

Subject Index of Volume 547

Acetylenes

Ligand exchange photochemistry of $M_2(CO)_4(\mu-\eta^5, \eta^5-C_5H_4CH_2C_5H_4)$ ($M = Fe$ or Ru) and thermal acetylene exchange of $Ru_2(CO)(\mu-CO)[\mu-\eta^1: \eta^1-(C_6H_5)_2C_2][(\mu-\eta^5, \eta^5-C_5H_4CH_2C_5H_4)]$. The molecular structures of $Ru_2(CO)(\sigma-C_6H_5)(\mu-CO)[\mu-P(C_6H_5)_2][\mu-\eta^5, \eta^5-C_5H_4CH_2C_5H_4)$ and $Ru_2(CO)(\mu-CO)[\mu-\eta^1, \eta^3-C_6H_5C=C(C_6H_5)O]-(\mu-\eta^5, \eta^5-C_5H_4CH_2C_5H_4)$ (T.E. Bitterwolf, J.L. Haener, J.E. Shade, A.L. Rheingold and G.P.A. Yap), 23

Alkyl derivatives

Synthesis and reactivity of new silyl substituted monocyclopentadienyl zirconium complexes. X-ray molecular structure of $[Zr(\eta^5-C_5H_4(SiMe_2CH_2Ph)(CH_2Ph)_3)]$ (G. Ciruelo, T. Cuenca, R. Gómez, P. Gómez-Sal, A. Martín, G. Rodríguez and P. Royo), 287

Alkylhafnocene chloride

Preparation and reactions of Cp_2HfRCl , Cp_2HfRR' and hafnacyclopent-2-enes (Y. Nishihara, T. Ishida, S. Huo and T. Takahashi), 209

Aminosilanes

Aminochlorosilanes: precursors to multifunctionalized disilane derivatives (H. Stüger, P. Lassacher and E. Hengge), 227

ansa-Metallocene

Synthesis and molecular structure of *rac*-methylenebis(4,5,6,7-tetrahydro-1-indenyl)titanium dichloride (H.J.G. Luttikhedde, R. Leino, C.-E. Wilén, E. Laine, R. Sillanpää and J.H. Näsman), 129

Arsenic

Monoarsenic, diarsenic and mixed phosphorus–arsenic substituted niobocenes (G.I. Nikonov, A.J. Blake, J. Lorberth, D.A. Lemenovskii and S. Wocadlo), 235

Aryltitanium(IV) complexes

Aryltitanium(IV) complexes with the η^3-C,N,N' -pseudofacially coordinating ligand $[C_6H_4(CH_2N(Me)CH_2CH_2NMe_2)-2]^-$. The X-ray crystal structure of $[TiCl_2(CNN)(O-i-Pr)]$ (J.G. Donkersvoort, C.M.P. Kronenburg, B.-J. Deelman, J.T.B.H. Jastrzebski, N. Veldman, A.L. Spek and G. Van Koten), 349

Azamacrocyclic

The azamacrocyclic derivatives of $H_4Ru_4(CO)_{12}$ and their reactivity with CO and catalytic activity in the methanol carbonylation and in the water–gas shift reaction (K.O. Kallinen, T.T. Pakkanen and T.A. Pakkanen), 319

Bimetallic complexes

Ligand exchange photochemistry of $M_2(CO)_4(\mu-\eta^5, \eta^5-C_5H_4CH_2C_5H_4)$ ($M = Fe$ or Ru) and thermal acetylene exchange of $Ru_2(CO)(\mu-CO)[\mu-\eta^1: \eta^1-(C_6H_5)_2C_2][(\mu-\eta^5, \eta^5-C_5H_4CH_2C_5H_4)]$. The molecular structures of $Ru_2(CO)(\sigma-C_6H_5)(\mu-CO)[\mu-P(C_6H_5)_2][\mu-\eta^5, \eta^5-C_5H_4CH_2C_5H_4)$ and $Ru_2(CO)(\mu-CO)[\mu-\eta^1, \eta^3-C_6H_5C=C(C_6H_5)O]-(\mu-\eta^5, \eta^5-C_5H_4CH_2C_5H_4)$ (T.E. Bitterwolf, J.L. Haener, J.E. Shade, A.L. Rheingold and G.P.A. Yap), 23

Carbene

Conversion of meso-alkenes to chiral alkenes via titanocene-catalyzed ring-opening/ring-closing olefin metathesis (R.L. Halterman and T.M. Ramsey), 41

Carbenoid

The carbenoid nature of halophosphines. Carbene-like insertion mechanism in the reaction of chlorophosphines with Cp_2NbH_3 (G.I. Nikonov, Y.K. Grishin, D.A. Lemenovskii, N.B. Kazennova, L.G. Kuzmina and J.A.K. Howard), 183

