

- Tiripicchio, A., 239  
 Tiripicchio Camellini, M., 239  
 Turini, M., 239
- Umland, H., C39  
 Usón, R., 111, 129
- Vaglio, G.A., 239
- Valenzuela, I., 129  
 Valle, M., 239  
 Van Rooyen, P.H., 61  
 Vázquez de Miguel, A., 111  
 Vinaixa, J., 255
- Wardell, J.L., 313  
 Wenke, D., C43
- Whittle, R.R., 333  
 Wiberg, N., 141  
 Wilhelm, D., C1  
 Wright, A.H., C17
- Zahn, T., 221, 323  
 Ziegler, M.L., 221, 323

## JOURNAL OF ORGANOMETALLIC CHEMISTRY, VOL. 273 (1984)

### SUBJECT INDEX

#### Beryllium

- (Be<sub>2</sub>C<sub>2</sub>)<sub>n</sub> ring systems, electron precise versus electron deficient bonding in; crystal structure of (Me<sub>3</sub>N)(MeC≡C)-Be(μ-C≡CMe)<sub>2</sub>Be(C≡CMe)(NMe<sub>3</sub>) (N.A. Bell, I.A. Nowell, G.E. Coates, H.M.M. Shearer), 179

#### Boron

- Organoborane and organoborate compounds containing the (C<sub>6</sub>H<sub>4</sub>-2-CH<sub>2</sub>NMe<sub>2</sub>) ligand, structural aspects of (E. Kalbarczyk, S. Pasynekiewicz), C23

#### Chromium

- π-Benzenedicarbonyl-1,3-dithianechromium(0) and π-methylbenzoatedicarbonyl-1,3-dithianechromium(0), crystal and molecular structures of (P.H. van Rooyen, J.L.M. Dillen, S. Lotz, M. Schindehutte), 61
- (CO)<sub>2</sub>CrC(OEt)SiPh<sub>3</sub>, fragmentation and cleavage reactions of (U. Schubert, H. Hörnig), C11
- Diazanorbornene-chromium and -tungsten pentacarbonyls, contrasting photosubstitution reactions of (A. Albini, E. Fasani), C26
- (Fluorenone)tricarbonylchromium, electrosynthesis of (C. Degrand, B. Gautheron, M. Bikrani, F. Gasquez, P.-L. Compagnon), 319
- [M(CO)<sub>4</sub>(Ph<sub>2</sub>PCH<sub>2</sub>PPh<sub>2</sub>-P,P')], conversion to [M(CO)<sub>4</sub>{(PPh<sub>3</sub>)<sub>3</sub>CH-P,P'}]-{[M(CO)<sub>4</sub>(tripod)]} (M = Cr, Mo, W) and subsequent conversion to phosphine oxides, phosphine sulphides and complexes with platinum(II) (S. Al-Jibori, B.L. Shaw), 213

- Tellurium bridges in organometal complexes, formation, protonation and molecular geometry of (W.A. Herrmann, J. Rohrmann, M.L. Ziegler, T. Zahn), 221
- 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), 69

#### Cobalt

- Carbonylcobalt complexes, electrochemical study of ligand exchange reactions in (P. Reeb, Y. Mugnier, C. Moise, E. Laviron), 247
- Cobalt(*o*-catecholate) complex, [η<sup>5</sup>-C<sub>5</sub>(CH<sub>3</sub>)<sub>5</sub>]Co(O<sub>2</sub>C<sub>6</sub>H<sub>4</sub>), crystal and molecular structure of (E.J. Miller, A.L. Rheingold, T.B. Brill), 377
- Cobalt thiocarbonyl complex, [(np<sub>3</sub>)Co(CS)]BPh<sub>4</sub>, synthesis of; reaction of (np<sub>3</sub>)CoH with heterocumulenes (np<sub>3</sub> = tris(2-diphenylphosphinoethyl)amine) (C. Bianchini, D. Masi, C. Mealli, A. Meli, M. Sabat, G. Scapacci), 91
- Formylmethyl(tetraphenylporphinato)cobalt(III), crystal and molecular structure of (H. Masuda, T. Taga, H. Sugimoto, M. Mori), 385
- Organocobalt tetracoordinated complexes, [CoR<sub>2</sub>L<sub>2</sub>], structure of (G. Muller, J. Sales, J. Vinaixa), 255

## Copper

Thiothiazolato-and alkynyl-copper(I) complexes, synthesis and reactivity of (G. La Monica, G. Ardizzoia, S. Cenini, F. Porta), 263

