

**JOURNAL OF ORGANOMETALLIC CHEMISTRY, VOL. 408 (1991)****SUBJECT INDEX****Antimony**

Cyclopentadienyliron arene cations, photochemical arene substitution in; synthesis of cyclopentadienyliron bisphosphine ligand complexes with group 14 and 15 ligands (H. Schumann, L. Eguren, J.W. Ziller), (408) 361

**Arsenic**

Cyclopentadienyliron arene cations, photochemical arene substitution in; synthesis of cyclopentadienyliron bisphosphine ligand complexes with group 14 and 15 ligands (H. Schumann, L. Eguren, J.W. Ziller), (408) 361

**Boron**

Borido cluster  $\text{Fe}_4(\text{CO})_{12}\text{BHAu}_2\{\text{AsPh}_3\}_2$ , synthesis and molecular structure of; investigation of the electrochemistry of  $\text{Fe}_4(\text{CO})_{12}\text{BHAu}_2\text{L}_2$ ,  $\text{L} = \text{AsPh}_3$  or  $\text{PPh}_3$  (C.E. Housecroft, M.S. Shongwe, A.L. Rheingold, P. Zanello), (408) 7

**Chromium**

$[(\eta^5\text{-C}_5\text{H}_5)(\text{CO})_3\text{M}(\text{HgX})]$  ( $\text{M} = \text{Cr, Mo, W}$ ;  $\text{X} = \text{Cl, Br, I, N}_3, \text{SCN}$ ) complexes, interaction with  $\text{M}'(\text{CO})_3(\text{bipy})$  ( $\text{M}' = \text{Mo, W}$ ) fragments; trimetallic compounds containing  $\text{M}-\text{Hg}-\text{M}'-\text{X}$  arrays (J. Graniero, M.E. Vargas), (408) 357

$\text{M}^+[\text{M}'\text{M}''(\text{CO})_9\text{L}]^-$  ( $\text{M}^+ = \text{Na}^+, \text{PPN}^+$ ;  $\text{M}' = \text{Cr, W}$ ;  $\text{M}'' = \text{Mn, Re}$ ;  $\text{L} = \text{CO, PR}_3$ ), kinetic studies of the cleavage of (Y.K. Park, S.J. Kim, J.H. Kim, I.S. Han, C.H. Lee, H.S. Choi), (408) 193

**Cobalt**

Co-C bond lengths in vitamin  $\text{B}_{12}$  model compounds, evidence of steric influences on (S. Geremia, M. Mari, L. Randaccio, E. Zangrando), (408) 95

$[(\text{Co}_2(\text{CO})_6\text{PhC}_2)_2]$  acetylene-linked dimeric cluster, synthesis and structural characterisation of (B.F.G. Johnson, J. Lewis, P.R. Raithby, D.A. Wilkinson), (408) C9

Iron, cobalt and rhodium complexes of the optically active diolefin (+)-nopadiene and its derivatives; crystal structure of  $\text{C}_5\text{Me}_5\text{Rh}(\text{nopadiene})$  (A. Salzer, H. Schmalle, R. Stauber, S. Streiff), (408) 403

**Copper**

Group IB metal heteronuclear cluster compounds in the solid state, high-resolution  $^{31}\text{P}-\{\text{H}\}$  nuclear magnetic resonance studies of (S.S.D. Brown, I.D. Salter, D.J. Smith, N.J. Clayden, C.M. Dobson), (408) 439

Phenylcoppermagnesium and methylcoppermagnesium reagents,  $^1\text{H}$  and  $^{13}\text{C}$  NMR spectra of (S.K. Nahar, H.P. Nur, M.T. Rahman, M. Nilsson, T. Olsson), (408) 261

**Erbium**

Triindenylanthanide complexes  $(\eta^5\text{-C}_9\text{H}_7)_3\text{Ln}\cdot\text{OC}_4\text{H}_8$  ( $\text{Ln} = \text{Nd, Gd, Er}$ ), syntheses and crystal structures of (J. Xia, Z. Jin, G. Lin, W. Chen), (408) 173

## Gadolinium

Triindenylanthanide complexes ( $\eta^5\text{-C}_9\text{H}_7$ )<sub>3</sub>Ln·OC<sub>4</sub>H<sub>8</sub> (Ln = Nd, Gd, Er), syntheses and crystal structures of (J. Xia, Z. Jin, G. Lin, W. Chen), (408) 173

