

Journal of Organometallic Chemistry 658 (2002) 285-289



www.elsevier.com/locate/jorganchem

Subject Index of Volume 658

Allyldiene ligand

- Synthesis and crystal structures of μ -1,3-bis(η^5 -tetramethylcyclopentadienyl)-1,1,3,3-tetramethyldisiloxane)[η^2 -bis(trimethylsily-l)ethyne]titanium(II) and a doubly tucked-in product of its thermolysis, 235
- 2,7- and 2,10-Diferrocenyl-1,6-methano[10]annulene
- Cofacial interaction of ferrocenyl groups and metal atom motional anisotropy in [10]annulene organometallics, 210
- ansa-Titanocene complexes
- Synthesis and crystal structures of μ -1,3-bis(η^5 -tetramethylcyclopentadienyl)-1,1,3,3-tetramethyldisiloxane)[η^2 -bis(trimethylsily-l)ethyne]titanium(II) and a doubly tucked-in product of its thermolysis, 235

Ansa zirconocene

Dinuclear ansa zirconocene complexes containing a sandwich and a half-sandwich moiety as catalysts for the polymerization of ethylene, 259

Antimony

Synthesis and structure of the novel mixed Sb/Se and Sb/Te containing iron carbonyl clusters $[Fe_3(\mu_3-Y)(\mu_3-SbMes)(CO)_9]$ (Y = Se, Te) and $[Fe_3(\mu_3,\eta^2:\eta^1-SeSbMes)(\mu_3-SbMes)(CO)_{10}]$, 204

Asymmetric synthesis

Chlorotrimethylsilane-mediated Michael addition reactions of chiral benzylic anions derived from η^6 -chromiumtricarbonyl complexes, 21

Benzotriazole

- New benzotriazole derivatives as multifunctional ligands, 251 Benzylborate anion
 - Solution structure and decomposition pathway of zwitterionic zirconium (IV) benzyl complexes, 1

bis(diPhenylacetylene)

Synthesis, reactivity and structures of diethyldithiophosphate molybdenum complexes: crystal structures of $[Mo{\eta^2-S_2P(OEt_2)}_2(PhC=CPh)_2]$ and $[Mo(\eta^3-C_3H_5){\eta^1-S_2P(OEt_2)}(Phen)(CO)_2]$, 191

```
Bis(pyrazol-1-yl)methane
```

- Synthesis of bis(pyrazol-1-yl)methanes with organogermyl and organosilyl groups on the methine carbon and their reaction with W(CO)₅(THF). X-ray crystal structures of Ph₃GeCHPz₂W(CO)₄ and Me₃SiCHPz₂W(CO)₄ (Pz = 3,5-dimethylpyrazole), 198
- 1,3-Bistriflato-5,7-dimethyl-1,3,5,7-tetrasilaadamantane
- 1-Triflato-3,5,7-trimethyl-1,3,5,7-tetrasilaadamantane and 1,3-bistriflato-5,7-dimethyl-1,3,5,7-tetrasilaadamantane; synthesis, complexation study and X-ray structure of 1-hydroxy-3,5,7trimethyl-1,3,5,7-tetrasilaadamantane, 141

Bis(trimethylsilyl)ethyne complex

Synthesis and crystal structures of μ -1,3-bis(η^5 -tetramethylcyclopentadienyl)-1,1,3,3-tetramethyldisiloxane)[η^2 -bis(trimethylsily-l)ethyne]titanium(II) and a doubly tucked-in product of its thermolysis, 235

Bond activation

Carbon-fluorine bond activation of perfluorinated arenes with

Elsevier Science B.V. PII: S0022-328X(02)01792-8 Cp*₂ZrH₂, 132

- Bridged complexes
 - Synthetic, spectral and structural aspects of some Rh(III) pentamethylcyclopentadiene complexes containing *N*,*N'*-donor bridging ligands, 43

Bridged cyclopentadienyls

- Two nickelocenes and ferrocene in a rigid *cis/trans* chain, 266 Bridging carbyne complexes
 - Unusual reactions of cationic bridging carbyne complexes of dimethylsilane-bridged bis $(\eta^5$ -cyclopentadienyl)diiron tricarbonyl with carbonylmetal anions, 214

Carbon monoxide

Reactions of tetraphosphine complex [Mo{meso-o-C₆H₄(PPhCH₂CH₂PPh₂)₂)(Ph₂PCH₂CH₂PPh₂)] with nitrile, CO, and isocyanide, 106

Carbonyl

- 3,3-Dimethyl-1-butyne complexes of tungsten(II). Crystal structures of $[WI_2(CO)(NCPh)(\eta^2 - HC_2Bu')_2]$ and $[WI_2(CO){P(OR)_3}_2(\eta^2 - HC_2Bu')]$ (R = Me and Et), 77
- Substitution kinetics of $Cr(CO)_5(\eta^2-Z$ -cyclooctene) with tetracyanoethylene, 274
- Syntheses and structures of some coordinatively saturated and unsaturated diruthenium carbonyl complexes, 117

