Pd}^{2+} \cdot 2\text{SO}_3\text{F}^-$ (H. Schmidbaur, S. Lauteschläger, B. Milewski-Mahlra), (254) 59
- 1,3-Bis[(diphenylphosphino)methyl]-benzene, facile cyclometallation reaction of (H. Rimml, L.M. Venanzi), (259) C6
- 4,5-Bis(diphenylphosphinornethyl)-2,2-dimethyl-1,3-dioxolanecethyleneplatinum(0), olefin displacement under mild conditions from (J.M. Brown, S.J. Cook, S.J. Kimber), (269) C58
- Bis(pentafluorophenyl)platinum and its adducts with ketones, arenes and water (G. Lopez, G. Garcia, J. Galvez, N. Cutillas), (258) 123
- Bis(phosphine)platinum complexes, oxidative addition—reductive elimination sequences in photochemistry of (C. Bartocci, A. Maldotti, S. Sostero, O. Traverso), (253) 253
- Bis(triphenylphosphine)platinum insertion into inorganic triatomic rings coordinated to metal—ligand moieties (M. Di Vaira, S. Moneti, M. Peruzzini, P. Stoppioni), (266) C8
- Carbonylplatinum—rhodium high nuclearity clusters, synthesis and X-ray characterisation of the $[\text{Pt}_2\text{Rh}-(\text{CO})_{22}]^{3-}$ trianion (A. Fumagalli, S. Martinengo, G. Ciani), (273) C46
- Carborane cage compounds containing polymetallic chains, synthesis of (M.N. Bochkarev, E.A. Fedorova, G.A. Razuvaeve, V.I. Bregadze, V.Ts. Kampel), (265) 117
- o*-Carboranylphosphine-palladium(II) and -platinum(II) complexes, intramolecular metallation of (V.N. Kalinin, A.V. Usatov, L.I. Zakharkin), (254) 127
- $[(\text{CF}_3)_3\text{GePt}(\text{PPh}_3)_2]_2\text{Hg}$, synthesis, structure and reactivity of (M.N. Bochkarev, N.L. Ermolaev, L.N. Zakharov, Yu.N. Safyanov, G.A. Razuvaeve, Yu.T. Struchkov), (270) 289
- η^5 -Cyclopentadienyl and η^3 -allyl ligands, electronic effects on the nature of metal—olefin bonds in; reversal of related olefin affinity of palladium(II) and platinum(II) ions (H. Kurosawa, N. Asada, A. Urabe, M. Emoto), (272) 321
- Demercuration reactions of the complexes $[(\text{PPh}_3)_2\text{RPt}-\text{HgR}']$ containing platinum—mercury bonds (M. Crespo, O. Rossell, J. Sales, M. Seco), (273) 415
- cis-Dichloro-(*N*-thionitrosodimethylamine)-(triphenylarsine)palladium(II) complex, X-ray crystal and molecular structure of; synthesis and characterisation of neutral binuclear complexes of palladium(II) and cationic complexes of palladium(II) and platinum(II) containing *N*-thionitrosodimethylamine (G. Tresoldi, G. Bruno, P. Piraino, G. Faraone, G. Bombieri), (265) 311
- cis-Dichloro(*p*-toluidine)(ethyl vinyl ether)platinum(II), restricted rotation of the olefin and amine ligands in (R. Lazzaroni, G. Uccello-Barretta, S. Bertozi, P. Salvadori), (275) 145
- [8-(Dimethylamino)naphthyl]trimethyltin and trimethyltin halide, redistribution reaction between (J.T.B.H. Jastrzebski, C.T. Knaap, G. van Koten), (225) 287
- Diplatinum complex containing one bridging and two chelating dppm ligands; X-ray structure analysis of $[\text{Pt}_2(\text{dppm})_3][\text{PF}_6]_2$ (dppm = $\text{Ph}_2\text{PCH}_2\text{PPH}_2$) (S.I. Al-Resayes, P.B. Hitchcock, J.F. Nixon), (267) C13
- triangulo*-Diplatinum-iron, isomeric *triangulo*-platinum-palladium-iron complexes and related mixed-metal clusters (M.C. Grossel, R.P. Moulding, K.R. Seddon), (253) C50
- Ethyngylgold(I) complexes, preparation and reactions of (R.J. Cross, M.F. Davidson, A.J. McLennan), (265) C37
- Halogenotrimethylplatinum complexes of 2,4,6-trithiaheptane, NMR pyramidal atomic inversion and other intramolecular rearrangements in (E.W. Abel, M.Z.A. Chowdhury, K.G. Orrell, V. Šík), (258) 109
- Interaction of organometallic moieties with carbanions and other electron-rich centres (*Review*) (R.C. Kerber), (254) 131
- $[\text{MCl}(\text{C}_6\text{H}_5\text{N}(6\text{-Cl})-\text{C}^2)](\text{PR}_3)_2$ ($\text{M} = \text{Pd}$, Pt ; $\text{PR}_3 = \text{PPh}_3$, PMePh_2 or $(\text{PR}_3)_2 = \text{dppe}$), synthesis and characterisation of (A. Mantovani), (255) 385

- [M(CO)₄(Ph₂PCH₂PPh₂-P,P')], conversion to [M(CO)₄[(PPH₂)₃CH-P,P']] {[M-(CO)₄(tripod)]} (M = Cr, Mo, W) and subsequent conversion to phosphine oxides, phosphine sulphides and complexes with platinum(II) (S. Al-Jibori, B.L. Shaw), (273) 213
- σ -Methylplatinum(IV) and π -ethylene-platinum(II) complex formation in photochemical and thermal reactions of PtCl₆²⁻ with methyl- and ethyl-tin and -germanium derivatives (G.B. Shul'pin, G.V. Nizova, A.N. Kitaigorodskii, M.V. Serdobov), (275) 273
- 1-Methylpyrid-6-one-2-yl-palladium(II) and -platinum(II) compounds, preparation and reactions of (B. Crociani, F. Di Bianca, A. Giovenco, A. Scrivanti), (269) 295
- Mixed metal clusters with 3 or 4 different metals containing the Ph₂PCH₂PPh₂⁻ (dppm) ligand, synthesis of (P. Braunstein, C. de Méric de Bellefon, M. Ries), (262) C14
- Monoalkylplatinum(II) complexes with tertiary phosphine ligands, mechanism of thermolysis of; methyl radical elimination from *trans*-Pt(I)(CD₃)-[P(CH₃)₂]₂ (A. Morvillo, A. Turco), (258) 383
- Nickel(II) metalloformate, thermally stable compound and its platinum(II) analogue (D.M. Grove, G. van Koten, H.J.C. Ubbels, R. Zoet, A.L. Spek), (263) C10
- π -Olefinplatinum(II) complexes prepared by photochemical and thermal reactions of PtCl₆²⁻ and PtCl₄²⁻ with olefins and alcohols (G.B. Shul'pin, G.V. Nizova, P. Lederer), (275) 283
- Organosilanes, selective redistribution reactions in the presence of chloroplatinic acid of (R.A. Benkeser, M.-H. Yeh), (264) 239
- Pd(η^2 -CSe₂)-, Pt(η^2 -CSe₂)- and Pt(η^2 -CSSe) complexes with mono- and bidentate phosphorus ligands, synthesis of (H. Werner, M. Ebner), (258) C52
- Platinacyclobutan-3-one complexes, synthesis of; X-ray crystal structure of 2,4-diacetyl-1,1-bis(triphenylphosphine)platinacyclobutan-3-one (R.D.W. Kemmitt, P. McKenna, D.R. Russell, L.J.S. Sherry), (253) C59
- Platinum(I) complex containing bis-(diphenylphosphino)methanide ligand, [Pt₂(PPh₃)₂(μ -Ph₂PCH₂PPh₂)₂(μ -Ph₂-PCH₂PPh₂)][PF₆], preparation and X-ray crystal structure of (M.P. Brown, A. Yavari, L. Manojlović-Muir, K.W. Muir), (256) C19
- Platinum(II) complexes with neutral oxygen ligands, photochemical synthesis of; equilibrium of *cis*- and *trans*-di- μ -chlorodichlorobis(trimethyl-2,4,6-pyridine)platinum(II) (J. Auffret, P. Courtot, R. Pichon, R. Rumin, J.Y. Salaun), (262) C19
- Platinum(0)-containing diphosphines, mixed ligand complexes of (H.C. Clark, P.N. Kapoor, I.J. McMahon), (265) 107
- Platinum(II) and mercury(II), organic group transfer reactions between (R.J. Cross, A.J. McLennan), (255) 113
- Platinum and palladium homobinuclear complexes with carbon monoxide, reactions of (P. Dagnac, R. Turpin, R. Poilblanc), (253) 123
- Platinum(II) and platinum(IV) complex formation by reactions of PtCl₆²⁻ with alkanes, olefins and aromatics induced by γ -radiation (M.V. Serdobov, G.V. Nizova, G.B. Shul'pin), (265) C12
- Platinum(IV)-platinum(II) bridged complex, crystal structure of (S.S.M. Ling, R.J. Puddephatt, L. Manojlović-Muir, K.W. Muir), (255) C11
- Platinum condensed polyhedral cluster compounds, bonding in (D.M.P. Mingos, D.G. Evans), (251) C13
- Platinum ylides, reactions including rearrangement to a platinacyclobutane of (R.J. Puddephatt, M.C. Rendle, C.F.H. Tipper), (269) 305
- trans*-[(PPh₃)₂Pt(CH₂SR)Cl] (R = Me, Ph, C₆H₄Me-*p*), preparation and reactions of (H.D. McPherson, J.L. Wardell), (254) 261
- [Pt₃Au(μ ,₂CO)₃(PCy₃)₄]PF₆, tetrahedral platinum-gold cluster, synthesis and structural characterisation of (C.E. Briant, R.W.M. Wardle, D.M.P. Mingos), (267) C49
- cis*- and *trans*-[PtH(C₆Cl₅)(PEt₃)₂], preparation of, and "hydride-donor capacity" of *trans*-[PtH(C₆X₅)(PEt₃)₂] complexes (X = F, Cl) (D. Carmona, S. Chaloupka, J. Jans, R. Thouvenot, L.M. Venanzi), (275) 303
- Pt—Hg—Pt containing heterotrimetallic complexes; crystal structure of [(PPh₃)₂(2,4,6-C₆H₂Cl₃)Pt]₂Hg (O.

- Rossell, M. Seco, I. Torra, X. Solans, M. Font-Altaba), (270) C63
- 2-Pyridyl-palladium(II) and -platinum(II) complexes, protonation and methylation reactions of (B. Crociani, F. Di Bianca, A. Giovenco, A. Scrivanti), (251) 393
- Silica-supported poly- γ -mercaptopropyl-siloxaneplatinum complex, active and stable hydrosilylation catalyst (L.-Z. Wang, Y.-Y. Jiang), (251) 39
- [(*T*erdentate ligand)*M*(μ -H)*M*(terdentate ligand)] cations (*M* = Pd, Pt), stable binuclear complex containing *M*—H—*M* bonds (H. Rimml, L.M. Venanzi), (260) C52
- Tetramethylplatinum(IV) binuclear complex, synthesis, characterisation and reactions of (M. Lashanizadehgan, M. Rashidi, J.E. Hux, R.J. Puddephatt, S.S.M. Ling), (269) 317
- N*-Thionitrosodimethylamine-palladium(II) and -platinum(II) complexes, ligating properties of thionitroso-amines (G. Tresoldi, G. Bruno, F. Crucitti, P. Piraino), (252) 381
- Trimethylplatinum(IV) compounds with chelating nitrogen donor ligands, preparation and characterisation of; crystal and molecular structure of iodotrimethyl[bis(3,5-dimethyl-1-pyrazolyl)methane]platinum(IV) (H.C. Clark, G. Ferguson, V.K. Jain, M. Parvez), (270) 365
- Trimethylsilylacetylenes, cleavage of C—Si bond by *trans*-[(PR_3)₂PtX(R'OH)]-PF₆ cations and formation of cationic alkoxycarbene complexes of platinum(II) (H.C. Clark, V.K. Jain, G.S. Rao), (259) 275
- Trinuclear heterometallic clusters with four different skeletal atoms, synthesis of (P. Thometzek, H. Werner), (252) C29
- Tris(pentafluorophenyl)platinate(II) complexes (R. Usón, J. Forniés, M. Tomás, R. Fandos), (263) 253
- Tris(triphenylphosphine)-1,5-dimethyl-1,2,4,3-triazaphospholeplatinum(0), [$\text{Pt}(\text{PPh}_3)_3\text{P}=\text{NN}(\text{Me})\text{C}(\text{Me})=\text{N}$], X-ray molecular structure of (J.G. Kraaijkamp, G. van Koten, K. Vrieze, D.M. Grove, E.A. Klop, A.L. Spek, A. Schmidpeter), (256) 375
- Xylylisocyanide platinum and palladium complexes (A. Christofides), (259) 355
- Ziegler—Natta catalytic sites, trigonal bipyramidal platinum complexes as models for (P. Ammendola, M.R. Ciajolo, A. Panunzi, A. Tuzi), (254) 389
- ## Potassium
- Allyl-alkali-metal compounds, ¹³C NMR investigation of the geometry of (H. Ahlbrecht, K. Zimmermann, G. Boche, G. Decher), (262) 1
- Butyllithium/potassium t-alkoxide reaction mixtures, ESR study of the nature of the counterion in (D. Wilhelm, T. Clark, P.v.R. Schleyer, J.L. Courtneidge, A.G. Davies), (273) C1
- Triethylgermyl radicals, influence of the magnetic field on reactions of (M.B. Taraban, T.V. Leshina, K.M. Salikhov, R.Z. Sagdeev, Yu.N. Molin, O.I. Margorskaya, N.S. Vyazankin), (256) 31
- Triphenylbismuthane, cleavage reactions with potassium of; formation of tetraphenylbismuthane and diphenyl-(ethyl)bismuthane (H.J. Breunig, D. Müller), (253) C21
- Tris(1,10-phenanthroline)potassium salt of μ -hydridobis[pentacarbonyl-chromium(0)], crystal and molecular structure of (G. Bombieri, G. Bruno, M.D. Grillone, G. Polizzotti), (273) 69
- ## Praseodymium
- Carbon dioxide fixation by lanthanide complexes (M.N. Bochkarev, E.A. Fedorova, Yu.F. Radkov, S.Ya. Khorshev, G.S. Kalinina, G.A. Razuvaev), (258) C29
- Early lanthanocene chlorides, stabilisation using ring-bridged dicyclopentadiene ligand of (C. Qian, C. Ye, H. Lu, Y. Li, Y. Huang), (263) 333
- Organolanthanide halides, preparation by oxidative addition of alkyl halides to metallic lanthanides of (B.A. Dolgoplosk, E.I. Tinyakova, I.N. Markevich, T.V. Soboleva, G.M. Chernenko, O.K. Sharaev, V.A. Yakovlev), (255) 71
- Tricyclopentadienylpraseodymium(III), X-ray structure analysis of (W.

Hinrichs, D. Melzer, M. Rehwoldt,
W. Jahn, R.D. Fischer), (251) 299

Rhenium

Arenetricarbonyl-chromium, -manganese and -iron, dependence of electrophilicity of coordinated cyclic π -hydrocarbons on the metal in (Y.K. Chung, E.D. Honig, D.A. Schweigart), (256) 277

Benzamido-bridged rhenium carbonyl cluster produced by attack of OH⁻ on coordinated PhCN; X-ray characterization of [Re₃(μ -H)₃(CO)₁₀(μ - η^2 -OC(Ph)NH)]⁻ (T. Beringhelli, E. Cesarotti, G. Ciani, G. D'Alfonso, A. Sironi), (268) C18

Bis(triphenylphosphine)(η -cyclohexa-1,3-diene)rhenium trihydride, crystal structure of (D. Baudry, M. Ephritikhine, H. Felkin, Y. Dromzee, Y. Jeannin), (272) 403

t-Butylisocyanidenonacarbonyldirhenium(0), Re₂(CO)₉(CNBu^t), synthesis and crystal structure of (M.O. Albers, J.C.A. Boeyens, N.J. Coville, G.W. Harris), (260) 99

Carbenium ion structure of [Os₃H₂(CO)₇CCR]⁺ complexes, applications of the ¹⁸⁷Os nucleus (A.A. Koridze, O.A. Kizas, N.E. Kolobova, P.V. Petrovskii, E.I. Fedin), (265) C33

[fac-(CO)₃Re(CH₃CO)₃]BBr, crystal and molecular structure of and further refinement of the structure of [fac-(OC)₃Re(CH₃CO)₃]BCl (A.J. Baskar, C.M. Lukehart), (254) 149

π -Cyclopentadienyl(dicarbonyl)[aryl(halogeno)carbene]-manganese and -rhenium complexes, synthesis, properties and spectra of (E.O. Fischer, J. Chen, K. Scherzer), (253) 231

Cyclopentadienyldicarbonyl ferriodithiocarbonic acid anion, reactions with metal compounds of (H. Stolzenberg, W.P. Fehlhammer, M. Monari, V. Zanotti, L. Busetto), (272) 73

Cyclopentadienylnitrosylcarbonylisonitrile complexes of Group VI and cyclopentadienyldicarbonylisonitrile complexes of Group VII, chemistry of (H. Behrens, G. Landgraf, P. Merbach, M. Moll, K.-H. Trummer), (253) 217

Cyclopentadienyltricarbonylmolybdenum cation, reactions with methylcarbonyl

complexes, cobaltocene, nickelocene and cyclopentadienyldicarbonylcobalt of; structure of acetylene-bridged [(π -C₅H₅)(CO)₂FeC(CH₃)OMo(CO)₃(π -C₅H₅)]⁺ SbF₆⁻ (K. Sünkel, U. Nagel, W. Beck), (251) 227

Decacarbonyldirhenium(0), photochemically induced addition of aldehydes to (C.G. Kreiter, K.-H. Franzreb, W.S. Sheldrick), (270) 71

Decacarbonyldirhenium and pentacarbonylrhenium derivatives, enthalpies of formation of (C. Al-Takhin, J.A. Connor, H.A. Skinner), (259) 313

Dirhenium complexes containing linked diphenylacetylene molecules, preparation by photolysis from H₃Re₂(CO)₁₂ and PhC≡CPh; crystal and molecular structures of Re₂(CO)₅(C₆Ph₄)(C₂Ph₂) and Re₂(CO)₄(C₆Ph₄)(C₂Ph₂) · ½ hexane (D.B. Pourreau, R.R. Whittle, G.L. Geoffroy), (273) 333

[Fe(π -C₅H₅)(CO)₃][FeCl₄] and [M(CO)₅Cl] (M = Mn, Re), convenient high yield syntheses of (A.R. Manning, G. McNally, R. Davies, C.C. Rowland), (259) C15

Heterobimetallic compounds, protonation of metal—metal bonds linked by a heterodifunctional ligand in (C.P. Casey, R.M. Bullock), (251) 245

Homoleptic isocyanide complexes, [Re-(CNR)₆]PF₆ (R = Me, Ph, 4-MeC₆H₄), vibrational spectra of (C.J. Cameron, R.A. Walton, D.A. Edwards), (262) 335

K₂ReX₆ (X = Br, I) and Re₃X₉ (X = Cl, Br, I), reactions with alkyl and aryl isocyanides of (C.J. Cameron, D.E. Wigley, R.E. Wild, T.E. Wood, R.A. Walton), (255) 345

Manganese, technetium, and rhenium; Annual Survey covering the year 1982 (P.M. Treichel), (261) 69

Metal carbonyl ions, evidence for a negative charge on hydrogen for (R.L. Sweany, J.W. Owens), (255) 327

Rhenium-based catalyst used in heterogeneous metathesis of unsaturated esters (R.H.A. Bosma, G.C.N. van den Aardweg, J.C. Mol), (255) 159

Rhenium dinuclear complex containing a λ^3 -diazadiphosphhetidine, synthesis and structure of (O.J. Scherer, R. Anselmann, W.S. Sheldrick), (263) C26

(2,2,6,6-Tetramethylpiperidinyl-1-oxo-

- O,N*)tricarbonylmanganese(0), synthesis and X-ray structure of; side-on coordination of the nitroxyl radical to manganese (P. Jaitner, W. Huber, G. Huttner, O. Scheidsteiger), (259) C1
- Thiazylbis(trifluoromethyl) nitroxide cationic transition metal complexes (G. Hartmann, R. Mews, G.M. Sheldrick), (252) 195
- Tricarbonyl (η^5 -pentamethylcyclopentadienyl)rhenium, oxidative decarbonylation processes in the photochemistry of (W.A. Herrmann, R. Serrano, A. Schäfer, U. Küsthhardt, M.L. Ziegler, E. Guggolz), (272) 55
- Trihydridodienerhenium complexes, (Ph_3P) $(\eta\text{-}1,3\text{-diene})\text{ReH}_3$, structure and dynamic behaviour in solution of (D. Baudry, M. Ephritikhine, H. Felkin, J. Zakrzewski), (272) 391
- cis*-Triphenylphosphinetetracarbonyl-manganese hydride, *cis*-HMn(CO)₄-PPPh₃, photocatalysis of hydrogenation and isomerisation of alkenes by (P.L. Bogdan, P.J. Sullivan, T.A. Donovan, Jr., J.D. Atwood), (269) C51
- Trirhenium carbonyl reactive and versatile cluster obtained by oxidation of $[\text{Re}_3(\mu\text{-H})_4(\text{CO})_{10}]^-$; synthesis, X-ray characterization and reactivity of $\text{Re}_3(\mu\text{-H})_3(\text{CO})_{10}(\text{NCMe})_2$ (G. Ciani, A. Sironi, G. D'Alfonso, P. Romiti, M. Freni), (254) C37
- ## Rhodium
- Allylsilanes, reaction with diethylenene-(η^5 -indenyl)rhodium(I) of (J.W. Fitch, D. Westmoreland), (268) 269
- Binuclear diolefin rhodium(I) compounds, synthesis and reactions of; dichlorodi-1,5-cyclooctadiene(μ -pyrazine)dirhodium(I), [$\{\text{Rh}(1,5\text{-C}_8\text{H}_{12})\text{Cl}\}_2(\mu\text{-C}_4\text{H}_4\text{N}_2)\}$] (R. Halesha, G.K.N. Reddy, S.P.S. Rao, H. Manohar), (252) 231
- Bis(diphenylphosphino)amine, behaviour of di- μ -chlorobis[dicarbonylrhodium(I)] in reactions with (J. Ellermann, G. Szucsányi, K. Geibel, E. Wilhelm), (263) 297
- Bis(diphenylphosphinomethyl)amino acid rhodium complexes, preparation and activity in enantioselective hydration of (K. Kellner, W. Hanke, A. Tzschach, Zs. Nagy-Magos, L. Markó), (268) 175
- Bis(diphenylphosphinomethyl)phenyl-phosphine-bridged trinuclear rhodium complexes, reactivity of; cluster families related by reversible carbon monoxide binding and oxidative addition (A.L. Balch, R.R. Guimerans, M.M. Olmstead), (268) C38
- Bis(pentamethylcyclopentadienyl- μ -dimethylphosphinerrhodium), addition and insertion reactions of oxygen and its congeners to the Rh₂P₂ unit in (B. Klingert, H. Werner), (252) C47
- 3-Borolenes, catalytic olefin isomerisation of (G.E. Herberich, B. Hessner, D. Söhnen), (256) C23
- Carbene-transition-metal complexes as hydrosilylation catalysts (M.F. Lappert, R.K. Maskell), (264) 217
- μ -Carbonyl- μ -chlorodi[μ -bis(diphenylphosphino)amine- P,P']bis[carbonyl-rhodium(I)] chloride/methanol, crystal and molecular structure of (G. Liehr, G. Szucsányi, J. Ellermann), (265) 95
- Carbonylplatinum—rhodium high nuclearity clusters, synthesis and X-ray characterisation of the $[\text{Pt}_2\text{Rh}_9(\text{CO})_{22}]^{3-}$ trianion (A. Fumagalli, S. Martinengo, G. Ciani), (273) C46
- Carbonyl-rhodium and -iridium and [Rh-(diene)L₂]⁺ as catalysts in homogeneous catalytic reduction of benzalacetone with carbon monoxide and water (J. Kaspar, R. Spogliarich, A. Cernogoraz, M. Graziani), (255) 371
- Carbonylrhodium(I) complexes with (S,S)-donor ligands and tertiary phosphines, synthesis and study of (J.V. Heras, E. Pinilla, P. Ovejero), (269) 277
- ($\mu\text{-C}_7\text{H}_7$) $(\mu\text{-CO})\text{Fe}(\text{CO})_2\text{Rh(dppe)}$, synthesis and structure of (G.-Y. Lin, J. Takats), (269) C4
- Chelating trimethylsiloxy diisocyanide ligands and their rhodium(I) complexes, synthesis of; crystal and molecular structure of $[\text{Rh}(\text{-Bu}_2\text{NDiNC})_2]\text{BPh}_4 \cdot 1.5\text{CH}_3\text{CN}$ (DiNC = chelating bidentate isonitrile ligand) (D.T. Plummer, B.A. Karcher, R.A. Jacobson, R.J. Angelici), (260) 347
- Chlorocarbonylrhodium(I) complexes containing 1,3-di-t-butyl-2,4-dihalocyclodiphosphazanes (PXN-t-Bu)₂ (X = Cl, F) and related ligands, synthesis and ³¹P NMR spectra of (J.C.T.R. Burkett St Laurent, J. Sinclair, J.F. Nixon), (262) 379