## Germanium

Bis(trimethylsilyl)- and bis(trimethylgermyl)carbodiimide, electron diffraction study of the gas-phase structure of (A. Hammel, H.V. Volden, A. Haaland, J. Weidlein, R. Reischmann), (408) 35  
(O-Ge)-chelate 1-(dimethylchlorogermylmethyl)pyrrolidone-2, 1-(dimethylchlorogermylmethyl)piperidone-2, (N-Ge)-chelate O-(dimethylchlorogermylmethyl)- $\delta$ -valeroactim and 2-(chlorodimethylgermylmethylthio)pyrrolidine-1, crystal and molecular structures of; structural correlations between derivatives of four- and five-coordinated germanium (A.O. Mozzchukhin, A.A. Macharashvili, V.E. Shklover, Yu.T. Struchkov, A.G. Shipov, V.N. Sergeev, S.A. Artamkin, S.V. Pestunovich, Yu.I. Baukov), (408) 305

## Gold

Borido cluster Fe<sub>4</sub>(CO)<sub>12</sub>BHAu<sub>2</sub>{AsPh<sub>3</sub>}<sub>2</sub>, synthesis and molecular structure of; investigation of the electrochemistry of Fe<sub>4</sub>(CO)<sub>12</sub>BHAu<sub>2</sub>L<sub>2</sub>, L = AsPh<sub>3</sub> or PPh<sub>3</sub> (C.E. Housecroft, M.S. Shongwe, A.L. Rheingold, P. Zanello), (408) 7

[{Co<sub>2</sub>(CO)<sub>6</sub>PhC<sub>2</sub>}<sub>2</sub>] acetylene-linked dimeric cluster, synthesis and structural characterisation of (B.F.G. Johnson, J. Lewis, P.R. Raithby, D.A. Wilkinson), (408) C9

Group IB metal heteronuclear cluster compounds in the solid state, high-resolution <sup>31</sup>P-{<sup>1</sup>H} nuclear magnetic resonance studies of (S.S.D. Brown, I.D. Salter, D.J. Smith, N.J. Clayden, C.M. Dobson), (408) 439

Reactions of some Fe-Ir clusters; crystal structures of Fe<sub>2</sub>Ir( $\mu$ -H)( $\mu$ <sub>3</sub>-CCHPh)(CO)<sub>8</sub>(PPh<sub>3</sub>) and Au<sub>2</sub>Fe<sub>2</sub>Ir( $\mu$ <sub>4</sub>-C<sub>2</sub>Ph)(CO)<sub>7</sub>(PPh<sub>3</sub>)<sub>3</sub> (M.I. Bruce, G.A. Koutsantonis, E.R.T. Tieckink), (408) 77  
R<sub>3</sub>PAu<sup>I</sup> C-, S-, and N-derivatives, gold-197 Mössbauer investigation of (F. Bonati, A. Burini, B.R. Pietroni, E. Torregiani, S. Calogero, F.E. Wagner), (408) 125

Symmetric C-imidazolylgold(I), reactions leading to Au<sup>I</sup> carbene complexes or mixed valence or Au<sup>III</sup> imidazolyl derivatives; crystal structure of [1-benzyl-3-(carboethoxy)imidazolin-2-yliden]chlorogold(I) (F. Bonati, A. Burini, B.R. Pietroni, B. Bovio), (408) 271

## Iridium

Reactions of some Fe-Ir clusters; crystal structures of Fe<sub>2</sub>Ir( $\mu$ -H)( $\mu$ <sub>3</sub>-CCHPh)(CO)<sub>8</sub>(PPh<sub>3</sub>) and Au<sub>2</sub>Fe<sub>2</sub>Ir( $\mu$ <sub>4</sub>-C<sub>2</sub>Ph)(CO)<sub>7</sub>(PPh<sub>3</sub>)<sub>3</sub> (M.I. Bruce, G.A. Koutsantonis, E.R.T. Tieckink), (408) 77

## Iron

Borido cluster Fe<sub>4</sub>(CO)<sub>12</sub>BHAu<sub>2</sub>{AsPh<sub>3</sub>}<sub>2</sub>, synthesis and molecular structure of; investigation of the electrochemistry of Fe<sub>4</sub>(CO)<sub>12</sub>BHAu<sub>2</sub>L<sub>2</sub>, L = AsPh<sub>3</sub> or PPh<sub>3</sub> (C.E. Housecroft, M.S. Shongwe, A.L. Rheingold, P. Zanello), (408) 7