Carbonylation

Intramolecular C-N bond formation in the reductive elimination of *ortho*-palladated arylhydrazones of acetophenone, 15

Carbonyl complexes

- Synthesis and structure of the novel mixed Sb/Se and Sb/Te containing iron carbonyl clusters $[Fe_3(\mu_3-Y)(\mu_3-SbMes)(CO)_9]$ (Y = Se, Te) and $[Fe_3(\mu_3,\eta^2:\eta^1-SeSbMes)(\mu_3-SbMes)(CO)_{10}]$, 204
- Carbonylmetal anions
 - Unusual reactions of cationic bridging carbyne complexes of dimethylsilane-bridged $bis(\eta^5$ -cyclopentadienyl)diiron tricarbonyl with carbonylmetal anions, 214

Carboxylate

Isolation and structural characterization of some stable Pd(II) carboxylate complexes supported by 1,1'-bis(diphenylphosphino) ferrocene (dppf), 159

Carboxylates

Synthesis, spectroscopic characterisation of 1,1,2,3,4,5,6-heptahydro-1,1-di(carboxylato)telluranes and 1,3-dihydro-2 λ^4 -benzotellurole-2,2-diyl dicarboxylates: Crystal structures of 1,1,2,3,4,5,6-heptahydro-1,1-di(benzoato)tellurane and 1,3-dihydro-2 λ^4 -benzotellurole-2,2-diyl dibenzoate, 34

Catalytic activity

Structural characterization and catalytic activity of the rhodium– carbene complex $Rh(PPh_3)_2(IMes)Cl$ (IMes = bis(1,3-(2,4,6-trimethylphenyl)imidazol-2-ylidene), 126

C-H activation

Synthesis and crystal structures of μ -1,3-bis(η^5 -tetramethylcyclopentadienyl)-1,1,3,3-tetramethyldisiloxane)[η^2 -bis(trimethylsily-l)ethyne]titanium(II) and a doubly tucked-in product of its thermolysis, 235

Chirality

Catalytic isomerization of *N*-allylic substrates with chiral Os₃ clusters as potentially enantioselective reaction, 147

Chiral lithium amide

- Chlorotrimethylsilane-mediated Michael addition reactions of chiral benzylic anions derived from η^6 -chromiumtricarbonyl complexes, 21
- Chlorotrimethylsilane
 - Chlorotrimethylsilane-mediated Michael addition reactions of chiral benzylic anions derived from η^6 -chromiumtricarbonyl complexes, 21
- Chromium
 - Substitution kinetics of $Cr(CO)_5(\eta^2-Z$ -cyclooctene) with tetracyanoethylene, 274
- η⁶-Chromiumtricarbonyl
 - Chlorotrimethylsilane-mediated Michael addition reactions of chiral benzylic anions derived from η^6 -chromiumtricarbonyl complexes, 21

CIDNP

- Spin chemistry of organometallic compounds: 2. Interaction of *N*-bromohexamethyldisilazane with allyltriorganolsilanes, 228
- β -Cleavage

Spin chemistry of organometallic compounds: 2. Interaction of *N*bromohexamethyldisilazane with allyltriorganolsilanes, 228

Cluster

- Catalytic isomerization of *N*-allylic substrates with chiral Os₃ clusters as potentially enantioselective reaction, 147
- Synthesis and structure of the novel mixed Sb/Se and Sb/Te containing iron carbonyl clusters $[Fe_3(\mu_3-Y)(\mu_3-SbMes)(CO)_9]$ (Y = Se, Te) and $[Fe_3(\mu_3,\eta^2:\eta^1-SeSbMes)(\mu_3-SbMes)(CO)_{10}]$, 204

Cobalt

- Late transition metal complexes bearing 2,9-bis(imino)-1,10-phenanthrolinyl ligands: synthesis, characterization and their ethylene activity, 62
- Cofacial cyclopentadienyl ring interaction
- Cofacial interaction of ferrocenyl groups and metal atom motional anisotropy in [10]annulene organometallics, 210
- CO-factored force field
 - A new method for calculating the CO-factored force constants of pentacarbonyliron, 176

Coordinatively unsaturated adducts

Syntheses and structures of some coordinatively saturated and unsaturated diruthenium carbonyl complexes, 117