Carbonyls

Ligand exchange photochemistry of $M_2(CO)_4(\mu-\eta^5, \eta^5-C_5H_4CH_2C_5H_4)$ ($M = Fe$ or Ru) and thermal acetylene exchange of $Ru_2(CO)(\mu-CO)[\mu-\eta^1: \eta^1-(C_6H_5)_2C_2][(\mu-\eta^5, \eta^5-C_5H_4CH_2C_5H_4)]$. The molecular structures of $Ru_2(CO)(\sigma-C_6H_5)(\mu-CO)[\mu-P(C_6H_5)_2][\mu-\eta^5, \eta^5-C_5H_4CH_2C_5H_4)$ and $Ru_2(CO)(\mu-CO)[\mu-\eta^1, \eta^3-C_6H_5C=C(C_6H_5)O]-(\mu-\eta^5, \eta^5-C_5H_4CH_2C_5H_4)$ (T.E. Bitterwolf, J.L. Haener, J.E. Shade, A.L. Rheingold and G.P.A. Yap), 23

Chiral

Selective cleavage of a P–N bond promoted by alcohols in *cis*- $[Cl_2M\{S-(Ph_2P)_2NC(H)(R')(R'')\}]$ complexes ($M = Pd, Pt$). X-ray crystal structure of *cis*- $[Cl_2Pt(PPh_2OMe)\{S-Ph_2PN(H)C(H)(Me)(Ph)\}] \cdot 0.75MeOH$ (A. Badía, L.R. Falvello, R. Navarro and E.P. Urriolabeitia), 121

Chiral bis(cyclopentadienyl)titanium dichloride

Conversion of meso-alkenes to chiral alkenes via titanocene-catalyzed ring-opening/ring-closing olefin metathesis (R.L. Halterman and T.M. Ramsey), 41

Chlorophosphine

The carbenoid nature of halophosphines. Carbene-like insertion mechanism in the reaction of chlorophosphines with Cp_2NbH_3 (G.I. Nikonov, Y.K. Grishin, D.A. Lemenovskii, N.B. Kazennova, L.G. Kuzmina and J.A.K. Howard), 183

Cleavage

Selective cleavage of a P–N bond promoted by alcohols in *cis*- $[Cl_2M\{S-(Ph_2P)_2NC(H)(R')(R'')\}]$ complexes ($M = Pd, Pt$). X-ray crystal structure of *cis*- $[Cl_2Pt(PPh_2OMe)\{S-Ph_2PN(H)C(H)(Me)(Ph)\}] \cdot 0.75MeOH$ (A. Badía, L.R. Falvello, R. Navarro and E.P. Urriolabeitia), 121

Cluster

The azamacrocyclic derivatives of $H_4Ru_4(CO)_{12}$ and their reactivity with CO and catalytic activity in the methanol carbonylation and in the water–gas shift reaction (K.O. Kallinen, T.T. Pakkanen and T.A. Pakkanen), 319

Copper

Synthesis and crystal structure of cationic complex of ytterbium with organogermanium cuprate anions $\{[Yb(THF)_6]^{2+}[(Ph_3Ge)_2Cu]_2^-\} \cdot 2THF$ (N.A. Orlov, L.N. Bochkarev, A.V. Nikitinsky, S.F. Zhiltsov, L.N. Zakharov, G.K. Fukin and S.Ya. Khorshev), 65

Crystal structure

Organogold(III) metallacyclic chemistry. Part I. Synthesis of the first auroxodimethylenemethane (auracyclobutan-3-one) and aurathi-