- $[(\eta^5\text{-C}_5\text{Me}_5)\text{M}(\mu\text{-CO})]_2$, (M = Rh, Co), addition of alkynes under formation of metallacyclic structures to (W.A. Herrmann, C. Bauer, A. Schäfer), (256) 147
- Cobalt, rhodium and iridium; Annual Survey covering the year 1982 (J.T. Mague), (261) 103
- (1,5-Cyclooctadiene)-(S)-N-(diphenylphosphino)-2-diphenylphosphinoxy-methylpyrrolidinerhodium(I) perchlorate, asymmetric hydrogenation catalysed by aminophosphine-phosphinirhodium complexes and crystal structure of (E. Cesarotti, A. Chiesa, G. Ciani, A. Sironi), (251) 79
- 1,4:3,6-Dianhydro-2,5-dideoxy-2,5-bis(diphenylphosphino)-L-iditol, chiral ligand for asymmetric hydrogenation, preparation with rhodium complexes as catalysts of (J. Bakos, B. Heil, L. Markó), (253) 249
- Dimethyl(dimethylsulphoxide)penta-methylcyclopentadienyl-rhodium and -iridium, reactions with acids of (M. Gómez, P.I.W. Yarrow, A. Vázquez de Miguel, P.M. Maitlis), (259) 237
- Dinuclear rhodium, iridium and iron complexes, theoretical semi-empirical study of concerted oxidative additions to (A. Sevin, Yu. Hengtai, P. Chaquin), (262) 391
- Dirhodium centre, intramolecular interaction between organic isocyanates and hexafluorobut-2-yne on; X-ray crystal structure of $(\eta\text{-C}_5\text{H}_5)_2\text{Rh}_2[\mu_2\text{-}\eta^3\text{-C}(\text{CF}_3)_2\text{C}(\text{CF}_3)_2\text{C}(\text{O})\text{N}(\text{Ph})]$ (R.S. Dickson, R.J. Nesbit, H. Pateras, J.M. Patrick, A.H. White), (265) C25
- Dodecanuclear carbido carbonyl cluster anions, $[\text{Rh}_{12}\text{C}_2(\text{CO})_{23}]^{n-}$ ($n = 3, 4$), synthesis of; X-ray characterisation of the $[\text{Rh}_{12}\text{C}_2(\mu\text{-CO})_{10}(\text{CO})_{13}]^{3-}$ trianion (D. Strumolo, C. Seregni, S. Martinengo, V.G. Albano, D. Braga), (252) C93
- 2-Formylnorbornadienecyclopentadienyl-rhodium dialkylacetals, $[\text{Rh}(\eta^2\text{-5,6-}\eta^3\text{-2,3,8-C}_5\text{H}_7\text{-2-CHOR})(\eta^5\text{-C}_5\text{H}_5)]^+$ PF_6^- and BF_4^- , as key intermediates in the synthesis and hydrolysis of (I.T. Chizhevsky, N.E. Kolobova, N.V. Rastova, V.F. Sizoi, P.V. Petrovskii, V.G. Andrianov, Yu.T. Struchkov), (262) 81
- (1-3:5-6) η -Hexadienyl- η^5 -cyclopentadienylrhodium cations, formation by protonation of η^4 -triene complexes of (P. Powell), (266) 307
- Hydridotetrakis(triphenylphosphine)-rhodium(I), homomolecular esterification of aldehydes catalysed by (M. Massoui, D. Beaujère, L. Nadjo, R. Uzan), (259) 345
- Hydroformylation of less reactive olefins with modified rhodium catalysts (P.W.N.M. van Leeuwen, C.F. Roobeek), (258) 343
- Hydrogenation of ketones with PPh_3 -containing rhodium catalysts (S. Törös, L. Kollár, B. Heil, L. Markó), (253) 375
- Hydrosilanes, reactions with trifluoropropene and pentafluorostyrene catalysed by ruthenium, rhodium and palladium complexes of (I. Ojima, T. Fuchikawa, M. Yatabe), (260) 335
- Hydrosilylation using tris(pentanedionato)rhodium(III)-trialkylaluminium as catalyst (A.J. Cornish, M.F. Lappert), (271) 153
- Interaction of organometallic moieties with carbanions and other electron-rich centres (Review) (R.C. Kerber), (254) 131
- α -Ketodiazoalkanes, addition and cyclisation reactions with the metal—metal double bonds of carbonylmetal compounds; formation of metallacyclic structures (W.A. Herrmann, G.W. Kriechbaum, C. Bauer, B. Koumbouris, H. Pfisterer, E. Guggolz, M.L. Ziegler), (262) 89
- Methanol as hydrogen-donor in the presence of Rh, Ru or Ir complexes as catalysts (T.A. Smith, P.M. Maitlis), (269) C7
- μ -Methylene-cobalt and -rhodium complexes, electron-impact decomposition pathways of (K.K. Mayer, E. Fischer, C. Bauer, W.A. Herrmann), (260) 235
- Molybdenum-rhodium bimetallic complexes, synthesis using as ligands electron-rich molybdenum(0) complexes containing an η^6 -methylidiphosphine ligand of (R. Luck, R.H. Morris), (255) 221
- Mono- and bis-(trialkylphosphine)cyclopentadienyl-cobalt and -rhodium derivatives, reactions with CSSe and CSe_2 of (O. Kolb, H. Werner), (268) 49
- Mono- and di-nuclear rhodium complexes of meso- and *dl*-1,1,4,7,10,10-hexa-

- phenyl-1,4,7,10-tetraphosphadecane, stereochemical control of reactivity and complexation geometry of (J.M. Brown, L.R. Canning), (267) 179
- (η^5 -Pentamethylcyclopentadienyl)(η^3 -1,3-dimethylallyl)chlororhodium, X-ray structure of and localized "di- π -olefin- σ " bonding of C_5H_5 in (A.S. Batsanov, Yu.T. Struchkov), (265) 305
- Pentamethylcyclopentadienylrhodium trinuclear, homo- and hetero-metal-dinuclear complexes; crystal structure of $C_5Me_5[P(OMe)_3]Rh(\mu\text{-CO})_2RhC_5$, Me₅ (H. Werner, B. Klingert, R. Zolk, P. Thometzek), (266) 97
- Phosphine stability under hydroformylation conditions (T. Sakakura, T.-A. Kobayashi, T. Hayashi, Y. Kawabata, M. Tanaka, I. Ogata), (267) 171
- Phosphinerhodium complexes as homogeneous catalysts in stereoselective hydrogenation of cyclic ketones (S. Tóros, L. Kollár, B. Heil, L. Markó), (255) 377
- N*-Protected aminoacid derivatives, synthesis from *N*-substituted phthalimides catalysed by Rh and Pd complexes of (G. Delogu, G. Faedda, S. Gladiali), (268) 167
- 2-(1-Pyrrolyl)pyridine, cyclometallation of the pyrrole ring with palladium(II) and rhodium(II) in (M. Nonoyama), (262) 407
- [Rh₂Cl₂(CO)₂{ μ -(PhO)₂PN(Et)P(OPh)₂}]_n, reduction products of; crystal structure of [Rh₂HgCl(μ -H)(CO)₂{ μ -(PhO)₂PN(Et)P(OPh)₂}]_n (J.S. Field, R.J. Haines, E. Meintjies, B. Sigwarth, P.H. Van Rooyen), (268) C43
- [RhFe₅C(CO)₁₆]⁻ and [Rh₅Fe(CO)₁₆]⁻ clusters with a specific disorder of the metal polyhedron, X-ray investigation of (Yu.L. Slovokhotov, Yu.T. Struchkov, V.E. Lopatin, S.P. Gubin), (266) 139
- cis*- and *trans*-[RhI(CO)(PAr₃)₂] (Ar = aryl), preparation and ready dissociation in solution of (F.R. Hartley, S.G. Murray, D.M. Potter), (254) 119
- Rhodocinium substituted salts, synthesis and properties of (J.E. Sheats, W.C. Spink, R.A. Nabinger, D. Nicol, G. Hlatky), (251) 93
- Rhodium(I) and acyclic polyethers, through-space molecular interactions with promotion of oxidative addition between (M.L. Deem), (267) 191
- Rhodium and iridium complexes containing nitrosoarene ligands, preparation and characterization of (G. Vasapollo, P. Giannoccaro, C.F. Nobile, F. Allegretta), (270) 109
- Rhodium-based catalysts used in photocatalytic dehydrogenation of propane-2-ol (C.G. Griggs, D.J.H. Smith), (273) 105
- Rhodium(II) pivalate, reaction of ethyl diazoacetate with haloethylenes in the presence of (D.J. Milner), (262) 85
- Rhodium vapour and cyclodienes, hydroformylation of cyclodienes to cycloalkenecarboxaldehydes using catalysts derived from (P. Salvadori, G. Vitulli, A. Raffaelli, R. Lazzaroni), (258) 351
- Rh(oq)(CO)[P(*o*-BrC₆F₄)Ph₂] type complexes, cyclometallation reactions in; molecular structure of Rh(oq)₂[P(*o*-C₆H₄)Ph₂] (oq = 8-hydroxyquinolinolate) (F.L. Barceló, J.C. Besteiro, P. Lahueru, C. Foces-Foces, F.H. Cano, M. Martinez-Ripoli), (270) 343
- [RuRh₄(CO)₉(μ -CO)₆]²⁻, synthesis of; X-ray crystal structure of bis(tri-phenylphosphine)iminium salt of (A. Fumagalli, G. Ciani), (272) 91
- Seven-membered ring metal chelate complexes, conformational equilibria in (P.A. Chaloner), (266) 191
- Silica-supported catalysts for reactions between ethanol and polymethyl-hydrogensiloxane, evaluation of (R.V. Parish, M.I. Vania), (260) 41
- Trichloro-1,6-bis(diphenylphosphino)-*trans*-hex-3-enerrhodium(III) and dichlorocarbonyl-1,6-bis(diphenylphosphino)-*trans*-hex-3-eneruthenium(II), X-ray structures of (G.R. Clark, K. Marsden), (265) 215
- Tris(diphenylphosphino)methane complexes with transition metals (J.T. Mague, S.E. Dessens), (262) 347
- Tris(triphenylphosphine)rhodium as hydrogenation catalyst in *ortho*- and *para*-hydrogen equilibration in solution (J.M. Brown, L.R. Canning, A.J. Downs, A.M. Forster), (255) 103
- Zirconium(IV) heterobimetallic complex with rhodium(I), unexpected formation of monomeric *trans*-[(η^5 -C₅H₅)₂Zr(CH₂PPh₂)₂Rh(CO)Cl] (R. Choukroun, D. Gervais), (266) C37

Ruthenium

- Alkoxo- and thioato-bridged areneruthenium(II) complexes, synthesis and reactions of; X-ray crystal structure determination of $[\text{Ru}_2(\eta^4\text{-C}_6\text{H}_6)_2\text{-}(\text{OMe})_3][\text{BPh}_4]$ (R.O. Gould, T.A. Stephenson, D.A. Tocher), (263) 375
- Alkyne- and vinylidene-substituted homo- and hetero-metallic clusters, reactivity towards molecular hydrogen in homogeneous conditions of (M. Castiglioni, R. Giordano, E. Sappa), (258) 217
- (η^6 -Arene)(η^4 -cycloocta-1,5-diene)ruthenium(0) complexes as homogeneous hydrogenation catalysts (P. Pertici, G. Vitulli, C. Bigelli, R. Lazzaroni), (275) 113
- Arenecyclopentadienylruthenium cations, reactivity of (N.A. Vol'kenau, I.N. Bolesova, L.S. Shul'pina, A.N. Kitagorodskii), (267) 313
- Arenetricarbonyl-chromium, -manganese and -iron, dependence of electrophilicity of coordinated cyclic π -hydrocarbons on the metal in (Y.K. Chung, E.D. Honig, D.A. Schweigart), (256) 277
- Benzene carbon-hydrogen bond activation using $\text{Ru}(\text{C}_6\text{Me}_6)[\text{PH}(\text{C}_6\text{H}_{11})_2]\text{H}_2$ (R.H. Morris, M. Shiralian), (260) C47
- Bis(1-3:5-6- η -cyclooctadienyl)ruthenium, preparation, NMR spectroscopy and isomerisation via activation of a C-H bond of (K. Itoh, H. Nagashima, T. Ohshima, N. Oshima, H. Nishiyama), (272) 179
- Bis(cyclopentadienyldicarbonylruthenium), $[(\eta^5\text{-C}_5\text{H}_5)\text{Ru}(\text{CO})_2]_2$, synthesis of and methylene addition to (W.A. Herrmann, J.L. Hubbard), (262) C46
- Bis(dicarbonyldichlorotrimethylphosphineruthenium) and dicarbonyldichlorobis(trimethylphosphine)-ruthenium, preparation of; alcoholysis of triethylsilanes catalysed by $(\text{Me}_3\text{P})_2\text{Ru}(\text{CO})_2\text{Cl}_2$ (J. Lippold, H. Singer), (266) C5
- Buta-1,3-diene, reactions with ruthenium atoms of, synthesis of $[\text{RuL}(\eta^4\text{-C}_4\text{H}_4)_2]$ ($\text{L} = \text{PF}_3$, CO, $(\text{CH}_3)_3\text{CNC}$) (D. Minniti, P.L. Timms), (258) C12
- Carbene-transition-metal complexes as hydrosilylation catalysts (M.F. Lappert, R.K. Maskell), (264) 217
- Carbenium ion structure of $[\text{Os}_3\text{H}_3(\text{CO})_6\text{CCR}_2]^+$ complexes, applications of the ^{187}Os nucleus (A.A. Koridze, O.A. Kizas, N.E. Kolobova, P.V. Petrovskii, E.I. Fedin), (265) C33
- β -Carboalkoxyruthenium(II) complexes, synthesis and characterisation of (S. Gopinathan, K. Joseph, C. Gopinathan), (269) 273
- Carbon-nitrogen triple bond activation in the presence of $\text{Ru}_3(\text{CO})_{12}$ and $\text{H}_4\text{Ru}_4(\text{CO})_{12}$ (P.M. Lausarot, M. Turini, G.A. Vaglio, M. Valle, A. Tiripicchio, M. Tiripicchio Camellini, P. Gariboldi), (273) 239
- Carbonylchlorobis(dimethylphenylphosphine)(η^3 -pentadienyl)ruthenium, preparation and ^1H NMR spectra of (M. De Los Angeles Paz-Sandoval, P. Powell), (252) 205
- Carbonyl-iron and -ruthenium complexes, CO insertion in metal-carbon bonds of (M. Pánkowski, M. Bigorgne), (251) 333
- Carboxylic methyl esters, homologation via reductive carbonylation catalysed by a cobalt-ruthenium mixed catalyst (H. Kheradmand, A. Kiennemann, G. Jenner), (251) 339
- ($\eta^5\text{-C}_5\text{H}_5\text{NiRu}_3(\mu\text{-H})(\text{CO})_9(\mu_4\text{-}\eta^2)$ ($\text{C}=\text{CHBu-t}$) and related compounds, "olefin metathesis" reactions of (M. Castiglioni, R. Giordano, E. Sappa), (275) 119
- (CO) $_{10}$ OsRu(CO) $_{10}$ (SiCl $_3$)(Br), dissociation and isomerisation of (M.M. Fleming, R.K. Pomeroy, P. Rushman), (273) C33
- Cryptands containing metallocene units, structure determination by polarisation transfer sequences and 2-D NMR of (P.D. Beer, J. Elliot, P.J. Hammond, C. Dudman, C.D. Hall), (263) C37
- (η^6 -Cycloheptatriene)(η^4 -norbornadiene)-ruthenium(0), preparation and reaction with acetylene of (H. Nagashima, H. Matsuda, K. Itoh), (258) C15
- Cyclopentadienyldicarbonyl ferriodithiocarbonic acid anion, reactions with metal compounds of (H. Stolzenberg, W.P. Fehlhammer, M. Monari, V. Zanotti, L. Busetto), (272) 73
- Cyclopentadienyl- and (pentamethylcyclopentadienyl)-dihalonitrosylruthenium, formation by nitrosylation of $(\eta\text{-R}_5\text{C}_5)\text{Ru}(\text{CO})_2\text{X}$ ($\text{R} = \text{H}, \text{CH}_3$) under UV irradiation of (A. Efraty, G. Elbaze), (260) 331
- Cyclopentadienylruthenium complexes

- with chelating diamines and diolefins; crystal structures of $[\text{Ru}(\text{nbd})(\text{PPh}_3)_2](\eta^5-\text{C}_5\text{H}_5)\text{ClO}_4$ and $[\text{Ru}\{(\eta^6-\text{C}_6\text{H}_5)-\text{Ph}_2\text{PO}\}(\eta^5-\text{C}_5\text{H}_5)]\text{ClO}_4$; new mode of coordination of triphenylphosphine oxide (R. Usón, L.A. Oro, M.A. Ciriano, M.M. Naval, M.C. Apreda, C. Foces-Foces, F.H. Cano, S. García-Blanco), (256) 331
- Dicarbonyl(pentamethylcyclopentadienyl)ruthenium complexes, ylid reactions of (A. Stasunik, W. Malisch), (270) C56
- Dicarbonyl (η^5 -pentamethylcyclopentadienyl)ruthenium ions, $[\text{C}_5\text{Me}_5(\text{CO})_2\text{Ru}]^-$; reactivity of (A. Stasunik, D.R. Wilson, W. Malisch), (270) C18
- Diphenyl(ethenylphenyl)phosphinedeca-carbonyltriruthenium, binuclear complex obtained from; isolation and X-ray structure of $\text{Ru}_2(\mu-\eta^1,\eta^3-\text{MeCC}_6-\text{H}_4\text{PPh}_2)(\text{CO})_6$ (M.I. Bruce, M.L. Williams, B.K. Nicholson), (258) 63
- Dodecacarbonyl-irontriruthenium and -diironruthenium, ligand substitution with tertiary phosphines and phosphites in (T. Venäläinen, T. Pakkanen), (266) 269
- Dodecacarbonyltriruthenium, reaction with dimethyl acetylenedicarboxylate of; crystal and molecular structures of $\text{Ru}_2(\text{CO})_6[\text{C}_4(\text{CO}_2\text{Me})_4]$ (M.I. Bruce, J.G. Matisons, B.W. Skelton, A.H. White), (251) 249
- Dodecacarbonyltriruthenium as catalyst in oxidation of alcohols to esters (Y. Blum, Y. Shvo), (263) 93
- Dodecacarbonyl-triruthenium and -triiron and mixed metal dodecacarbonyls supported on $\gamma\text{-Al}_2\text{O}_3$, hydrogenation of pentynes and pentadienes catalysed by (P.M. Lausarot, G.A. Vaglio, M. Valle), (275) 233
- α -Ferrocenyl carbocations, ^{57}Fe NMR shifts and ^{57}Fe , ^{13}C coupling constants in; direct metal participation in stabilisation of metallocenyl carbocations (A.A. Koridze, N.M. Astakhova, P.V. Petrovskii), (254) 345
- Fluorochlorocarbeneosmium complex, $\text{OsCl}_2(\text{CFCl})(\text{CO})(\text{PPh}_3)_2$, and structure of fluoroalkoxycarbeneruthenium complex, $\text{RuCl}_2(\text{CF}_3\text{OCH}_2\text{CMe}_3)_2(\text{CO})(\text{PPh}_3)_2$ (S.V. Hoskins, R.A. Paupit, W.R. Roper, J.M. Waters), (269) C55
- Heteropentametallic clusters containing three different metals, $\text{MCo}_3(\text{CO})_{12}\text{M}'\text{L}$ ($\text{M} = \text{Fe}, \text{Ru}; \text{M}' = \text{Cu}, \text{Ag}$), synthesis of (P. Braunstein, J. Rosé), (262) 223
- High molecular weight complexes containing metal clusters, utility of fast atom bombardment mass spectrometry for characterisation of (T. Blumenthal, M.I. Bruce, O. bin Shawkataly, B.N. Green, I. Lewis), (269) C10
- $\text{H}_4\text{Ru}_4(\text{CO})_6(\text{PMe}_2\text{Ph})[\text{P}(\text{OC}_6\text{H}_4\text{Me}-p)_3]_2[\text{P}(\text{OCH}_2)_3\text{CET}]$, X-ray structure of (M.I. Bruce, B.K. Nicholson, J.M. Patrick, A.H. White), (254) 361
- Hydrosilanes, reactions with trifluoropropene and pentafluorostyrene catalysed by ruthenium, rhodium and palladium complexes of (I. Ojima, T. Fuchikawa, M. Yatabe), (260) 335
- Hydrosilylation of C=C bonds, catalysis by phosphineruthenium complexes of (R. Marciniec, J. Guliński), (253) 349
- Hydroxo-bridged arene-ruthenium and -osmium complexes, structural characterisation and reactions of (R.O. Gould, C.L. Jones, T.A. Stephenson, D.A. Tocher), (264) 365
- Interaction of organometallic moieties with carbanions and other electron-rich centres (Review) (R.C. Kerber), (254) 131
- Iron and ruthenium electron-rich η^1 -cyano complexes, preparation and properties of (G.J. Baird, S.G. Davies), (262) 215
- Iron-ruthenium centre, organic chemistry of (B.P. Gracey, S.A.R. Knox, K.A. MacPherson, A.G. Orpen, S.R. Stobart), (272) C45
- Iron, ruthenium and osmium; Annual Survey for the year 1978 (J.A. McCleverty), (274) 241
- $[\text{M}_3(\mu_3-\text{C}_6\text{H}_4)(\mu-\text{PPh}_2)_2(\text{CO})_7]$ ($\text{M} = \text{Ru}, \text{Os}$), crystal structure of (M.I. Bruce, J.M. Guss, R. Mason, B.W. Skelton, A.H. White), (251) 261
- Mercury-bridged, nitrosyl-substituted carbonyltriruthenium clusters, synthesis and X-ray crystal structure of $[\text{Ru}_3(\text{NO})(\text{CO})_{10}]_2\text{Hg}$ (M.P. Gómez-Sal, B.F.G. Johnson, J. Lewis, P.R. Raithby, S.N.A.B. Syed-Mustafa), (272) C21
- Methanol, homologation in the gas phase with supported liquid phase catalyst,

- $\text{RuCl}_2(\text{CO})_2(\text{PPh}_3)_2 + \text{CoI}_2$ of (W. Strohmeier, G. Herrlein), (263) C1
- Methanol as hydrogen-donor in the presence of Rh, Ru or Ir complexes as catalysts (T.A. Smith, P.M. Maitlis), (269) C7
- Metallocenylpyrazolines, asymmetric induction in the synthesis of (V.N. Postnov, V.G. Andrianov, Yu.T. Struchkov, A.M. Baran, V.A. Sazonova), (262) 201
- Mono-, di- and tri-auration of $\text{H}_4\text{Ru}_4^{+}$ ($\text{CO})_{12}$ with $[\{\text{Au}(\text{PPh}_3)\}_3\text{O}] [\text{BF}_4^-]$; X-ray structure of $\text{HRu}_4^{+}\text{Au}_3^{+}(\text{CO})_{12}^{-}(\text{PPh}_3)_3$ (M.I. Bruce, B.K. Nicholson), (252) 243
- Monohydridohexamethylbenzeneruthenium(II) complexes containing Group V donor ligands, synthesis of; isomerism arising from cyclometallation of a tertiary phosphine at aliphatic and aromatic carbon atoms in (M.A. Bennett, T.-N. Huang, J.L. Latten), (272) 189
- Nitrosylhydridoruthenium cluster, $\text{HRu}_6^{+}\text{C}(\text{CO})_{15}^{+}(\text{NO})$, synthesis and X-ray crystal structure analysis of (B.F.G. Johnson, J. Lewis, W.J.H. Nelson, J. Puga, M. McPartlin, A. Sironi), (253) C5
- Nonacarbonyl-diiron and -diruthenium, stabilisation by bridging diphosphorus ligands of (G. de Leeuw, J.S. Field, R.J. Haines, B. McCulloch, E. Meintjies, C. Monberg, G.M. Olivier, P. Ramdial, C.N. Sampson, B. Sigwarth, N.D. Steen, K.G. Moodley), (275) 99
- Nonacarbonyltris(μ -hydrido)(μ_3 -methylidyne)triruthenium clusters, relative rates of ligand substitution on; crystal structure of $(\mu\text{-H})_3\text{Ru}_3(\mu_3\text{-CPh})(\text{CO})_7(\text{AsPh}_3)_2$ (Z.A. Rahman, L.R. Beanan, L.M. Bavaro, S.P. Modi, J.B. Keister, M.R. Churchill), (263) 75
- Olefinic tertiary phosphine-containing complexes, X-ray structures of $\text{OsBr}(\text{2-CH}_2=\text{CHC}_6\text{H}_4\text{PPh}_2)(\eta\text{-C}_5\text{H}_5)$ and $\text{Ru}(\eta^3\text{-S}_2\text{CCHMeC}_6\text{H}_4\text{PPh}_2)_2(\eta\text{-C}_5\text{H}_5)$ (M.I. Bruce, T.W. Hambley, M.R. Snow, A.G. Swincer), (273) 361
- Phenylbutenes, asymmetric hydrogenation catalysed by $\text{H}_4\text{Ru}_4^{+}(\text{CO})_{12}^{+}[(-)\text{DIOP}]^-$ of (M. Bianchi, U. Matteoli, P. Frediani, G. Menchi, F. Piacenti, C. Botteghi, M. Marchetti), (252) 317
- Phosphido-bridged clusters derived from $\text{Ru}_3(\text{CO})_9(\text{PPh}_2\text{H})_3$, photoinduced formation of; crystal and molecular structure of $\text{Ru}_3(\mu\text{-H})(\mu\text{-PPh}_2)_3(\text{CO})_7$ (R.P. Rosen, G.L. Geoffroy, C. Bueno, M.R. Churchill, R.B. Ortega), (254) 89
- Phospine stability under hydroformylation conditions (T. Sakakura, T.A. Kobayashi, T. Hayashi, Y. Kawabata, M. Tanaka, I. Ogata), (267) 171
- Phospine-substituted ruthenium carbonyl carboxylates (M. Bianchi, P. Frediani, U. Matteoli, G. Menchi, F. Piacenti, G. Petrucci), (259) 207
- Polythia[n]ruthenocenophanes, syntheses of (S. Akabori, H. Munegumi, S. Saito, M. Sato), (272) C54
- Propionylruthenium complexes derived from reaction of ethylene and $\text{RuHCl}(\text{CO})_2(\text{PPh}_3)_2$ (K.R. Grundy, J. Jenkins), (265) 77
- Rhodium-triosmium heteronuclear cluster, $(\mu\text{-H})_3\text{Os}_3\text{Rh}(\text{CO})_6(\eta^6\text{-C}_6\text{H}_5\text{Me})$, structure of (M.R. Churchill, C. Bueno), (256) 357
- $[\text{Ru}_4(\text{CO})_5\{\text{P}(\text{OMe})_3\}(\mu_3\text{-C}_5\text{H}_4)_2(\eta\text{-C}_5\text{H}_5)_2]$, X-ray structure of (N.D. Feasey, N.J. Forrow, G. Hogarth, S.A.R. Knox, K.A. MacPherson, M.J. Morris, A.G. Orpen), (267) 41
- $\text{Ru}_4(\mu_4\text{-n}^2\text{P-HC}\equiv\text{CC}_6\text{H}_4\text{PPh}_2)(\text{CO})_{11}\cdot 0.5\text{CH}_2\text{Cl}_2$, synthesis and structure of (M.I. Bruce, E. Horn, M.R. Snow, M.L. Williams), (255) 255
- $[\text{RuRh}_4(\text{CO}),(\mu_2\text{-CO})_6]^{2-}$, synthesis of; X-ray crystal structure of bis(triphenylphosphine)iminium salt of (A. Fumagalli, G. Ciani), (272) 91
- Ruthenium and osmium; Annual Survey for the year 1982 (J.B. Keister), (274) 457
- Ruthenium-catalysed oxidation of alcohols and catechols using t-butyl hydroperoxide (Y. Tsuji, T. Ohta, T. Ido, H. Minbu, Y. Watanabe), (270) 333
- Ruthenium(II) complexes of ambident heterocyclic ligands, alkylation of (E.C. Constable, J. Lewis), (254) 105
- Ruthenium(II) dimeric complexes containing bridging carboxylato and aquo ligands; crystal structure of μ -aquobis(μ -trifluoroacetato)bis[η^4 -cycloocta-1,5-diene](trifluoroacetato)ruthenium(II) (M.O. Albers, D.C. Liles, E. Singleton, J.E. Yates), (272) C61
- Ruthenium-cobalt mixed-metal alkyne clusters: $\text{NET}_4[\text{RuCo}_3(\mu\text{-CO})_2(\text{CO})_5(\mu_4\text{-n}^2\text{PhC}\equiv\text{CPh})]$ and $\text{RuCo}_2(\text{CO})_5$