Crystal structures

- 3,3-Dimethyl-1-butyne complexes of tungsten(II). Crystal structures of $[WI_2(CO)(NCPh)(\eta^2 HC_2Bu')_2]$ and $[WI_2(CO)\{P(OR)_3\}_2(\eta^2 HC_2Bu')]$ (R = Me and Et), 77
- Ferrocenyl hydroxymethylphosphines $(\eta^5-C_5H_5)Fe[\eta^5-C_5H_4P(CH_2OH)_2]$ and $1,1'-[Fe\{\eta^5-C_5H_4P(CH_2OH)_2\}_2]$ and their chalcogenide derivatives, 181
- Late transition metal complexes bearing 2,9-bis(imino)-1,10-phenanthrolinyl ligands: synthesis, characterization and their ethylene activity, 62
- Syntheses and crystal structures of bis(tetrahydrofurfurylindenyl) lanthanocene chlorides $(C_4H_7OCH_2C_9H_6)_2LnCl$ (Ln = Nd, Sm, Dy, Ho, Er, Yb), 153
- Synthesis and crystal structures of μ -1,3-bis(η^{5} -tetramethylcyclopentadienyl)-1,1,3,3-tetramethyldisiloxane)[η^{2} -bis(trimethylsily-l)ethyne]titanium(II) and a doubly tucked-in product of its thermolysis, 235
- Cyclic voltammetry
 - Synthesis and cyclic voltammetry of 1,2,3-trisubstituted bis(cyclopentadienyl)zirconium dichlorides, 242
- Cyclization
 - Intramolecular C-N bond formation in the reductive elimination of *ortho*-palladated arylhydrazones of acetophenone, 15

Cyclooctene

Substitution kinetics of $Cr(CO)_5(\eta^2-Z$ -cyclooctene) with tetracyanoethylene, 274

Cyclopentadiene

Synthesis and cyclic voltammetry of 1,2,3-trisubstituted bis(cyclopentadienyl)zirconium dichlorides, 242

Diamido ligands

Solution structure and decomposition pathway of zwitterionic zirconium (IV) benzyl complexes, 1

diEthyldithiophosphato ligand

Synthesis, reactivity and structures of diethyldithiophosphate molybdenum complexes: crystal structures of $[Mo\{\eta^2-S_2P(OEt_2)\}_2(PhC=CPh)_2]$ and $[Mo(\eta^3-C_3H_5)\{\eta^1-S_2P(OEt_2)\}(Phen)(CO)_2]$, 191

Diiron

Unusual reactions of cationic bridging carbyne complexes of dimethylsilane-bridged bis(η^{5} -cyclopentadienyl)diiron tricarbonyl with carbonylmetal anions, 214

3,3-Dimethyl-1-butyne

3,3-Dimethyl-1-butyne complexes of tungsten(II). Crystal structures of $[WI_2(CO)(NCPh)(\eta^2 - HC_2Bu^t)_2]$ and $[WI_2(CO)\{P(OR)_3\}_2(\eta^2 - HC_2Bu^t)]$ (R = Me and Et), 77

Dinuclear complexes

Dinuclear ansa zirconocene complexes containing a sandwich and a half-sandwich moiety as catalysts for the polymerization of ethylene, 259

Diselenide

A novel and convenient synthesis towards 2-pyridylselenium compounds: X-ray crystal structure of 4,4'-dimethyl-2,2'dipyridyl diselenide and tris(2-pyridylseleno)methane, 71

Dual site catalysts

Dinuclear ansa zirconocene complexes containing a sandwich and a half-sandwich moiety as catalysts for the polymerization of ethylene, 259

Electronic reason

Electronic reason for the stabilization of osmabenzyne, 9 Electron spin delocalization

- Two nickelocenes and ferrocene in a rigid *cis/trans* chain, 266 Ethylene polymerization
 - Solution structure and decomposition pathway of zwitterionic zirconium (IV) benzyl complexes, 1

Ferrocene

Two nickelocenes and ferrocene in a rigid *cis/trans* chain, 266 Ferrocene compounds

Ferrocenyl hydroxymethylphosphines $(\eta^5-C_5H_5)Fe[\eta^5-C_5H_4P(CH_2OH)_2]$ and $1,1'-[Fe\{\eta^5-C_5H_4P(CH_2OH)_2\}_2]$ and their chalcogenide derivatives, 181

Ferrocenyl phosphine

Isolation and structural characterization of some stable Pd(II) carboxylate complexes supported by 1,1'-bis(diphenylphosphino) ferrocene (dppf), 159

Force constants

A new method for calculating the CO-factored force constants of pentacarbonyliron, 176

Free radicals

- Spin chemistry of organometallic compounds: 2. Interaction of *N*bromohexamethyldisilazane with allyltriorganolsilanes, 228
- FTIR spectroscopy Substitution kinetics of $Cr(CO)_c(n^2-Z)$ -cycloocter
 - Substitution kinetics of $Cr(CO)_5(\eta^2 Z$ -cyclooctene) with tetracyanoethylene, 274

Germanium

Synthesis of bis(pyrazol-1-yl)methanes with organogermyl and organosilyl groups on the methine carbon and their reaction

with $W(CO)_5(THF)$. X-ray crystal structures of $Ph_3GeCHPz_2W(CO)_4$ and $Me_3SiCHPz_2W(CO)_4$ (Pz = 3,5-dimethylpyrazole), 198