## Gallium

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

## Germanium

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), 141

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

## Gold

Gold-containing pyrazolines, formation characteristics of (F. Bonati, A. Burini, B.R. Pietroni, M. Felici), 275

Palladium and gold polynuclear perhalophenyl derivatives with dppm bridges; crystal and molecular structure of *trans*- $C_6F_5Au(\mu\text{-dppm})Pd(C_6F_5)_2(\mu\text{-dppm})AuC_6F_5$  (dppm =  $Ph_2PCH_2PPh_2$ ) (R. Usón, A. Laguna, J. Forníés, I. Valenzuela, P.G. Jones, G.M. Sheldrick), 129

## Iridium

Barreleneiridium(I) complexes, crystal structures of  $[Ir(Me_3TFB)(\eta^6-C_6H_4Me_2)]ClO_4$  and  $[Ir(TFB)(\eta^5-PhNPh_2)]BF_4 \cdot CH_2Cl_2$  (TFB = tetrafluorobenzobarrelene) (R. Usón, L.A. Oro, D. Carmona, M.A. Esteruelas, C. Foces-Foces, F.H. Cano, S. García-Blanco, A. Vázquez de Miquel), 111

Iridium(I) terminal methylene complex,  $Ir(=CH_2)I(CO)(PPh_3)_2$ , rearrangement to *ortho*-metallated phosphorus ylide complex (G.R. Clark, W.R. Roper, A.H. Wright), C17

## Iron

$Fe(bipy)_2(CNCH_3)_2(BF_4)_2$ , photolysis in acetonitrile of (L.L. Constanzo, S. Giuffrida, G. De Guidi, G. Condorelli), 81

Ketenes and tricarbonyl( $\eta^4$ -polyene)-iron complexes, regio- and stereospecific cycloadditions of; structural evidence for a concerted 2 + 2 mechanism (Z. Goldschmidt, S. Antebi, D. Cohen, I. Goldberg), 347

$TeMnFe_2$  tetrahedral cluster compound, preparation and crystal structure of (W.A. Herrmann, C. Hecht, M.L. Ziegler, T. Zahn), 323

Thioketeneiron cluster,  $(CH_3)_4C_6H_6CS-(PPh_3)_2(CO)_6Fe_2$ , reaction with excess thioketene under formation of a vinylidene complex (H. Umland, U. Behrens), C39

## Lead

Bis(triorganometal) and diorganometal 1,3-thiolates,  $(R_2M)_2(C_6H_4XS_2)$  and  $R_2M(C_6H_4XS_2)$  (M = Sn, Pb; X = H, Cl, preparation and spectra of (K. Grätz, F. Huber, A. Silvestri, R. Barbieri), 283

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

## Lithium

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), C1

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 cyclooctatetraenyldilithium and nucleophilic substitution of (G. Märkl, B. Alig), 1

1,1-Dimethyl- and 1,1-diphenyl-silacyclopentane, degenerate ligand exchange reactions upon treatment with perdeuterated alkylolithiums of (A. Maercker, R. Stötzel), C57

Organoborane and organoborate compounds containing the  $(C_6H_4-2-CH_2NMe_2)$  ligand, structural aspects of (E. Kalbarczyk, S. Pasynkiewicz), C23

## Magnesium

"Di-9-phenanthryltin", chromatographic and instrumental analysis and degradation of (W.P. Neumann, J. Fu), 295

## Manganese

TeMnFe<sub>2</sub> tetrahedral cluster compound, preparation and crystal structure of (W.A. Herrmann, C. Hecht, M.L. Ziegler, T. Zahn), 323

## Mercury

Chlorinated organic derivatives containing Mo—Hg and W—Hg bonds, importance of the steric effects in their stabilisation (O. Rossell, M. Seco, P. Braunstein), 233

Demercuration reactions of the complexes  $[(PPh_3)_2RPt-HgR']$  containing platinum—mercury bonds (M. Crespo, O. Rossell, J. Sales, M. Seco), 415

## Molybdenum

Chlorinated organic derivatives containing Mo—Hg and W—Hg bonds, importance of the steric effects in their stabilisation (O. Rossell, M. Seco, P. Braunstein), 233

$[M(CO)_4(Ph_2PCH_2PPh_2-P,P')]$ , conversion to  $[M(CO)_4\{(PPh_2)_3CH-P,P'\}]$ - $\{[M(CO)_4(tripod)]\}$  (M = Cr, Mo, W) and subsequent conversion to phosphine oxides, phosphine sulphides and complexes with platinum(II) (S. Al-Jabori, B.L. Shaw), 213