- ($\mu_3\text{-}\eta^2\text{-PhC}\equiv\text{CPh}$), synthesis and structure of (P. Braunstein, J. Rose, O. Bars), (252) C101
- Ruthenium-manganese complexes, unexpected phosphido-bridged complex with metal—metal bond (S. Sabo, B. Chaudret, D. Gervais), (258) C19
- Ruthenium trichloride reduction with sodium sand in trimethylphosphine and trimethylphosphine/cyclopentene mixture, formation of (PM_3)₃ $\text{HRu}(\mu\text{-CH}_2\text{PM}_3)_3$ and $\text{Ru}(\eta^1\text{-C}\equiv\text{CH}(\text{CH}_2)_3)(\text{PM}_3)_4\text{H}$ from (C.E. Graimann, M.L.H. Green), (275) C12
- Tetracarbonylcobalt, role of the cation in reactions with $\text{RuCl}_3 \cdot x\text{H}_2\text{O}$ of; synthesis and molecular structure of [$\text{N}(\text{PPh}_3)_2$]₂[$\text{Ru}_4(\mu\text{-Cl})_4(\mu\text{-CO})_2(\text{CO})_8$] (P. Braunstein, J. Rose, Y. Desausoy, J.-P. Mangeot), (256) 125
- Thiocarbonylruthenium(II) complexes; synthesis of $\text{RuCl}_2(\text{CS})(\text{H}_2\text{O})(\text{PPh}_3)_2$ and $\text{RuHCl}(\text{CS})(\text{PPh}_3)_3$ (P.J. Brothers, W.R. Roper), (258) 73
- Transition metal catalysed interaction of ethylene and alkyl formates (P. Isnard, B. Denise, R.P.A. Sneeden, J.M. Cognion, P. Durual), (256) 135
- Transition metal ions as homogeneous catalysts in cleavage of C—N bond of tertiary amines by acid anhydrides (Bui The Kai, A. Arcelli), (252) C9
- Trichloro-1,6-bis(diphenylphosphino)-*trans*-hex-3-enerrhodium(III) and dichlorocarbonyl-1,6-bis(diphenylphosphino)-*trans*-hex-3-enerruthenium(II), X-ray structures of (G.R. Clark, K. Marsden), (265) 215
- Triisopropyl- and tricyclohexyl-phosphineruthenium complexes, deuteration with C_6D_6 and C_7D_8 as the deuterium source (B. Chaudret), (268) C33
- Triruthenium anion, reaction with [$\text{O}[\text{Au}(\text{PPh}_3)_3][\text{BF}_4]$] of; synthesis and structure of $\text{Ru}_3\text{Au}_s(\mu_3\text{-}2\eta^1, \eta^3\text{-C}_2\text{H}_{15})\text{-}(\text{CO})_8(\text{PPh}_3)_3$ of (M.I. Bruce, O. bin Shawkataly, B.K. Nicholson), (275) 223
- Tris(triphenylphosphine)dichlororuthenium, tetrahaloalkane addition to alkenes in the presence of (W.J. Bland, R. Davis, J.L.A. Durrant), (267) C45
- Samarium**
- Lanthanides of the type RLnI , carboranyl derivatives of (G.Z. Suleimanov, V.I. Bregadze, N.A. Koval'chuk, Kh.S. Khalilov, I.P. Beletskaya), (255) C5
- Selenium**
- 5,5',12,12'-Bis(triseleno)bis(naphthacene-6,11-quinone) 1/1 molecular complex with benzonitrile, ($\text{C}_{18}\text{H}_8\text{Se}_3\text{O}_2$)₂·($\text{C}_6\text{H}_5\text{CN}$), crystal structure of (R.P. Shibaeva, V.F. Kaminskii, E.E. Kostyuchenko, E.B. Yagubskii), (260) 293
- 9,12-*o* and 9,10-*m*-Carboranyl-dithiols and -diselenols, synthesis from S_2Cl_2 or Se_2Cl_2 and *o*- and *m*-carboranes of (L.I. Zakharkin, I.V. Pisareva), (267) 73
- Chromium—sulphur and chromium—selenium bonds, complex formation with, rearrangement reactions of and alkylidene addition to (W.A. Herrmann, J. Rohrmann, A. Schäfer), (265) C1
- Cobalt complexes with thioformaldehyde, selenoformaldehyde and dimethoxy-carboxyl ligands (L. Hofmann, H. Werner), (255) C41
- Diethyl organylchalcogenoalkyl(alkyl)-malonates, $\text{RX}(\text{CH}_2)_n\text{CR}'(\text{COOC}_2\text{H}_5)_2$, and 5-alkyl-5-(organylchalcogenoalkyl)barbiturates, $\text{RX}(\text{CH}_2)_n\tilde{\text{C}}(\text{R}')\text{-CONHC(Y)NHCO}$ (X = Se, Te), synthesis and spectral properties of (R.A. Grigsby, Jr., K.J. Irgolic, F.F. Knapp, Jr.), (259) 171
- Metallaselenaferrocenophanes, $\text{Fe}(\eta^5\text{-C}_5\text{H}_4\text{Se})_2\text{M}(\eta^5\text{-C}_5\text{H}_4\text{R})_2$ (M = Zr, Hf), synthesis and variable temperature ¹H NMR of (B. Gautheron, G. Tainturier), (262) C30
- Mono- and bis-(trialkylphosphine)cyclopentadienyl-cobalt and -rhodium derivatives, reactions with CSSe and CSe_2 of (O. Kolb, H. Werner), (268) 49
- Octa-organyl-spirobis(cyclotristannachalcogenans), conformational isomerism of (H. Puff, E. Friedrichs, R. Hundt, R. Zimmer), (259) 79
- Oxa-, thia- and selena-trisiletanes, formation by ring-expansion reactions of (M. Weidenbruch, A. Schäfer), (269) 231
- $\text{Pd}(\eta^2\text{-CSe}_2)$ -, $\text{Pt}(\eta^2\text{-CSe}_2)$ - and $\text{Pt}(\eta^2\text{-CSSe})$ complexes with mono- and bi-dentate phosphorus ligands, synthesis of (H. Werner, M. Ebner), (258) C52
- Pentacarbonyl-chromium, -molybdenum

- and -tungsten mono- and di-nuclear complexes with the anion radicals of 2,1,3-benzoxadiazole, 2,1,3-benzo-thiadiazole and 2,1,3-benzoselenadiazole (W. Kaim), (264) 317
- Pentacarbonyl(phenylthiophenylselenido)-chromium, molecular structure of (D. Neugebauer, U. Schubert), (256) 43
- Phenylselenyl oriented bromide, NMR spectroscopy of; applications of mixed liquid crystals to organometallic systems (N.S. Prakash, A.C. Kunwar, C.L. Khetrapal), (252) 301
- Photogenerated transient zirconocene and hafnocene, reactions with elemental selenium; synthesis and characterisation of $[(\eta^5\text{-t-BuC}_5\text{H}_4)_2\text{M}(\mu\text{-Se})]$, ($\text{M} = \text{Zr}, \text{Hf}$) (B. Gautheron, G. Tainturier, S. Pouly), (268) C56
- P_4Se_3 cage molecule as ligand; crystal structure of $[\text{N}(\text{CH}_2\text{CH}_2\text{PPh}_2)_3]\text{Ni}\cdot(\text{P}_4\text{Se}_3)\cdot 2\text{C}_6\text{H}_6$ (M. Di Vaira, M. Peruzzini, P. Stoppioni), (258) 373
- Selenium-containing free radicals, generation and stabilization by complex formation of (I.V. Olifirenko, I.P. Romm, E.N. Guryanova, V.V. Troitsky, L.M. Kataeva, V.A. Chernoplekova, E.G. Kataev), (265) 27
- Selenocarbonyl complexes of iridium(I) and iridium(III), synthesis and reactions of $\text{IrCl}(\text{CSe})(\text{PPh}_3)_2$ (W.R. Roper, K.G. Town), (252) C97
- Telluro-1-chromenes, oxidation of (N. Dereu, M. Renson), (258) 163
- Tetraarsenic trisulphide, cleavage by nickel moieties of (P. Stoppioni, M. Peruzzi), (262) C5
- Trialkyl- and dialkyl-tin sulphides, desulphurisation reactions of (G.A. Razuvayev, V.I. Shcherbakov, I.K. Grigor'eva), (264) 245
- Vinylic selenides (Review) (J.V. Comasseto), (253) 131
- ## Silicon
- Alkenyl-chromium, -molybdenum and -tungsten complexes, *cis/trans*- and *E/Z*-isomerisation in (G. Grötsch, W. Malisch), (258) 297
- Alkenylfluorosilanes, synthetic and mechanistic aspects with formation of carbonyl compounds of oxidative cleavage of Si—C bonds in (K. Tamao, M. Akita, M. Kumada), (254) 13
- Alkyl-silicon compounds containing hydro-, fluoro-, amino-, siloxy-, allyl-, phenyl-, and alkoxy-silyl groups, oxidative cleavage reactions with H_2O_2 of (K. Tamao, N. Ishida), (269) C37
- η^2 -Alkyne-hexacarbonyldicobalt complexes with organometallic substituents (Si, Sn, B), preparation and NMR spectra of (P. Galow, A. Sebald, B. Wrackmeyer), (259) 253
- Allylsilanes, reaction with diethylen-(η^5 -indenyl)rhodium(I) of (J.W. Fitch, D. Westmoreland), (268) 269
- Allyl- and allenyl-silanes, stereospecific syntheses and reactions of (I. Fleming, N.K. Terrett), (264) 99
- Arenediazonium salts, formylation with carbon monoxide and silyl hydrides under palladium catalysis of (K. Kikukawa, T. Totoki, F. Wada, T. Matsuda), (270) 283
- Aroyl-silanes, -germanes and -stannanes, ESR investigation of paramagnetic species derived from (A. Alberti, G. Seconi, G.F. Pedulli, A. Degl'Innocenti), (253) 291
- 1*H*-1,3-Benzazarsoles, metallation and substitution reactions of $\lambda^3\text{-As=C-N}$ group in (J. Heinicke, A. Petrasch, A. Tzschach), (258) 257
- 2-Benzoyloxyethylsilanes, $\text{C}_6\text{H}_5\text{COOCH}_2\text{CH}_2\text{SiX}_3$ ($\text{X} = \text{F}, \text{Cl}$), intramolecular coordination in molecules of (M.G. Voronkov, L.I. Cubanova, Yu.L. Frolov, N.F. Chernov, G.A. Gavrilova, N.N. Chipanina), (271) 169
- Benzyltrimethylsilane, reaction with tellurium(IV) chloride of; structure of bis(*p*-trimethylsilyltolyl)tellurium dichloride (R.K. Chadha, J.E. Drake), (268) 141
- Bicyclo[*n.1.0*]alkylsilanes, synthesis and reactivity of (M. Ahra, M. Grignon-Dubois, J. Dunoguès), (271) 15
- Bis(η^5 -1,2-azaborolinyl)cobalt sandwich complexes, oxidation reactions of (G. Schmid, U. Höhner, D. Kampmann, D. Zaika, R. Boese), (256) 225
- Bis(dicarbonyldichlorotrimethylphosphineruthenium) and dicarbonyldichlorobis(trimethylphosphine)ruthenium, preparation of; alcoholysis of triethylsilanes catalysed by $(\text{Me}_3\text{P})_2\text{Ru}(\text{CO})_2\text{Cl}_2$ (J. Lippold, H. Singer), (266) C5
- 1,3-Bis(trimethylsilylallyl)propene, functionalised vinylsilanes prepared

- by reaction with tetrachlorodilithium-palladium from (R.J.P. Corriu, N. Escudié, C. Guérin), (271) C7
- Bis(trimethylsilyl)-butadienyl and -methylbutadienyl acetals, preparation and application in synthesis of (M. Bellassoued, M. Gaudemar), (263) C21
- N,N*-Bis(trimethylsilyl)enamines, preparation via iron carbonyl photocatalysed isomerisation of unsaturated amines (R.J.P. Corriu, V. Huynh, J.J.E. Moreau, M. Pataud-Sat), (255) 359
- cis* - and *trans*-1,4-Bis(trimethylsilyl)-hexamethyl-1,4-disilacyclohexa-2,5-diene, conformational studies and crystal structures of (J.D. Rich, F. Shafiee, K.J. Haller, S.G. Harsy, R. West), (264) 61
- Bis(trimethylsilylmethyl)methyl and related radicals, ESR study of conformational transmission in (M. Kira, M. Akiyama, H. Sakurai), (271) 23
- 1,3-Bis(trimethylsilyl)propenes, formation of silylbutadienes in reactions with carbonyl compounds with fluoride ion catalysts of (R. Corriu, N. Escudié, C. Guérin), (264) 207
- Bis- and tris-(trimethylsilyl)silacyclohexadienes, formation and reactions of (G. Märkl, H. Höllriegl, W. Schlosser), (260) 129
- Carbene-transition-metal complexes as hydrosilylation catalysts (M.F. Lappert, R.K. Maskell), (264) 217
- Carbon dioxide fixation by lanthanide complexes (M.N. Bochkarev, E.A. Fedorova, Yu.F. Radkov, S.Ya. Khorshev, G.S. Kalinina, G.A. Razuvaeva), (258) C29
- Carbonylvanadium complexes, ^{51}V NMR spectroscopic investigation of vanadium—metal bonds in (R. Talay, D. Rehder), (262) 25
- Chelating trimethylsiloxy diisocyanide ligands and their rhodium(I) complexes, synthesis of; crystal and molecular structure of $[\text{Rh}(\text{t-BuDiNC})_2\text{BPh}_4 \cdot 1.5\text{CH}_3\text{CN}$ (DiNC = chelating bidentate isonitrile ligand) (D.T. Plummer, B.A. Karcher, R.A. Jacobson, R.J. Angelici), (260) 347
- Chlorosilanes, metallation by trialkylstannyl anions of (J.-P. Quintard, G. Dumartin, C. Guérin, J. Dubac, A. Laporterie), (266) 123
- Chlorosilanes, tertiary alcoholysis via tetracoordinate silylated quaternary ammonium intermediates of (H.K. Chu, M.D. Johnson, C.L. Frye), (271) 327
- Cobalt or cobalt and iron substituted silicon, germanium and tin complexes, electrochemical reduction of (C. Combes, R.J.P. Corriu, G. Dabosi, B.J.L. Henner, R. Martineau), (270) 131
- (CO)₅CrC(OEt)SiPh₃, fragmentation and cleavage reactions of (U. Schubert, H. Hörnig), (273) C11
- (CO)₅OsRu(CO)₃SiCl₃(Br), dissociation and isomerisation of (M.M. Fleming, R.K. Pomeroy, P. Rushman), (273) C33
- Copper(I) catalysts for quantitative hydro-silylation of acetophenone with diphenylsilane (H. Brunner, W. Miehling), (275) C17
- Cyclopentadienyldicarbonyl ferriodithiocarbonic acid anion, reactions with metal compounds of (H. Stolzenberg, W.P. Fehlhammer, M. Monari, V. Zanotti, L. Busetto), (272) 73
- Cyclopentadienyldicarbonylironidimethyl-triphenyldisilane, ($\eta^5\text{-C}_5\text{H}_5$)Fe(CO)₂-SiMe₂-SiPh₃, synthesis and crystal structure of (L. Párkányi, K.H. Pannell, C. Hernandez), (252) 127
- Cyclopentadienylnitrosylcarbonylisocyanide complexes of Group VI and cyclopentadienyldicarbonylonitrile complexes of Group VII, chemistry of (H. Behrens, G. Landgraf, P. Merbach, M. Moll, K.-H. Trummer), (253) 217
- Cyclosilthianes and 3,3-dimethyl-3-silathietane, IR study of very low pressure pyrolysis products isolated in argon matrices of; new source of 1,1-dimethyl-1-silaethylene, thioformaldehyde and dimethylsilanthione (L.E. Gusel'nikov, V.V. Volkova, V.G. Avakyan, N.S. Nametkin, M.G. Voronkov, S.V. Kirpichenko, E.N. Suslova), (254) 173
- Decaphenyl-1-oxacyclohexasilane • 0.5-C₆H₆, crystal structure of (L. Párkányi, E. Hengge, H. Stüger), (251) 167
- (Dialkylaminomethyl)chloro-silanes and -stannanes, synthesis and reactional behaviour of (A. Tzschach, W. Uhlig, K. Kellner), (266) 17
- Dicarbonyl(η^5 -cyclopentadienyl)(trimethylsilyl)iron, iron—silicon bond cleavage

- using tetrabutylammonium fluoride in (D.F. Marten, S.M. Wilburn), (251) 71
- Dichlorosilylene, gas phase reactions of (*Review*) (E.A. Chernyshev, N.G. Komalenkova, S.A. Bashkirova), (271) 129
- Dicyclopentadienyl(alkyl)lutetium(methinyltriorganophosphoranes, zwitterionic complexes, synthesis and NMR spectra of (H. Schumann, F.W. Reier, M. Dettlaff), (255) 305
- Di- η^5 -cyclopentadienyldihydromolybdenum in fragmentation reactions of phosphorus ylids, with $[\text{Me}_3\text{PCH}_2\text{R}]-[\text{HMnCp}_2]$ ($\text{R} = \text{H}, \text{Me}_3\text{Si}$) as intermediates (K. Fiederling, I. Grob, W. Malisch), (255) 299
- trans*-Difluoroalkenes, preparation from chlorotrifluoroethylene via difluorovinylsilicon intermediates of (S. Martin, R. Sauvêtre, J.-F. Normant), (264) 155
- Dihydrofurylsilanes, interaction with dichlorocarbene under phase-transfer conditions (E. Lukevics, V.N. Gevorgyan, Y.S. Goldberg, A.P. Gaukhman, M.P. Gavars, J.J. Popelis, M.V. Shymanska), (265) 237
- 3-(2,5-Dihydrofuryl)-silanes and -germanes, synthesis and transformations under catalytic hydrogenation conditions of (E. Lukevics, V.N. Gevorgyan, Y.S. Goldberg, M.V. Shymanska), (263) 283
- Dimethoxymethylsilylbis(trimethylsilyl)amine, flash vacuum pyrolysis of; 1,3-sigmatropic rearrangements of silaimine intermediates (S.A. Kazoura, W.P. Weber), (268) 19
- Dimethoxymethylsilylbis(trimethylsilyl)amine and hexamethylcyclotrisiloxane, co-pyrolysis of; 1,3-sigmatropic rearrangements of silaimine intermediates (S.A. Kazoura, W.P. Weber), (271) 47
- Dimethyl derivatives of Main Group IV elements, ionic decomposition processes of (L. Langó, L. Szepes, P. Császár, G. Innorta), (269) 133
- [8-(Dimethylamino)naphthyl]trimethyltin and trimethyltin halide, redistribution reaction between (J.T.B.H. Jastrzebski, C.T. Knaap, G. van Koten), (255) 287
- 13,13-Dimethyl-8,13-dihydro-5*H*-dibenzo[*d,g*][1.2.6]dithiasilonine, crystal and molecular structure of (V.E. Shklover, Yu.T. Struchkov, O.G. Rodin, V.F. Traven', B.I. Stepanov), (266) 117
- 1,1-Dimethyl-2-phenylsilacyclopentane, ring-opening and metallation reactions with methylolithium in THF of (A. Maercker, R. Stötzel), (269) C40
- 1,1-Dimethyl- and 1,1-diphenyl-silacyclopentane, degenerate ligand exchange reactions upon treatment with perdeuterated alkylolithium of (A. Maercker, R. Stötzel), (273) C57
- Dimethylsilylene addition to substituted 1,3-butadienes, rearrangements via diradical intermediates (D. Lei, R.J. Hwang, P.P. Gaspar), (271) 1
- (Z)-*N,N*-Dimethyl-*S*-trimethylsilylketene *S,N*-acetals, *erythro*- or *threo*-selective aldol-type reactions via (C. Goasdoué, N. Goasdoué, M. Gaudemar), (263) 273
- Dinitrogen-molybdenum and -tungsten complexes, trimethylsilylation of (M. Hidai, K. Komori, T. Kodama, D.-M. Jin, T. Takahashi, S. Sugiura, Y. Uchida, Y. Mizobe), (272) 155
- Diorgano(alkoxy)tin asymmetric halides, synthesis and application to stereo-selective reductions of (H. Schumann, B. Pachaly, B.C. Schütze), (265) 145
- Diorganyl-substituted silicon—germanium—oxygen cyclooctanes, preparation and structure of (H. Puff, M.P. Böckmann, T.R. Kök, W. Schuh), (268) 197
- 1,3-Dioxa-6-aza-2-silacyclooctanes, synthesis and structural study of (P. Hegyes, S. Földeák, P. Hencsei, G. Zsombok, J. Nagy), (251) 289
- Disilabenzenes, theoretical studies of (K.K. Baldrige, M.S. Gordon), (271) 369
- 1,2-Disila- and 1,2-digerma-4-cyclohexenes, formation of $\text{R}_2\text{M}=\text{MR}_2$ compounds from (A. Marchand, P. Gerval, F. Duboudin, M. Joanny, P. Mazerolles), (267) 93
- Disilanes, redistribution reactions of (H. Schmöller, E. Hengge), (260) 31
- Disilane derivatives, interpretation of ^{29}Si NMR shifts of (R. Radeglia, G. Engelhardt), (254) C1
- 2,4-Disilathietane ring system from [2+2] cycloaddition of 1,1-dimethyl-1-silaethylene, $\text{Me}_2\text{Si}=\text{CH}_2$, to dimethylsilanthione, $\text{Me}_2\text{Si}=\text{S}$ (L.E. Gusel'nikov, V.V. Volkova, V.G. Avakyan, E.A. Volnina, V.G. Zaikin, N.S. Nametkin,

- A.A. Polyakova, M.I. Tokarev), (271) 191
- Distannanes containing Cp(CO)₂Fe groups, synthesis by electrochemical reduction reactions of (C. Combes, R.J.P. Corriu, G. Dabosi, B.J.L. Henner, M. Martineau), (270) 141**
- Dodecamethylcyclohexasilane, photolysis of (I.S. Alnaimi, W.P. Weber, A.S. Nazran, D. Griller), (272) C10**
- Ethylmethylcyclosilanes, preparation of (A. Katti, C.W. Carlson, R. West), (271) 353**
- Ferriotris(dimethylamino)silane, Cp-(CO)₂Fe—Si(NMe₂)₃, synthesis and reactions with iodomethane of (G. Thum, W. Malisch), (264) C5**
- 1-Fluorosilatrane, molecular structure of (L. Párkányi, P. Hencsei, L. Bihátsi, T. Müller), (269) 1**
- Fluorosilyl-butylaminodichloroalane, synthesis and pyrolysis of; crystal structures of [(Me₃SiNMe)₂SiNCMe₃]₂ and (Me₃CNHAlCl)₂ (W. Clegg, M. Haase, U. Klingebiel, J. Neemann, G. Sheldrick), (251) 281**
- Functionalised silyl triflates, synthesis of (A.R. Bassindale, T. Stout), (271) C1**
- Furylsilanes and their carbon analogues, photoelectron spectroscopy of (B.G. Zykov, N.P. Erchak, V.I. Khvostenko, E. Lukevits, V.F. Matorykina, N.L. Asfandiarov), (253) 301**
- Germanium-73 and other Main Group IV element NMR chemical shifts, relation between (P.J. Watkinson, K.M. Mackay), (275) 39**
- Group IVB substituents, theoretical study of effects on proton affinity of alcohols and amines (R. Ponec, V. Chvalovský, M.G. Voronkov), (264) 163**
- Group IVB tetraphenyl derivatives, UV gas-phase photoelectron spectra of (I. Novak, A.W. Potts), (262) 17**
- Halosilanes, experimental and theoretical study of electrochemical reduction of (P. Duchek, R. Ponec, V. Chvalovský), (271) 101**
- Halosilanol and halofluorosilanes, synthesis of (O. Graalmann, U. Klingebiel), (275) C1**
- Hexamethylsilirane, nucleophilic ring opening by alkyl lithium reagents of (D. Seyferth, G.H. Wiseman, D.C. Annarelli, M.L. Shannon), (264) 149**
- Hexaorgano-disilanes and -digermanes, preparation and reversible dissociation reactions of (W.P. Neumann, K.-D. Schultz, R. Vieler), (264) 179**
- Hexaphenylethane analogs, Ph₃Pb—MPh₃, M = Pb, Sn, Ge, Si, preparation and characterisation of (N. Kleiner, M. Dräger), (270) 151**
- Hydrosilanes, reactions with trifluoropropene and pentafluorostyrene catalysed by ruthenium, rhodium and palladium complexes of (I. Ojima, T. Fuchikawa, M. Yatabe), (260) 335**
- Hydrosilylation catalysis via silyl manganese carbonyl complexes, thermal vs. photochemical activation (S.L. Pratt, R.A. Faltynek), (258) C5**
- Hydrosilylation of C=C bonds, catalysis by phosphineruthenium complexes of (R. Marciniec, J. Guliński), (253) 349**
- Hydrosilylation using tris(pentanedionato)rhodium(III)-trialkylaluminium as catalyst (A.J. Cornish, M.F. Lappert), (271) 153**
- IrH[*o*-C₆H₄OP(OPh)₂]₂[P(OPh)₃] and Ir(CH₂SiMe₃)(CO)[P(OMe)₃]₃, reaction products of the system Ir(CH₂EMe₃)(CO)(PPh₃)₂/P(OR)₃ (E = C, Si; R = Ph, Me) (L. Dahlenburg, F. Mirzaei), (251) 123**
- Iron-coordinated dialkylaminosilyl ligands, anionic shifts to η^5 -cyclopentadienyl groups of (G. Thum, W. Ries, D. Greissinger, W. Malisch), (252) C67**
- IrX(PPh₃)₃/LiR (X = Br, Cl; R = alkyl, aryl) system (L. Dahlenburg), (251) 347**
- Isopropyl- and trimethylsilylmethylene-substituted chlorohydroxotetraorganyl-distannoxanes, crystal structures of (H. Puff, I. Bung, E. Friedrichs, A. Jansen), (254) 23**
- α -Ketodiazoalkanes, addition and cyclisation reactions with the metal—metal double bonds of carbonylmetal compounds; formation of metallacyclic structures (W.A. Herrmann, G.W. Kriegbaum, C. Bauer, B. Koumbouris, H. Pfisterer, E. Guggolz, M.L. Ziegler), (262) 89**
- Lanthanides of the type RLnI, carboranyl derivatives of (G.Z. Suleimanov, V.I. Bregadze, N.A. Koval'chuk, Kh.S. Khalilov, I.P. Beletskaya), (255) C5**
- Lewis-acid-base adduct of methylindium dichloride and t-butylamine, preparation by hydrolysis of dimethylbis(t-butylamino)silane in the presence of**