Gol'danskii-Karyagin effect

- Cofacial interaction of ferrocenyl groups and metal atom motional anisotropy in [10]annulene organometallics, 210
- Half-sandwich complexes
 - Dinuclear ansa zirconocene complexes containing a sandwich and a half-sandwich moiety as catalysts for the polymerization of ethylene, 259
- Heck catalyst
 - Isolation and structural characterization of some stable Pd(II) carboxylate complexes supported by 1,1'-bis(diphenylphosphino) ferrocene (dppf), 159
- Homogeneous and heterogeneous ethylene polymerization
- Dinuclear ansa zirconocene complexes containing a sandwich and a half-sandwich moiety as catalysts for the polymerization of ethylene, 259
- Homolytic substitution
- Spin chemistry of organometallic compounds: 2. Interaction of *N*bromohexamethyldisilazane with allyltriorganolsilanes, 228
- Hydrazine
 - A novel and convenient synthesis towards 2-pyridylselenium compounds: X-ray crystal structure of 4,4'-dimethyl-2,2'-dipyridyl diselenide and tris(2-pyridylseleno)methane, 71
- Hydrazones
 - Intramolecular C–N bond formation in the reductive elimination of *ortho*-palladated arylhydrazones of acetophenone, 15

Hydrogen-bonding

Ferrocenyl hydroxymethylphosphines $(\eta^5 - C_5H_5)Fe[\eta^5 - C_5H_4P(CH_2OH)_2]$ and $1,1'-[Fe\{\eta^5 - C_5H_4P(CH_2OH)_2\}_2]$ and their chalcogenide derivatives, 181

Hydrolysis of Si-OTf

1-Triflato-3,5,7-trimethyl-1,3,5,7-tetrasilaadamantane and 1,3-bistriflato-5,7-dimethyl-1,3,5,7-tetrasilaadamantane; synthesis, complexation study and X-ray structure of 1-hydroxy-3,5,7trimethyl-1,3,5,7-tetrasilaadamantane, 141

Hydroxymethylphosphines

Ferrocenyl hydroxymethylphosphines $(\eta^5-C_5H_5)Fe[\eta^5-C_5H_4P(CH_2OH)_2]$ and $1,1'-[Fe\{\eta^5-C_5H_4P(CH_2OH)_2\}_2]$ and their chalcogenide derivatives, 181

Hypercoordination

Some aspects of chemistry of the N→Si chelated aryloxydihydrosilanes R(ArO)SiH₂(R=Ph, ArO) and of the 2,2-diaryloxytrisilane (Me₃Si)₂Si(OAr)₂{ArO=2,4,6-[(CH₃)₂NCH₂]₃C₆H₂O}, 94

ICl-AgOTf

- 1-Triflato-3,5,7-trimethyl-1,3,5,7-tetrasilaadamantane and 1,3-bistriflato-5,7-dimethyl-1,3,5,7-tetrasilaadamantane; synthesis, complexation study and X-ray structure of 1-hydroxy-3,5,7trimethyl-1,3,5,7-tetrasilaadamantane, 141
- Infrared spectra
- A new method for calculating the CO-factored force constants of pentacarbonyliron, 176

Intermolecular secondary bonds

Synthesis, spectroscopic characterisation of 1,1,2,3,4,5,6-heptahydro-1,1-di(carboxylato)telluranes and 1,3-dihydro- $2\lambda^4$ -benzotellurole-2,2-diyl dicarboxylates: Crystal structures of 1,1,2,3,4,5,6-heptahydro-1,1-di(benzoato)tellurane and 1,3-dihydro- $2\lambda^4$ -benzotellurole-2,2-diyl dibenzoate, 34

Intramolecular coordination

Synthesis and characterization of monomeric diorganotellurium dihalides: crystal and molecular structures of diphenacyltellurium dibromide and -diiodide, 169

Iodo

3,3-Dimethyl-1-butyne complexes of tungsten(II). Crystal struc-

tures of $[WI_2(CO)(NCPh)(\eta^2-HC_2Bu')_2]$ and $[WI_2(CO)\{P-(OR)_3\}_2(\eta^2-HC_2Bu')]$ (R = Me and Et), 77

Iron

- Late transition metal complexes bearing 2,9-bis(imino)-1,10-phenanthrolinyl ligands: synthesis, characterization and their ethylene activity, 62
- Synthesis and structure of the novel mixed Sb/Se and Sb/Te containing iron carbonyl clusters $[Fe_3(\mu_3-Y)(\mu_3-SbMes)(CO)_9]$ $(Y=Se,\ Te)$ and $[Fe_3(\mu_3,\eta^2;\eta^1-SeSbMes)(\mu_3-SbMes)(CO)_{10}],$ 204

