

JOURNAL OF ORGANOMETALLIC CHEMISTRY, VOL. 407 (1991)

SUBJECT INDEX
Aluminium

Dinitrosylmolybdenum alkylidene complexes containing *n*-alkyl alkoxy ligands; synthesis, spectroscopic characterisation and metathesis activity of (A. Keller), (407) 237

Arsenic

Gallium-arsenic compounds containing a four-membered $\overline{\text{Ga-As-Ga-Cl}}$ or $\overline{\text{Ga-As-Ga-As}}$ ring, synthesis and characterisation of; crystal structures of $(\text{Me}_3\text{SiCH}_2)_2\overline{\text{GaAs}}(\text{SiMe}_3)_2\overline{\text{Ga}}(\text{CH}_2\text{SiMe}_3)_2\text{Cl}$ and $[(\text{Me}_3\text{SiCH}_2)_2\overline{\text{GaAs}}(\text{SiMe}_3)_2]_2$ (R.L. Wells, J.W. Pasterczyk, A.T. McPhail, J.D. Johansen, A. Alvanipour), (407) 17

Boron

$(\text{ArBMe}_3)\text{Li}\cdot\text{D}$ complexes ($\text{Ar} = \text{C}_6\text{H}_4\text{CH}(\text{X})\text{NMe}_2$); structure, dynamic molecular processes and the nature of the carbon-lithium bond in the light of multinuclear (^1H , ^{13}C , ^7Li , ^{11}B) NMR measurements at variable temperature (E. Kalbarczyk-Bidelska, S. Pasykiewicz), (407) 143

Dialkylaminobis(trifluoromethyl)boranes, [2+2] cycloaddition reactions with isocyanates and isothiocyanates; crystal structures of $(\text{CF}_3)_2\overline{\text{BNMe}_2\text{CON}}^t\text{Bu}$, $(\text{CF}_3)_2\overline{\text{BNMe}_2\text{CSN}}^t\text{Bu}$, $(\text{CF}_3)_2\overline{\text{BNPhC}}(\text{NMe}_2)\text{S}$ and $(\text{CF}_3)_2\overline{\text{BNMeC}}(\text{NEt}_2)\text{OCONMe}$ (A. Ansorge, D.J. Brauer, H. Bürger, F. Dörrenbach, T. Hagen, G. Pawelke, W. Weuter), (407) 283

Cadmium

Trifluoromethyl gallium, indium, and thallium compounds, syntheses of; mechanism of polar trifluoromethyl group transfer (D. Naumann, W. Strauß, W. Tyrta), (407) 1

Chromium

Arene tricarbonylchromium moieties, diastereoselective nucleophilic additions to imines attached to (P. Bloem, D.M. David, L.A.P. Kane-Maguire, S.G. Pyne, B.W. Skelton, A.H. White), (407) C19

Chromium and tungsten thiocarbene complexes, preparation of; insertion and annulation reactions of (K.H. Dötz, V. Leue), (407) 337

Heterometallic *n*, π -complexes of transition metals based on mesitylacetonitrile (V.S. Kaganovich, M.I. Rybinskaya), (407) 215

Unidentate and heterobimetallic 1,1'-bis(diphenylphosphino)ferrocene complexes, X-ray photoelectron spectroscopic differentiation of chemically distinct phosphorus environments in (H.S.O. Chan, T.S.A. Hor, L.-T. Phang, K.L. Tan), (407) 353

Cobalt

Cobalt-catalysed conversion of methyl formate into acetic acid (G. Jenner, E.M. Nahmed), (407) 135

$\text{Co}_4(\text{CO})_{12}$, reactions with polydentate ligands; fragmentation kinetic studies of substituted derivatives (C. Moreno, Ma.J. Macazaga, S. Delgado), (407) 125

Heterometallic *n*, π -complexes of transition metals based on mesitylacetonitrile (V.S. Kaganovich, M.I. Rybinskaya), (407) 215