- etane-3,3-dioxide complexes. Crystal structure of $[(C_6H_3(CH_2NMe_2)_2-(OMe)_5)Au(CH(COPh)S(O)_2CH(COPh))] \cdot C_6H_6$ (M.B. Dinger and W. Henderson), 243
- The magnetic and second-order nonlinear optical properties of some paramagnetic salts containing metallocarbaborane anions (J.D. McKinney, F.S. McQuillan, H. Chen, T.A. Hamor, C.J. Jones, M. Slaski, G.H. Cross and C.J. Harding), 253
- Cuprate anion
Synthesis and crystal structure of cationic complex of ytterbium with organogermanium cuprate anions $\{[Yb(THF)_6]^{2+}[(Ph_3Ge)_2Cu]_2\} \cdot 2THF$ (N.A. Orlov, L.N. Bochkarev, A.V. Nikitinsky, S.F. Zhiltsov, L.N. Zakharov, G.K. Fukin and S.Ya. Khorshev), 65
- Cyclopentadienyl complexes
Synthesis and reactivity of new silyl substituted monocyclopentadienyl zirconium complexes. X-ray molecular structure of $[Zr(\eta^5-C_5H_4(SiMe_2CH_2Ph)(CH_2Ph)_3)]$ (G. Ciruelo, T. Cuenca, R. Gómez, P. Gómez-Sal, A. Martín, G. Rodríguez and P. Royo), 287
- Cyclopentadienyls
Ligand exchange photochemistry of $M_2(CO)_4(\mu-\eta^5, \eta^5-C_5H_4CH_2C_5H_4)$ ($M = Fe$ or Ru) and thermal acetylene exchange of $Ru_2(CO)(\mu-CO)[\mu-\eta^1: \eta^1-(C_6H_5)_2C_2](\mu-\eta^5, \eta^5-C_5H_4CH_2C_5H_4)$. The molecular structures of $Ru_2(CO)(CO)(\sigma-C_6H_5)(\mu-CO)[\mu-P(C_6H_5)_2](\mu-\eta^5, \eta^5-C_5H_4CH_2C_5H_4)$ and $Ru_2(CO)(\mu-CO)[\mu-\eta^1, \eta^3-C_6H_5C=C(C_6H_5)O]-(\mu-\eta^5, \eta^5-C_5H_4CH_2C_5H_4)$ (T.E. Bitterwolf, J.L. Haener, J.E. Shade, A.L. Rheingold and G.P.A. Yap), 23
- Dialkylhafnocene
Preparation and reactions of Cp_2HfRCl , Cp_2HfRR' and hafnacyclopent-2-enes (Y. Nishihara, T. Ishida, S. Huo and T. Takahashi), 209
- Diphosphazane
Selective cleavage of a P–N bond promoted by alcohols in *cis*- $[Cl_2M\{S-(Ph_2P)_2NC(H)R'(R'')\}]$ complexes ($M = Pd, Pt$). X-ray crystal structure of *cis*- $[Cl_2Pt(PPh_2OMe)\{S-Ph_2PN(H)C(H)(Me)(Ph)\}] \cdot 0.75MeOH$ (A. Badía, L.R. Falvello, R. Navarro and E.P. Urriolabeitia), 121
- Disilanes
Aminochlorosilanes: precursors to multifunctionalized disilane derivatives (H. Stüger, P. Lassacher and E. Hengge), 227
- Dithiolate complexes
Synthesis of gold(III) complexes with the 1,2-dithiolate-*o*-carborane ligand. Crystal structures of $[N(PPh_3)_2][AuCl_2(S_2C_2B_{10}H_{10})]$ and $[AuCl(S_2C_2B_{10}H_{10})(CH_2PPh_3)]$ (O. Crespo, M.C. Gimeno, P.G. Jones and A. Laguna), 89
- ¹⁹F- and ¹⁰⁹Ag-NMR data
Darstellung, NMR-spektroskopische Charakterisierung und Reaktionen von Perfluoralkylsilber(I)-Verbindungen (D. Naumann, W. Wessel, J. Hahn and W. Tyrra), 79
- Ferrocenyl
The magnetic and second-order nonlinear optical properties of some paramagnetic salts containing metallocarbaborane anions (J.D. McKinney, F.S. McQuillan, H. Chen, T.A. Hamor, C.J. Jones, M. Slaski, G.H. Cross and C.J. Harding), 253
- Fluorene
Synthesis and molecular structure of *rac*-methylenebis(4,5,6,7-tetrahydro-1-indenyl)titanium dichloride (H.J.G. Luttikhedde, R. Leino, C.-E. Wilén, E. Laine, R. Sillanpää and J.H. Näsman), 129
- Functionalized *N*-heterocyclic carbenes
Functionalized imidazoline-2-ylidene complexes of rhodium and palladium (W.A. Herrmann, L.J. Gooßen and M. Spiegler), 357
- Germanium
Synthesis and crystal structure of cationic complex of ytterbium with organogermanium cuprate anions $\{[Yb(THF)_6]^{2+}[(Ph_3Ge)_2Cu]_2\} \cdot 2THF$ (N.A. Orlov, L.N. Bochkarev, A.V. Nikitinsky, S.F. Zhiltsov, L.N. Zakharov, G.K. Fukin and S.Ya. Khorshev), 65
- Gold
Organogold(III) metallacyclic chemistry. Part 1. Synthesis of the first auraxodimethylenemethane (auracyclobutan-3-one) and aurathi-etane-3,3-dioxide complexes. Crystal structure of $[(C_6H_3(CH_2NMe_2)_2-(OMe)_5)Au(CH(COPh)S(O)_2CH(COPh))] \cdot C_6H_6$ (M.B. Dinger and W. Henderson), 243
- Gold(III)
Synthesis of gold(III) complexes with the 1,2-dithiolate-*o*-carborane ligand. Crystal structures of $[N(PPh_3)_2][AuCl_2(S_2C_2B_{10}H_{10})]$ and $[AuCl(S_2C_2B_{10}H_{10})(CH_2PPh_3)]$ (O. Crespo, M.C. Gimeno, P.G. Jones and A. Laguna), 89
- Hafnacyclopentadiene
Preparation and reactions of Cp_2HfRCl , Cp_2HfRR' and hafnacyclopent-2-enes (Y. Nishihara, T. Ishida, S. Huo and T. Takahashi), 209
- Hafnacyclopent-2-ene
Preparation and reactions of Cp_2HfRCl , Cp_2HfRR' and hafnacyclopent-2-enes (Y. Nishihara, T. Ishida, S. Huo and T. Takahashi), 209
- Heterobimetallic complexes
Mono- and di-bridged heterobimetallic systems from group 5 hydride phosphido and hydride phosphino metalloligands. Crystal structure of $Cp_2Ta(H)(\mu-H)(\mu-PMe_2)Cr(CO)_4$ (O. Lavastre, G. Bonnet, G. Boni, M.M. Kubicki and C. Moïse), 141
- Homogeneous catalysis
The azamacrocyclic derivatives of $H_4Ru_4(CO)_{12}$ and their reactivity with CO and catalytic activity in the methanol carbonylation and in the water–gas shift reaction (K.O. Kallinen, T.T. Pakkanen and T.A. Pakkanen), 319
- Host–guest
New macrocyclic oligoboronates (H. Höpfl and N. Farfán), 71
- Hydrides
Monoarsenic, diarsenic and mixed phosphorus–arsenic substituted niobocenes (G.I. Nikonov, A.J. Blake, J. Lorberth, D.A. Lemenovskii and S. Wocadlo), 235
- The carbenoid nature of halophosphines. Carbene-like insertion mechanism in the reaction of chlorophosphines with Cp_2NbH_3 (G.I. Nikonov, Y.K. Grishin, D.A. Lemenovskii, N.B. Kazennova, L.G. Kuzmina and J.A.K. Howard), 183
- Hydrido bridge
Mono- and di-bridged heterobimetallic systems from group 5 hydride phosphido and hydride phosphino metalloligands. Crystal structure of $Cp_2Ta(H)(\mu-H)(\mu-PMe_2)Cr(CO)_4$ (O. Lavastre, G. Bonnet, G. Boni, M.M. Kubicki and C. Moïse), 141
- Hydrochlorosilanes
Aminochlorosilanes: precursors to multifunctionalized disilane derivatives (H. Stüger, P. Lassacher and E. Hengge), 227
- Imidazoline-2-ylidenes
Functionalized imidazoline-2-ylidene complexes of rhodium and palladium (W.A. Herrmann, L.J. Gooßen and M. Spiegler), 357
- Indene
Synthesis and molecular structure of *rac*-methylenebis(4,5,6,7-tetrahydro-1-indenyl)titanium dichloride (H.J.G. Luttikhedde, R. Leino, C.-E. Wilén, E. Laine, R. Sillanpää and J.H. Näsman), 129