Cyclopentadienyliron arene cations, photochemical arene substitution in; synthesis of cyclopentadienyliron bisphosphine ligand complexes with group 14 and 15 ligands (H. Schumann, L. Eguren, J.W. Ziller), (408) 361

Dicarbonylbis(phosphorus-donor)iron complexes, trimerisation of methyl propiolate on (U. Grössmann, H.-U. Hund, H.W. Bosch, H. Schmalle, H. Berke), (408) 203

Diferrocenylketones, new synthesis of (D.C. O'Connor Salazar, D.O. Cowan), (408) 219

Diferrocenylsulfide, new synthesis and study of (D.C. O'Connor Salazar, D.O. Cowan), (408) 227

Heterodichalcogene ferrocenes with open or bridging chains, synthesis by addition of Fe(C<sub>5</sub>H<sub>4</sub>ELi)<sub>2</sub>·2THF (E = S, Se) to propynoates (R. Broussier, M. El Mjidi, B. Gautheron), (408) 381

Iron, cobalt and rhodium complexes of the optically active diolefin (+)-nopadiene and its derivatives; crystal structure of C<sub>5</sub>Me<sub>5</sub>Rh(nopadiene) (A. Salzer, H. Schmalle, R. Stauber, S. Streiff), (408) 403

Iron(II), tungsten(II) and molybdenum(II) ( $\eta^5$ -iodocyclopentadienyl)metallosilane methyl iodide exchange in the presence of palladium (C. Lo Sterzo) (408) 253

Reactions of some Fe-Ir clusters; crystal structures of Fe<sub>2</sub>Ir( $\mu$ -H)( $\mu$ <sub>3</sub>-CCHPh)(CO)<sub>8</sub>(PPh<sub>3</sub>) and Au<sub>2</sub>Fe<sub>2</sub>Ir( $\mu$ <sub>4</sub>-C<sub>2</sub>Ph)(CO)<sub>7</sub>(PPh<sub>3</sub>)<sub>3</sub> (M.I. Bruce, G.A. Koutsantonis, E.R.T. Tieckink), (408) 77

Silyl-bridged di- to tetranuclear ferrocenes; synthesis, cyclic voltammetry and oxidation of (H. Atzkern, J. Hiermeier, F.H. Köhler, A. Steck), (408) 281

## Lithium

[Li(Et<sub>2</sub>O)<sub>2</sub>-2,4,6-Ph<sub>3</sub>C<sub>6</sub>H<sub>2</sub>] monomeric,  $\sigma$ -bonded aryllithium etherate complex, isolation and X-ray crystal structure of (M.M. Olmstead, P.P. Power), (408) 1

## Magnesium

Pentamethylcyclopentadienyl Grignard reagent, [Cp\*<sup>+</sup>Mg(thf) $\mu$ -Cl]<sub>2</sub>, crystal and molecular structure of (R.E. Cramer, P.N. Richmann, J.W. Gilje), (408) 131

Phenylcoppermagnesium and methylcoppermagnesium reagents, <sup>1</sup>H and <sup>13</sup>C NMR spectra of (S.K. Nahar, H.P. Nur, M.T. Rahman, M. Nilsson, T. Olsson), (408) 261

## Manganese

M<sup>+</sup>[M'M''(CO)<sub>9</sub>L]<sup>-</sup> (M<sup>+</sup> = Na<sup>+</sup>, PPN<sup>+</sup>; M' = Cr, W; M'' = Mn, Re; L = CO, PR<sub>3</sub>), kinetic studies of the cleavage of (Y.K. Park, S.J. Kim, J.H. Kim, I.S. Han, C.H. Lee, H.S. Choi), (408) 193

Tetrahydrofurfurylcyclopentadiene and its thallium, manganese, and rhodium complexes, synthesis of; low temperature matrix photolysis of the manganese complex (T.E. Bitterwolf, K.A. Lott, A.J. Rest), (408) 137