Dysprosium

Organo rare earth hydrides, synthesis and reactivity of (C. Ye, C. Qian, X. Yang), (407) 329

Erbium

Organo rare earth hydrides, synthesis and reactivity of (C. Ye, C. Qian, X. Yang), (407) 329

Gallium

Gallium-arsenic compounds containing a four-membered $\overline{\text{Ga-As-Ga-Cl}}$ or $\overline{\text{Ga-As-Ga-As}}$ ring, synthesis and characterisation of; crystal structures of $(\text{Me}_3\text{SiCH}_2)_2\overline{\text{GaAs}}(\text{SiMe}_3)_2\overline{\text{Ga}}(\text{CH}_2\text{SiMe}_3)_2\text{Cl}$ and $[(\text{Me}_3\text{SiCH}_2)_2\overline{\text{GaAs}}(\text{SiMe}_3)_2]_2$ (R.L. Wells, J.W. Pasterczyk, A.T. McPhail, J.D. Johansen, A. Alvanipour), (407) 17

Trifluoromethyl gallium, indium, and thallium compounds, syntheses of; mechanism of polar trifluoromethyl group transfer (D. Naumann, W. Strauß, W. Tyrra), (407) 1

Indium

In-Fe heteronuclear carbonyl compounds, synthesis and chemical characterisation of; crystal structures of $[\text{NMe}_3\text{CH}_2\text{Ph}]_3[\text{In}\{\text{Fe}(\text{CO})_4\}_3]$ and $[\text{NEt}_4]_2[\text{In}_2\text{Br}_4\{\mu\text{-Fe}(\text{CO})_4\}_2]$ (V.G. Albano, M. Cané, M.C. Iapalucci, G. Longoni, M. Monari), (407) C9

Trifluoromethyl gallium, indium, and thallium compounds, syntheses of; mechanism of polar trifluoromethyl group transfer (D. Naumann, W. Strauß, W. Tyrra), (407) 1

Iridium

Iron-iridium clusters; X-ray structures of $\text{Fe}_2\text{Ir}(\mu_3\text{-C}_2\text{Ph})(\text{CO})_8(\text{PPh}_3)$, $\text{FeIr}_2(\mu_3\text{-}\eta^2\text{-PhC}_2\text{C}_2\text{Ph})(\text{CO})_7(\text{PPh}_3)_2$ and $\text{Fe}_2\text{Ir}(\mu_3\text{-PhC}_2\text{PEt}_3)(\text{CO})_7(\text{PEt}_3)$ (M.I. Bruce, G.A. Koutsantonis, E.R.T. Tiekink), (407) 391

Iron

Cyclopalladated *N,N*-dimethylferrocenecarbothioamide, derivatives of (M. Nonoyama, K. Hamamura), (407) 271

Di-iron centre-bridging ethenyl ligand, generation via carbon-phosphorus bond cleavage (G. Hogarth), (407) 91

Heterometallic n,π -complexes of transition metals based on mesitylacetonitrile (V.S. Kaganovich, M.I. Rybinskaya), (407) 215

In-Fe heteronuclear carbonyl compounds, synthesis and chemical characterisation of; crystal structures of $[\text{NMe}_3\text{CH}_2\text{Ph}]_3[\text{In}\{\text{Fe}(\text{CO})_4\}_3]$ and $[\text{NEt}_4]_2[\text{In}_2\text{Br}_4\{\mu\text{-Fe}(\text{CO})_4\}_2]$ (V.G. Albano, M. Cané, M.C. Iapalucci, G. Longoni, M. Monari), (407) C9

Iron-iridium clusters; X-ray structures of $\text{Fe}_2\text{Ir}(\mu_3\text{-C}_2\text{Ph})(\text{CO})_8(\text{PPh}_3)$, $\text{FeIr}_2(\mu_3\text{-}\eta^2\text{-PhC}_2\text{C}_2\text{Ph})(\text{CO})_7(\text{PPh}_3)_2$ and $\text{Fe}_2\text{Ir}(\mu_3\text{-PhC}_2\text{PEt}_3)(\text{CO})_7(\text{PEt}_3)$ (M.I. Bruce, G.A. Koutsantonis, E.R.T. Tiekink), (407) 391