- methylindium dichloride of (M. Veith, O. Recktenwald), (264) 19
- Lithium organocuprates in reaction with $\text{CH}_3\text{C}(\text{=O})\text{CH}=\text{CHCH}=\text{CHCH}_3$, (F. Barbot, A. Kadib-Elban, P. Miginiac), (255) 1
- Low-dimensional poly-yne polymers containing phthalocyaninesilicon and dimethylsilicon in the polymer backbone, synthesis and spectral study of (I.W. Shim, W.M. Risen, Jr.), (260) 171
- Magnesium hydride, catalysed addition to isoprene and styrene of (B. Bogdanović, M. Maruthamuthu), (272) 115
- Main Group IV elements, relation between element NMR chemical shifts in (T.N. Mitchell), (255) 279
- Manganese insertion into Group IVB—carbon bonds, preparation of complexes from and mechanism of the deinsertion reaction (E. Colomer, R.J.P. Corriu, A. Vioux), (267) 107
- $(\text{Me}_2\text{SiCH}_2\text{CH}_2\text{SiMe}_2)(\text{C}_5\text{H}_4\text{Fe}(\text{CO})_2)_2$, cyclopentadienyl-bridged complex, preparation and reactivity of (K.D. Janda, W.W. McConnell, G.O. Nelson, M.E. Wright), (259) 139
- $\text{Me}_x\text{SiCl}_{4-x}$ ($x = 3, 2, 1, 0$), equilibrium with alkyl carboxylate esters of (G.C. Mbah, J.L. Speier), (271) 77
- Metallaselenafrocenophanes, $\text{Fe}(\eta^5\text{C}_5\text{H}_4\text{Se})_2\text{M}(\eta^5\text{C}_5\text{H}_4\text{R})_2$ ($\text{M} = \text{Zr}, \text{Hf}$), synthesis and variable temperature ^1H NMR of (B. Gautheron, G. Tainturier), (262) C30
- Methoxysilane, purification of (R.H. Chung, S.E. Hayes), (265) 135
- Methylchlorodisilanes, reactions with *gem*-polyhalides catalysed by organic bases of (H. Matsumoto, K. Ohkawa, I. Matsubara, M. Kasahara, T. Arai, Y. Nagai), (264) 29
- Methylchlorodisilylmethanes, structure determination by selective population transfer applied to ^{29}Si NMR of (G. Déléris, M. Birot, J. Dunoguès, B. Barbe, M. Pétraud, M. Lefort), (266) 1
- σ -Methylplatinum(IV) and π -ethylene-platinum(II) complex formation in photochemical and thermal reactions of PtCl_6^{2-} with methyl- and ethyl-tin and -germanium derivatives (G.B. Shul'pin, G.V. Nizova, A.N. Kitaigorodskii, M.V. Serdobov), (275) 277
- Methylpolysiloxanes, interaction with elemental fluorine of (I. Ruppert, K. Schlich, P. Hardt), (267) C29
- α -Methyl- β -silylcarbonyl compounds produced by diastereoselective alkylation of β -silylenolates, relative stereochemistry of (W. Bernhard, I. Fleming), (271) 281
- Methyl- and halo-substituted 1-silacyclo-2-hexenes, preparation of (R. Münstedt, D. Wrobel, U. Wannagat), (271) 181
- η^6 -[1-Methyl-1-(trimethylsilyl)dibenzosilacyclopentadiene]chromium tricarbonyl, synthesis and reactions of (M. Ishikawa, T. Tabohashi), (271) C4
- 1-Methyl-1-(trimethylsilyl)dibenzosilole and 1-phenyl-1-(trimethylsilyl)dibenzosilole, photochemical behaviour of (M. Ishikawa, T. Tabohashi, M. Kumada, J. Iyoda), (264) 79
- Methyl[tris(trimethylsilyl)methyl] dichlorostannane, alkaline hydrolysis of (V.K. Belsky, N.N. Zemlyansky, I.V. Borisova, N.D. Kolosova, I.P. Beletskaya), (254) 189
- Molybdenum and tungsten complexes with η^3 -trimethylsiloxybutenone ligands, preparation by silylation of phosphonium metallates of (G. Grötsch, W. Malisch, H. Blau), (252) C19
- Monocyclic organotri- and organotetrasilanes, synthesis of $[(\text{Me}_3\text{Si})_2\text{CHSi}]_n$ ($n = 3, 4$) (H.J. Breunig, A. Soltani-Neshan), (262) C27
- Octaallylsilsesquioxane, radiation sensitive substance, synthesis and investigation of (T.N. Martynova, V.P. Korchkov, P.P. Semyannikov), (258) 277
- Octamethyl-1,2-disilacyclobutane, chemistry and Si—Si cleavage and insertion reactions of (D. Seyferth, E.W. Goldman, J. Escudié), (271) 337
- Organio-1,3,2-dioxasilacyclohexanes, ^1H NMR spectra of (R.H. Cragg, R.D. Lane), (268) 1
- Organio-1,3,2-dioxasilaheterocycles (Review) (R.H. Cragg, R.D. Lane), (267) 1
- Organodisilanes, reactions with dienes catalysed by transition metal complexes of; preparation of 1,8-bis(trimethylsilyl)octa-2,6-diene and its use in the synthesis of *dl*-muscone (H. Sakurai, Y. Eriyama, Y. Kamiyama, Y. Nakadaira), (264) 229

- Organoiridium(I) compounds $\text{Ir}(\text{R})[\text{PhP}(\text{CH}_2\text{CH}_2\text{CH}_2\text{PPh}_2)_2]$ (R = alkyl, aryl) (E. Arpac, L. Dahlenburg), (251) 361
- Organopolysilanes, reactions with organic peroxides of (*Review*), (G.A. Razuvaea, T.N. Brevnova, V.V. Semenov), (271) 261
- Organopseudohalosilanes. II. Azidosilanes (*Review*) (R.M. Pike, N. Sobinski, P.J. McManus), (253) 183
- Organosilanes, selective redistribution reactions in the presence of chloroplatinic acid of (R.A. Benkeser, M.-H. Yeh), (264) 239
- Organosilicon compounds, role of inductive hyperconjugative and d -orbital effects in (T. Veszprémi, J. Nagy), (255) 41
- Organosilicon derivatives of catechol, preparation and properties of (R.H. Cragg, R.D. Lane), (270) 25
- Organo-silicon, -germanium and -lead derivatives of dimethyl- and diphenyl-dithioarsinic acids (L.S. Dumitrescu, I. Haiduc), (259) 65
- Organosilicon intermediates, quantitative aspects of unimolecular isomerization reactions of (I.M.T. Davidson, R.J. Scampton), (271) 249
- Organosilicon sterically hindered hydrides and iodides, reactions with halogens of (C. Eaborn, A.I. Mansour), (254) 273
- Organosilicon synthesis of isocyanates (*Review*) (V.F. Mironov), (271) 207
- Oxa-, thia- and selena-trisiletanes, formation by ring-expansion reactions of (M. Weidenbruch, A. Schäfer), (269) 231
- Palladium complexes of silica-supported poly- γ -cyanopropylsiloxane and poly- γ -aminopropylsiloxane, hydrogenation of aldehydes and ketones by (Y.-Z. Zhou, Y.-Y. Jiang), (251) 31
- Pentacoordinate silicon derivatives, ^{29}Si NMR spectroscopy of (B.J. Helmer, R. West, R.J.P. Corriu, M. Poirier, G. Royo, A. De Saxce), (251) 295
- Pentamethylcyclopentadienyl-silanes and -germanes, synthesis and dynamic behaviour of (P. Jutzi, H. Saleska, D. Bühl, H. Grohe), (252) 29
- Peralkylcyclotrisilane, crystal and molecular structure of $[(t\text{-BuCH}_2)_2\text{Si}]_3$ (H. Watanabe, M. Kato, T. Okawa, Y. Nagai, M. Goto), (271) 225
- Phenaza(oxa-, thia-)elementines of Group IV, structure and intramolecular electronic effects in (V.K. Belsky, I.E. Saratov, V.O. Reikhsfeld, A.A. Simonenko), (258) 283
- N*-Phenylcyclosilazoxanes, rates and mechanism of solvolysis of (Z. Lasocki, M. Witekow), (264) 49
- Phenylhalosilanes, photoelectron and Penning electron spectroscopic investigations of (T. Veszprémi, Y. Harada, K. Ohno, H. Mutoh), (266) 9
- 1-Phenyl-1-methyl-2-neopentylsilene, configurational stability under flash vacuum thermolysis conditions of (P.R. Jones, M.E. Lee), (271) 299
- Phosphite-induced CO insertion and C—H addition reactions of *ortho*-alkyl-substituted aryliridium compounds, intermediates in (L. Dahlenburg, F. Mirzaei), (251) 113
- Polymethylhydrogendisiloxane, polymer-supported catalysts for the reaction with ethanol of (R.V. Parish, M.I. Vania), (263) 139
- Polysilanes, σ -bond conjugation in; PES scaled free-electron approach for interpretation of skeletal cleavage reactions (A. Herman, B. Dręczewski, W. Wojnowski), (251) 7
- Polysilylation of bicyclic hetero compounds (C. Biran, B. Efendene, J. Dunoguès), (253) C13
- Pyrrolidinoallylsilanes, reactivity towards electrophiles of (R.J.P. Corriu, V. Huynh, J.J.E. Moreau), (259) 283
- Regiospecific synthesis of aromatic compounds via organometallic intermediates; 1,3,5-(trimethylmetal(IV))benzene compounds (G.J. Chen, C. Tamborski), (251) 149
- Silaanthrones and disilaanthracenes, simplified approaches to (J.Y. Corey, W.Z. McCarthy), (271) 319
- Silabenzenes, PES from 1-sila-2,5-hexadiene pyrolysis and assignment of valence ionisation energies (H. Bock, P. Rosmus, B. Solouki, G. Maier), (271) 145
- 3-Silabicyclo[3.1.0]hexanes, thermal isomerisation of; route to silacyclopentenes and silacyclohexenes (G. Manuel, A. Faucher, P. Mazerolles), (264) 127
- Silacycloprenes, synthesis and properties of (D. Seyferth, D.C. Annarelli, S.C. Vick), (272) 123
- Silaethene tetrahydrofuranate, preparation and structure of (N. Wiberg,

- G. Wagner, G. Müller, J. Riede), (271) 381
- Silanecarboxylate esters, attempted preparation of silaethylenes from (A.G. Brook, L. Yau), (271) 9
- Silaolefins, direct spectroscopic study of; vibrational frequencies of $R_2Si=CD_2$ ($R = CH_3, CD_3$) in an argon matrix (A.K. Maltsev, V.N. Khabashesku, O.M. Nefedov), (271) 55
- 1-Silaphenalenes, potential precursors to aromatic silylenium ions and aromatic silyl anions, spectroscopic and chemical studies of (R. Sooriyakumaran, P. Boudjouk), (271) 289
- Sil- and germ-atranones, synthesis and 1H , ^{13}C , ^{15}N , and ^{29}Si NMR spectra of (E. Kupče, E. Liepinšh, A. Lepsina, G. Zelchan, E. Lukevics), (251) 15
- Silica-supported catalysts for reactions between ethanol and polymethylhydrogensiloxane, evaluation of (R.V. Parish, M.I. Vania), (260) 41
- Silica-supported poly- γ -mercaptopropyl-siloxaneplatinum complex, active and stable hydrosilylation catalyst (L.-Z. Wang, Y.-Y. Jiang), (251) 39
- Silicenium ylid dimerisation by methanide and silylamine migration (W. Clegg, U. Klingebiel, G.M. Sheldrick, D. Stalke), (265) 17
- Silicon — the silicon—carbon bond; Annual Survey for the year 1982 (G.L. Larson), (274) 29
- Silicon and germanium unsaturated compounds of the types $R_2E=C(SiR_3)_2$ and $R_2E=N(SiR_3)_3$ ($E = Si, Ge$) (Review) (N. Wiberg), (273) 141
- Silicon-centred free radicals with a tris(trimethylsilyl)methyl substituent, ESR study of (A.I. Al-Wassil, C. Eaborn, A. Hudson, R.A. Jackson), (258) 271
- Silicon-containing aziridines, novel synthesis of (E. Lukevics, V.V. Dirnens, Y.S. Goldberg, E.E. Liepinsh, I.Ya. Kalvinsh, M.V. Shimanska), (268) C29
- Silicon-containing cyclic polysulphides, mass spectrometric investigations of (A.I. Mikaya, E.A. Trusova, V.G. Zaikin, V.D. Tyurin, O.V. Kuz'min, A.V. Lebedev), (256) 97
- Silicon—oxygen double bond, stabilisation of (T. Kudo, S. Nagase), (253) C23
- 1-Silyl- and 1,3-disilyl-adamantanes, prep- aration of (Y.-M. Pai, E. Wanek, W.P. Weber), (270) 271
- Silylamides of Group IVA and IVB elements with spirobicycloheptane structure (H. Bürger, W. Geschwandtner, G.R. Liewald), (259) 145
- Silylated epoxides, base-catalysed ring-opening with *N*-silylated secundary carboxamides of (L. Birkofe, A. Kopp), (264) 87
- Silylation of hydroxyl-containing compounds with aryl- and heteroaryl-hydrosilanes in the presence of amines (Review) (E. Lukevics, M. Dzintara), (271) 307
- (*N*-Silyl)bis(diphenylphosphino)amines and bis(*N*-silyl)diphenylphosphino- amines, isomerism and conformation of (H. Schmidbaur, S. Lauteschläger, F.H. Köhler), (271) 173
- Silylcycloheptatrienes, structure of (C. Glidewell), (266) 25
- Silylenes, mechanistic suggestions for isomerisation of (I.M.T. Davidson, K.J. Hughes, R.J. Scampton), (272) 11
- Silylene-metal complex, possible existence of (H. Nakatsuji, J. Ushio, T. Yonezawa), (258) C1
- Silylmercury and organomercury derivatives, ^{199}Hg FTNMR study of (M.J. Albright, T.F. Schaaf, A.K. Hovland, J.P. Oliver), (259) 37
- Silyl-substituted cyclopropylmethyl radicals, ESR study of ring-opening of (A.G. Davies, J.A.-A. Hawari, M. Grignon-Dubois, M. Pereyre), (255) 29
- Silyl- and germyl-trifluoromethylacetylenes (1,1,1-trifluoro-4-silabut-2-yne and 1,1,1-trifluoro-4-germabut-2-yne), preparation and properties of; molecular structure of silyl trifluoromethyl-acetylene determined by electron diffraction (D.W.W. Andersen, S. Cradock, E.A.V. Ebsworth, A.R. Green, D.W.H. Rankin, A.G. Robiette), (271) 235
- Silyluretanes, (p - X C_6H_4) $Me_2SiN(Ph)$ -COOEt, kinetic investigations of the hydrolysis of (K. Häning, H. Grosser-Ruyken, K. Rühlmann, J. Schlappa), (263) 145
- Simplest metallocene derivative; X-ray structure of $[Li\{\eta-C_5H_4(SiMe_3)\}-\{NMe_2(CH_2)_2NMe_2\}]$ ($LiCp'(\text{TMEDA})$) (M.F. Lappert, A. Singh, L.M. Engelhardt, A.H. White), (262) 271

- Sulphur dioxide complexes, *O*-silylation of** (W.A. Schenk, F.-E. Baumann), (260) C6
- Sulphur—Group IVB element bonds, X-ray diffraction study of; crystal and molecular structures of methylthiotriphenyl-methane, -silicon, -germanium, -tin and -lead** (G.D. Andreotti, G. Bocelli, G. Calestani, P. Sgarabotto), (273) 31
- Tetrahydrofuran adduct of lithium bis-[tris(trimethylsilyl)methyl]cuprate, $[\text{Li}(\text{THF})_4][\text{Cu} \{\text{C}(\text{SiMe}_3)_3\}_2]$, preparation and crystal structure of** (C. Eaborn, P.B. Hitchcock, J.D. Smith, A.C. Sullivan), (263) C23
- 1,2,3,4-Tetrahydro-1,10-phenanthroline-boron and -silicon complexes, multi-nuclear magnetic resonance of** (G. Klebe, K. Hensen, J. von Jouanne), (258) 137
- Tetrakis(hydroxydimethylsilyl)methane and its dehydration with rearrangement; crystal structure of 2,2,4,4,6,6-hexamethyl-5-(hydroxydimethylsilyl)-1,3-dioxa-2,4,6-trisilacyclohexane** (C. Eaborn, P.B. Hitchcock, P.D. Lickiss), (264) 119
- Tetramethyl-*N,N'*-bis-arylcyclodisilazanes, conformational study by ^{13}C NMR and X-ray diffraction methods of** (A. Szöllősy, L. Párkányi, L. Bihátsi, P. Hencsei), (251) 159
- Tetramethyl-*N,N'*-bis(α -chlorophenyl)-cyclodisilazane, conformation of** (L. Párkányi, A. Szöllősy, L. Bihátsi, P. Hencsei, J. Nagy), (256) 235
- 1,1,3,3-Tetramethyl-2,4-bis(trimethylsilyl)-1,3-disilabicyclo[1.1.0]butane, formation and decomposition of** (G. Fritz, J. Thomas), (271) 107
- Tetraphenylcyclopentadienyl derivatives of Group IVB elements, unusual reaction with isopropylidenediphenyl-phosphorane of** (I.V. Borisova, Yu.N. Luzikov, N.N. Zemlyansky, Yu.A. Ustynguk, I.P. Beletskaya), (268) 11
- Tin—tin long-range coupling constants, two-bond coupling via carbon** (T.N. Mitchell, A. Amamria, B. Fabisch, H.G. Kuivila, T.J. Karol, K. Swami), (259) 157
- Trialkylphosphinetricarbonylnickel complexes, influence of substituents on basicity of** (T. Bartik, T. Himmeler, H.-G. Schulte, K. Seevogel), (272) 29
- Trialkylsilanes, dehydrocondensation with acetylene and monosubstituted acetylenes of** (M.G. Voronkov, N.I. Ushikova, L.I. Tsikhanskaya, V.B. Pukhnarevich), (264) 39
- 1-Trialkylsilylmethylnitronaphthalenes, synthesis of** (M. Lökö, P. Hegyes, S. Földeák), (275) 27
- Tri-*t*-butyl- and tris(trimethylsilyl)methyl-silicon compounds, comparisons of** (C. Eaborn, A.K. Saxena), (271) 33
- Triethyl-germane and -silane complexes with electron-donating solvents, IR study of formation of** (S.Ya. Khorshev, V.L. Tsvetkova, A.N. Egorochkin), (264) 169
- Trimethylchlorosilane, reaction with phenyltelluromagnesium bromide in THF, characterisation of the products by ^{29}Si and ^{125}Te NMR spectroscopy** (C.H.W. Jones, R.D. Sharma), (268) 113
- β -Trimethylphosphonio(α -trimethylsiloxy)vinyl complexes in cleavage reactions of carbonyl groups** (H. Blau, K.-H. Griessmann, W. Malisch), (263) C5
- β -Trimethylphosphonio(trimethylsiloxy)-vinylchromium, $\text{Cp}(\text{CO})(\text{NO})\text{Cr}=\text{C}(\text{OSiMe}_3)=\text{CH}-\text{PMe}_3$, isolation and degradation reactions of** (H. Blau, K.-H. Griessmann, W. Malisch), (264) C1
- Trimethylsilyl groups, addition to guaiaculene of** (G. Felix, J. Dunogués, M. Pétraud, B. Barbe), (258) C49
- Trimethylsilyl groups, effect on Beckmann rearrangements and fragmentations of** (P.F. Hudrik, M.A. Waugh, A.M. Hudrik), (271) 69
- Trimethylsilyl- and halogen-substituted 2-methyl-1-pentene, preparation and reactions of** (R. Müinstedt, U. Wannagat, D. Wrobel), (264) 135
- Trimethylsilyl-substituted plumbocenes, synthesis of** (P. Jutzi, E. Schlüter), (253) 313
- Trimethylsilylacetylenes, cleavage of the C—Si bond by *trans*-[(PR_3)₂PtX-(R'OH)]PF₆ cations and formation of cationic alkoxy carbene complexes of platinum(II)** (H.C. Clark, V.K. Jain, G.S. Rao), (259) 275
- β -Trimethylsilylamine-oxyl and related amine-*N*-oxyls, ESR study on and unusual conformational preference of the β -silyl group in** (M. Kira, H. Osawa, H. Sakurai), (259) 51

- Trimethylsilylated *N*-alkyl-substituted carbamates, preparation and reactions of (D. Knausz, A. Meszticzky, L. Szakács, B. Csákvari, K. Ujjszászy), (256) 11
- Trimethylsilylcycloalkanes, comparative study of structures and reactivity of (M. Grignon-Dubois, A. Marchand, J. Dunoguès, B. Barbe, M. Pétraud), (272) 19
- Trimethylsilyl *N,N*-dimethylcarbamate, alcoholytic of (D. Knausz, A. Meszticzky, L. Szakács, B. Csákvari), (268) 207
- Trimethylsilyl- and *t*-butyl-thiophenes, photoelectron and Penning electron spectroscopy of (T. Vesprémi, Y. Harada, K. Ohno, H. Mutoh), (252) 121
- Trimethylsilylurethanes, $\text{Me}_3\text{Si}(p\text{-XC}_6\text{H}_4)\text{NCOOEt}$, kinetic investigations on hydrolysis of (H. Grosse-Ruyken, K. Häning, S. Wagner, K. Rühlmann, J. Schlappa), (260) 51
- Trimethylsilylurethanes of the type $\text{Me}_3\text{Si}(p\text{-XC}_6\text{H}_4)\text{NCOOEt}$ ($X = \text{Cl}, \text{H}, \text{Me}$), activation parameters for hydrolysis of (K. Häning, H. Grosse-Ruyken, K. Rühlmann), (262) 143
- Trimethylvinylsilane, reaction with S_8 in the presence of dodecacarbonyltriiron, synthesis of cyclic polysulphides by (E.A. Chernyshev, O.V. Kuz'min, A.V. Lebedev, A.I. Gusev, N.I. Kirillova, N.S. Nametkin, V.D. Tyurin, A.M. Krapivin, N.A. Kubasova), (252) 133
- Trimethylvinylsilane, reaction with S_8 in the presence of dodecacarbonyldiiron, synthesis of trimethylsilyl- μ - S,S' -ethylenedithiolatohexacarbonyldiiron and 1-methyl-3-trimethylsilyl-2,5-dithiacyclopentane (E.A. Chernyshev, O.V. Kuz'min, A.V. Lebedev, A.I. Gusev, M.G. Los', N.V. Alekseev, N.S. Nametkin, V.D. Tyurin, A.M. Krapivin, N.A. Kubasova, V.G. Zaikin), (252) 143
- N*-[(Triorganylsilyl)alkyl]ethylenediamines, preparation and ^1H and ^{13}C NMR spectra of (D.H. O'Brien, K.J. Irgolic), (268) 31
- Triorganosilylsulphenyl halides, reactions with nucleophiles of (J. Kowalski, J. Chojnowski, J. Michalski), (258) 1
- Tris(dimethylsilyl)methane derivatives, bicyclic tris(disiloxane) with a manxane structure (C. Eaborn, P.B. Hitchcock, P.D. Lickiss), (252) 281
- Trisenoxy silanes, regioselective synthesis of (C. Rochin, O. Babot, F. Moulines, F. Duboudin), (273) C7
- Tris(phenyldimethylsilyl)methane, crystal structure of (C. Eaborn, P.B. Hitchcock, P.D. Lickiss), (269) 235
- Tris(trimethylsilyl)chlorosilane, reactions with sodium and potassium phosphides under formation of a polycyclic silyl-phosphane $\text{P}_6\text{Si}_4(\text{SiMe}_3)_8$ of (K. Hassler), (266) C1
- [Tris(trimethylsilyl)methyl]diphenylborane, preparation and crystal structure of (C. Eaborn, M.N.A. El-Kheli, P.B. Hitchcock, J.D. Smith), (272) 1
- [Tris(trimethylsilyl)methyl]lithium, improvements in preparation and use of (Z.H. Aiube, C. Eaborn), (269) 217
- Tris(*Z*-trimethylsilylprop-1-enyl)borane, $[\text{CH}_2\text{CH}=\text{CSi}(\text{CH}_3)_3]_3\text{B}$, crystal structure of (N.S. Hosmane, N. Sirmokadam, M.D. Walkinshaw, E.A.V. Ebsworth), (270) 1
- Unsaturated organosilanes, ESR monitoring of transient radical anions from (J.J. Eisch, L.E. Smith), (271) 83
- Vinyltrialkoxysilanes, metathesis of (B. Marciniec, J. Guliński), (266) C19
- Vinyltrimethylsilane, reaction with arenediazonium tetrafluoroborates under palladium(0) catalysis of (K. Kikukawa, K. Ikenaga, K. Kono, K. Toritani, F. Wada, T. Matsuda), (270) 277
- Zirconocene dicarbonyl, $[\text{Zr}\{\text{n-C}_5\text{H}_5-(\text{SiMe}_3)_2\}_2(\text{CO})_2]$, synthesis and characterisation of; precursor to various zirconocene(II and IV) complexes (A. Antíñolo, M.F. Lappert, D.J.W. Winterborn), (272) C37
- Silver
- $[\text{Ag}_2\text{Pt}_4(\mu_3\text{-S})_4(\text{PPh}_3)_8](\text{BF}_4)_2 \cdot 0.25\text{-CHCl}_3$, synthesis and characterisation of (C.E. Briant, T.S.A. Hor, N.D. Howells, D.M.P. Mingos), (256) C15
- Benzocyclooctatetraenesilver(I) perchlorate with arene and olefin ligands coordinated simultaneously to a silver(I) ion, synthesis and crystal structure of (T.C.W. Mak, W.C. Ho, N.Z. Huang), (251) 413
- Heteropentametallic clusters containing three different metals, $\text{MCo}_3(\text{CO})_{12}$

M'L (M = Fe, Ru; M' = Cu, Ag), synthesis of (P. Braunstein, J. Rosé), (262) 223

Mixed-metal clusters containing single M(PPPh₃) fragment (M = Cu, Ag, Au), structural similarities and differences among (I.D. Salter, F.G.A. Stone), (260) C71

Unsaturated mixed-metal cluster anion, electrochemical reduction of; synthesis and X-ray crystal structure of [(Ph₃P)₂N][{Os₃H(CO)₁₀}₂Ag] (M. Fajardo, M.P. Gómez-Sal, H.D. Holden, B.F.G. Johnson, J. Lewis, R.C.S. McQueen, P.R. Raithby), (267) C25

Sodium

Alkyltin chlorides, use of organosodium intermediates in synthesis of (D.W. Owen, R.C. Poller), (255) 173

Aryl and vinyl halides, HOMO coupling promoted by ligand modified NiCRA (NaH—RONa—Ni(OAc)₂) (R. Vanderesse, J.-J. Brunet, P. Caubère), (264) 263

Methoxysilane, purification of (R.H. Chung, S.E. Hayes), (265) 135

Silylamides of Group IVA and IVB elements with spirobicycloheptane structure (H. Bürger, W. Geschwandtner, G.R. Liewald), (259) 145

Triaryl-phosphines, -arsines and -stibines, symmetrical and unsymmetrical, one pot synthesis from the elements by the *S_{RN}1* mechanism of (E.R. Bornancini, R.A. Alonso, R.A. Rossi), (270) 177

Triethylgermyl radicals, influence of the magnetic field on reactions of (M.B. Taraban, T.V. Leshina, K.M. Salikhov, R.Z. Sagdeev, Yu.N. Molin, O.I. Margorskaya, N.S. Vyazankin), (256) 31

Sulphur

[Ag₂Pt₄(μ_3 -S)₄(PPh₃)₈]·(BF₄)₂ · 0.25-CHCl₃, synthesis and characterisation of (C.E. Briant, T.S.A. Hor, N.D.