Isocyanide

Reactions of tetraphosphine complex [Mo{meso-o-C₆H₄(PPhCH₂CH₂PPh₂)₂}(Ph₂PCH₂CH₂PPh₂)] with nitrile, CO, and isocyanide, 106

Isomerization

Catalytic isomerization of N-allylic substrates with chiral Os₃ clusters as potentially enantioselective reaction, 147

Kinetics

Substitution kinetics of $Cr(CO)_5(\eta^2-Z$ -cyclooctene) with tetracyanoethylene, 274

Lanthanide chlorides

Syntheses and crystal structures of bis(tetrahydrofurfurylindenyl) lanthanocene chlorides $(C_4H_7OCH_2C_9H_6)_2LnCl$ (Ln = Nd, Sm, Dy, Ho, Er, Yb), 153

Manganese

Reactions of dirhenium heptoxide with manganese(I) and rhenium(I) hydrido, alkoxo, methylcarbonato, carbonato-bridged, and methoxymethyl complexes. The X-ray structures of *fac*-(CO)₃(dppp)MnOReO₃ and *fac*-(CO)₃(dppp)ReOReO₃, 88

Metallacycles

Intramolecular C–N bond formation in the reductive elimination of *ortho*-palladated arylhydrazones of acetophenone, 15

Michael addition

Chlorotrimethylsilane-mediated Michael addition reactions of chiral benzylic anions derived from η^6 -chromiumtricarbonyl complexes, 21

Mo complex

- Reactions of tetraphosphine complex [Mo{meso-o-C₆H₄(PPhCH₂CH₂PPh₂)₂}(Ph₂PCH₂CH₂PPh₂)] with nitrile, CO, and isocyanide, 106
- Molybdenum
 - Synthesis, reactivity and structures of diethyldithiophosphate molybdenum complexes: crystal structures of $[Mo\{\eta^2-S_2P(OEt_2)\}_2(PhC=CPh)_2]$ and $[Mo(\eta^3-C_3H_5)\{\eta^1-S_2P(OEt_2)\}(Phen)(CO)_2]$, 191

Mössbauer effect

Cofacial interaction of ferrocenyl groups and metal atom motional anisotropy in [10]annulene organometallics, 210

N-Allylamines

Catalytic isomerization of *N*-allylic substrates with chiral Os₃ clusters as potentially enantioselective reaction, 147

Nickel

Late transition metal complexes bearing 2,9-bis(imino)-1,10-phenanthrolinyl ligands: synthesis, characterization and their ethylene activity, 62

Nickelocene

Two nickelocenes and ferrocene in a rigid *cis/trans* chain, 266 NMR spectroscopy

Two nickelocenes and ferrocene in a rigid cis/trans chain, 266

Organotellurium halides

Synthesis and characterization of monomeric diorganotellurium dihalides: crystal and molecular structures of diphenacyltellurium dibromide and -diiodide, 169

Osmabenzyne

- Electronic reason for the stabilization of osmabenzyne, 9 Osmium
 - Catalytic isomerization of *N*-allylic substrates with chiral Os₃ clusters as potentially enantioselective reaction, 147
- Palladium
 - Isolation and structural characterization of some stable Pd(II) carboxylate complexes supported by 1,1'-bis(diphenylphosphino) ferrocene (dppf), 159
- Palladium(II)
 - Intramolecular C–N bond formation in the reductive elimination of *ortho*-palladated arylhydrazones of acetophenone, 15

Pauson-Khand reaction

- Synthesis and cyclic voltammetry of 1,2,3-trisubstituted bis(cyclopentadienyl)zirconium dichlorides, 242
- p-Biphenylene-bis(picoline)aldamine
 - Synthetic, spectral and structural aspects of some Rh(III) pentamethylcyclopentadiene complexes containing *N*,*N'*-donor bridging ligands, 43
- Pentacarbonyliron
 - A new method for calculating the CO-factored force constants of pentacarbonyliron, 176
- Pentamethylcyclopentadienyl
 - Carbon–fluorine bond activation of perfluorinated arenes with $\mathrm{Cp}*_{2}Z\mathrm{rH}_{2},\,132$
- Perfluorinated arenes
 - Carbon–fluorine bond activation of perfluorinated arenes with $\mathrm{Cp}*_{2}\mathrm{ZrH}_{2},\,132$
- Perrhenato complexes
- Reactions of dirhenium heptoxide with manganese(I) and rhenium(I) hydrido, alkoxo, methylcarbonato, carbonato-bridged, and methoxymethyl complexes. The X-ray structures of *fac*-(CO)₃(dppp)MnOReO₃ and *fac*-(CO)₃(dppp)ReOReO₃, 88
- Phase-transfer catalyst
 - A novel and convenient synthesis towards 2-pyridylselenium compounds: X-ray crystal structure of 4,4'-dimethyl-2,2'dipyridyl diselenide and tris(2-pyridylseleno)methane, 71