Insertion reaction

Monoarsenic, diarsenic and mixed phosphorus–arsenic substituted niobocenes (G.I. Nikonov, A.J. Blake, J. Lorberth, D.A. Lemenovskii and S. Wocadlo), 235

Insertion reactions

The carbenoid nature of halophosphines. Carbene-like insertion mechanism in the reaction of chlorophosphines with Cp_2NbH_3 (G.I. Nikonov, Y.K. Grishin, D.A. Lemenovskii, N.B. Kazennova, L.G. Kuzmina and J.A.K. Howard), 183

Iron

Ferrous tris(trimethylsilyl)silanolates: synthesis, structure, reactivity and thermal decomposition (A.N. Kornev, T.A. Chesnokova, V.V. Semenov, E.V. Zhezlova, L.N. Zakharov, L.G. Klapshina, G.A. Domrachev and V.S. Rusakov), 113

Ligand exchange photochemistry of $\text{M}_2(\text{CO})_4(\mu\text{-}\eta^5\text{-}\eta^5\text{-C}_5\text{H}_4\text{CH}_2\text{C}_5\text{H}_4)$ ($\text{M} = \text{Fe}$ or Ru) and thermal acetylene exchange of $\text{Ru}_2(\text{CO})(\mu\text{-CO})[\mu\text{-}\eta^1\text{-}\eta^1\text{-}(\text{C}_6\text{H}_5)_2\text{C}_2](\mu\text{-}\eta^5\text{-}\eta^5\text{-C}_5\text{H}_4\text{CH}_2\text{C}_5\text{H}_4)$. The molecular structures of $\text{Ru}_2(\text{CO})(\sigma\text{-C}_6\text{H}_5)(\mu\text{-CO})[\mu\text{-P}(\text{C}_6\text{H}_5)_2](\mu\text{-}\eta^5\text{-}\eta^5\text{-C}_5\text{H}_4\text{CH}_2\text{C}_5\text{H}_4)$ and $\text{Ru}_2(\text{CO})(\mu\text{-CO})[\mu\text{-}\eta^1\text{-}\eta^3\text{-C}_6\text{H}_5\text{C}=\text{C}(\text{C}_6\text{H}_5)\text{O}]$ ($\mu\text{-}\eta^5\text{-}\eta^5\text{-C}_5\text{H}_4\text{CH}_2\text{C}_5\text{H}_4$) (T.E. Bitterwolf, J.L. Haener, J.E. Shade, A.L. Rheingold and G.P.A. Yap), 23