Howells, D.M.P. Mingos), (256) C15

Alkoxo- and thioato-bridged arene ruthenium(II) complexes, synthesis and reactions of; X-ray crystal structure determination of [Ru₂(η -C₆H₅)₂

(OMe)₃][BPh₄] (R.O. Gould, T.A. Stephenson, D.A. Tocher), (263) 375

μ -(Alkoxymethanethione-C,S)- μ -(methylthio)-1,1,1,2,2-hexacarbonyldiiron complexes, controlled replacement of CO by thermal activation or electron-transfer catalysis in (A. Darchen, E.K. Lhadi, H. Patin), (259) 189

μ -(Alkoxymethanethione-C,S)- μ -(methylthio)-1-trimethylphosphite-1,1,2,2,2-pentacarbonyldiiron, preparation and structure of (E.K. Lhadi, H. Patin, A. Benoit, J.-Y. Le Marouille, A. Darchen), (259) 321

Alkyne π complexes of copper(I) trifluoromethanesulphonate, synthesis and metal-catalysed C—H bond activation of (J.G. Hefner, P.M. Zieselman, L.D. Durfee, G.S. Lewandos), (260) 369

Allenylcopper(I) compounds, use in synthesis of 2-alkynylsulphinamides and 2,5-dihydroisothiazole S-oxides of (K. Ruitenberg, P. Vermeer), (256) 175

Allylcobaloximes with *para*-substituted benzenesulphonyl chloride, thermal and photochemical reactions under aerobic and anaerobic conditions of (S. Roy, D.B. Gupta, S. Chaklanobis), (269) 201

Antiferromagnetic cluster containing a heterometallic “bow-tie” Cr₂Mn framework, [Cp₂Cr₂(SCMe₃)₂(μ_3 -S)₂]₂Mn, synthesis and molecular structure of (I.L. Eremenko, A.A. Pasynskii, G.Sh. Gasanov, B. Oraszakhatov, Yu.T. Struchkov, V.E. Shklover), (275) 183

Arylthiocarbonylosmium(II) complexes, structure and migratory-insertion reactions of; structure of Os(η^2 -CSR)-(η^1 -O₂CCF₃)(CO)(PPh₃)₂ (G.R. Clark, T.J. Collins, K. Marsden, W.R. Roper), (259) 215

π -Benzenedicarbonyl-1,3-dithianechromium(0) and π -methylbenzoatedicarbonyl-1,3-dithianechromium(0), crystal and molecular structure of (P.H. van Rooyen, J.L.M. Dillen, S. Lotz, M. Schindehutte), (273) 61

Benzenedithiolateiron complexes, [AsPh₄]₂[Fe(S₂C₆H₄)₂] and [Fe(S₂C₆H₄)(PMe₃)₃], synthesis and structure of (D. Sellmann, U. Kleine-Kleffmann, L. Zapf, G. Huttner, L. Zsolnai), (263) 321

Bis(*cis*-1,2-bis(diphenylphosphino)ethylene)disulphur nitride iridium tetra-

- phenylborate, preparation and molecular structure of (F. Cecconi, C.A. Ghilardi, S. Midollini, S. Monetti, A. Orlandini), (275) C22
- 3,3-Bis(bromomethyl)-1,5-dithia[5](1,1')-ferrocenophane, synthesis and bridge reversal barrier of (B. Czech, A. Piórkó, R. Annunziata), (255) 365
- Bis(diphenylphosphino)methane complexation of reaction products from the reaction of arylcopper(I) compounds and carbon disulphide (A. Camus, N. Marsich, G. Pellizer), (259) 367
- Bis(pentamethylcyclopentadienyl)-di-chromium and -dimolybdenum complexes with bridging sulphur ligands, investigation of the disulphur ligands in (H. Brunner, H. Kauermann, W. Meier, J. Wachter), (263) 183
- Bis(triorganometal) and diorganometal 1,3-thiolates, $(R_3M)_2(C_6H_5XS_2)$ and $R_2M(C_6H_5XS_2)$ ($M = Sn, Pb; X = H, Cl$), preparation and spectra of (K. Grätz, F. Huber, A. Silvestri, R. Barbieri), (273) 283
- 5,5',12,12'-Bis(triseleno)bis(naphthacene-6,11-quinone) 1/1 molecular complex with benzonitrile, $(C_{18}H_8Se_3O_2)_2-C_6H_5CN$, crystal structure of (R.P. Shibaeva, V.F. Kaminskii, E.E. Kostyuchenko, E.B. Yagubskii), (260) 293
- Carbonyl-chromium(0) and -tungsten(0) complexes with 1,2-benzenethiolato, 1,2-methylthiobenzenethiolato and 2,3,8,9-dibenzo-1,4,7,10-tetrathiadecane(2-) ligands, isolation and characterisation of (D. Sellmann, W. Ludwig), (269) 171
- 9,12-*o* and 9,10-*m*-Carboranyl-dithiols and -diselenols, synthesis from S_2Cl_2 or Se_2Cl_2 and *o*- and *m*-carboranes of (L.I. Zakharkin, I.V. Pisareva), (267) 73
- Chiral *N*-(ferrocenylalkyl)hydroxylamines, synthesis of (H. Martin, R. Herrmann, I. Ugi), (269) 87
- Chloro(methyl)(organylthio)gallanes, formation and reactions of (G.G. Hoffmann), (273) 187
- Chromium-sulphur and chromium-sele-nium bonds, complex formation with, rearrangement reactions of and alkyli-dene addition to (W.A. Herrmann, J. Rohrmann, A. Schäfer), (265) C1
- Cobalt complexes with thioformaldehyde, selenoformaldehyde and dimethoxy-carboxyl ligands (L. Hofmann, H. Werner), (255) C41
- $Cp_2Fe_2(CO)_{4-x}(CS)_x$ ($x = 1, 2$), prepara-tion, structure and fluxional behaviour of isonitrile derivatives of (J.A.S. Howell, P. Mathur, R. Kumar, A.R. Manning, F.S. Stephens), (262) 227
- Cryptands and spherands with arsenic, oxygen, sulphur and nitrogen as hetero elements, synthesis, structure and reaction behaviour of (J. Ellermann, A. Veit, E. Lindner, S. Hoehne), (252) 153
- Cyclopentadienyldicarbonyl ferriodithio-carbonic acid anion, reactions with metal compounds of (H. Stolzenberg, W.P. Fehlhammer, M. Monari, V. Zanotti, L. Busetto), (272) 73
- Cyclopentadienyl(methoxyethenyl)bis-(trimethylphosphine)iron, $Cp(Me_3P)_2Fe-C(OMe)=CH_2$, "ylidic" reactivity of, proton abstraction from and carbon disulphide addition to (G. Grötsch, W. Malisch), (262) C38
- Cyclopentadienylnickel complexes with bulky phosphanes, synthesis and reactivity of (N. Kuhn, N. Heuser, M. Winter), (267) 221
- Cyclosilthianes and 3,3-dimethyl-3-silathietane, IR study of very low pres-ure pyrolysis products isolated in argon matrices of; new source of 1,1-dimethyl-1-silaethylene, thioformalde-hyde and dimethylsilanthione (L.E. Gusel'nikov, V.V. Volkova, V.G. Avakyan, N.S. Nametkin, M.G. Voron-kov, S.V. Kirpichenko, E.N. Suslova), (254) 173
- 3,3-Dialkyl-3-germthietanes, synthesis and UV spectra of (J. Barrau, G. Rima, J. Satgé), (252) C73
- Di-*t*-butylarsenidoiron complexes, prepa ration, quaternisation, sulphuration and thermal and photochemical treat-ment of (W. Angerer, M. Lukcsza, W. Malisch), (253) C36
- cis*-Dichloro(*N*-thionitrosodimethylamine)-(triphenylarsine)palladium(II) com-plex, X-ray crystal and molecular struc-ture of; synthesis and characterisa-tion of neutral binuclear complexes of palladium(II) and cationic complexes of palladium(II) and platinum(II) containing *N*-thionitrosodimethyl-amine (G. Tresoldi, G. Bruno, P. Piraino, G. Faraone, G. Bombieri), (265) 311

- Dicyclopentadienylniobium chiral complexes, oxidation and reduction of the niobium atom with thionyl chloride (R. Broussier, J.D. Olivier, B. Gautheron), (251) 307**
- Dicyclopentadienyl(thioketene)vanadium complexes, synthesis and structure of (R. Drews, D. Wormsbächer, U. Behrens), (272) C40**
- Diethyl organylchalcogenoalkyl(alkyl)-malonates, $\text{RX}(\text{CH}_2)_n\text{CR}'(\text{COOC}_2\text{H}_5)_2$, and 5-alkyl-5-(organylchalcogenoalkyl)-barbiturates, $\text{RX}(\text{CH}_2)_n\text{C}(\text{R}')\text{CONHC}-(\text{Y})\text{NHCO}$ ($\text{X} = \text{Se, Te}$), synthesis and spectral properties of (R.A. Grigsby, Jr., K.J. Irgolic, F.F. Knapp, Jr.), (259) 171**
- Dihydridoiridium diolefin complexes with sulphur ligands, formation and reactions of (J.C. Rodriguez, C. Claver, A. Ruiz), (272) C67**
- 13,13-Dimethyl-8,13-dihydro-5*H*-dibenzo-[*d,g*][1.2.6]dithiasiloxane, crystal and molecular structure of (V.E. Shklover, Yu.T. Struchkov, O.G. Rodin, V.F. Traven', B.I. Stepanov), (266) 117**
- Dimethyl(dimethylsulphoxide)penta-methylcyclopentadienyl-rhodium and -iridium, reactions with acids of (M. Gómez, P.I.W. Yarrow, A. Vázquez de Miguel, P.M. Maitlis), (259) 237**
- 1,12-Dimethyl-2,11-dithia-5,8-dioxa[12]- (1,1')ferrocenophane, crystal and molecular structure of the *meso*-diastereoisomer of (P.L. Bellon, F. Demartin, V. Scatturin, B. Czech), (265) 65**
- (Z)-*N,N*-Dimethyl-*S*-trimethylsilylketene *S,N*-acetals, *erythro*- or *threo*-selective aldol-type reactions via (C. Goasdoué, N. Goasdoué, M. Gaudemar), (263) 273**
- Diolefin cationic iridium(I) complexes with sulphur ligands (C. Claver, J.C. Rodriguez, A. Ruiz), (251) 369**
- Diphenylalkylthio- and diphenylaryltiogallanes, preparation and properties of; crystal structure of diphenyl-ethylthiogallane (G.G. Hoffmann, C. Burschka), (267) 229**
- [Diphenylmethylenearmido(organyoxy)-carbene]- and [alkylthio(diphenyl-methylenearmido)carbene]- pentacarbonyltungsten complexes, preparation by insertion reaction with tungsten—carbon bonds of (H. Fischer, S. Zeuner, K. Ackermann, U. Schubert), (263) 201**
- Diphenylphosphinyl diorganodithioarsinates, sulphotropic rearrangement of; formation of diorganoarsenic(III) diphenyldithiophosphinates (L.S. Dumitrescu, I. Haiduc), (252) 295**
- 2,4-Disilathietane ring system from [2+2] cycloaddition of 1,1-dimethyl-1-sila-ethylene, $\text{Me}_2\text{Si}=\text{CH}_2$, to dimethyl-silanthione, $\text{Me}_2\text{Si}=\text{S}$ (L.E. Gusel'nikov, V.V. Volkova, V.G. Avakyan, E.A. Volnina, V.G. Zaikin, N.S. Nametkin, A.A. Polyakova, M.I. Tokarev), (271) 191**
- Dithiocarbamate-cyclopentadienylcobalt-(III) complexes, $[\text{Co}(\eta^5\text{C}_5\text{H}_5)(\text{L})(\text{S}_2\text{-CNR}_2)]$, formation, structure and spectra of (J. Doherty, A.R. Manning), (253) 81**
- Dithiolene complexes, synthesis, substitution reactions and crystal structure of (E. Lindner, I.P. Butz, S. Hoehne, W. Hiller, R. Fawzi), (259) 99**
- $[\text{Fe}_4(\text{CO})_{12}(\text{CCH}_3)]^-$, protonation and pyrolysis of (P.L. Bogdan, K.H. Whitmire, J.W. Kolis, D.F. Shriver, E.M. Holt), (272) 169**
- α -Halocarbeneporphyriniron complexes, reactions with alcohols and thiols under formation of new porphyrin complexes of (J.-P. Battioni, D. Dupré, P. Guérin, D. Mansui), (265) 53**
- Halotrimethylplatinum complexes of 2,4,6-trithiaheptane, NMR pyramidal atomic inversion and other intramolecular rearrangements in (E.W. Abel, M.Z.A. Chowdhury, K.G. Orrell, V. Šík), (258) 109**
- $(\mu_2\text{-H})\text{Os}_3\text{S}(\eta^5\text{C}_5\text{H}_5)(\text{CO})_{11}$ pyramidal cluster, trapped synthesis and X-ray structure of (G. Süss-Fink, U. Thewalt, H.-P. Klein), (262) 315**
- Iridium(I) complexes with tetrafluorobenzobarrelene (R. Usón, L.A. Oro, D. Carmona, M.A. Esteruelas), (263) 109**
- $[\text{M}(\text{CO})_4(\text{Ph}_2\text{PCH}_2\text{PPh}_2\text{P},\text{P}')]_n$, conversion to $[\text{M}(\text{CO})_4\{\text{PPh}_3\}_3\text{CH}-\text{P},\text{P}']\{\text{M}(\text{CO})_4(\text{tripod})\}$ ($\text{M} = \text{Cr, Mo, W}$) and subsequent conversion to phosphine oxides, phosphine sulphides and complexes with platinum(II) (S. Al-Jibori, B.L. Shaw), (273) 213**
- $(\text{MeC}_6\text{H}_4)_2\text{Cr}_2(\mu\text{-SCMe}_3)(\mu_3\text{-S})_2\text{Co}(\text{CO})_2$ and $(\text{C}_5\text{H}_5)_2\text{Cr}_2(\mu\text{-SCMe}_3)(\mu_3\text{-S})_2\text{Mn}(\text{CO})_3$ clusters with triangular Cr_2M metal frames, synthesis, molecular structures and magnetic properties of (A.A. Pasynskii, I.L. Eremenko, B.**

- Orazsakhatov, G.Sh. Gasanov, V.M.
Novotortsev, O.G. Ellert, Z.M.
Seifulina, V.E. Shklover, Yu.T.
Struchkov), (270) 53
- Mercury(II), cadmium(II), cobalt(II), and nickel(II) complexes of ambidentate sulphonium ylides, preparation of and coordination in (R.S. Tewari, A.K. Awasthi), (271) 403
- Metallaselenoferrocenophanes, $\text{Fe}(\eta^5\text{-C}_5\text{H}_4\text{Se})_2\text{M}(\eta^5\text{-C}_5\text{H}_4\text{R})_2$, ($\text{M} = \text{Zr}, \text{Hf}$), synthesis and variable temperature ^1H NMR of (B. Gautheron, G. Tainturier), (262) C30
- Metalloarsinesulphides with trialkylphosphite substituted metal atoms; isomerisation under 1,5-migration from oxygen to sulphur of a methyl group (R. Janta, M. Luksza, W. Malisch, D. Kempf, G. Künzel), (266) C22
- Molybdenum- and chromium-sulphur clusters, formation of tri- and tetra-nuclear clusters with M_3S_4 or M_4S_4 backbones by reactions with carbonyl-chromium, -molybdenum and -tungsten complexes (H. Brunner, H. Kauermann, J. Wachter), (265) 189
- Molybdenum and tungsten carbonyl complexes with macrocyclic thiaether ligands (C.G. Young, J.A. Broomhead, C.J. Boreham), (260) 91
- Molybdenum and tungsten tetracarbonyl complexes with 2,2'-bipyridine, 1,10-phenanthroline and 2,9-dimethyl-1,10-phenanthroline ligands, reactions with mercury halides and pseudohalides of (M.P. Pardo, M. Cano), (260) 81
- Mono- η -cyclopentadienylthiobenzamidozirconium(IV) complexes, chiral properties of (K. Berg, G. Erker), (263) 37
- Mono- and bis-(trialkylphosphine)cyclopentadienyl-cobalt and -rhodium derivatives, reactions with CSSe and CSe_2 of (O. Kolb, H. Werner), (268) 49
- $[\text{N}(\text{CH}_2\text{CH}_2\text{PPh}_2)_3\text{Ni}$, reactivity towards CS_2 , SCNPh , and COS ; structure of the $\eta^2\text{-S,C}$ -bonded phosphoniiodithiomethyl ester complex $(\text{Ph}_2\text{PCH}_2\text{CH}_2\text{N}(\text{CH}_2\text{CH}_2\text{PPh}_2)_2\text{Ni}(\text{CS}_2\text{Me})\text{BPh}_4$ (C. Bianchini, C.A. Ghilardi, A. Meli, A. Orlandini), (270) 251
- Niobocene sulphide dimer, synthesis and molecular structure of (Yu.V. Skripkin, I.L. Eremenko, A.A. Pasynskii, Yu.T. Struchkov, V.E. Shklover), (267) 285
- Octa-organyl-spirobis(cyclotristannachalogenans), conformational isomerism of (H. Puff, E. Friedrichs, R. Hundt, R. Zimmer), (259) 79
- Olefinic tertiary phosphine-containing complexes, X-ray structures of $\text{OsBr}(2\text{-CH}_2=\text{CHC}_6\text{H}_4\text{PPh}_2)-(\eta^2\text{-C}_5\text{H}_5)$ and $\text{Ru}(\eta^2\text{-S}_2\text{CCHMeC}_6\text{H}_4-\text{PPh}_2)_2(\eta^2\text{-C}_5\text{H}_5)$ (M.I. Bruce, T.W. Hambley, M.R. Snow, A.G. Swincer), (273) 361
- Organoiron thiolate complexes, alkylation of (P.M. Treichel, M.S. Schmidt, S.D. Koehler), (258) 209
- Organoniobium-carbon disulphide complexes, alkylation and reaction with NaBH_4 of; evidence for an $\eta^2\text{-CH}(\text{S}-\text{SR})$ ligand (J. Amaudrut, A. Kadmiri, J. Sala-Pala, J.E. Guerchais), (266) 53
- Organotin dimethyl- and diphenyl-dithioarsinates, preparation and properties of; crystal structure of $(\text{CH}_3)_2\text{Sn}[\text{S}_2\text{As}(\text{CH}_3)_2]_2$ (L.S. Dumitrescu, I. Haiduc, J. Weiss), (263) 159
- $\text{Os}_6(\text{CO})_{14}(\mu_2\text{-PPh}_2)_2(\mu_3\text{-S})_3(\mu_4\text{-S})$, synthesis and crystal and molecular structure of (R.D. Adams, I.T. Horváth, B.E. Segmüller), (262) 243
- Oxa-, thia- and selena-trisiletanes, formation by ring-expansion reactions of (M. Weidenbruch, A. Schäfer), (269) 231
- Palladium-catalysed carbonylation inducing diyne ring closure (G.P. Chiusoli, M. Costa, E. Masarati, G. Salerno), (255) C35
- Palladium(0) complexes, reactions with carbon disulphide of (D.H. Farrar, R.R. Gukathasan, K. Won), (275) 263
- Pentacarbonyl-5-aza-2,8-dithia-1-stannobicyclo[3.3.0^{1,5}]octanechromium(0), synthesis, spectroscopic investigation and molecular structure of (A. Tzschach, K. Jurkschat, M. Scheer, J. Meunier-Piret, M. Van Meerssche), (259) 165
- Pentacarbonyl-chromium(0) and -tungsten(0) complexes of 2,4,6-trithiaheptane and 2,4,6,8-tetrathianonane, dynamic NMR study of (E.W. Abel, M.A.Z. Chowdhury, K.G. Orell, V. Šík), (262) 293
- Pentacarbonyl-halophosphane-chromium complexes, cathodic reduction of (H.P. Fritz, T. Schöttle), (265) 175
- Pentacarbonyliron in reaction with ethylenetrithiocarbonate; structure of $[\text{Fe}_3(\text{CO})_9\{\text{CS}(\text{CH}_2)_2\text{S}\}]$ containing a μ_2 -dithiocarbene ligand (G.J. Kruger,

- L. Linford, H.G. Raubenheimer, A.A. Chalmers), (262) 69
- Pentacarbonyl(phenylthiophenylselenido)-chromium, molecular structure of (D. Neugebauer, U. Schubert), (256) 43
- Pentanuclear cyclopentadienyl-t-butyl-thiolate-sulphide chromium cluster [$\text{Cp}_2\text{Cr}_2(\mu_2-\text{SCMe}_3)(\mu_3-\text{S})_2\text{Cr}$ with a "bow-tie" frame, synthesis and structure of (A.A. Pasynskii, I.L. Eremenko, B. Orazsakhatov, G.Sh. Gasanov, V.E. Shklover, Yu.T. Struchkov), (269) 147
- 1,2-Phenyl and 1,2-sulphinatophenyl photochemical, thermal and SO_2 -induced migrations from lead to transition metals in the system $[(\eta^5-\text{C}_5\text{H}_5)_2\text{M}(\text{CO})_n\text{PbPh}_3]$ ($\text{M} = \text{Fe}, \text{Cr}, \text{Mo}, \text{W}$) (K.H. Pannell, R.N. Kapoor), (269) 59
- $\text{Ph}_3\text{SnSCH}_2\text{CH}_2\text{COOSnPh}_3$ and $\text{Bu}_3\text{SnS-CH}_2\text{CH}_2\text{COOSnBu}_3$, variable temperature ^{119}m Sn Mössbauer studies of (J.S. Brooks, R.W. Clarkson, J.M. Williams), (251) 63
- Polysilylation of bicyclic hetero-compounds (C. Biran, B. Efendène, J. Dunoguès), (253) C18
- Polythia[n]ruthenocenophanes, syntheses of (S. Akabori, H. Munegumi, S. Saito, M. Sato), (272) C54
- trans-[$(\text{PPPh}_3)_2\text{Pt}(\text{CH}_2\text{SR})\text{Cl}$] ($\text{R} = \text{Me, Ph, C}_6\text{H}_4\text{Me-p}$), preparation and reactions of (H.D. McPherson, J.L. Wardell), (254) 261
- Ruthenium(II) complexes of ambident heterocyclic ligands, alkylation of (E.C. Constable, J. Lewis), (254) 105
- $(\mu\text{-S})[\text{CpW}(\text{CO})_3]_2$ and $(\mu\text{-CH}_2\text{S})[\text{CpW}(\text{CO})_2]_2$, dinuclear complexes, preparation of (M. Herberhold, W. Jellen, H.H. Murray), (270) 65
- Silica-supported poly- γ -mercaptopropyl-siloxaneplatinum complex, active and stable hydrosilylation catalyst (L.-Z. Wang, Y.-Y. Jiang), (251) 39
- Silicon-containing cyclic polysulphides, mass spectrometric investigations of (A.I. Mikaya, E.A. Trusova, V.G. Zaikin, V.D. Tyurin, O.V. Kuz'min, A.V. Lebedev), (256) 97
- μ_3 -Sulphide clusters containing chromium and cobalt atoms, transformation by treatment with pivalic acid; molecular structures of the pseudotetrahedral cluster $\text{Cp}_3\text{Cr}_3(\mu_3\text{-O})\text{Co}(\text{CO})_3 \cdot \text{Me}_3\text{-CCOOH} \cdot 0.5\text{C}_6\text{H}_6$ and the heterometallic "bow-tie" cluster $(\text{Cp}_2\text{Cr}_2\text{-SCMe}_3)_2(\mu_3\text{-S})_4\text{Co}$ (I.L. Eremenko, A.A. Pasynskii, G.Sh. Gasanov, B. Orazsakhatov, Yu.T. Struchkov, V.E. Shklover), (275) 71
- μ_3 -Sulphur-bridged trinuclear manganese-iron cluster, preparation and chemical properties of (A. Winter, L. Zsolnai, G. Huttner), (269) C29
- Sulphur dioxide complexes, *O*-silylation of (W.A. Schenk, F.-E. Baumann), (260) C6
- Sulphur—Group IVB element bonds, X-ray diffraction study of; crystal and molecular structures of methylthiotriphenyl-methane, -silicon, -germanium, -tin and -lead (G.D. Andreotti, G. Bocelli, G. Calestani, P. Sgarabotto), (273) 31
- Telluro-1-chromenes, oxidation of (N. Dereu, M. Renson), (258) 163
- Tetraarsenic trisulphide, cleavage by nickel moieties of (P. Stoppioni, M. Peruzzi), (262) C5
- Tetracarbonylthiocarbonyliron, reactions with mercury chloride in various solvents of (W. Petz), (270) 81
- $(\eta^1\text{-}2,2,8,8\text{-Tetramethyl-3,7-dithianona-ne})$ tetracarbonyltungsten(0) as an intermediate, ring closure in (G.R. Dobson, C.B. Dobson, D.E. Halverson, S.E. Mansour), (253) C27
- $\Delta^{1,2,2,6,6\text{-Tetramethyl-4-thia-8,8,9,9-te-trachloro-8,9-digermabicyclo[5.2.0]-nonene}$, crystal and molecular structure of (A.A. Espenbetov, Yu.T. Struchkov, S.P. Kolesnikov, O.M. Nefedov), (275) 33
- 3-Thienyltin halides and 2-thienyl and 2-furyl analogues, chemistry and ^{119}Sn Mössbauer spectra of (D.W. Allen, D.J. Derbyshire, J.S. Brooks, P.J. Smith), (251) 45
- Thiocarbonylcobalt complex, $[(\text{np}_3)\text{Co-(CS)}]\text{BPh}_4$, synthesis of; reaction of $(\text{np}_3)\text{CoH}$ with heterocumulenes ($\text{np}_3 = \text{tris(2-diphenylphosphinoethyl)amine}$) (C. Bianchini, D. Masi, C. Mealli, A. Meli, M. Sabat, G. Scapacci), (273) 91
- Thiocarbonylruthenium(II) complexes; synthesis of $\text{RuCl}_2(\text{CS})(\text{H}_2\text{O})(\text{PPh}_3)_2$ and $\text{RuHCl}(\text{CS})(\text{PPh}_3)_3$ (P.J. Brothers, W.R. Roper), (258) 73
- Thioketene-cobalt complexes, preparation, structure and properties of (D. Wormsbächer, R. Drews, F. Edelmann, U. Behrens), (270) 93
- Thioketeneiron clusters, $(\text{CH}_3)_4\text{C}_6\text{H}_6\text{CS-}$