Phenanthroline

Synthesis, reactivity and structures of diethyldithiophosphate molybdenum complexes: crystal structures of $[Mo{\eta^2-S_2P(OEt_2)}_2(PhC \equiv CPh)_2]$ and $[Mo(\eta^3-C_3H_5){\eta^1-S_2P(OEt_2)}(Phen)(CO)_2]$, 191

Phenanthrolinyl ligands

- Late transition metal complexes bearing 2,9-bis(imino)-1,10-phenanthrolinyl ligands: synthesis, characterization and their ethylene activity, 62
- Phosphine
 - Isolation and structural characterization of some stable Pd(II) carboxylate complexes supported by 1,1'-bis(diphenylphosphino) ferrocene (dppf), 159
- Phosphine ligands
- New benzotriazole derivatives as multifunctional ligands, 251 Platinum complexes
 - Ferrocenyl hydroxymethylphosphines $(\eta^5-C_5H_5)Fe[\eta^5-C_5H_4P(CH_2OH)_2]$ and $1,1'-[Fe{\eta^5-C_5H_4P(CH_2OH)_2}_2]$ and their chalcogenide derivatives, 181

p-Phenylene-bis(picoline)aldamine

Synthetic, spectral and structural aspects of some Rh(III) pentamethylcyclopentadiene complexes containing *N*,*N'*-donor bridging ligands, 43

Pyridine-2-carbaldehyde azine

Synthetic, spectral and structural aspects of some Rh(III) pentamethylcyclopentadiene complexes containing N,N'-donor bridging ligands, 43

Pyridyl

A novel and convenient synthesis towards 2-pyridylselenium

compounds: X-ray crystal structure of 4,4'-dimethyl-2,2'dipyridyl diselenide and tris(2-pyridylseleno)methane, 71

Radical pairs

- Spin chemistry of organometallic compounds: 2. Interaction of *N*bromohexamethyldisilazane with allyltriorganolsilanes, 228 Reaction
 - Unusual reactions of cationic bridging carbyne complexes of dimethylsilane-bridged bis(η⁵-cyclopentadienyl)diiron tricarbonyl with carbonylmetal anions, 214

Rhenium

Reactions of dirhenium heptoxide with manganese(I) and rhenium(I) hydrido, alkoxo, methylcarbonato, carbonato-bridged, and methoxymethyl complexes. The X-ray structures of *fac*-(CO)₃(dppp)MnOReO₃ and *fac*-(CO)₃(dppp)ReOReO₃, 88

Rhenium carbonyl complexes

Rhenium tricarbonyl complexes of tris(pyrazolyl)methane ligands: first structural characterization of an isomer pair of tris(pyrazolyl)methane derivatives and the supramolecular structure of the homobimetallic complex {1,4-C₆H₄[CH₂OCH₂C(pz)₃]₂[Re-(CO)₃]₂}(Br)₂, 50

Rhenium heptoxide

Reactions of dirhenium heptoxide with manganese(I) and rhenium(I) hydrido, alkoxo, methylcarbonato, carbonato-bridged, and methoxymethyl complexes. The X-ray structures of *fac*-(CO)₃(dppp)MnOReO₃ and *fac*-(CO)₃(dppp)ReOReO₃, 88

Rhodium

- New benzotriazole derivatives as multifunctional ligands, 251 Rhodium-carbene complexes
 - Structural characterization and catalytic activity of the rhodium– carbene complex Rh(PPh₃)₂(IMes)Cl (IMes = bis(1,3-(2,4,6trimethylphenyl)imidazol-2-ylidene), 126

Rhodium pentamethylcyclopentadiene complexes

Synthetic, spectral and structural aspects of some Rh(III) pentamethylcyclopentadiene complexes containing *N*,*N*'-donor bridging ligands, 43

Ruthenium

- Syntheses and structures of some coordinatively saturated and unsaturated diruthenium carbonyl complexes, 117
- Secondary bonding
 - Synthesis and characterization of monomeric diorganotellurium dihalides: crystal and molecular structures of diphenacyltellurium dibromide and -diiodide, 169
- Selenium
 - Synthesis and structure of the novel mixed Sb/Se and Sb/Te containing iron carbonyl clusters $[Fe_3(\mu_3-Y)(\mu_3-SbMes)(CO)_9]$ (Y = Se, Te) and $[Fe_3(\mu_3,\eta^2:\eta^1-SeSbMes)(\mu_3-SbMes)(CO)_{10}]$, 204

Silanediyl-transition metal complexes

- Some aspects of chemistry of the N→Si chelated aryloxydihydrosilanes R(ArO)SiH₂(R=Ph, ArO) and of the 2,2-diaryloxytrisilane (Me₃Si)₂Si(OAr)₂{ArO=2,4,6-[(CH₃)₂NCH₂]₃C₆H₂O}, 94 Silanethione
- Some aspects of chemistry of the N→Si chelated aryloxydihydrosilanes R(ArO)SiH₂(R=Ph, ArO) and of the 2,2-diaryloxytrisilane (Me₃Si)₂Si(OAr)₂{ArO=2,4,6-[(CH₃)₂NCH₂]₃C₆H₂O}, 94 Silicenium