Lanthanide complexes

Synthesis and crystal structure of cationic complex of ytterbium with organogermanium cuprate anions $\{[\text{Yb}(\text{THF})_6]^{2+}[(\text{Ph}_3\text{Ge})_2\text{Cu}]_2\} \cdot 2\text{THF}$ (N.A. Orlov, L.N. Bochkarev, A.V. Nikitinsky, S.F. Zhiltsov, L.N. Zakharov, G.K. Fukin and S.Ya. Khorshev), 65

Macrocyclic boron complexes

New macrocyclic oligoboronates (H. Höpfl and N. Farfán), 71

Magnetism

The magnetic and second-order nonlinear optical properties of some paramagnetic salts containing metallocarbaborane anions (J.D. McKinney, F.S. McQuillan, H. Chen, T.A. Hamor, C.J. Jones, M. Slaski, G.H. Cross and C.J. Harding), 253

Metallacycle

Organogold(III) metallacyclic chemistry. Part 1. Synthesis of the first auroxodimethylenemethane (auracyclobutan-3-one) and aurathietane-3,3-dioxide complexes. Crystal structure of $[\{\text{C}_6\text{H}_5(\text{CH}_2\text{NMe}_2)\text{-}2\text{-}(\text{OMe})\text{-}5\}\text{Au}\{\text{CH}(\text{COPh})\text{S}(\text{O})_2\text{CH}(\text{COPh})\}] \cdot \text{C}_6\text{H}_6$ (M.B. Dinger and W. Henderson), 243

Metallocarbaborane

The magnetic and second-order nonlinear optical properties of some paramagnetic salts containing metallocarbaborane anions (J.D. McKinney, F.S. McQuillan, H. Chen, T.A. Hamor, C.J. Jones, M. Slaski, G.H. Cross and C.J. Harding), 253

Metalloligand

Mono- and di-bridged heterobimetallic systems from group 5 hydride phosphido and hydride phosphino metalloligands. Crystal structure of $\text{Cp}_2\text{Ta}(\text{H})(\mu\text{-H})(\mu\text{-PMe}_2)\text{Cr}(\text{CO})_4$ (O. Lavastre, G. Bonnet, G. Boni, M.M. Kubicki and C. Moïse), 141

Monoanionic aryldiamine ligand

Aryltitanium(IV) complexes with the $\eta^3\text{-C,N,N'}$ -pseudofacially coordinating ligand $[\text{C}_6\text{H}_4(\text{CH}_2\text{N}(\text{Me})\text{CH}_2\text{CH}_2\text{NMe}_2)\text{-}2]^-$. The X-ray crystal structure of $[\text{TiCl}_2(\text{CNN})(\text{O-}i\text{-Pr})]$ (J.G. Donkervoort, C.M.P. Kronenburg, B.-J. Deelman, J.T.B.H. Jastrzebski, N. Veldman, A.L. Spek and G. Van Koten), 349

Mössbauer spectra

Ferrous tris(trimethylsilyl)silanolates: synthesis, structure, reactivity and thermal decomposition (A.N. Kornev, T.A. Chesnokova, V.V. Semenov, E.V. Zhezlova, L.N. Zakharov, L.G. Klapshina, G.A. Domrachev and V.S. Rusakov), 113

Niobium

Mono- and di-bridged heterobimetallic systems from group 5 hydride phosphido and hydride phosphino metalloligands. Crystal structure of $\text{Cp}_2\text{Ta}(\text{H})(\mu\text{-H})(\mu\text{-PMe}_2)\text{Cr}(\text{CO})_4$ (O. Lavastre, G. Bonnet, G. Boni, M.M. Kubicki and C. Moïse), 141

Monoarsenic, diarsenic and mixed phosphorus–arsenic substituted niobocenes (G.I. Nikonov, A.J. Blake, J. Lorberth, D.A. Lemenovskii and S. Wocadlo), 235

The carbenoid nature of halophosphines. Carbene-like insertion mechanism in the reaction of chlorophosphines with Cp_2NbH_3 (G.I. Nikonov, Y.K. Grishin, D.A. Lemenovskii, N.B. Kazennova, L.G. Kuzmina and J.A.K. Howard), 183

o-carborane

Synthesis of gold(III) complexes with the 1,2-dithiolate-*o*-carborane ligand. Crystal structures of $[\text{N}(\text{PPh}_3)_2][\text{AuCl}_2(\text{S}_2\text{C}_2\text{B}_{10}\text{H}_{10})]$ and $[\text{AuCl}(\text{S}_2\text{C}_2\text{B}_{10}\text{H}_{10})(\text{CH}_2\text{PPh}_3)]$ (O. Crespo, M.C. Gimeno, P.G. Jones and A. Laguna), 89