- ($\text{PPh}_3)_2(\text{CO})_4\text{Fe}_2$, reactions with excess thioketene under formation of a vinylidene complex (H. Umland, U. Behrens), (273) C39
- N*-Thionitrosodimethylamine-palladium(II) and -platinum(II) complexes, ligating properties of thionitroso-amines (G. Tresoldi, G. Bruno, F. Crucitti, P. Piraino), (252) 381
- (μ_3 -Thio)(μ_3 -organophosphido)tris(tricarbonyliron)($2\text{Fe}-\text{Fe}$) complexes, synthesis and crystal structure of (E. Lindner, G.A. Weiss, W. Hiller, R. Fawzi), (255) 245
- Thiophosphinito complexes of iron, preparation, behaviour and mass, IR and NMR spectra of (E. Lindner, C.P. Krieg), (269) 65
- Thiothriatiazolato- and alkynyl-copper(I) complexes, synthesis and reactivity of (G. La Monica, G. Ardizzoia, S. Cenini, F. Porta), (273) 263
- Trialkyl- and dialkyl-tin sulphides, desulphurisation reactions of (G.A. Razuvaev, V.I. Shcherbakov, I.K. Grigor'eva), (264) 245
- π -Tricarbonylchromium-phenyldimethylsulphonium tetrafluoroborate, electrochemical reduction in dimethyl sulfoxide of (A. Ceccon, A. Gambaro, A.M. Romanin, A. Venzo), (254) 207
- Tricarbonyldieneiron derivatives of 1-phenyl-3,4-dimethylphosphole, synthesis and reactivity of (C.C. Santini, F. Mathey), (266) 285
- Trichloronitrosylmolybdenum(II) and dichlorodinitrosylmolybdenum(0) complexes, reactions with EtAlCl_2 of (K. Seyferth, R. Taube), (262) 179
- Trimethyltin-diorganothiophosphinates, preparation and vibrational spectra of; crystal structure of $\text{Me}_3\text{SnOSPM}_2$, (A.-F. Shihada, H.A. Jassim, F. Weller), (268) 125
- Trimethylvinylsilane, reaction with S_8 in the presence of dodecacarbonyltri-iron, synthesis of cyclic polysulphides by (E.A. Chernyshev, O.V. Kuz'min, A.V. Lebedev, A.I. Gusev, N.I. Kirillova, N.S. Nametkin, V.D. Tyurin, A.M. Krapivin, N.A. Kubasova), (252) 133
- Trimethylvinylsilane, reaction with S_8 in the presence of dodecacarbonyldiiron, synthesis of trimethylsilyl- μ - S, S' -ethylenedithiolatohexacarbonyldiiron and 1-methyl-3-trimethylsilyl-2,5-
- dithiacyclopentane (E.A. Chernyshev, O.V. Kuz'min, A.V. Lebedev, A.I. Gusev, M.G. Los', N.V. Alekseev, N.S. Nametkin, V.D. Tyurin, A.M. Krapivin, N.A. Kubasova, V.G. Zaikin), (252) 143
- N*-[(Triorganylsilyl)alkyl]ethylenediamines, preparation and ^1H and ^{13}C NMR spectra of (D.H. O'Brien, K.J. Irgolic), (268) 31
- Triosmium clusters, interaction with heterocyclic thioamides of; X-ray crystal structure of (μ -H) $\text{Os}_3(\text{CO})_{10}(\mu\text{-SC=NHCH}_2\text{CH}_2\text{S})$ (A.M. Brodie, H.D. Holden, J. Lewis, M.J. Taylor), (253) C1
- Triphenylphosphine oxide adduct of tri-3-thienyltin bromide, $\text{Ph}_3\text{PO} \cdot \text{SnBr}(\text{C}_4\text{H}_3\text{S})_3$, crystal and molecular structure of (D.W. Allen, D.J. Derbyshire, I.W. Noewill, J.S. Brooks), (260) 263
- Tris(*p*-chlorophenyl)arsinoxide, structures of two polymorphic modifications of and comparison with the structure of tris(*p*-chlorophenyl)arsinsulphide (V.K. Belsky, V.E. Zavodnik), (265) 159
- ### Tantalum
- Halodicyclopentadienyl-niobium(V) and -tantalum(V) mixed complexes, preparation of (A. Antíñolo, M. Fajardo, A. Otero, P. Royo), (265) 35
- Hydridotantalacyclopropane complex from photo-induced β -hydride elimination of di- η^5 -cyclopentadienylethyl-(carbonyl)tantalum, formation and characterisation of (M.E. Eichner, H.G. Alt, M.D. Rausch), (264) 309
- ### Technetium
- Manganese, technetium, and rhenium; Annual Survey covering the year 1982 (P.M. Treichel), (261) 69
- N*-Methylphenotellurazine, synthesis of (J. Bergman, L. Engman), (251) 223
- ### Tellurium
- Alkyl telluraalkanoates $\text{C}_n\text{H}_{2n+1}\text{Te-(CH}_2\text{)}_m\text{COOR}$, synthesis and spectroscopic characterisation of (R.A. Grigsby, Jr., K.J. Irgolic, F.F. Knapp, Jr.), (253) 31

- 3,4-Benzo-1-telluracyclopentane, electrochemical oxidation of (H.B. Singh, W.R. McWhinnie), (264) 305
- Benzyltrimethylsilane, reaction with tellurium(IV) chloride of; structure of bis(*p*-trimethylsilyltolyl)tellurium dichloride (R.K. Chadha, J.E. Drake), (268) 141
- Bis(4-hydroxy-3-methylphenyl)tellurium-(IV) dichloride, crystalline β -isomer, X-ray study of (R.H. Jones, T.A. Hamor), (262) 151
- [$C_5H_5Ni(RTe-TeR)]BF_4$, chemistry of (N. Kuhn, M. Winter), (252) C86
- Di-*t*-butyl ditelluride and di-*t*-butyl telluride, preparation of and ^{125}Te NMR and Mössbauer spectra of dialkyl tellurides and ditellurides (C.H.W. Jones, R.D. Sharma), (255) 61
- Diethyl organylchalcogenoalkyl(alkyl)-malonates, $RX(CH_2)_nCR'(COOC_2H_5)_2$, and 5-alkyl-5-(organylchalcogenoalkyl)-barbiturates, $RX(CH_2)_nC(R')CONHC(Y)NHCO$ ($X = Se, Te$), synthesis and spectral properties of (R.A. Grigsby, Jr., K.J. Irgolic, F.F. Knapp, Jr.), (259) 171
- 1-Methyl-3,4-benzo-1-telluracyclopentane and 1-phenyl-1-telluracyclopentane cations in their tetraphenylborate salts, crystal structures of (R.H. Jones, T.A. Hamor), (269) 11
- Organotellurium(IV) halides, α -elimination of organic halides from (S. Uemura, S.-I. Fukuzawa), (268) 223
- Pentacarbonyl(diphenyltelluroketone)-tungsten, preparation of (H. Fischer, S. Zeuner), (252) C63
- 3,4-Quinoxalino-1-telluracyclopentane, $C_{10}H_8N_2Te^{II}$, crystal and molecular structure of (A.E. McCarthy, H.B. Singh), (275) 57
- Tellurium bridges in organometal complexes, formation, protonation and molecular geometry of (W.A. Herrmann, J. Rohrmann, M.L. Ziegler, T. Zahn), (273) 221
- Telluro-1-chromenes, oxidation of (N. Dereu, M. Renson), (258) 163
- $TeMnFe_2$ tetrahedral cluster compound, preparation and crystal structure of (W.A. Herrmann, C. Hecht, M.L. Ziegler, T. Zahn), (273) 323
- Trialkyl- and dialkyl-tin sulphides, desulphurisation reactions of (G.A. Razuvaev, V.I. Shcherbakov, I.K. Grigor'eva), (264) 245

Triethyltelluronium salts, synthesis and characterization of; crystal structure of triethyltelluronium bromide (R.K. Chadha, J.E. Drake, M.A. Khan, G. Singh), (260) 73

Trimethylchlorosilane, reaction with phenyltelluromagnesium bromide in THF, characterisation of the products by ^{29}Si and ^{125}Te NMR spectroscopy (C.H.W. Jones, R.D. Sharma), (268) 113

Thallium

Carbon dioxide-copper and -thallium as organometallic compounds, mass spectrometric investigations and calculations on (Yu.S. Nekrasov, Yu.A. Borisov, S.Yu. Silvestrova, T.V. Lysyak, Yu.Ya. Kharitonov, I.S. Kolomnikov), (269) 323

Monoarylthallium(III) crown ether complexes, reductive thallium-carbon bond cleavage in (H. Kurosawa, N. Okuda, Y. Kawasaki), (255) 153

Mono- and di-organothallium(III) derivatives, ^{13}C and 1H NMR parameters (F. Brady, R.W. Matthews, M.M. Thakur, D.G. Gillies), (252) 1

Thorium

Tricyclopentadienyluranium(IV)-alkyl and -dialkylamide derivatives, facile insertion of CO into U-C and U-N bonds of (G. Paolucci, G. Rossetto, P. Zanella, K. Yünlü, R.D. Fischer), (272) 363

Tin

Alkyltin chlorides, use of organosodium intermediates in synthesis of (D.W. Owen, R.C. Poller), (255) 173

η^2 -Alkyne-hexacarbonyldicobalt complexes with organometallic substituents (Si, Sn, B), preparation and NMR spectra of (P. Galow, A. Sebald, B. Wrackmeyer), (259) 253

Allylchlorotins as allylating agents of acyl chlorides (A. Gambaro, V. Peruzzo, D. Marton), (258) 291

Allyltin reagents, reactions with perfluoroalkyl nitriles of (W.A. Nugent, B.E. Smart), (256) C9

Allyltriethylstannane, mechanism of reaction with bromotrichloromethane of

- (T.V. Leshina, R.Z. Sagdeev, N.E. Polyakov, M.B. Taraban, V.I. Valyaev, V.I. Rakhlin, R.G. Mirskov, S.Kh. Khangazheev, M.G. Voronkov), (259) 295
- Arenediazomolybdenum(0) complexes, reactions with halogens, tin(VI) halides, mercury(II) halides and related reagents of (F.J. Lalor, M.E. Deane, D.M. Condon), (259) 305
- Aroyl-silanes, -germanes and -stannanes, ESR investigation of paramagnetic species derived from (A. Alberti, G. Seconi, G.F. Pedulli, A. Degl'Innocenti), (253) 291
- 1-Aza-5-stanna-5,5-dimethylbicyclo-[3.3.0^{1,5}]octane and 1-aza-5-stanna-5-methyltricyclo[3.3.3.0^{1,5}]undecane, pentacoordinated tetraorganotin compounds (K. Jurkschat, A. Tzschach), (272) C13
- Bis(trialkyltin)carbonates, evidence for two non-equivalent tin sites in the structure of (S.J. Blunden, R. Hill, J.N.R. Ruddick), (267) C5
- 1,1-Bis(trimethylstannylyl)-1-alkenes, iododestannylation of (T.N. Mitchell, A. Amamria), (256) 37
- Bis(triorganometal) and diorganometal 1,3-thiolates, (R₃M)₂(C₆H₅XS₂) and R₂M(C₆H₅XS₂) (M = Sn, Pb; X = H, Cl), preparation and spectra of (K. Grätz, F. Huber, A. Silvestri, R. Barbieri), (273) 283
- (E/Z)-2-Butenylchloro-n-butylin, reactions with aldehydes leading to homoallyl alcohols and 4-chloro-2,6-dialkyl-3-methyltetrahydropyrans (A. Gambaro, A. Boaretto, D. Marton, G. Tagliavini), (254) 293
- Carbon dioxide fixation by lanthanide complexes (M.N. Bochkarev, E.A. Fedorova, Yu.F. Radkov, S.Ya. Khorshev, G.S. Kalinina, G.A. Razuvaeva), (258) C29
- Carbonylmetal compounds, novel electro-generation of reactive formylmetal complexes from (B.A. Narayanan, J.K. Kochi), (272) C49
- Carbonyl-molybdenum(0) substituted complexes, Mo(CO)₂(PPh₃)₂(DAB) and Mo(CO)₄(DAB) (DAB = 1,4-diazabutadiene), reactions with HgX₂ (X = Cl, I, SCN) and SnCl₄ of (M. Iglesias, A. Llorente, C. Del Pino, A. Santos), (256) 75
- Carbonylvanadium complexes, ⁵¹V NMR spectroscopic investigation of vanadium—metal bonds in (R. Talay, D. Rehder), (262) 25
- α -Chloro- α -ethoxymethyltributyltin, reactions with aromatic aldehydes and hydrolysis of (J.-P. Quintard, B. Ellissondo, D. Mouko-Mpegna), (251) 175
- Chlorosilanes, metallation by trialkylstannyl anions of (J.-P. Quintard, G. Dumartin, C. Guérin, J. Dubac, A. Laporterie), (266) 123
- Cl₃SnCH₂CH₂CO₂H, acidity of (E.S. Paterson, J.L. Wardell, J.W. Burley), (273) 313
- Cobalt or cobalt and iron substituted silicon, germanium and tin complexes, electrochemical reduction of (C. Combes, R.J.P. Corriu, G. Dabosi, B.J.L. Henner, R. Martineau), (270) 131
- Co—C bond behaviour in a series of alkyl-cobalt complexes, in the presence of MeSnCl₃ or Me₂SnCl₂ (M.H. Darbieu, G. Cros), (252) 327
- Cyclopentadienyldicarbonyl ferriodic-thiocarbonic acid anion, reactions with metal compounds of (H. Stolzenberg, W.P. Fehlhammer, M. Monari, V. Zanotti, L. Busetto), (272) 73
- Cyclopentadienylnitrosylcarbonylisonitrile complexes of Group VI and cyclopentadienyldicarbonylisonitrile complexes of Group VII, chemistry of (H. Behrens, G. Landgraf, P. Merbach, M. Moll, K.-H. Trummer), (253) 217
- (Dialkylaminomethyl)chloro-silanes and -stannanes, synthesis and reactional behaviour of (A. Tzschach, W. Uhlig, K. Kellner), (266) 17
- Diborane, reactions with aryl-organotin compounds of (G.M. Pickles, T. Spencer, F.G. Thorpe, A.B. Chopra, J.C. Podesta), (260) 7
- 3,6-Di-t-butyl-1,2-benzosemiquinone-organotin derivatives, ESR spectra and structures of (A.G. Davies, J.A.-A. Hawari), (251) 53
- 2,2-Dibutyl-1,3,2-dioxastannolans, five-coordinate complexes of (A.G. Davies, A.J. Price), (258) 7
- 2,2-Dibutyl-1,3,2-dioxastannolans, X-ray structure of (A.G. Davies, A.J. Price, H.M. Dawes, M.B. Hursthouse), (270) C1
- Di-t-butyl- and di-t-amyl-tin oxides, synthesis and X-ray structures of (H. Puff,

- W. Schuh, R. Sievers, W. Wald, R. Zimmer), (260) 271
- Dichlorobis(*N*-methylimidazole)dimethyltin(IV), crystal structure of (R. Bardi, A. Piazzesi, R. Ettorre, G. Plazzogna), (270) 171
- Di- η^5 -cyclopentadienyltin(II) ring-bridged derivatives of α, α' -dicyclopentadienyl-*ortho*-, *meta*- and *para*-xylene (T.S. Dory, J.J. Zuckerman), (264) 295
- Diethylaminotrimethylstannane, reaction with 1,4-pentadiyne of (B. Wrackmeyer, C. Bihlmayer), (266) 33
- Dimethyl derivatives of Main Group IV elements, ionic decomposition processes of (L. Langó, L. Szepes, P. Császár, G. Innorta), (269) 133
- Diorgano(alkoxy)tin asymmetric halides, synthesis and application to stereo-selective reductions of (H. Schumann, B. Pachaly, B.C. Schütze), (265) 145
- Diorganophosphinoalkyldimethyltin chloride, synthesis, structure and reactivity of (H. Weichmann), (262) 279
- Diorganostannylmethanes, synthesis and spectroscopic investigations of (M. Gielen, K. Jurkschat), (273) 303
- N*-Di- and tri-organotin(IV) derivatives of saccharin (F.A.K. Nasser, J.J. Zuckerman), (266) 225
- Diorganotin oxycarbonates, preparation and spectroscopy of (P.J. Smith, R. Hill, A. Nicolaides, J.D. Donaldson), (252) 149
- 1,3,2-Dioxastannolans, reactions with diacyl chlorides of; decarbonylation in the reaction with oxalyl chloride (A.G. Davies, P. Hua-De, J.A.-A. Hawari), (256) 251
- "Di-9-phenanthryltin", chromatographic and instrumental analysis and degradation of (W.P. Neumann, J. Fu), (273) 295
- Distannanes containing Cp(CO)₂Fe groups, synthesis by electrochemical reduction reactions of (C. Combes, R.J.P. Corriu, G. Dabosi, B.J.L. Henner, M. Martineau), (270) 141
- Five-coordinate triorganotin(IV) tripoloniates and dibenzoylmethanates, synthesis and structural study of (S.K. Brahma, W.H. Nelson, W.F. Howard, Jr.), (273) 47
- Germanium-73 and other Main Group IV element NMR chemical shifts, relation between (P.J. Watkinson, K.M. Mackay), (275) 39
- Group IVB tetraphenyl derivatives, UV gas-phase photoelectron spectra of (I. Novak, A.W. Potts), (262) 17
- Hexa-9-phenanthrylcyclotristannane, preparation and reactions of (J. Fu, W.P. Neumann), (272) C5
- Hexaphenylethane analogues, Ph₃Pb—MPh₃, M = Pb, Sn, Ge, Si, preparation and characterisation of (N. Kleiner, M. Dräger), (270) 151
- Homoallylic alcohols and 4-chloro-2,6-dialkyl-3-methyltetrahydropyrans, *cis*-stereoconvergent synthesis by addition of 1-buten-3-yl dichloro-n-butylin and aldehydes of (A. Gambaro, A. Boaretto, D. Marton, G. Tagliavini), (260) 255
- [IrCl(SnCl₃)(HgCl)(CO)(PR₃)₂] complexes, synthesis, Raman and NMR spectroscopy of (M. Kretschmer, P.S. Pregosin, P. Favre, C.W. Schlaepfer), (253) 17
- Iridium(I) complexes with tetrafluorobenzobarrelene (R. Usón, L.A. Oro, D. Carmona, M.A. Esteruelas), (263) 109
- Isopropyl- and trimethylsilylmethylene-substituted chlorohydroxotetraorganyl-distannoxanes, crystal structures of (H. Puff, I. Bung, E. Friedrichs, A. Jansen), (254) 23
- (Metalla)neopentyl-tin and -mercury derivatives, multinuclear NMR spectroscopy of (T.N. Mitchell, B. Fabisch), (269) 249
- Metallaselenafiocenophanes, Fe(η^5 -C₅H₄-Se)₂M(η^5 -C₅H₄R)₂ (M = Zr, Hf), synthesis and variable temperature ¹H NMR of (B. Gautheron, G. Tainturier), (262) C30
- (2-Methoxycarbonyl)ethyltin compounds, alcoholysis of (H.-S. Cheng, T.-L. Hwang, C.-S. Liu), (254) 43
- σ -Methylplatinum(IV) and π -ethylene-platinum(II) complex formation in photochemical and thermal reactions of PtCl₄²⁻ with methyl- and ethyl-tin and -germanium derivatives (G.B. Shul'pin, G.V. Nizova, A.N. Kitaigorodskii, M.V. Serdobov), (275) 273
- Methyl/trifluoromethyl organometallic compounds, synthesis by low temperature cocondensation of trifluoromethyl radicals and methylalkyl-Main

- Group compounds of (M.A. Guerra, R.L. Armstrong, W.I. Bailey, Jr., R.J. Lagow), (254) 53
- 4-Methyl- and 5-methyltrimethylstannyl-3-cyclopentenes, synthesis and identification of the diastereoisomers of (G. Dumartin, J.-P. Quintard, M. Pereyre), (252) 37
- Methyl[tris(trimethylsilyl)methyl] dichlorostannane, alkaline hydrolysis of (V.K. Belsky, N.N. Zemlyansky, I.V. Borisova, N.D. Kolosova, I.P. Beletskaya), (254) 189
- Neopentyl- and 1-methylcyclohexylmethyl- and -chloro-tin compounds, preparation of (A.F. El-Farargy, W.P. Neumann), (258) 15
- Niobocene heteronuclear derivatives containing Nb—Sn bond, synthesis, molecular structures and PMR spectra of (Yu.V. Skripkin, O.G. Volkov, A.A. Pasynskii, A.S. Antsyshkina, L.M. Dikareva, V.N. Ostrikova, M.A. Porai-Koshits, S.L. Davydova, S.G. Sakharov), (263) 345
- Octa-organyl-spirobis(cyclotristannachalcogenans), conformational isomerism of (H. Puff, E. Friedrichs, R. Hundt, R. Zimmer), (259) 79
- 2,2,3,3,5,5,6,6-Octaphenyl-2,3,5,6-tetraannacyclohexane, crystal and molecular structure and ^{119}Sn NMR spectroscopy of (J. Meunier-Piret, M. Van Meersche, M. Gielen, K. Jurkschat), (252) 289
- Organotin compounds, spin trapping of radicals generated by ultrasonic decomposition of (D. Rehorek, E.G. Janzen), (268) 135
- Organotin dimethyl- and diphenyl-dithioarsinates, preparation and properties of; crystal structure of $(\text{CH}_3)_2\text{Sn}[\text{S}_2\text{As}(\text{CH}_3)_2]_2$ (L.S. Dumitrescu, I. Haiduc, J. Weiss), (263) 159
- Paramagnetic tin complexes, ESR and ENDOR investigations of; structural analysis of 3,5-di-t-butyl-1,2-phenylenedioxybis(*o*-trifluoromethylphenyl)-methanol(tin(IV)) (T. Butters, K. Scheffler, H.B. Stegmann, U. Weber, W. Winter), (272) 351
- Pentacarbonyl-5-t-butyl-5-aza-2,8-dithia-1-stannabicyclo[3.3.0^{1,5}]octanechromium(0), synthesis, spectroscopic investigation and molecular structure of (A. Tzschach, K. Jurkschat, M. Scheer, J. Meunier-Piret, M. Van Meersche), (259) 165
- Pentakis(methoxycarbonyl)cyclopenta-dienyl-substituted germanium(II) and tin(II) compounds, X-ray crystal structure of bis[pentakis(methoxycarbonyl)cyclopentadienyl]tin(II) (P. Jutzi, F.-X. Kohl, E. Schlüter, M.B. Hursthouse, N.P.C. Walker), (271) 393
- 1,10-Phenanthrolinedichlorodi-n-butylin crystal structure of (P. Ganis, V. Peruzzo, G. Valle), (256) 245
- Phenaza(oxa-, thia-)elementines of Group IV, structure and intramolecular electronic effects in (V.K. Belsky, I.E. Saratov, V.O. Reikhsfeld, A.A. Simonenko), (258) 283
- $\text{Ph}_2\text{SnSCH}_2\text{CH}_2\text{COOSnPh}_2$ and $\text{Bu}_2\text{SnSC}_2\text{H}_2\text{CH}_2\text{COOSnBu}_3$, variable temperature ^{119}Sn Mössbauer studies of (J.S. Brooks, R.W. Clarkson, J.M. Williams), (251) 63
- Poly(dialkyltin oxide) and alkane- or alkene-1,2-diols, telomerization of; identification of cyclic derivatives of oligomeric dibutyltin oxide (A.G. Davies, J.A.-A. Hawari, P. Hua-De), (251) 203
- Regiospecific synthesis of aromatic compounds via organometallic intermediates; 1,3,5-(trimethylmetal(IV))-benzene compounds (G.J. Chen, C. Tamborski), (251) 149
- Rhenium-based catalyst used in heterogeneous metathesis of unsaturated esters (R.H.A. Bosma, G.C.N. van den Aardweg, J.C. Mol), (255) 159
- Seven-coordinate organotin complexes with 2,6-diacetylpyridine bis(2-amino-benzoylhydrazone), synthesis and structural characterization of (C. Pelizzi, G. Pelizzi, G. Predieri), (263) 9
- Silylamides of Group IVA and IVB elements with spirobicycloheptane structure (H. Bürger, W. Geschwandtner, G.R. Liewald), (259) 145
- α -Stannylynvinyl anionoids of 1,1-bis(trimethylstannylyl)alkenes, formation of (T.N. Mitchell, A. Amamria), (252) 47
- Sulphur—Group IVB element bonds, X-ray diffraction study of; crystal and molecular structures of methylthiotriphenyl-methane, -silicon, -germanium, -tin and -lead (G.D. Andreotti, G. Bocelli, G. Calestani, P. Sgarabotto), (273) 31
- Tetraethylammonium tricarbonyl- η^5 .