## Mercury

[( $\eta^5$ -C<sub>5</sub>H<sub>5</sub>)(CO)<sub>3</sub>M(HgX)] (M = Cr, Mo, W; X = Cl, Br, I, N<sub>3</sub>, SCN) complexes, interaction with M'(CO)<sub>3</sub>(bipy) (M' = Mo, W) fragments; trimetallic compounds containing M-Hg-M'-X arrays (J. Granizo, M.E. Vargas), (408) 357

[{Co<sub>2</sub>(CO)<sub>6</sub>PhC<sub>2</sub>}<sub>2</sub>] acetylene-linked dimeric cluster, synthesis and structural characterisation of (B.F.G. Johnson, J. Lewis, P.R. Raithby, D.A. Wilkinson), (408) C9

## Metallocenes

Cp<sub>2</sub>VCl(AsF<sub>6</sub>) and other vanadocene(IV) hexafluoropnictogenate species, synthesis and EPR spectroscopic characterisation of; HF-catalysed oxidation to cationic vanadocenium(V) complexes; structure of [Cp<sub>2</sub>VCl<sub>2</sub>]<sup>+</sup>[AsF<sub>6</sub>]<sup>-</sup> (F.H. Görlitz, P.K. Gowik, T.M. Klapötke, D. Wang, R. Meier, J. v. Welzen), (408) 343

Diferrocylketones, new synthesis of (D.C. O'Connor Salazar, D.O. Cowan), (408) 219

Diferrocenylsulfide, new synthesis and study of (D.C. O'Connor Salazar, D.O. Cowan), (408) 227

Heterodichalcogene ferrocenes with open or bridging chains, synthesis by addition of Fe(C<sub>5</sub>H<sub>4</sub>ELi)<sub>2</sub>·2THF (E = S, Se) to propynoates (R. Broussier, M. El Mjidi, B. Gautheron), (408) 381

Silyl-bridged di- to tetranuclear ferrocenes; synthesis, cyclic voltammetry and oxidation of (H. Atzkern, J. Hiermeier, F.H. Köhler, A. Steck), (408) 281

## Molybdenum

[( $\eta^5$ -C<sub>5</sub>H<sub>5</sub>)(CO)<sub>3</sub>M(HgX)] (M = Cr, Mo, W; X = Cl, Br, I, N<sub>3</sub>, SCN) complexes, interaction with M'(CO)<sub>3</sub>(bipy) (M' = Mo, W) fragments; trimetallic compounds containing M-Hg-M'-X arrays (J. Granizo, M.E. Vargas), (408) 357

Diisocyanide complexes *trans*-[Mo(CNR)<sub>2</sub>(Ph<sub>2</sub>PCH<sub>2</sub>CH<sub>2</sub>PPh<sub>2</sub>)<sub>2</sub>] and derived aminocarbene compounds, molecular orbital study of the bonding and reactivity of (E.G. Bakalassis, C.A. Tsipis, A.J.L. Pombeiro), (408) 181

Iron(II), tungsten(II) and molybdenum(II) ( $\eta^5$ -iodocyclopentadienyl)metallo methyl derivatives, methyl-iodine exchange in the presence of palladium (C. Lo Sterzo) (408) 253

## Neodymium

Triindenyllanthanide complexes ( $\eta^5$ -C<sub>9</sub>H<sub>7</sub>)<sub>3</sub>Ln·OC<sub>4</sub>H<sub>8</sub> (Ln = Nd, Gd, Er), syntheses and crystal structures of (J. Xia, Z. Jin, G. Lin, W. Chen), (408) 173

## Nickel

Infrared spectra of triple-decker sandwich complexes (Ni<sub>2</sub>Cp<sub>3</sub>)A (A = BF<sub>4</sub>, PF<sub>6</sub>) (I.A. Garbuzova, O.G. Garkusha, B.V. Lokshin, A.R. Kudinov, M.I. Rybinskaya), (408) 247

(2,6-<sup>i</sup>Pr<sub>2</sub>Ph-dad)Ni(C<sub>2</sub>F<sub>4</sub>), synthesis and reactivity of (W. Schröder, W. Bonrath, K.R. Pörschke), (408) C25

## Osmium

Phenylphosphole, oxidative addition of; X-ray crystal structures of two ring-opened products  $[\text{Os}_3(\mu_3-\text{PhPC}_4\text{H}_4)(\text{CO})_x]$  where  $x = 8$  or  $9$  (A.J. Arce, Y. De Sanctis, J. Manzur, A.J. Deeming, N.I. Powell), (408) C18