μ_3 -Phosphinidene-bridged iron and ruthenium clusters, selective hydrogenation of diphenylacetylene and isomerisation of *cis*-stilbene in the presence of (M. Castiglioni, R. Giordano, E. Sappa), (407) 377

$[\text{Rh}(\text{dppf})(\eta^6\text{-C}_6\text{H}_5)\text{B}(\text{C}_6\text{H}_5)_3]$ (dppf = 1,1'-bis(diphenylphosphino)ferrocene), synthesis and crystal structure of (B. Longato, G. Pilloni, R. Graziani, U. Casellato), (407) 369

Simple iron alkyls, reactions with a thiosulfinate ester capable of serving as a disulfur monoxide source (K.R. Powell, W.J. Elias, M.E. Welker), (407) 81

Unidentate and heterobimetallic 1,1'-bis(diphenylphosphino)ferrocene complexes, X-ray photoelectron spectroscopic differentiation of chemically distinct phosphorus environments in (H.S.O. Chan, T.S.A. Hor, L.-T. Phang, K.L. Tan), (407) 353

Lithium

$(\text{ArBMe}_3)\text{Li}\cdot\text{D}$ complexes (Ar = $\text{C}_6\text{H}_4\text{CH}(\text{X})\text{NMe}_2$); structure, dynamic molecular processes and the nature of the carbon-lithium bond in the light of multinuclear (^1H , ^{13}C , ^7Li , ^{11}B) NMR measurements at variable temperature (E. Kalbarczyk-Bidelska, S. Pasykiewicz), (407) 143

Lutetium

Organo rare earth hydrides, synthesis and reactivity of (C. Ye, C. Qian, X. Yang), (407) 329

Manganese

Heterometallic n,π -complexes of transition metals based on mesitylacetonitrile (V.S. Kaganovich, M.I. Rybinskaya), (407) 215

Hydroxycarbene complex $[(DPPP)(CO)_3Mn=C(OH)CH_3]^+ [CF_3SO_3]^-$, {*facial*-[1,3-bis(diphenylphosphino)propane(methylhydroxycarbene)tricarbonylmanganese(I)]} triflate; X-ray structure of (P.L. Motz, D.M. Ho, M. Orchin), (407) 259

Metalloenes

Cyclopalladated *N,N*-dimethylferrocenecarbothioamide, derivatives of (M. Nonoyama, K. Hamamura), (407) 271

Ethno-bridged *ansa*-titanocene derivatives, syntheses by the McMurry reaction (P. Burger, H.H. Brintzinger), (407) 207

$[Rh(dppf)(\eta^5-C_6H_5)B(C_6H_5)_3]$ (dppf = 1,1'-bis(diphenylphosphino)ferrocene), synthesis and crystal structure of (B. Longato, G. Pilloni, R. Graziani, U. Casellato), (407) 369

1,1'-(1,4,10,13-Tetraoxa-7,16-diazacyclooctadecane-7,16-diylidicarbonyl)ruthenocene, crystal structure of (C.D. Hall, A.W. Parkins, S.C. Nyburg, N.W. Sharpe), (407) 107

Unidentate and heterobimetallic 1,1'-bis(diphenylphosphino)ferrocene complexes, X-ray photoelectron spectroscopic differentiation of chemically distinct phosphorus environments in (H.S.O. Chan, T.S.A. Hor, L.-T. Phang, K.L. Tan), (407) 353

Molybdenum

$[CpM(CO)_3PPh_2]$ ($Cp = \eta-C_5H_5$, M = Mo, W) metallophosphines, reactivity towards alkynes; X-ray crystal structure of $[CpMo(CO)_2(Ph_2PCH=C(Ph)CO)]$ (H. Adams, N.A. Bailey, A.N. Day, M.J. Morris, M.M. Harrison), (407) 247