- cyclopentadienyltriphenylstannyl-niobate(I), $[(\text{C}_2\text{H}_5)_4\text{N}] [\text{Nb}(\eta^5-\text{C}_5\text{H}_5)-\{\text{Sn}(\text{C}_6\text{H}_5)_3\}(\text{CO})_3]$, crystal and molecular structure of (F. Näumann, J. Kopf, D. Rehder), (267) 249
- Tetraphenylcyclopentadienyl derivatives of Group IVB elements, unusual reaction with isopropylidenetriphenylphosphorane of (I.V. Borisova, Yu.N. Luzikov, N.N. Zemlyansky, Yu.A. Ustynyuk, I.P. Beletskaya), (268) 11
- Tetraphenylporphyrinetin compounds, alkylation and reduction by Grignard reagents of (C. Cloutour, C. Debaig-Valade, C. Gacherieu, J.-C. Pommier), (269) 239
- 3-Thienyltin halides and 2-thienyl and 2-furyl analogues, chemistry and ^{119}Sn Mössbauer spectra of (D.W. Allen, D.J. Derbyshire, J.S. Brooks, P.J. Smith), (251) 45
- Tin(II) acetylacetonate in reaction with mercuric derivatives of carboranes (V.I. Bregadze, G.Z. Suleimanov, V.Ts. Kampel, M.V. Petriashvili, S.G. Mamedova, P.V. Petrovskii, N.N. Godovikov), (263) 131
- Tin(IV) aquo complexes with crown ethers, synthesis and Mössbauer studies of (U. Russo, A. Cassol, A. Silvestri), (260) 69
- Tin(IV) mediated synthesis of *N*-halo compounds (R. Soundararajan, S. Krishnamurthy, V.S. Srinivasan, T.R. Balasubramanian), (255) 295
- Tin-tin long-range coupling constants, two-bond coupling via carbon (T.N. Mitchell, A. Amamria, B. Fabisch, H.G. Kuivila, T.J. Karol, K. Swami), (259) 157
- Trialkyltin halides and tetraalkyltins, synthesis of (J.W. Burley, R.E. Hutton, M.R.J. Jolley, C.J. Groenenboom), (251) 189
- Trialkyl- and dialkyl-tin sulphides, desulphurisation reactions of (G.A. Razuvaev, V.I. Shcherbakov, I.K. Grigor'eva), (264) 245
- Tributyltin derivatives of phosphorus oxy acids, ^{119}Sn , ^{31}P NMR and ^{119m}Sn Mössbauer study of autoassociation of (S.J. Blunden, R. Hill, D.G. Gillies), (270) 39
- Tri-n-butyltin(IV) four- and five-coordinate compounds, ^{13}C and ^{119}Sn NMR spectra of (M. Nádvorník, J. Holeček, K. Handlíř, A. Lyčka), (275) 43
- Trichloro(4-ethoxy-4-oxobutyl)tin, $\text{Cl}_3\text{SnCH}_2\text{CH}_2\text{CH}_2\text{CO}_2\text{Et}$, crystal structure and coordination chemistry of (R.A. Howie, E.S. Paterson, J.L. Wardell, J.W. Burley), (259) 71
- 2,2,6-Trimethyl-1,3-dithia-6-aza-2-stannocane, crystal structure of (M. Dräger), (251) 209
- Trimethyltin-diorganothiophosphinates, preparation and vibrational spectra of; crystal structure of $\text{Me}_3\text{SnOSPMe}_2$, (A.-F. Shihada, H.A. Jassim, F. Weller), (268) 125
- Triorganotin(IV) *O,O*-alkylene dithiophosphates, preparation of (R.J. Rao, G. Srivastava, R.C. Mehrotra), (258) 155
- Triorganotin pyridines, bonding in (J.E. Phillips, R.H. Herber), (268) 39
- Triphenylphosphine oxide adduct of tri-3-thienyltin bromide, $\text{Ph}_3\text{PO} \cdot \text{SnBr}(\text{C}_4\text{H}_3\text{S})_3$, crystal and molecular structure of (D.W. Allen, D.J. Derbyshire, I.W. Nowell, J.S. Brooks), (260) 263
- Triphenyltin acetate, structure of (K.C. Molloy, T.G. Purcell, K. Quill, I.W. Nowell), (267) 237
- Triphenyltin(IV) carboxylates, ^{13}C and ^{119}Sn NMR study of (J. Holeček, K. Handlíř, M. Nádvorník, A. Lyčka), (258) 147
- Triphenylvinyltin, synthesis and crystal structure of (F. Theobald, B. Trimaille), (267) 143
- Tris(pyrazolyl)borate(trimethyl)tin, a six-coordinate trialkyltin compound, synthesis and X-ray structure of (B.K. Nicholson), (265) 153
- Tris(tetracarbonylcobalt)chlorotin, interactions with tris(pyrazolyl)borate anion; formation of the anion $[\text{Sn}_{2-}\text{Co}_5\text{Cl}_2(\text{CO})_{12}]^-$ as the bis(tris(1-pyrazolyl)borate)cobalt(III) salt, $[\text{Co}(\text{HB}-\text{tris(pyrazolyl)})_2]_2^+$, and X-ray crystal structure of (O.J. Curnow, B.K. Nicholson), (267) 257
- Tris(trimethylstannyl)- and tetrakis(trimethylstannyl)-methane, reactions of (D.W. Hawker, P.R. Wells), (266) 37
- Tris[(triphenylstannyl)methyl]methane, crystal and molecular structure of (A.L. Beauchamp, S. Latour, M.J. Olivier, J.D. Wuest), (254) 283

Titanium

- Alumina/silica used as carrier in various ratios, influence on paramagnetic and catalytic properties of supported titanium complexes (W. Skupiński, I. Cieślowska-Glińska), (269) 29
- Bimetallic hydride complex of titanium and aluminium, $[(\eta^5\text{-C}_5\text{H}_5)_2\text{Ti}(\mu\text{-H})_2\text{-AlH}_2]_2(\text{CH}_3)_2\text{NCH}_2\text{CH}_2\text{N}(\text{CH}_3)_2\text{C}_6\text{H}_6$, crystal and molecular structure of (E.B. Lobkovskii, G.L. Soloveichik, A.I. Sisov, B.M. Bulychev, A.I. Gusev, N.I. Kirillova), (265) 167
- Bis-benzyl- and bis-allyl-titanium(III) and -vanadium(III), synthesis and characterisation of; catalytic isomerisation of alkenes with $\text{C}_5\text{H}_5\text{V}(\eta^3\text{-C}_3\text{H}_5)_2$ (J. Nieman, J.W. Pattasina, J.H. Teuben), (262) 157
- Bis(trimethylsilyl)-butadienyl and -methylbutadienyl acetals, preparation and application in synthesis of (M. Bellassoued, M. Gaudemar), (263) C21
- $(\eta^5\text{-C}_5\text{H}_5)_2\text{Ti}(\mu\text{-H})_2\text{AlCl}_2 \cdot \text{O}(\text{C}_2\text{H}_5)_2$, crystal and molecular structure of (E.E. Lobkovskii, G.L. Soloveichik, B.M. Bulychev, R.G. Gerr, Yu.T. Struchkov), (270) 45
- $\text{C}_4\text{Ph}_4\text{TiCl}_3 \cdot \text{Mg}_2\text{Cl}_3(\text{THF})_6$, crystal structure and reactivity of (M.E.E. Meijer-Veldman, J.L. de Boer, H.J. de Liefde Meijer, A.M.M. Schreurs, J. Kroon, A.L. Spek), (269) 255
- Cyclopentadienylcyclooctatetraene compounds of titanium, cyclic voltammetry of (E. Samuel, D. Guery, J. Vedel), (263) C43
- Cyclopentadienylmethyldichlorotitanium-(IV) thermally stable compound, synthesis and properties of (G.J. Erskine, G.J.B. Hurst, E.L. Weinberg, B.K. Hunter, J.D. McCowan), (267) 265
- $\eta^5\text{-Cyclopentadienyl-titanium, -zirconium and -hafnium trihalide complexes, He(I) and He(II) photoelectron spectra of}$ (A. Terpstra, J.N. Louwen, A. Oskam, J.H. Teuben), (260) 207
- Dicarbonyldicyclopentadienyltitanium, reactions with aldehydes and ketones of (T.L. Chen, T.H. Chan, A. Shaver), (268) C1
- Dichlorobis($\eta^5\text{-t-butylcyclopentadienyl}$)-titanium(IV), crystal and molecular structure of (R.A. Howie, G.P. McQuillan, D.W. Thompson), (268) 149

Dicyclopentadienyldichlorotitanium · lithium aluminium hydride isomerisation catalyst, influence of the nature of unsaturated hydrocarbons on the catalytic activity of (K. Mach, H. Antropiusová, F. Tureček, P. Sedmera), (269) 39

Dicyclopentadienyldiligandtitanium crystalline complexes ($L = \text{CH}_3\text{C}_6\text{H}_4$, $\text{CF}_3\text{C}_6\text{H}_4$, $\text{CH}_3\text{OC}_6\text{H}_4$), enthalpies of formation of (M.J. Calhorda, A.R. Dias, M.S. Salema, J.A. Martinho Simões), (255) 81

Dicyclopentadienyltitanium chloride dimer, CO-induced disproportionation of (L.P. Battaglia, M. Nardelli, C. Pelizzi, G. Predieri, G.P. Chiusoli), (259) 301

$\eta^1:\eta^5\text{-Dicyclopentadienyltitanium pyrazolone bridged complexes, synthesis and structural elucidation of}$ (S. Saxena, Y.P. Singh, A.K. Rai), (270) 301

Magnesium hydride, catalysed addition to isoprene and styrene of (B. Bogdanović, M. Maruthamuthu), (272) 115

Monocyclopentadienyltitanium compounds, synthesis and properties of (R. Martin-Benito, R. Jimenez-Aparicio, M.C. Barral), (269) 267

Silylamides of Group IVA and IVB elements with spirobicycloheptane structure (H. Bürger, W. Geschwandtner, G.R. Liewald), (259) 145

Tetramethylene-bridged titanocene and zirconocene derivatives, synthesis via reductive fulvene coupling of (H. Schwemlein, H.H. Brintzinger), (254) 69

$\text{Ti}(\text{CH}_3)(\text{PH}_3)_2(\text{X})_2\text{Y}$ ($X = \text{Cl}, \text{H}; Y = \text{Cl}$), intramolecular $\text{CH}\dots\text{M}$ interaction in and ab initio MO study of structure of (S. Obara, N. Koga, K. Morokuma), (270) C33

Titanium complexes in cyclotrimerization of substituted acetylenes to arenes (M.E.E. Meijer-Veldman, H.J. de Liefde Meijer), (260) 199

Vinyl- and allyl-titanium bonds, addition of ethylene to (H. Lehmkühl, E. Janssen, R. Schwickardi), (258) 171

Transition metals — General

Complexes containing heteronuclear metal–metal bonds. Some recent advances 1980–1981. B. Heterometallic cluster complexes (M.I. Bruce), (257) 417

- Organic reactions of selected π -complexes;**
Annual Survey covering the year 1982
(B.W. Rockett, G. Marr), (257) 275
- Simple topological model of a super-aromatic cluster and difficulties of the electron counting scheme (Yu.V. Slovokhotov, Yu.T. Struchkov), (258) 47**
- Transition metals in organic synthesis;**
Annual Survey covering the year 1982
(L.S. Hegedus), (261) 283
- Transition metals in organic synthesis:**
hydroformylation, reduction and oxidation; Annual Survey covering the year 1982 (L. Markó), (261) 485
- Tungsten**
- Acetylene-carbene-tungsten stable complexes, synthesis and vibrational spectral characterisation of (H.G. Alt), (256) C12**
- η^3 -Acryloyl complexes $[(\eta^5\text{-C}_5\text{H}_5)(\text{CO})\text{-LWC(O)C(CF}_3)_2\text{=C(CF}_3)\text{H}]$ (L = CO, P(OMe)₃), X-ray structure and phosphine and phosphite substitution reactions of (F.Y. Pétilon, J.-L. Le Quéré, F. Le Floch-Pérennou, J.-E. Guerchais, M.-B. Gomes De Lima, L. Manojlović-Muir, K.W. Muir, D.W.A. Sharp), (255) 281**
- Alkenyl-chromium, -molybdenum and -tungsten complexes, *cis/trans*- and E/Z-isomerisation in (G. Grötsch, W. Malisch), (258) 297**
- Alkinylphosphine-substituted products of chromium and tungsten hexacarbonyls (A. Hengefeld, R. Nast), (267) 151**
- Arenetricarbonyl-chromium, -manganese and -iron, dependence of electrophilicity of coordinated cyclic π -hydrocarbons on the metal in (Y.K. Chung, E.D. Honig, D.A. Schweigart), (256) 277**
- Azidocarbonylmetal(0) complexes of chromium, molybdenum, tungsten and manganese, preparation and reactions of and coordination in (D. Sellmann, W. Weber, G. Liehr, H.P. Beck), (269) 155**
- Bis(alkoxy)carbene complexes, alkenylation by insertion of inamines into the carbene—oxygen bond (N.H.T. Huy, E.O. Fischer, J. Riede, U. Thewalt, K.H. Dötz), (273) C29**
- Bis(alkylcyclopentadienyl)tungsten dihalides, intermolecular interaction with tetracyanoethylene and tetracyanoquinodimethane studied by UV absorption spectroscopy of (A.A. Tumanov, L.N. Zakharov, P.G. Sennikov, A.N. Egorochkin, G.A. Razuvaev, A.S. Smirnov, V.A. Dodonov), (263) 213**
- Bis(diisopropylamino)phosphine- and diisopropylaminochlorophosphine-metal carbonyl complexes, formation and reactions of (R.B. King, W.-K. Fu), (272) C33**
- Bis(triphenylarsine)dichlorotricarbonyltungsten as catalyst in ring-opening polymerisation of norbornene in the presence of olefins (L. Bencze, A. Kraut-Vass), (270) 211**
- Carbonyl complexes as a mean to probe chelating ligand sites of phosphines on silica gel (M. Berglund, C. Andersson, R. Larsson), (258) 195**
- Carbonylchloro(η^5 -cyclopentadienyl)-molybdenum and -tungsten chiral complexes with N,N-diphenylphosphino- α -amino acid esters, ($\eta^5\text{-C}_5\text{H}_5$)-(CO)M(Ph₂P)₂NCHRCO₂Me (M = Mo, W) (H.-G. Fick, W. Beck), (252) 83**
- Carbonyl-chromium(0) and -tungsten(0) complexes with 1,2-benzenethiolato, 1,2-methylthiobenzenethiolato and 2,3,8,9-dibenzo-1,4,7,10-tetrathiadecane(2-) ligands, isolation and characterisation of (D. Sellmann, W. Ludwig), (269) 171**
- Carbonyl-chromium, -molybdenum and -tungsten derivatives of an unusual oxygen tripod ligand (W. Kläui, A. Müller, M. Scotti), (253) 45**
- [1-Carbonyl-1-(η^5 -cyclopentadienyl)-2,2-diphenyl-3-methyl-1-trimethylphosphine-1-tungsten-2-phosphabicyclo[1.1.0]butan-4-one] hexafluorophosphate, synthesis of an η^2 -phosphino-carbene complex by decarbonylation of (F.R. Kreissl, M. Wolfgruber, W.J. Sieber), (270) C4**
- [1-Carbonyl-1- η^5 -cyclopentadienyl-1-trimethylphosphine-tungsta-2,2-dimethylphospha-3-methylbicyclo[1.1.0]butan-4-one] chloride, preparation, spectra and X-ray analysis of (F.R. Kreissl, M. Wolfgruber, W. Sieber, K. Ackermann), (252) C39**
- Carbonyl-Group VI metals containing the ligand bis(di-o-tolyl)phosphinomethane, preparation and properties of; crystal and molecular structure of**

- dicarbonylbis(di-*o*-tolyl)phosphino-methanechromium (G.R. Clark, P.W. Clark), (255) 205
- Carbonylmetal(0) complexes with diphosphanes, R(X)PP(X)R (R = aryl, X = Br, I, H, C₄H₉) as bridging ligands (A.-M. Hinke, A. Hinke, W. Kuchen), (258) 307
- Carbonyl-, nitrosylcarbonyl- and nitrosyl-metal complexes of bis(diphenylphosphino)amines (J. Ellermann, W. Wend), (258) 21
- Carbonyl-molybdenum and -tungsten complexes, observation of tetrafluoroborate coordination by ¹⁹F and ³¹P NMR spectroscopy of (K. Sünkel, G. Urban, W. Beck), (252) 187
- Carbonyl-molybdenum and -tungsten complexes with macrocyclic thiaether ligands (C.G. Young, J.A. Broomhead, C.J. Boreham), (260) 91
- Carbyne-chromium and -tungsten di-nuclear complexes containing halogen bridges, synthesis of (E.O. Fischer, J.K.R. Wanner), (252) 175
- Chlorinated organic derivatives containing Mo—Hg and W—Hg bonds, importance of the steric effects in their stabilisation (O. Rossell, M. Seco, P. Brauneckstein), (273) 233
- [(C₆H₅)₃P]₂N⁺[(ophen)(CO)(CN)₂]W-(O[−]C≡CC₆H₅)][−](ophen = 1,10-phenanthroline), anionic η^2 -ketene complex, isolation and characterisation of (E.O. Fischer, A.C. Filippou, H.G. Alt, K. Ackermann), (254) C21
- Chromium, molybdenum, and tungsten; Annual Survey covering the year 1981 (J.D. Atwood), (257) 105
- Cyclisation and fragmentation of organoazides in reactions with Mo=Mo and W=W bonds (W.A. Herrmann, G.W. Kriechbaum, R. Dammel, H. Bock, M.L. Ziegler, H. Pfisterer), (254) 219
- Cyclopentadienyldicarbonyl feriodithiocarbonic acid anion, reactions with metal compounds of (H. Stolzenberg, W.P. Fehlhammer, M. Monari, V. Zanotti, L. Busetto), (272) 73
- Cyclopentadienyl(methoxyethenyl)bis(trimethylphosphine)iron, Cp(Me₃P)₂-Fe—C(OMe)=CH₂, "ylidic" reactivity of, proton abstraction from and carbon disulphide addition to (G. Grötsch, W. Malisch), (262) C38
- Cyclopentadienylnitrosylcarbonylisonitrile complexes of Group VI and cyclo-
- tadienyldicarbonylisonitrile complexes of Group VII, chemistry of (H. Behrens, G. Landgraf, P. Merbach, M. Moll, K.-H. Trummer), (253) 217
- Cyclopentadienyltricarbonylmetal-chromium, -molybdenum and -tungsten functionally substituted derivatives (D.W. Macomber, M.D. Rausch), (258) 331
- Dicarbonyl(η^5 -cyclopentadienyl)(diethylaminocarbyne)tungsten, carbyne—carbene rearrangement by protonation in (F.R. Kreissl, W.J. Sieber, M. Wolfsgruber), (270) C45
- α -[Dicarbonyl(η^5 -cyclopentadienyl)trimethylphosphinetungstena]- α -(4-methylphenyl)acetic acid methyl ester, X-ray analysis of (W.J. Sieber, M. Wolfsgruber, F.R. Kreissl, O. Orama), (270) C41
- Dicarbonyl(η^4 -diene)bis(trimethylphosphite)-molybdenum(0) and -tungsten(0), dynamic behaviour of (S. Özkar, C.G. Kreiter), (256) 57
- Di- π -cyclopentadienylalkyl-molybdenum and -tungsten compounds, ESR studies of the radiolysis of (M.M. Maguire, H. Do, S.K. Nguyen, C. Vo, D. Smith, G. Koher, G. Doutt, M.C.R. Symons), (269) 183
- Dicyclopentadienylhexacarbonyl-dimolybdenum and -ditungsten, primary CO dissociation pathway in photochemistry of (R.H. Hooker, K.A. Mahmoud, A.J. Rest), (254) C25
- Dinitrogen-molybdenum and tungsten complexes, trimethylsilylation of (M. Hidai, K. Komori, T. Kodama, D.-M. Jin, T. Takahashi, S. Sugiura, Y. Uchida, Y. Mizobe), (272) 155
- Diphenylcarbenepentacarbonyltungsten, reaction with ethyl vinyl ether in non-polar solvents (K. Weiss, K. Hoffmann), (255) C24
- [Diphenylmethylenearmino(organyoxy)-carbene] - and [alkylthio(diphenylmethylenearmino)carbene] - pentacarbonyltungsten complexes, preparation by insertion reactions with tungsten—carbon bonds of (H. Fischer, S. Zeuner, K. Ackermann, U. Schubert), (263) 201
- Halo(arylcarbyne)(tetracarbonyl)tungsten complexes, halogen exchange, equilibrium constant determination and relative strength of the halogen—tungsten bond in (H. Fischer, F. Seitz), (268) 247

- trans*-Halo(tetracarbonyl)(phenylcarbyne)-tungsten complexes, halide exchange reactions of (H. Fischer, F. Seitz), (275) 83
- Hexacarbonyldiarsenicdicobalt, As_2Co_2 -(CO)₆, preparation of polynuclear complexes from (M. Müller, H. Vahrenkamp), (252) 95
- Hexacarbonyltungsten and some phosphine derivatives, ¹⁸³W NMR spectroscopy of (R.L. Keiter, D.G. Vander Velde), (258) C34
- (μ_2 -H)Os₃SW(η^5 -C₅H₅)(CO)₁₁ pyramidal cluster, trapped synthesis and X-ray structure of (G. Süss-Firk, U. Thewalt, H.-P. Klein), (262) 315
- M(CO)₃L₃ (L = Py, M = Mo, W; L = NH₃, M = Mo) and M(CO)₄(2-MePy)₂ (M = Mo, W), reactions with HgX₂ (X = Cl, CN, SCN) of (M.A. Lobo, M.F. Perpiñan, M.P. Pardo, M. Cano), (254) 325
- [M(CO)₄(Ph₂PCH₂PPh₂-P,P')], conversion to [M(CO)₄{(PPh₂)₃CH-P,P'}] {[M-(CO)₄(tripod)]} (M = Cr, Mo, W) and subsequent conversion to phosphine oxides, phosphine sulphides and complexes with platinum(II) (S. Al-Jibori, B.L. Shaw), (273) 213
- Metalloarsanes, Cp(CO)₃W—AsR₃ (R = Me, t-Bu), carbon monoxide/isocyanide exchange in (M. Lukszá, U. Wanka, W. Malisch), (266) 237
- Metalloarsinesulphides with trialkylphosphite substituted metal atoms; isomerisation under 1,5-migration from oxygen to sulphur of a methyl group (R. Janta, M. Lukszá, W. Malisch, D. Kempf, G. Künzel), (266) C22
- Metallo dichlorophosphphanes, stabilisation by the tricarbonyl(pentamethylcyclopentadienyl)-molybdenum or -tungsten moieties of (R. Maisch, M. Barth, W. Malisch), (260) C35
- Mixed-metal carbonyl hydrides containing tungsten, synthesis and characterisation of; X-ray crystal structure of [(Ph₃P)₂N][Os₃WH(CO)₁₄] (M. Fajardo, M.P. Gómez-Sal, B.F.G. Johnson, J. Lewis, P.R. Raithby), (272) C57
- Molybdenum- and chromium-sulphur clusters, formation of tri- and tetra-nuclear clusters with M₃S₄ or M₄S₄ backbones by reactions with carbonyl-chromium, -molybdenum and -tungsten complexes (H. Brunner, H. Kauermann, J. Wachter), (265) 189
- Molybdenum and tungsten chiral poly-(pyrazolyl)borate isonitrile complexes, synthesis of (E. Frauendorfer, J. Puga), (265) 257
- Molybdenum and tungsten complexes with η^3 -trimethylsiloxybutenone ligands, preparation by silylation of phosphonium metallates of (G. Grötsch, W. Malisch, H. Blau), (252) C19
- Molybdenum(II) and tungsten(II) seven-coordinate cations containing alkyl isocyanide and bidentate N-heterocyclic ligands, isolation of (A. Bell, R.A. Walton), (263) 359
- Pentacarbonyl-chromium, -molybdenum and -tungsten mono- and di-nuclear complexes with the anion radicals of 2,1,3-benzoxadiazole, 2,1,3-benzothiadiazole and 2,1,3-benzoselenadiazole (W. Kaim), (264) 317
- Pentacarbonyl-chromium(0) and -tungsten(0) complexes of 2,4,6-trithiaheptane and 2,4,6,8-tetrathianonane, dynamic NMR study of (E.W. Abel, M.A.Z. Chowdhury, K.G. Orrell, V. Šík), (262) 293
- Pentacarbonyl-diazanorbornene-chromium and -tungsten complexes, contrasting photosubstitution reactions of (A. Albini, E. Fasani), (273) C26
- Pentacarbonyl{diorganylarnino[methoxy-(phenyl)methyleneamino]carbene}-chromium complexes, Lewis-acid-induced fragmentation of (R. Märkl, H. Fischer), (267) 277
- Pentacarbonyl(diphenyltelluroketone)-tungsten, preparation of (H. Fischer, S. Zeuner), (252) C63
- Pentacarbonyl(triphenylphosphine)-tungsten and pentacarbonyl(methoxy-(phenyl)methylene)tungsten, enthalpy of formation of (G. Al-Takhin, J.A. Connor, G. Filcher, H.A. Skinner), (265) 263
- 1,2-Phenyl and 1,2-sulphinatophenyl photochemical, thermal and SO₂-induced migrations from lead to transition metals in the system [(η^5 -C₅H₅)-M(CO)₄, PbPh₃] (M = Fe, Cr, Mo, W) (K.H. Pannell, R.N. Kapoor), (269) 59
- Phenylbis(*trans*-halotetracarbonyl)metal-carbyne complexes and their perdeuterated derivatives, vibrational spectra of (N.Q. Dao, H. Fevrier, M. Jouan, E.O. Fischer, W. Röll), (275) 191
- Phosphinylketenetungsten complex,