Olefin metathesis

Conversion of meso-alkenes to chiral alkenes via titanocene-catalyzed ring-opening/ring-closing olefin metathesis (R.L. Halterman and T.M. Ramsey), 41

Organometallic

Organogold(III) metallacyclic chemistry. Part 1. Synthesis of the first auroxodimethylenemethane (auracyclobutan-3-one) and aurathietane-3,3-dioxide complexes. Crystal structure of $[\{\text{C}_6\text{H}_5(\text{CH}_2\text{NMe}_2)\text{-}2\text{-}(\text{OMe})\text{-}5\}\text{Au}\{\text{CH}(\text{COPh})\text{S}(\text{O})_2\text{CH}(\text{COPh})\}] \cdot \text{C}_6\text{H}_6$ (M.B. Dinger and W. Henderson), 243

Oxodimethylenemethane

Organogold(III) metallacyclic chemistry. Part 1. Synthesis of the first auroxodimethylenemethane (auracyclobutan-3-one) and aurathietane-3,3-dioxide complexes. Crystal structure of $[\{\text{C}_6\text{H}_5(\text{CH}_2\text{NMe}_2)\text{-}2\text{-}(\text{OMe})\text{-}5\}\text{Au}\{\text{CH}(\text{COPh})\text{S}(\text{O})_2\text{CH}(\text{COPh})\}] \cdot \text{C}_6\text{H}_6$ (M.B. Dinger and W. Henderson), 243

Palladium

Selective cleavage of a P–N bond promoted by alcohols in *cis*- $[\text{Cl}_2\text{M}\{\text{S}(\text{Ph}_2\text{P})_2\text{NC}(\text{H})(\text{R}')(\text{R}'')\}]$ complexes ($\text{M} = \text{Pd}$, Pt). X-ray crystal structure of *cis*- $[\text{Cl}_2\text{Pt}(\text{PPh}_2\text{OMe})(\text{S-Ph}_2\text{PN}(\text{H})\text{C}(\text{H})(\text{Me})(\text{Ph}))] \cdot 0.75\text{MeOH}$ (A. Badía, L.R. Falvello, R. Navarro and E.P. Urriolabeitia), 121

Perfluoroalkylating reagents

Darstellung, NMR-spektroskopische Charakterisierung und Reaktionen von Perfluoralkylsilber(I)-Verbindungen (D. Naumann, W. Wessel, J. Hahn and W. Tyrra), 79

Perfluoroalkylsilver(I) complexes

Darstellung, NMR-spektroskopische Charakterisierung und Reaktionen von Perfluoralkylsilber(I)-Verbindungen (D. Naumann, W. Wessel, J. Hahn and W. Tyrra), 79

Phosphido bridge

Mono- and di-bridged heterobimetallic systems from group 5 hydride phosphido and hydride phosphino metalloligands. Crystal structure of $\text{Cp}_2\text{Ta}(\text{H})(\mu\text{-H})(\mu\text{-PMe}_2)\text{Cr}(\text{CO})_4$ (O. Lavastre, G. Bonnet, G. Boni, M.M. Kubicki and C. Moïse), 141

Phosphorus

Monoarsenic, diarsenic and mixed phosphorus–arsenic substituted niobocenes (G.I. Nikonov, A.J. Blake, J. Lorberth, D.A. Lemenovskii and S. Wocadlo), 235

Photochemistry

Ligand exchange photochemistry of $\text{M}_2(\text{CO})_4(\mu\text{-}\eta^5\text{-}\eta^5\text{-C}_5\text{H}_4\text{CH}_2\text{C}_5\text{H}_4)$ ($\text{M} = \text{Fe}$ or Ru) and thermal acetylene exchange of $\text{Ru}_2(\text{CO})(\mu\text{-CO})[\mu\text{-}\eta^1\text{-}\eta^1\text{-}(\text{C}_6\text{H}_5)_2\text{C}_2](\mu\text{-}\eta^5\text{-}\eta^5\text{-}$