Some aspects of chemistry of the N \rightarrow Si chelated aryloxydihydrosilanes R(ArO)SiH₂(R=Ph, ArO) and of the 2,2-diaryloxytrisilane (Me₃Si)₂Si(OAr)₂{ArO=2,4,6-[(CH₃)₂NCH₂]₃C₆H₂O}, 94 Silicon

Some aspects of chemistry of the N \rightarrow Si chelated aryloxydihydrosilanes R(ArO)SiH₂(R=Ph, ArO) and of the 2,2-diaryloxytrisilane (Me₃Si)₂Si(OAr)₂{ArO=2,4,6-[(CH₃)₂NCH₂]₃C₆H₂O}, 94

Synthesis of bis(pyrazol-1-yl)methanes with organogermyl and organosilyl groups on the methine carbon and their reaction

with $W(CO)_5(THF)$. X-ray crystal structures of $Ph_3GeCHPz_2-W(CO)_4$ and $Me_3SiCHPz_2W(CO)_4$ (Pz = 3,5-dimethylpyrazole), 198

Siloxane bridge

Synthesis and crystal structures of μ -1,3-bis(η^5 -tetramethylcyclopentadienyl)-1,1,3,3-tetramethyldisiloxane)[η^2 -bis(trimethylsily-l)ethyne]titanium(II) and a doubly tucked-in product of its thermolysis, 235

Silylene

Some aspects of chemistry of the N \rightarrow Si chelated aryloxydihydrosilanes R(ArO)SiH₂(R=Ph, ArO) and of the 2,2-diaryloxytrisilane (Me₃Si)₂Si(OAr)₂{ArO=2,4,6-[(CH₃)₂NCH₂]₃C₆H₂O}, 94 S_N2-Si and S_Ni-Si

1-Triflato-3,5,7-trimethyl-1,3,5,7-tetrasilaadamantane and 1,3-bistriflato-5,7-dimethyl-1,3,5,7-tetrasilaadamantane; synthesis, complexation study and X-ray structure of 1-hydroxy-3,5,7trimethyl-1,3,5,7-tetrasilaadamantane, 141

Stabilization

Electronic reason for the stabilization of osmabenzyne, 9

Structural characterization

Structural characterization and catalytic activity of the rhodium– carbene complex Rh(PPh₃)₂(IMes)Cl (IMes = bis(1,3-(2,4,6trimethylphenyl)imidazol-2-ylidene), 126

Structures

Isolation and structural characterization of some stable Pd(II) carboxylate complexes supported by 1,1'-bis(diphenylphosphino) ferrocene (dppf), 159

Substitution

Substitution kinetics of $Cr(CO)_5(\eta^2-Z$ -cyclooctene) with tetracyanoethylene, 274

Supramolecular associations

Synthesis, spectroscopic characterisation of 1,1,2,3,4,5,6-heptahydro-1,1-di(carboxylato)telluranes and 1,3-dihydro- $2\lambda^4$ -benzotellurole-2,2-diyl dicarboxylates: Crystal structures of 1,1,2,3,4,5,6-heptahydro-1,1-di(benzoato)tellurane and 1,3-dihydro- $2\lambda^4$ -benzotellurole-2,2-diyl dibenzoate, 34

Supramolecular structure

Rhenium tricarbonyl complexes of tris(pyrazolyl)methane ligands: first structural characterization of an isomer pair of tris(pyrazolyl)methane derivatives and the supramolecular structure of t h e h o m o b i m e t a l l i c c o m p l e x { 1, 4 - $C_6H_4[CH_2OCH_2C(pz)_3]_2[Re(CO)_3]_2\}(Br)_2$, 50

Synthesis

Syntheses and crystal structures of bis(tetrahydrofurfurylindenyl) lanthanocene chlorides $(C_4H_7OCH_2C_9H_6)_2LnCl$ (Ln = Nd, Sm, Dy, Ho, Er, Yb), 153

Synthesis and complexation with super Lewis acids

1-Triflato-3,5,7-trimethyl-1,3,5,7-tetrasilaadamantane and 1,3-bistriflato-5,7-dimethyl-1,3,5,7-tetrasilaadamantane; synthesis, complexation study and X-ray structure of 1-hydroxy-3,5,7trimethyl-1,3,5,7-tetrasilaadamantane, 141