Tellurium bridges in organometal complexes, formation, protonation and molecular geometry of (W.A. Herrmann, J. Rohrmann, M.L. Ziegler, T. Zahn), 221

## Nickel

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), 195

## Osmium

$(CO)_2OsRu(CO)_3(SiCl_3)(Br)$ , dissociation and isomerisation of (M.M. Fleming, R.K. Pomeroy, P. Rushman), C33

Olefinic tertiary phosphine-containing complexes, X-ray structures of OsBr-(sp)( $\eta-C_5H_5$ ) and Ru( $\eta^3-S_2CCHMeC_6H_4PPh_2-2$ )( $\eta-C_5H_5$ ) (M.I. Bruce, T.W. Hambley, M.R. Snow, A.G. Swincer), 361

Osmium(II) complex with PIPh ligand and terminal phenylphosphinidene complex intermediate, synthesis of (D.S. Bohle, W.R. Roper), C4

## Palladium

N-(Benzylidene)benzylamines, cyclo-metallation reactions with palladium compounds of (J. Albert, J. Granell, J. Sales), 393

Palladium and gold polynuclear perhalophenyl derivatives with dppm bridges; crystal and molecular structure of *trans*-C<sub>6</sub>F<sub>5</sub>Au( $\mu$ -dppm)Pd(C<sub>6</sub>F<sub>5</sub>)<sub>2</sub>( $\mu$ -dppm)AuC<sub>6</sub>F<sub>5</sub>( $\mu$ -dppm)AuC<sub>6</sub>F<sub>5</sub> (dppm = Ph<sub>2</sub>PCH<sub>2</sub>PPh<sub>2</sub>) (R. Usón, A. Laguna, J. Forniés, I. Valenzuela, P.G. Jones, G.M. Sheldrick), 129

Palladium(II) cyclometallated benzylidene-aniline Schiff bases, relative rates for synthesis of *ortho*-substituted carbon-methoxy derivatives via CO insertion into (P.S. Pregosin, R. Rüedi), 401

## Phosphorus

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 cyclooctatetraenyldilithium and nucleophilic substitution of (G. Märkl, B. Alig), 1

Iridium(I) terminal methylene complex, Ir(=CH<sub>2</sub>)I(CO)(PPh<sub>3</sub>)<sub>2</sub>, rearrangement to *ortho*-metallated phosphorus ylide complex (G.R. Clark, W.R. Roper, A.H. Wright), C17

$[M(CO)_4(Ph_2PCH_2PPh_2-P,P')]$ , conversion to  $[M(CO)_4\{(PPh_2)_3CH-P,P'\}]$ - $\{[M(CO)_4(tripod)]\}$  (M = Cr, Mo, W)

and subsequent conversion to phosphine oxides, phosphine sulphides and complexes with platinum(II) (S. Al-Jabori, B.L. Shaw), 213

Osmium(II) complex with PIPh ligand and terminal phenylphosphinidene complex intermediate, synthesis of (D.S. Bohle, W.R. Roper), C4

Phosphinomethyl-substituted zirconium compounds, synthesis, reactions with CO and molecular structure of  $\{[(C_2H_5)_2Zr(CH_2PMe_2)_2]_2Ni\}$  (H.H. Karsch, G. Müller, C. Krüger), 195

Phosphonous chiral esters, one-pot synthesis and conversion into asymmetric phosphines of (W. Chodkiewicz), C55

Thioketeneiron cluster,  $(CH_3)_4C_6H_6CS-(PPh_3)_2(CO)_4Fe_2$ , reaction with excess thioketene under formation of a vinylidene complex (H. Umland, U. Behrens), C39

## Platinum

Demercuration reactions of the complexes  $[(PPh_3)_2RPt-HgR']$  containing platinum-mercury bonds (M. Crespo, O. Rossell, J. Sales, M. Seco), 415

$[M(CO)_4(Ph_2PCH_2PPh_2-P,P')]$ , conversion to  $[M(CO)_4\{(PPh_2)_3CH-P,P'\}]$ - $\{[M(CO)_4(tripod)]\}$  ( $M = Cr, Mo, W$ ) and subsequent conversion to phosphine oxides phosphine sulphides and complexes with platinum(II) (S. Al-Jabori, B.L. Shaw), 213

Platinum-rhodium carbonyl high nuclearity clusters, synthesis and X-ray characterisation of the  $[Pt_2Rh_9(CO)_{22}]^{3-}$  trianion (A. Fumagalli, S. Martinengo, G. Ciani), C46