- $\eta^5\text{-C}_5\text{H}_5(\text{CO})[\text{P}(\text{CH}_3)_3]\text{ClW}[\text{O}=\text{C}=\text{C-}(\text{C}_6\text{H}_4\text{CH}_3)\text{P}(\text{CH}_3)_2]$, γ -lactone formation with (M. Wolfgruber, F.R. Kreissl), (258) C9
- Phospholes, reactions with carbonylmetals under CO pressure of; formation of phosphole-2H derivatives (F. Mercier, F. Mathey), (263) 55
- ($\mu\text{-S}$)[$\text{CpW}(\text{CO})_3$]₂ and ($\mu\text{-CH}_2\text{S}$)[$\text{CpW}(\text{CO})_2$]₂, dinuclear complexes, preparation of (M. Herberhold, W. Jellen, H.H. Murray), (270) 65
- Sulphur dioxide complexes, O-silylation of (W.A. Schenk, F.-E. Baumann), (260) C6
- Sulphur dioxide electron-rich complexes, synthesis, structure and isomerisation of (W.A. Schenk, F.-E. Baumann), (256) 261
- Tellurium bridges in organometal complexes, formation, protonation and molecular geometry of (W.A. Herrmann, J. Rohrmann, M.L. Ziegler, T. Zahn), (273) 221
- Tetracarbonyl-molybdenum and -tungsten binuclear radical complexes with bridging N-heterocycles and Group VA ligands, ESR evidence for *cis*-configuration of (W. Kaim), (262) 171
- Tetracarbonyl-molybdenum and -tungsten complexes with 2,2'-bipyridine, 1,10-phenanthroline and 2,9-dimethyl-1,10-phenanthroline ligands, reactions with mercury halides and pseudohalides of (M.P. Pardo, M. Cano), (260) 81
- Tetracarbonyl(6-*p*-styryl-2,2'-bipyridyl)-tungsten(0), crystal and molecular structure of (C. Long, J.G. Vos, R.A. Howie, J.M. Kelly), (272) 385
- ($\eta^1\text{-}2,2,8,8\text{-Tetramethyl-3,7-dithianona-}n\text{-tetra carbonyl tungsten(0)}$) as an intermediate, ring closure in (G.R. Dobson, C.B. Dobson, D.E. Halverson, S.E. Mansour), (253) C27
- Transition metal methylene complexes, fragmentation and rearrangement of diazoalkanes in electron-rich metal—metal double and triple bonds (W.A. Herrmann, G. Ihl), (251) C1
- Tricarbonyl-chromium, -molybdenum and -tungsten complexes of tropone, relative base strength of (K. Lal, N.T. Leckey, W.E. Watts), (258) 205
- Tricarbonyl(cyclopentadienyl)metallate anions of chromium, molybdenum and tungsten, improved synthesis of (U. Behrens, F. Edelmann), (263) 179
- Tricarbonylcycloheptadienyl-molybdenum and -tungsten tetrafluoroborates, spectroscopic evidence for intermediates in reactions with alkoxides of (D.A. Brown, N.J. Fitzpatrick, W.K. Glass, T.H. Taylor), (275) C9
- Tricarbonyldieneiron derivatives of 1-phenyl-3,4-dimethylphosphole, synthesis and reactivity of (C.C. Santini, F. Mathey), (266) 285
- Tricarbonylpyridine complexes, (NN)-(py) $\text{M}(\text{CO})_3$ ($\text{M} = \text{Mo, W}$; NN = 2,2'-bipyridine, 1,10-phenanthroline), reactions with mercuric derivatives of (M.P. Pardo, A. Cano), (270) 311
- Tricarbonyltropyliummetal complexes, prediction of nucleophilic sites in and application on attack by methoxides on (D.A. Brown, N.J. Fitzpatrick, M.A. McGinn), (275) C5
- Trinuclear heterometallic clusters with four different skeletal atoms, synthesis of (P. Thometzek, H. Werner), (252) C29
- Tungsten carbyne mononuclear complexes, proton-induced dimerisation and related reactions of (J.C. Jeffery, J.C.V. Laurie, I. Moore, F.G.A. Stone), (258) C87
- Tungsten-dinitrogen complex, reactions with water and alcohols in the presence of ketones of (A. Watakabe, T. Takahashi, D.-M. Jin, I. Yokotake, Y. Uchida, M. Hidai), (254) 75
- $\text{W}[\text{C}(\text{CMe}_3)\text{C}(\text{Me})\text{C}(\text{Me})]\text{Cl}_3$, crystal structure of; archetypal example of a planar delocalized tungstenacyclobutadiene complex (M.R. Churchill, H.J. Wasserman), (270) 201
- [$\text{WH}_2\text{Cl}_2(\text{PMMe}_2\text{Ph})_4$], crystal structure and dehydrogenation generating a reactive metal centre of (H. Dadkhah, N. Kashef, R.L. Richards, D.L. Hughes, A.J.L. Pombeiro), (255) C1
- Ylidic metallacyclopropane complexes, formation of a three-membered ring from a five-membered vinylketone complex; molecular structure of $\text{C}_5\text{H}_5\text{W}(\text{CO})_3[(\text{PMMe}_2)_2\text{HC}-\text{CH}(\text{COMe})]$ (H.G. Alt, U. Thewalt), (268) 235

Uranium

- Bis- and tris-cyclopentadienyl asymmetric and mixed uranium complexes, preparation of (A. Dormond), (256) 47
- Tricyclopentadienyltetrahydrofuranuranani-

- um(III), ($\eta^5\text{-C}_5\text{H}_5$)₃U · OC₄H₈, crystal and molecular structure of (H.J. Wasserman, A.J. Zozulin, D.C. Moody, R.R. Ryan, K.V. Salazar), (254) 305
- Tricyclopentadienyluranium(IV)-alkyl and -dialkylamide derivatives, facile insertion on CO into U—C and U—N bonds of (G. Paolucci, G. Rossetto, P. Zanella, K. Yünlü, R.D. Fischer), (272) 363
- Tris(cyclopentadienyl)uranium(IV)-ligand complexes (K. Tatsumi, A. Nakamura), (272) 141
- Tris(2,4-dimethylpentadienyl)uranium, U(2,4-C₇H₁₁)₃, synthesis and characterisation of (T.H. Cymbaluk, J.-Z. Liu, R.D. Ernst), (255) 311

Vanadium

- η^2 -Acylcarbonylvanadium compounds, synthesis of (J. Schiemann, E. Weiss), (255) 179
- Bis-benzyl- and bis-allyl-titanium(III) and -vanadium(III), synthesis and characterisation of; catalytic isomerisation of alkenes with C₅H₅V($\eta^5\text{-C}_3\text{H}_5$)₂ (J. Nieman, J.W. Pattiasina, J.H. Teuben), (262) 157
- Bis(trimethylphenyl)iodovanadium, reactivity of (T. Avilés, J.H. Teuben), (253) 39
- Carbonylvanadium complexes, ⁵¹V NMR spectroscopic investigation of vanadium—metal bonds in (R. Talay, D. Rehder), (262) 25
- η^5 -Cyclopentadienylcarbonylvanadium complexes, preparation by hydride transfer from vanadium hydrides to fulvenes (D. Wenke, D. Rehder), (273) C43
- 1,1-Dicyclopentadienyl-3,3-dimethyl-vanadium(IV)cyclobutane, preparation and characterisation of (J.W.F.L. Seetz, B.J.J. van Heisteeg, G. Schat, O.S. Akkerman, F. Bickelhaupt), (275) 173
- Dicyclopentadienylpentacarbonyldivanadium, reactivity towards alkynes of (L.N. Lewis, K.G. Caulton), (252) 57
- Dicyclopentadienyl(thioketene)vanadium complexes, synthesis and structure of (R. Drews, D. Wormsbächer, U. Behrens), (272) C40
- Dicyclopentadienylvanadium alkynide complex, (C₅H₅)VC≡CC(CH₃)₃, synthesis and crystallographic charac-

- terization of (W.J. Evans, I. Bloom, R.J. Doedens), (265) 249
- Germanium—manganese double bonds in [($\eta^5\text{-C}_5\text{H}_5$)Mn(CO)]₂ and [($\eta^5\text{-C}_5\text{H}_5$)₂Mn(CO)], Ge; GeH₂ bridged compound: [($\eta^5\text{-C}_5\text{H}_5$)₂V]₂GeH₂, preparations of (D. Melzer, E. Weiss), (263) 67
- Germylmercury compounds, oxidative-reductive transmetallation reactions with bis(ethylbenzene)vanadium and vanadocene of (M.N. Bochkarev, L.V. Pankratov, V.K. Cherkasov, G.A. Razuvaeva, V.N. Latyaeva, A.N. Lineva), (263) 21
- Monocyclopentadienylvanadium dihalide bis-phospine complexes, preparation and characterisation of; crystal structure of ($\eta^5\text{-C}_5\text{H}_5$)VCl₂(PMe₃)₂ (J. Nieman, J.H. Teuben, J.C. Huffman, K.G. Caulton), (255) 193
- Phenylimidodecamethylvanadocene, synthesis, X-ray structure and reactions of (S. Gambarotta, A. Chiesi-Villa, C. Guastini), (270) C49
- Tetracyanodinitrosylvanadium(0) dianion, 2,2'-bipyridine- and 1,10-phenanthroline-dicyanodinitrosylvanadium(0), synthesis from VO₄³⁻ in aqueous-aerobic media of (R. Bhattacharyya, P.S. Roy, A.K. Dasmahapatra), (267) 293
- Tricyclopentadienylvanadium, NMR spectroscopic investigation of η^1/η^5 -ligand exchange in (F.H. Köhler, W.A. Geike), (256) C27
- Trimesitylvanadium, reaction with ketones of (G. Kreisel, W. Seidel), (260) 301
- Vanadium complexes of 1-methyl- and 1-phenyl-borinate ions (G.E. Herberich, W. Boveleth, B. Hessner, W. Koch, E. Raabe, D. Schmitz), (265) 225
- ## Ytterbium
- Di- η^5 -cyclopentadienyl-1,2-dimethoxy-ethaneytterbium(II), crystal and molecular structure of (G.B. Deacon, P.I. MacKinnon, T.W. Hambley, J.C. Taylor), (259) 91
- Early lanthanocene chlorides, stabilisation using ring-bridged dicyclopentadiene ligand of (C. Qian, C. Ye, H. Lu, Y. Li, Y. Huang), (263) 333
- Ferrocene and cymantrene derivatives of divalent ytterbium, synthesis and ¹H

- NMR spectra of (G.Z. Suleimanov, P.V. Petrovskii, Yu.S. Bogachev, I.L. Zhuravleva, E.I. Fedin, I.P. Beletskaya), (262) C35
 Lanthanides of the type RLnI, carboranyl derivatives of (G.Z. Suleimanov, V.I. Bregadze, N.A. Koval'chuk, Kh.S. Khalilov, I.P. Beletskaya), (255) C5

Yttrium

- Aluminium and di- η^5 -cyclopentadienyl yttrium, synthesis and molecular structure of solvated hydride complexes of (V.K. Belsky, A.B. Erofeev, B.M. Bulychev, G.L. Soloveichik), (265) 123

Alumohydride-yttrium complex with three-coordinated hydrogen atoms, crystal structure of $[(\eta^5\text{-C}_5\text{H}_5)_2\text{Y}(\mu_3\text{-H})](\mu_2\text{-H})\text{AlH}_2 \cdot \text{OC}_4\text{H}_8]_2$, (V.K. Bel'skii, B.M. Bulychev, A.B. Erofeev, G.L. Soloveichik), (268) 107

Di- η^5 -cyclopentadienyl {2-[{(dimethylamino)methyl]phenyl-C,N]}yttrium, formation and molecular structure of (M.D. Rausch, D.F. Foust, R.D. Rogers, J.L. Atwood), (265) 241

Dicyclopentadienyltitanium chloride complex with triethylalaminalane, $[\eta\text{-}(\text{C}_5\text{H}_5)_2\text{YCl} \cdot \text{AlH}_3 \cdot \text{NEt}_3]_2$, crystal and molecular structure of (E.B. Lobkovsky, G.L. Soloveychik, B.M. Bulychev, A.B. Erofeev, A.I. Gusev, N.I. Kirillova), (254) 167

Zinc

1-Aza-4-oxobutadienes (α -iminoketones), reactions with diorganozinc reagents of; selective ethyl transfer in $\text{Et}_2\text{Zn-t-BuN=C(H)-C(Me)=O}$ and X-ray structure of $[\text{EtZn}(\text{Et})(\text{t-Bu})\text{NC(H)=C(Me)O}]_2$, (M.R.P. van Vliet, J.T.B.H. Jastrzebski, G. van Koten, K. Vrieze, A.L. Spek), (251) C17

Bromomethylzinc bromide formation by inexpensive modification of the Simmons-Smith reaction and NMR studies of (B. Fabisch, T.N. Mitchell), (269) 219

Cyclopentadienylmethyldichlorotitanium (IV) thermally stable compound, synthesis and properties of (G.J. Erskine, G.J.B. Hurst, E.L. Weinberg, B.K. Hunter, J.D. McCowan), (267) 265

Diethylzinc, kinetics and mechanism of

reactions with phenols in cyclic ethers of (F. Górecki, W. Kuran), (265) 1

Ethylzinc hydroxide as intermediate in the reaction of zinc and water (W. Kuran, M. Czernecka), (268) 1

Organozinc synthesis of *N,N*-disubstituted α -amino esters (M. Bourhis, J.-J. Bosc, R. Golse), (256) 193

Thioanisoyl complexes of lithium, mercury and zinc, preparation and characterisation of (R. Taube, D. Steinborn, B. Adler), (275) 1

Zirconium

Bis- μ -hydroxodi- π -cyclopentadienyldinitratozirconium(IV) · 2 tetrahydrofuran, dinuclear complex with seven-coordinated metal centres (W. Lasser, U. Thewalt), (275) 63

(η^5 -Cyclopentadienyl)(η^3 -1,1-dimethylallyl)(η^4 -isoprene)zirconium, thermally induced isomerisation of (K. Berg, G. Erker), (270) C53

η^5 -Cyclopentadienyl-titanium, -zirconium and -hafnium trihalide complexes, He(I) and He(II) photoelectron spectra of (A. Terpstra, J.N. Louwen, A. Oskam, J.H. Teuben), (260) 207

Cyclopentadienylzirconium compounds, ESR study of photolysis of (J.M. Atkinson, P.R. Brindley, A.G. Davies, J.A.A. Hawari), (264) 253

Dicyclopentadienylzirconium bis(diphenylarsenide) and bis(diphenylantimonide), $[(\eta\text{-C}_5\text{H}_5)_2\text{Zr}(\text{EPh}_2)_2]$ ($\text{E} = \text{As}, \text{Sb}$), synthesis and chemical properties of (S.R. Wade, M.G.H. Wallbridge, G.R. Willey), (267) 271

Dicyclopentadienylzirconium tetrahydridoborate, synthesis of (D. Männig, H. Nöth), (275) 169

1,3-Dienezirconium complexes, preparation from dicyclopentadienyldichlorozirconium and vinylzirconium derivatives of (R. Beckhaus, K.-H. Thiele), (268) C7

(*E*)(*Z*)-Isomeric alkenylzirconocene complexes, formation of (P. Czisch, G. Erker), (253) C9

Magnesium hydride, catalysed addition to isoprene and styrene of (B. Bogdanović, M. Maruthamuthu), (272) 115

Metallaselenoferrocenophanes, $\text{Fe}(\eta^5\text{-C}_5\text{H}_4\text{Se})_2\text{M}(\eta^5\text{-C}_5\text{H}_4\text{R})_2$ ($\text{M} = \text{Zr}, \text{Hf}$), synthesis and variable temperature

- ¹H NMR of (B. Gautheron, G. Tainturier), (262) C30
- Mono- η -cyclopentadienylthiobenzamidozirconium(IV) complexes, chiral properties of (K. Berg, G. Erker), (263) 37
- Organozirconium compounds, use of ⁹¹Zr NMR for characterization of the electronic environment in (R. Benn, A. Rufińska), (273) C51
- Phosphinomethyl-substituted zirconium compounds, synthesis, reactions with CO and molecular structure of $\{[(C_5H_5)_2Zr(CH_2PMe_2)_2]_2Ni\}$ (H.H. Karsch, G. Müller, C. Krüger), (273) 195
- Photogenerated transient zirconocene and hafnocene, reactions with elemental selenium; synthesis and characterisation of $[(\eta^5-t-BuC_5H_4)_2M(\mu-Se)]_2$ ($M = Zr$, Hf) (B. Gautheron, G. Tainturier, S. Pouly), (268) C56
- Sylylamides of Group IVA and IVB elements with spirobicycloheptane structure (H. Bürger, W. Geschwandtner, G.R. Liewald), (259) 145
- Tetramethylene-bridged titanocene and zirconocene derivatives, synthesis via reductive fulvene coupling of (H. Schwemlein, H.H. Brintzinger), (254) 69
- Zirconium(IV) heterobimetallic complex with rhodium(I), unexpected formation of monomeric $trans-[(\eta^5-C_5H_5)_2Zr(CH_2PPh_2)_2Rh(CO)Cl]$ (R. Choukroun, D. Gervais), (266) C37
- Zirconocene chloride-ketene dinuclear complex, synthesis by carbonylation of diphenylphosphinomethylzirconium derivative and structure of (R. Choukroun, F. Dahan, D. Gervais), (266) C33
- Zirconocene(II) dicarbonyl, $[Zr\{\eta-C_5H_5(SiMe_3)_2\}_2(CO)_2]$, synthesis and characterisation of; precursor to various zirconocene(II and IV) complexes (A. Antíñolo, M.F. Lappert, D.J.W. Winterborn), (272) C37
- ### Book reviews
- Advances in molten salt chemistry, Vol. 5; edited by G. Mamantov (K.R. Seddon), (266) C50
- Advances in organometallic chemistry, Vol. 21; edited by F.G.A. Stone, and R. West (G.J. Leigh), (252) C14
- , Vol. 22; edited by F.G.A. Stone and R. West (M.F. Lappert), (273) C21
- Advances in polymer science 51. Industrial developments (A.D. Jenkins), (266) C31
- , 56 (A.D. Jenkins), (270) C30
- Carbanion chemistry; by R.B. Bates and C.A. Ogle (C. Eaborn), (265) C30
- Catalysis, Vol. 6, Specialist periodical reports; reported by G.C. Bond and G. Webb (M.F. Lappert), (275) C33
- Catalysis in C_1 chemistry; edited by W. Keim (G.J. Leigh), (266) C47
- Catalysis, Science and technology, Vol. 3; edited by J.R. Anderson and M. Boudart (G.J. Leigh), (251) C37
- , Vol. 4; edited by J.R. Anderson and M. Boudart (G.J. Leigh), (256) C38
- , Vol. 5; edited by J.R. Anderson and M. Boudart (G.J. Leigh), (272) C29
- Chemicals from synthesis gas; by R.A. Sheldon (G.J. Leigh), (266) C51
- Comprehensive organometallic chemistry; edited by Sir Geoffrey Wilkinson, F.G.A. Stone and E.W. Abel (C. Eaborn, J.D. Smith, A. Pidcock, J. Chatt, M.F. Lappert, J.F. Nixon), (251) C24
- Current trends in organic synthesis; ed. by H. Nozaki (J. W. Cornforth), (263) C14
- Cyclophanes I; Topics in current chemistry, Vol. 113; ed. by F. Vögtle (E.A. Seddon), (270) C29
- Elsevier's dictionary of chemistry including terms from biochemistry, in English, French, Spanish, Italian and German; by A.F. Dorian (C. Eaborn), (263) C15
- Fundamental research in homogeneous catalysis. Vol. 4; ed. by M. Graziani and M. Giongo (M.F. Lappert), (270) C67
- Gmelin handbook of inorganic chemistry, 8th ed., B — Boron compounds, 2nd suppl., Vol. 1. Boron and noble gases, hydrogen, oxygen, nitrogen. Formula index for 2nd suppl. Vol. 1; by L. Barton, K. Beeker, G. Heller and A. Meller (M.F. Lappert), (263) C46
- , B — Boron compounds, 2nd suppl. Vol. 2. Boron and halogens, chalcogens, carboranes, Formula index for 2nd suppl. Vol. 2; edited by K. Niedenzu (M.F. Lappert), (252) C16
- , Cu — Organocopper compounds. Part 2 (C. Eaborn), (267) C22

- , F — Fluorine, Suppl. Vol. 3: Compounds with hydrogen (K.R. Seddon), (272) C70
- , F — Perfluorohalogenoorgano compounds of the Main Groups 1 to 5 (excluding N) and with S (partially) (C. Eaborn), (268) C59
- , Fe — Organoiron compounds. Part B11: Mononuclear compounds 11 (M.F. Lappert), (267) C21
- , Fr — Francium (K.R. Seddon), (266) C49
- , Mn — Manganese, Part C9. Compounds of manganese with phosphorus, arsenic, antimony; edited by H. Katscher (M.F. Lappert), (252) C16
- , Mn — Manganese. Part C10: Electronic spectra of manganese halides. Cumulative substance index of C1—C10 (M.F. Lappert), (267) C23
- , Mn — Manganese, Part D8, Coordination compounds 3; edited by E. Schleitzer-Rust (M.F. Lappert), (252) C17
- , Mo — Molybdenum, Suppl. Vol. A3: Metal. Chemical reactions (K.R. Seddon), (266) C48
- , Rh — Rhodium, Supplement Vol. B2. Coordination compounds with O- and N-containing ligands (M.F. Lappert), (268) C58
- , S — Sulfur. Supplement Vol. 4a/b: Sulfanes (C. Eaborn), (263) C16
- , Sc, Y, La—Lu, Rare earth elements. Part A7. Y, La, and the lanthanoids; by I. Kubach and P. Schubert (M.F. Lappert), (270) C68
- , Sc, Y, La—Lu, Rare earth elements. Part C7. Sulfides, Oxide sulfides, alkali thiometallates (M.F. Lappert), (267) C20
- , Sc, Y, La—Lu, Rare earth elements. Part D6. Ion exchange and solvent extraction reactions. Organometallic compounds (M.F. Lappert), (267) C22
- , Sn — Organotin compounds, Part 10: Mono- and di-organotin-sulfur compounds. Organotin-selenium and organotin-tellurium compounds (C. Eaborn), (252) C106; (263) C16
- , Tc — Technetium, Suppl. Vol. 2. Metal Alloys. Compounds. Chemistry in solution (M.F. Lappert), (267) C21
- , Te — Tellurium, Suppl. Vol. A2: Physical properties. Electronic behaviour. Chemical reactions (K.R. Seddon), (272) C71
- , Ti — Organotitanium compounds, Part 4. Mononuclear compounds 4, Cumulative index for Parts 1 to 4; by U. Thewalt (M.F. Lappert), (270) C66
- , U — Uranium, Suppl. vol. C13: Carbonates, cyanides, alkoxides, carboxylates, compounds with silicon (K.R. Seddon), (272) C30
- , U — Uranium, Suppl. Vol. D1: Properties of uranium ions in solutions and melts (K.R. Seddon), (272) C72
- , U — Uranium, Suppl. Vol. D4. Cation exchange and chromatography of uranium; edited by R. Keim et al. (M.F. Lappert), (252) C17
- , W — Tungsten, Suppl. Vol. B5: Tungstates of Group IIIA and IIIB metals (K.R. Seddon), (272) C74
- Gmelin-Durrer metallurgy of iron. Vol. 7: Practice of steelmaking 1; edited by H. Trenkler and W. Krieger (J.D. Smith), (273) C64
- Host guest complex chemistry I—III; edited by F. Vögtle and E. Weber (E.A. Seddon), (275) C30
- Inorganic chemistry: towards the 21st century; ed. by M.H. Chisholm (K.R. Seddon), (270) C31
- Landolt—Börnstein. Numerical data and functional relationships in science and technology. New series. Group III: Crystal and solid state physics. Vol. 7. Crystal structure of inorganic compounds, Part b, Key elements O, S, Se, Te; Part b3, Key elements S, Se, Te; by W. Pies and A. Weiss (C. Eaborn), (262) C9
- Mechanisms of inorganic and organometallic reactions, Vol. 1; edited by M.V. Twigg (C. Eaborn), (256) C37
- Mechanistic aspects of inorganic reactions; edit. by D.B. Rorabacher and J.F. Endicott (ACS symposium series 198) (K.R. Seddon), (272) C73
- Metal carboxylates; by R.C. Mehrotra and R. Bohra (M.F. Lappert), (262) C9
- Metal interactions with boron clusters; edited by R.N. Grimes (D.M.P. Mingos), (251) C39
- Metal ions in biological systems, Vol. 15: Zinc and its role in biology and nutrition; edited by H. Sigel (J.W. Cornforth), (255) C18
- New monomers and polymers; by B.M. Culbertson and C.O. Pittman, Jr. (A.D. Jenkins), (269) C19

- New pathways for organic synthesis:** practical aspects of transition metals; by H.M. Colquhoun, J. Holton, D.J. Thompson, M.V. Twigg (P.A. Chaloner), (265) C40
- Nuclear magnetic resonance spectroscopy;** by R.K. Harris (A. Pidcock), (263) C17
- Olefin metathesis;** by K.J. Ivin (G.J. Leigh), (272) C28
- Organic photochemistry:** Vol. 6; edited by A. Padwa (F. McCapra), (262) C8
- Organometallic chemistry of rhodium and iridium;** by R.S. Dickson (M.F. Lappert), (267) C17
- Organometallic chemistry reviews;** Annual surveys: Silicon — Germanium — Tin — Lead; edited by D. Seyferth and R.B. King (Journal of Organometallic Chemistry Library 13) (M.F. Lappert), (251) C37
- Organometallic chemistry reviews;** Annual surveys: Silicon — lead (Journal of Organometallic Chemistry Library 14); edited by R.B. King and J.P. Oliver (M.F. Lappert), (275) C32
- Organometallic compounds:** synthesis, structure, and theory; ed. by B.L. Shapiro (M.F. Lappert), (263) C13
- Organosilicon compounds,** Vol. 7, 8/(1), 8/(2) and 8/(3); by V. Chvalovský and J. Rathouský (C. Eaborn), (251) C38
- Organosilicon compounds,** Vols. 9, 10 (1), 10 (2), and 10 (3); by V. Chvalovský and J. Rathouský (C. Eaborn), (275) C15
- Polar covalence;** by R.T. Sanderson (J.D. Smith), (267) C19
- Rings, clusters and polymers of the Main Group elements;** edited by A.H. Cowley (J.D. Smith), (273) C20
- Silicon reagents for organic synthesis;** by W.P. Weber (C. Eaborn), (253) C18
- Specialists periodical reports. Organometallic chemistry,** Vol. 11; reported by E.W. Abel and F.G.A. Stone (M.F. Lappert), (267) C18
- Spectroscopic properties of inorganic and organometallic compounds,** Vol. 15; reported by G. Davidson and E.A.V. Ebsworth (K.R. Seddon), (251) C35
- Tables of spectral data for structure determination of organic compounds;** by E.O. Pretsch, T. Clerc, J. Seibl, W. Simon (C. Eaborn), (265) C31
- The chemistry of the metal—carbon bond,** Vol. 1, The structure, preparation, thermochemistry and characterization of organometallic compounds; edited by F.R. Hartley and S. Patai (G.J. Leigh), (252) C15
- The multinuclear approach to NMR spectroscopy;** edited by J.P. Lambert and F.G. Riddell (A. Pidcock), (263) C18
- Topics in current chemistry 109;** Wittig chemistry; edited by F.L. Boschke (C. Eaborn), (265) C29
- Transition metal carbene complexes;** by K.H. Dötz, H. Fischer, P. Hofmann, F.R. Kreissl, U. Schubert, K. Weiss (R.L. Richards), (269) C61
- Transition metal complexes — Structures and spectra (Structure and bonding. Vol. 55);** edited by M.J. Clarke, J.B. Goodenough, J.A. Ibers, C.K. Jørgensen, J.B. Neilands, D. Reinen, R. Weiss, R.J.P. Williams), (267) C20