Dinitrosylmolybdenum alkylidene complexes containing *n*-alkyl alkoxy ligands; synthesis, spectroscopic characterisation and metathesis activity of (A. Keller), (407) 237

Heterometallic n,π -complexes of transition metals based on mesitylacetonitrile (V.S. Kaganovich, M.I. Rybinskaya), (407) 215

Molybdenum π -allyldicarbonyl complexes containing pyrazole-derived bidentate ligands; synthesis, structure and behavior in solution of (K.-B. Shiu, C.-J. Chang, S.-L. Wang, F.-L. Liao), (407) 225

Unidentate and heterobimetallic 1,1'-bis(diphenylphosphino)ferrocene complexes, X-ray photoelectron spectroscopic differentiation of chemically distinct phosphorus environments in (H.S.O. Chan, T.S.A. Hor, L.-T. Phang, K.L. Tan), (407) 353

Nickel

Nickela compounds with a five-membered ring, ring contraction of; use of the resulting four-membered ring compounds in preparative chemistry (H. Hoberg, A. Ballesteros, A. Sigán, C. Jégat, D. Bärhausen, A. Milchereit), (407) C23

Palladium

Cyclopalladated *N,N*-dimethylferrocenecarbothioamide, derivatives of (M. Nonoyama, K. Hamamura), (407) 271

Diazadiene-stabilised palladacyclopent-2-enes; catalytic addition of various allylic systems to dimethyl acetylenedicarboxylate (C. Munz, C. Stephan, H. tom Dieck), (407) 413

Palladium-catalysed addition of tin-tin and tin-silicon bonds to allenes (T.N. Mitchell, U. Schneider), (407) 319

Palladium-catalysed reactions involving oxidation state IV, changing selectivity in; new synthesis from iodobenzene and norbornene (M. Catellani, G.P. Chiusoli, C. Castagnoli), (407) C30

Phosphorus

cis-Arylhydridoruthenium(II) chelate complexes as catalysts for the dimerisation of 1-alkynes to linear 1-en-3-yne; molecular structure of $(pp_3)RuH(C_6H_4CF_3-3)$ ($pp_3 = P(CH_2CH_2CH_2PMe_2)_3$) (L. Dahlenburg, K.-M. Frosin, S. Kerstan, D. Werner), (407) 115

Iron-iridium clusters; X-ray structures of $\text{Fe}_2\text{Ir}(\mu_3\text{-C}_2\text{Ph})(\text{CO})_8(\text{PPh}_3)$, $\text{FeIr}_2(\mu_3\text{-}\eta^2\text{-PhC}_2\text{C}_2\text{Ph})(\text{CO})_7(\text{PPh}_3)_2$ and $\text{Fe}_2\text{Ir}(\mu_3\text{-PhC}_2\text{PEt}_3)(\text{CO})_7(\text{PEt}_3)$ (M.I. Bruce, G.A. Koutsantonis, E.R.T. Tiekink), (407) 391

Nickela compounds with a five-membered ring, ring contraction of; use of the resulting four-membered ring compounds in preparative chemistry (H. Hoberg, A. Ballesteros, A. Sigan, C. Jégat, D. Bärhausen, A. Milchereit), (407) C23

Potassium

Potassium/naphthalene induced carbon-hydrogen bond activation; selective catalytic dehydrogenation of 1,4-cyclohexadiene to benzene; isomerisation of linear 1,4- to 2,4-hexadienes (G. Fochi, L. Nucci), (407) 279

Rhenium

PdO catalysed reaction between $\text{Re}(\text{CO})_5\text{X}$ (X = Cl, Br, I) and L (L = group 15 donor ligand); synthesis of $\text{Re}(\text{CO})_4\text{LX}$ (A.E. Leins, N.J. Coville), (407) 359