## Potassium

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), C1

Tris(1,10-phenanthroline)potassium salt of  $\mu$ -hydridobis[pentacarbonylchromium(0)], crystal and molecular structure of (G. Bombieri, G. Bruno, M.D. Grillone, G. Polizzotti), 69

## Rhenium

Dirhenium complexes containing linked diphenylacetylene molecules, preparation by photolysis from  $H_3Re_3(CO)_{12}$  and  $PhC\equiv CPh$ ; crystal and molecular structures of  $Re_2(CO)_5(C_4Ph_4)(C_2Ph_2)$  and  $Re_2(CO)_4(C_6H_6)(C_2Ph_2)\cdot\frac{1}{2}$  hexane (D.B. Pourreau, R.R. Whittle, G.L. Geoffroy), 333

## Rhodium

Platinum-rhodium carbonyl high nuclearity clusters, synthesis and X-ray characterisation of the  $[Pt_2Rh_9(CO)_{22}]^{3-}$  trianion (A. Fumagalli, S. Martinengo, G. Ciani), C46

Rhodium-based catalysts used in photocatalytic dehydrogenation of propan-2-ol (C.G. Griggs, D.J.H. Smith), 105

## Ruthenium

Carbon-nitrogen triple bond activation in the presence of  $Ru_3(CO)_{12}$  and  $H_4Ru_4(CO)_{12}$  (P.M. Lausarot, M. Turini, G.A. Vaglio, M. Valle, A. Tiripicchio, M. Tiripicchio Camellini, P. Gariboldi), 239

$(CO)_5OsRu(CO)_3(SiCl_3)(Br)$ , dissociation and isomerisation of (M.M. Fleming, R.K. Pomeroy, P. Rushman), C33

Olefinic tertiary phosphine-containing complexes, X-ray structures of  $OsBr(sp)(\eta-C_5H_5)$  and  $Ru(\eta^3-S_2C-CHMeC_2H_4PPh_2-2)(\eta-C_5H_5)$  (M.I. Bruce, T.W. Hambley, M.R. Snow, A.G. Swincer), 361

## Silicon

$(CO)_5CrC(OEt)SiPh_3$ , fragmentation and cleavage reactions of (U. Schubert, H. Hörnig), C11

$(CO)_5OsRu(CO)_3(SiCl_3)(Br)$ , dissociation and isomerisation of (M.M. Fleming, P.K. Pomeroy, P. Rushman), C33

1,1-Dimethyl- and 1,1-diphenyl-silacyclopentane, degenerate ligand exchange reactions upon treatment with perdeuterated alkyllithium of (A. Maercker, R. Stötzel), C57