- Synthesis and structure of the novel mixed Sb/Se and Sb/Te containing iron carbonyl clusters $[Fe_3(\mu_3-Y)(\mu_3-SbMes)(CO)_9]$ (Y = Se, Te) and $[Fe_3(\mu_3,\eta^2:\eta^1-SeSbMes)(\mu_3-SbMes)(CO)_{10}]$, 204
- Synthesis, spectroscopic characterisation of 1,1,2,3,4,5,6-heptahydro-1,1-di(carboxylato)telluranes and 1,3-dihydro-2λ⁴-benzotellurole-2,2-diyl dicarboxylates: Crystal structures of 1,1,2,3,4,5,6-heptahydro-1,1-di(benzoato)tellurane and 1,3-dihydro-2λ⁴-benzotellurole-2,2-diyl dibenzoate, 34

Tetracyanoethylene

Substitution kinetics of $Cr(CO)_5(\eta^2-Z$ -cyclooctene) with tetracyanoethylene, 274

Tetrahydrofurfurylindenyl

Syntheses and crystal structures of bis(tetrahydrofurfurylindenyl)

lanthanocene chlorides $(C_4H_7OCH_2C_9H_6)_2LnCl$ (Ln = Nd, Sm, Dy, Ho, Er, Yb), 153

Tetraphosphine

- Reactions of tetraphosphine complex $[Mo\{meso-o-C_6H_4(PPhCH_2CH_2PPh_2)_2\}(Ph_2PCH_2CH_2PPh_2)]$ with nitrile, CO, and isocyanide, 106
- Thermolysis
 - Synthesis and crystal structures of μ -1,3-bis(η^5 -tetramethylcyclopentadienyl)-1,1,3,3-tetramethyldisiloxane)[η^2 -bis(trimethylsily-l)ethyne]titanium(II) and a doubly tucked-in product of its thermolysis, 235

Titanium

Synthesis and crystal structures of μ -1,3-bis(η^5 -tetramethylcyclopentadienyl)-1,1,3,3-tetramethyldisiloxane)[η^2 -bis(trimethylsilyl)ethyne]titanium(II) and a doubly tucked-in product of its thermolysis, 235

1-Triflato-3,5,7-trimethyl-1,3,5,7-tetrasilaadamantane

1-Triflato-3,5,7-trimethyl-1,3,5,7-tetrasilaadamantane and 1,3-bistriflato-5,7-dimethyl-1,3,5,7-tetrasilaadamantane; synthesis, complexation study and X-ray structure of 1-hydroxy-3,5,7trimethyl-1,3,5,7-tetrasilaadamantane, 141

Tris(pyrazolyl)methane ligands

Tungsten

Synthesis of bis(pyrazol-1-yl)methanes with organogermyl and organosilyl groups on the methine carbon and their reaction with $W(CO)_5(THF)$. X-ray crystal structures of Ph₃GeCHPz₂W(CO)₄ and Me₃SiCHPz₂W(CO)₄ (Pz = 3,5-dimethylpyrazole), 198

Tungsten(II)

3,3-Dimethyl-1-butyne complexes of tungsten(II). Crystal structures of $[WI_2(CO)(NCPh)(\eta^2 - HC_2Bu')_2]$ and $[WI_2(CO)\{P(OR)_3\}_2(\eta^2 - HC_2Bu')]$ (R = Me and Et), 77

X-ray

Reactions of dirhenium heptoxide with manganese(I) and rhenium(I) hydrido, alkoxo, methylcarbonato, carbonato-bridged, and methoxymethyl complexes. The X-ray structures of *fac*-(CO)₃(dppp)MnOReO₃ and *fac*-(CO)₃(dppp)ReOReO₃, 88

X-ray crystal structures

Synthesis of bis(pyrazol-1-yl)methanes with organogermyl and organosilyl groups on the methine carbon and their reaction with $W(CO)_5(THF)$. X-ray crystal structures of Ph₃GeCHPz₂W(CO)₄ and Me₃SiCHPz₂W(CO)₄ (Pz = 3,5-dimethylpyrazole), 198

X-Ray structure

Reactions of tetraphosphine complex $[Mo\{meso-o-C_6H_4(PPhCH_2CH_2PPh_2)_2\}(Ph_2PCH_2CH_2PPh_2)]$ with nitrile, CO, and isocyanide, 106

X-ray structure determination

Synthesis, reactivity and structures of diethyldithiophosphate molybdenum complexes: crystal structures of $[Mo{\eta^2-S_2P(OEt_2)}_2(PhC \equiv CPh)_2]$ and $[Mo(\eta^3-C_3H_5){\eta^1-S_2P(OEt_2)}(Phen)(CO)_2]$, 191

Zirconium

Solution structure and decomposition pathway of zwitterionic zirconium (IV) benzyl complexes, 1

Zirconocene dichloride

Synthesis and cyclic voltammetry of 1,2,3-trisubstituted bis(cyclopentadienyl)zirconium dichlorides, 242

Zwitterionic complexes

Solution structure and decomposition pathway of zwitterionic zirconium (IV) benzyl complexes, 1

Tellurium