Ruthenium

cis-Arylhydridoruthenium(II) chelate complexes as catalysts for the dimerisation of 1-alkynes to linear 1-en-3-yne; molecular structure of $(\text{pp}_3)\text{RuH}(\text{C}_6\text{H}_4\text{CF}_3\text{-}3)$ ($\text{pp}_3 = \text{P}(\text{CH}_2\text{CH}_2\text{CH}_2\text{PMe}_2)_3$) (L. Dahlenburg, K.-M. Frosin, S. Kerstan, D. Werner), (407) 115

μ_3 -Phosphinidene-bridged iron and ruthenium clusters, selective hydrogenation of diphenylacetylene and isomerisation of *cis*-stilbene in the presence of (M. Castiglioni, R. Giordano, E. Sappa), (407) 377

$[\text{Ru}_{10}\text{C}(\text{CO})_{24}][\text{ppn}]_2$, reaction with carbon monoxide to yield $[\text{Ru}_3(\text{CO})_{12}]$ and $[\text{Ru}_6\text{C}(\text{CO})_{16}]^{2-}$ (T. Coston, J. Lewis, D. Wilkinson, B.F.G. Johnson), (407) C13

Ruthenium catalysed reactions of ethylene glycol with primary amines; steric factors and selectivity control (J.A. Marsella), (407) 97

1,1'-(1,4,10,13-Tetraoxa-7,16-diazacyclooctadecane-7,16-diylldicarbonyl)ruthenocene, crystal structure of (C.D. Hall, A.W. Parkins, S.C. Nyburg, N.W. Sharpe), (407) 107

Scandium

Mono(pentamethylcyclopentadienyl)alkoxy scandium alkyl derivatives, $(\eta^5\text{-C}_5\text{Me}_5)(\text{OR})\text{ScR}'$, synthesis and characterisation of (W.E. Piers, E.E. Bunel, J.E. Bercaw), (407) 51

Silicon

Di-*t*-butylsilylene and tetra-*t*-butyldisilene, [4 + 1]- versus [4 + 2]-cycloaddition to 1,4-diazabutadiene (M. Weidenbruch, A. Lesch, K. Peters), (407) 31

Mixed trialkyltin compounds, synthesis via trialkylstanny derivatives of sulphomaleic and 4-sulphophthalic anhydrides (V.I. Shcherbakov, I.P. Malysheva, O.N. Druzhkova, T.N. Chulkova), (407) 181

Palladium-catalysed addition of tin-tin and tin-silicon bonds to allenes (T.N. Mitchell, U. Schneider), (407) 319

Silacyclopropenes, tungsten-catalysed reactions of (J. Ohshita, M. Ishikawa), (407) 157

Tris(trimethylsilyl)silyl silicon derivatives and related tetrasilylsilanes, preparation and reactions of (Y. Derouiche, P.D. Lickiss), (407) 41

Thorium

Trifluoromethyl gallium, indium, and thallium compounds, syntheses of; mechanism of polar trifluoromethyl group transfer (D. Naumann, W. Strauß, W. Tyrta), (407) 1

Tin

n-Butyltin oxo carboxylates, $[\text{BuSn}(\text{O})(\text{O}_2\text{CR}')_2]_n$ ($\text{R}' = \text{Pr}$ or Bu), synthesis and characterisation of; crystal structure of $[\text{BuSn}(\text{O})(\text{O}_2\text{C}'\text{Bu})_2]_n$ (V.B. Mokal, V.K. Jain, E.R.T. Tiekink), (407) 173

Divalent organotin compounds, oxidative-addition reactions of molecular diiodine and dibromine to; crystal structures of bis[8-(dimethylamino)-1-naphthyl]tin(IV)dibromide and {2,6-bis(dimethylamino)methyl}phenyl(4-tolyl)tin(IV) diiodide (J.T.B.H. Jastrzebski, P.A. van der Schaaf, J. Boersma, G. van Koten, M. de Wit, Y. Wang, D. Heijdenrijk, C.H. Stam), (407) 301