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), 141

- Sulphur—Group IVB element bonds, X-ray diffraction study of; crystal and molecular structures of methylthio-triphenyl-methane, -silicon, -germanium, -tin, -lead (G.D. Andreotti, G. Bocelli, G. Calestani, P. Sgarabotto), 31
- Trisenoxyasilanes, regioselective synthesis of (C. Rochin, O. Babot, F. Moulines, F. Duboudin), C7
- ## Sulphur
- $\pi$ -Benzenedicarbonyl-1,3-dithianechromium(0) and  $\pi$ -methylbenzoatedicarbonyl-1,3-dithianechromium(0), crystal and molecular structures of (P.H. van Rooyen, J.L.M. Dillen, S. Lotz, M. Schindehutte), 61
- Bis(triorganometal) and diorganometal 1,3-thiolates,  $(R_3M)_2(C_6H_3XS_2)$  and  $R_2M(C_6H_3XS_2)$  ( $M = Sn, Pb; X = H, Cl$ ), preparation and spectra of (K. Grätz, F. Huber, A. Silvestri, R. Barbieri), 283
- Chloro(methyl)(organylthio)gallanes, formation and reactions of (G.G. Hoffmann), 187
- Cobalt thiocarbonyl complex,  $[(np_3)Co(CS)]BPh_4$ , synthesis of; reaction of  $(np_3)CoH$  with heterocumulene  $(np_3 = tris(2\text{-diphenylphosphinoethyl})amine)$  (C. Bianchini, D. Masi, C. Mealli, A. Meli, M. Sabat, G. Scapacci), 91
- $[M(CO)_4(Ph_2PCH_2PPh_2-P,P')]$ , conversion to  $[M(CO)_4\{(PPh_2)_3CH-P,P'\}]$ - $\{[M(CO)_4(tripod)]\}$  ( $M = Cr, Mo, W$ ) and subsequent conversion to phosphine oxides, phosphine sulphides and complexes with platinum(II) (S. Al-Jabori, B.L. Shaw), 213
- Olefinic tertiary phosphine-containing complexes, X-ray structures of  $(OsBr(sp)(\eta-C_5H_5))$  and  $Ru(\eta^3-S_2C-CHMeC_6H_4PPh_2-2)(\eta-C_5H_5)$  (M.I. Bruce, T.W. Hambley, M.R. Snow, A.G. Swincer), 361
- Sulphur—Group IVB element bonds, X-ray diffraction study of; crystal and molecular structures of methylthio-triphenyl-methane, -silicon, -germanium, -tin, -lead (G.D. Andreotti, G. Bocelli, G. Calestani, P. Sgarabotto), 31
- Thioketeneiron cluster,  $(CH_3)_4C_6H_6CS-(PPh_3)_2(CO)_4Fe_2$ , reaction with excess thioketene under formation of a vinylidene complex (H. Umland, U. Behrens), C39
- Thiothiazolato- and alkynyl-copper(I) complexes, synthesis and reactivity of (G. La Monica, G. Ardizzoia, S. Cenini, F. Porta), 263
- ## Tellurium
- Tellurium bridges in organometal complexes, formation, protonation and molecular geometry of (W.A. Herrmann, J. Rohrmann, M.L. Ziegler, T. Zahn), 221
- TeMnFe<sub>2</sub> tetrahedral cluster compound, preparation and crystal structure of (W.A. Herrmann, C. Hecht, M.L. Ziegler, T. Zahn), 323
- ## Tungsten
- Bis(alkoxy)carbene complexes, alkenylation by insertion of imamines into the carbene-oxygen bond (N.H.T. Huy, E.O. Fischer, J. Riede, U. Thewalt, K.H. Dötz), C29
- Chlorinated organic derivatives containing Mo—Hg and W—Hg bonds, importance of the steric effects in their stabilisation (O. Rossell, M. Seco, P. Braunstein), 233
- Diazanorbornene-chromium and -tungsten pentacarbonyls, contrasting photo-substitution reactions of (A. Albini, E. Fasani), C26
- $[M(CO)_4(Ph_2PCH_2PPh_2-P,P')]$ , conversion to  $[M(CO)_4\{(PPh_2)_3CH-P,P'\}]$ - $\{[M(CO)_4(tripod)]\}$  ( $M = Cr, Mo, W$ ) and subsequent conversion to phosphine oxides, phosphine sulphides and complexes with platinum (II) (S. Al-Jabori, B.L. Shaw), 213
- Tellurium bridges in organometal complexes, formation, protonation and molecular geometry of (W.A. Herrmann, J. Rohrmann, M.L. Ziegler, T. Zahn), 221
- ## Tin
- Bis(triorganometal) and diorganometal 1,3-thiolates  $(R_3M)_2(C_6H_3XS_2)$  and  $R_2M(C_6H_3XS_2)$  ( $M = Sn, Pb; X = H, Cl$ ), preparation and spectra of (K. Grätz, F. Huber, A. Silvestri, R. Barbieri), 283
- Cl<sub>3</sub>SnCH<sub>2</sub>CH<sub>2</sub>CO<sub>2</sub>H, acidity of (E.S. Paterson, J.L. Wardell, J.W. Burley), 313

- Diorganostannylmethanes, synthesis and spectroscopic investigations of (M. Gielen, K. Jurkschat), 303
- "Di-9-phenanthryltin", chromatographic and instrumental analysis and degradation of (W.P. Neumann, J. Fu), 295
- Five-coordinate triorganotin(IV) tropolonates and dibenzoylmethanes, synthesis and structural study of (S.K. Brahma, W.H. Nelson, W.F. Howard, Jr.), 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), 31

## Vanadium

- $\eta^5$ -Cyclopentadienylcarbonylvandium complexes, preparation by hydride transfer from vanadium hydrides to fulvenes (D. Wenke, D. Rehder), C43

## Zirconium

- Organozirconium compounds, use of  $^{91}\text{Zr}$  NMR for characterisation of the electronic environment in (R. Benn, A. Ruffińska), C51
- 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), 195

## Book Reviews

- Advances in organometallic chemistry, Vol. 22; edited by F.G.A. Stone and R. West (M.F. Lappert), C21
- Gmelin—Durrer metallurgy of iron. Vol. 7: Practice of steelmaking 1; edited by H. Trenkler and W. Krieger (J.D. Smith), C64
- Rings, clusters and polymers of the Main Group elements; edited by A.H. Cowley (J.D. Smith), C20