- $C_5H_4CH_2C_5H_4$). The molecular structures of $Ru_2(CO)(\sigma-C_6H_5)(\mu-CO)[\mu-P(C_6H_5)_2](\mu-\eta^5, \eta^5-C_5H_4CH_2C_5H_4)$ and $Ru_2(CO)(\mu-CO)[\mu-\eta^1, \eta^3-C_6H_5C=C(C_6H_5)O]-(\mu-\eta^5, \eta^5-C_5H_4CH_2C_5H_4)$ (T.E. Bitterwolf, J.L. Haener, J.E. Shade, A.L. Rheingold and G.P.A. Yap), 23
- Platinum**
 Selective cleavage of a P–N bond promoted by alcohols in *cis*- $[Cl_2M\{S-(Ph)_2P\}_2NC(H)(R')(R'')]$ complexes (M = Pd, Pt). X-ray crystal structure of *cis*- $[Cl_2Pt(PPh_2OMe)\{S-Ph_2PN(H)C(H)(Me)(Ph)\}] \cdot 0.75MeOH$ (A. Badía, L.R. Falvello, R. Navarro and E.P. Urriolabeitia), 121
- Reactions with vinylphosphines**
 The oxidative addition of a vinylic C–H bond of divinyl(phenyl)phosphine at $M_3(CO)_{12}$ carbonyls (M = Ru, Os). Stepwise formation and crystal structure of $[(\mu-H)Ru_3(CO)_8\{PPh(CH=CH_2)_2\}(\mu_3-PPh(CH=CH_2)(CH=CH))]$ (R. Giordano, E. Sappa, G. Predieri and A. Tiripicchio), 49
- Reactivity**
 The azamacrocyclic derivatives of $H_4Ru_4(CO)_{12}$ and their reactivity with CO and catalytic activity in the methanol carbonylation and in the water–gas shift reaction (K.O. Kallinen, T.T. Pakkanen and T.A. Pakkanen), 319
- Ruthenium**
 Ligand exchange photochemistry of $M_2(CO)_4(\mu-\eta^5, \eta^5-C_5H_4CH_2C_5H_4)$ (M = Fe or Ru) and thermal acetylene exchange of $Ru_2(CO)(\mu-CO)[\mu-\eta^1, \eta^1-(C_6H_5)_2C_2](\mu-\eta^5, \eta^5-C_5H_4CH_2C_5H_4)$. The molecular structures of $Ru_2(CO)(\sigma-C_6H_5)(\mu-CO)[\mu-P(C_6H_5)_2](\mu-\eta^5, \eta^5-C_5H_4CH_2C_5H_4)$ and $Ru_2(CO)(\mu-CO)[\mu-\eta^1, \eta^3-C_6H_5C=C(C_6H_5)O]-(\mu-\eta^5, \eta^5-C_5H_4CH_2C_5H_4)$ (T.E. Bitterwolf, J.L. Haener, J.E. Shade, A.L. Rheingold and G.P.A. Yap), 23
 The oxidative addition of a vinylic C–H bond of divinyl(phenyl)phosphine at $M_3(CO)_{12}$ carbonyls (M = Ru, Os). Stepwise formation and crystal structure of $[(\mu-H)Ru_3(CO)_8\{PPh(CH=CH_2)_2\}(\mu_3-PPh(CH=CH_2)(CH=CH))]$ (R. Giordano, E. Sappa, G. Predieri and A. Tiripicchio), 49
- Secondary harmonic generation**
 The magnetic and second-order nonlinear optical properties of some paramagnetic salts containing metallocarbaborane anions (J.D. McKinney, F.S. McQuillan, H. Chen, T.A. Hamor, C.J. Jones, M. Slaski, G.H. Cross and C.J. Harding), 253
- Self-assembly**
 New macrocyclic oligoboronates (H. Höpfl and N. Farfán), 71
- Silanolates**
 Ferrous tris(trimethylsilyl)silanolates: synthesis, structure, reactivity and thermal decomposition (A.N. Kornev, T.A. Chesnokova, V.V. Semenov, E.V. Zhezlova, L.N. Zakharov, L.G. Klapshina, G.A. Domrachev and V.S. Rusakov), 113
- Stereoisomers**
 Aryltitanium(IV) complexes with the η^3-C,N,N' -pseudofacially coordinating ligand $[C_6H_4(CH_2N(Me)CH_2CH_2NMe_2)_2]^-$. The X-ray crystal structure of $[TiCl_2(CNN)(O-i-Pr)]$ (J.G. Donkervoort, C.M.P. Kronenburg, B.-J. Deelman, J.T.B.H. Jastrzebski, N. Veldman, A.L. Spek and G. Van Koten), 349
- Stereoselective synthesis**
 Conversion of meso-alkenes to chiral alkenes via titanocene-catalyzed ring-opening/ring-closing olefin metathesis (R.L. Halterman and T.M. Ramsey), 41
- Synthesis**
 The azamacrocyclic derivatives of $H_4Ru_4(CO)_{12}$ and their reactivity with CO and catalytic activity in the methanol carbonylation and in the water–gas shift reaction (K.O. Kallinen, T.T. Pakkanen and T.A. Pakkanen), 319
- Tantalum**
 Mono- and di-bridged heterobimetallic systems from group 5 hydride phosphido and hydride phosphino metalloligands. Crystal structure of $Cp_2Ta(H)(\mu-H)(\mu-PMe_2)Cr(CO)_4$ (O. Lavastre, G. Bonnet, G. Boni, M.M. Kubicki and C. Moïse), 141