$(\text{Me}_2\text{NCH}[(\text{EtO})_2\text{P}=\text{O}]_2\cdot\text{Me}_2\text{SnCl}_2)$ dimer; crystal structure of a binuclear bis(chelate) complex of tin(IV) with *cis*-linked octahedra (J. Lorberth, S.-H. Shin, M. Otto, S. Wocadlo, W. Massa, N.S. Yashina), (407) 313

Mixed trialkyltin compounds, synthesis via trialkylstannyl derivatives of sulphomaleic and 4-sulphophthalic anhydrides (V.I. Shcherbakov, I.P. Malysheva, O.N. Druzhkova, T.N. Chulkova), (407) 181

Palladium-catalysed addition of tin–tin and tin–silicon bonds to allenes (T.N. Mitchell, U. Schneider), (407) 319

Trimethyltin diazoacetic ester, $\text{Me}_3\text{SnC}(\text{N}_2)\text{CO}_2\text{Et}$, crystal structure of (J. Lorberth, S.-H. Shin, H. Donath, S. Wocadlo, W. Massa), (407) 167

Titanium

Allyltitanium complexes, steric effect of allyl substituent on the molecular structures of (J. Chen, Y. Kai, N. Kasai, H. Yasuda, H. Yamamoto, A. Nakamura), (407) 191

Ethene-bridged *ansa*-titanocene derivatives, syntheses by the McMurry reaction (P. Burger, H.H. Brintzinger), (407) 207

Tungsten

Chromium and tungsten thiocarbene complexes, preparation of; insertion and annulation reactions of (K.H. Dötz, V. Leue), (407) 337

$[\text{CpM}(\text{CO})_3\text{PPh}_2]$ (Cp = $\eta\text{-C}_5\text{H}_5$, M = Mo, W) metallophosphines, reactivity towards alkynes; X-ray crystal structure of $[\text{CpMo}(\text{CO})_2\{\text{Ph}_2\text{PCH}=\text{C}(\text{Ph})\text{CO}\}]$ (H. Adams, N.A. Bailey, A.N. Day, M.J. Morris, M.M. Harrison), (407) 247

Electron-rich isocyanide-substituted tungsten diethylaminocarbyne complexes with a pentamethylcyclopentadienyl ligand (A.C. Filippou, W. Grünleitner), (407) 61

Heterometallic η, π -complexes of transition metals based on mesitylacetonitrile (V.S. Kaganovich, M.I. Rybinskaya), (407) 215

Silacyclopropenes, tungsten-catalysed reactions of (J. Ohshita, M. Ishikawa), (407) 157

Unidentate and heterobimetallic 1,1'-bis(diphenylphosphino)ferrocene complexes, X-ray photoelectron spectroscopic differentiation of chemically distinct phosphorus environments in (H.S.O. Chan, T.S.A. Hor, L.-T. Phang, K.L. Tan), (407) 353

Vanadium

$\text{VO}(\text{OR})\text{Cl}_2$ -induced cyclisation of diketene via ring opening (T. Hirao, T. Fujii, Y. Ohshiro), (407) C1

Yttrium

Organo rare earth hydrides, synthesis and reactivity of (C. Ye, C. Qian, X. Yang), (407) 329

Book reviews

Advances in sonochemistry, vol. 1; edited by T.J. Mason (P.D. Lickiss), (407) C16

Atomic and molecular clusters; edited by E.R. Bernstein (A.J. Stace), (407) C5

Gmelin handbook of inorganic chemistry, 8th edition, Mn—coordination compounds of manganese (G.J. Leigh), (407) C7

Steroids made it possible; by C. Djerassi (J.R. Hanson), (407) C34

The chemistry of functional groups. The chemistry of enols; edited by Z. Rappoport (J.R. Hanson), (407) C16

Transition metals in total synthesis; by P.J. Harrington (J.R. Hanson), (407) C6