- Titanacyclobutanes**
 Conversion of meso-alkenes to chiral alkenes via titanocene-catalyzed ring-opening/ring-closing olefin metathesis (R.L. Halterman and T.M. Ramsey), 41
- Titanium**
 Conversion of meso-alkenes to chiral alkenes via titanocene-catalyzed ring-opening/ring-closing olefin metathesis (R.L. Halterman and T.M. Ramsey), 41
 Synthesis and molecular structure of *rac*-methylenebis(4,5,6,7-tetrahydro-1-indenyl)titanium dichloride (H.J.G. Luttikhedde, R. Leino, C.-E. Wilén, E. Laine, R. Sillanpää and J.H. Näsman), 129
- Transition metal chemistry**
 Aryltitanium(IV) complexes with the η^3-C,N,N' -pseudofacially coordinating ligand $[C_6H_4(CH_2N(Me)CH_2CH_2NMe_2)_2]^-$. The X-ray crystal structure of $[TiCl_2(CNN)(O-i-Pr)]$ (J.G. Donkervoort, C.M.P. Kronenburg, B.-J. Deelman, J.T.B.H. Jastrzebski, N. Veldman, A.L. Spek and G. Van Koten), 349
- Transition-metal complexes**
 Functionalized imidazoline-2-ylidene complexes of rhodium and palladium (W.A. Herrmann, L.J. Gooßen and M. Spiegler), 357
- Triaza ligand**
 The azamacrocyclic derivatives of $H_4Ru_4(CO)_{12}$ and their reactivity with CO and catalytic activity in the methanol carbonylation and in the water–gas shift reaction (K.O. Kallinen, T.T. Pakkanen and T.A. Pakkanen), 319
- T_1 -times**
 Darstellung, NMR-spektroskopische Charakterisierung und Reaktionen von Perfluoralkylsilber(I)-Verbindungen (D. Naumann, W. Wessel, J. Hahn and W. Tyrre), 79
- X-ray diffraction**
 Ferrous tris(trimethylsilyl)silanolates: synthesis, structure, reactivity and thermal decomposition (A.N. Kornev, T.A. Chesnokova, V.V. Semenov, E.V. Zhezlova, L.N. Zakharov, L.G. Klapshina, G.A. Domrachev and V.S. Rusakov), 113
 Synthesis and crystal structure of cationic complex of ytterbium with organogermanium cuprate anions $\{[Yb(THF)_6]^{2+}[(Ph_3Ge)_2Cu]_2\} \cdot 2THF$ (N.A. Orlov, L.N. Bochkarev, A.V. Nikitinsky, S.F. Zhiltsov, L.N. Zakharov, G.K. Fukin and S.Ya. Khorshev), 65
- X-ray structure**
 Functionalized imidazoline-2-ylidene complexes of rhodium and palladium (W.A. Herrmann, L.J. Gooßen and M. Spiegler), 357
 Selective cleavage of a P–N bond promoted by alcohols in *cis*- $[Cl_2M\{S-(Ph)_2P\}_2NC(H)(R')(R'')]$ complexes (M = Pd, Pt). X-ray crystal structure of *cis*- $[Cl_2Pt(PPh_2OMe)\{S-Ph_2PN(H)C(H)(Me)(Ph)\}] \cdot 0.75MeOH$ (A. Badía, L.R. Falvello, R. Navarro and E.P. Urriolabeitia), 121
 Synthesis of gold(III) complexes with the 1,2-dithiolate-*o*-carborane ligand. Crystal structures of $[N(PPh_3)_2][AuCl_2(S_2C_2B_{10}H_{10})]$ and $[AuCl(S_2C_2B_{10}H_{10})(CH_2PPh_3)]$ (O. Crespo, M.C. Gimeno, P.G. Jones and A. Laguna), 89
 The oxidative addition of a vinylic C–H bond of divinyl(phenyl)phosphine at $M_3(CO)_{12}$ carbonyls (M = Ru, Os). Stepwise formation and crystal structure of $[(\mu-H)Ru_3(CO)_8\{PPh(CH=CH_2)_2\}(\mu_3-PPh(CH=CH_2)(CH=CH))]$ (R. Giordano, E. Sappa, G. Predieri and A. Tiripicchio), 49
- Ytterbium**
 Synthesis and crystal structure of cationic complex of ytterbium with organogermanium cuprate anions $\{[Yb(THF)_6]^{2+}[(Ph_3Ge)_2Cu]_2\}^-$

· 2THF (N.A. Orlov, L.N. Bochkarev, A.V. Nikitinsky, S.F. Zhiltsov, L.N. Zakharov, G.K. Fukin and S.Ya. Khorshev), 65

$C_5H_4(SiMe_2CH_2Ph)(CH_2Ph)_3$] (G. Ciruelo, T. Cuenca, R. Gómez, P. Gómez-Sal, A. Martín, G. Rodríguez and P. Royo), 287

Zirconium

Synthesis and reactivity of new silyl substituted monocyclopentadienyl zirconium complexes. X-ray molecular structure of $[Zr(\eta^5-$