Triosmium clusters with  $\mu_3\text{-AsR}$  group as a building block for hexaosmium-arsenic cluster synthesis; synthesis and characterisation of  $[(\text{CO})_{11}\text{Os}_3\text{As}(\text{Os}_3(\text{CO})_9\text{H}_3)]$  and  $[(\text{CO})_9\text{H}_3\text{Os}_3\text{As}(\text{Os}_3(\text{CO})_9\text{H}_3)]$ ; crystal structure of  $[(\text{CO})_{11}\text{Os}_3\text{As}(\text{Os}_3(\text{CO})_9\text{H}_3)]$  (K. Guldner, B.F.G. Johnson, J. Lewis, A.D. Massey, S. Bott), (408) C13

## Palladium

Iron(II), tungsten(II) and molybdenum(II) ( $\eta^5$ -iodocyclopentadienyl)metallo methyl derivatives, methyl-iodine exchange in the presence of palladium (C. Lo Sterzo) (408) 253

Palladium(0) compounds, oxidative addition of aryl-halogen bonds of *N*-benzylidenbenzylamines to (J. Albert, J. Barro, J. Granell), (408) 115

$[\text{Pd}(\text{C}_6\text{N})(\text{C}_6\text{F}_5)(\text{NCMe})]$  ( $\text{C}_6\text{N}$  = dimethylbenzylamine- $C^2,N$ ; 8-quinolylmethyl- $C,N$ ), synthesis and reactivity of; crystal structure of  $(\text{NBu}_4)[\{\text{Pd}(8\text{-quinolylmethyl-}C,N)(\text{C}_6\text{F}_5)\}_2(\mu\text{-Cl})]$  (J. Forniés, R. Navarro, V. Sicilia, F. Martínez, A.J. Welch), (408) 425

## Phosphorus

Cyclopentadienyliiron arene cations, photochemical arene substitution in; synthesis of cyclopentadienyliiron bisphosphine ligand complexes with group 14 and 15 ligands (H. Schumann, L. Eguren, J.W. Ziller), (408) 361

Dicarbonylbis(phosphorus-donor)iron complexes, trimerisation of methyl propiolate on (U. Grössmann, H.-U. Hund, H.W. Bosch, H. Schmalke, H. Berke), (408) 203

Phenylphosphole, oxidative addition of; X-ray crystal structures of two ring-opened products  $[\text{Os}_3(\mu_3-\text{PhPC}_4\text{H}_4)(\text{CO})_x]$  where  $x = 8$  or  $9$  (A.J. Arce, Y. De Sanctis, J. Manzur, A.J. Deeming, N.I. Powell), (408) C18

Reactions of some Fe-Ir clusters; crystal structures of  $\text{Fe}_2\text{Ir}(\mu\text{-H})(\mu_3\text{-CCHPh})(\text{CO})_8(\text{PPh}_3)$  and  $\text{Au}_2\text{Fe}_2\text{Ir}(\mu_4\text{-C}_2\text{Ph})(\text{CO})_7(\text{PPh}_3)_3$  (M.I. Bruce, G.A. Koutsantonis, E.R.T. Tieckink), (408) 77

Trimethylphosphine-substituted  $\eta^2$ -thiocarbene complexes of tungsten, preparation and reactions of (W. Schütt, N. Ullrich, F.R. Kreißl), (408) C5

## Platinum

Hydrosilylation of the C=C double bond employing homogeneous catalysis with transition metals (R. Skoda-Földes, L. Kollár, B. Heil), (408) 297

## Rhenium

$\text{LTc}(\text{CO})_3$  compounds ( $L = \text{C}_5\text{Me}_5$ ,  $\text{C}_5\text{Me}_4\text{Et}$ ,  $\text{C}_9\text{H}_7$ ), preparation and characterisation of; crystal structures of  $(\eta^5\text{-C}_5\text{Me}_5)\text{M}(\text{CO})_3$  ( $M = \text{Tc, Re}$ ),  $(\eta^5\text{-C}_5\text{Me}_4\text{Et})\text{Tc}(\text{CO})_3$  and  $(\eta^5\text{-C}_9\text{H}_7)\text{Tc}(\text{CO})_3$  (K. Raptis, E. Dornberger, B. Kanellakopulos, B. Nuber, M.L. Ziegler), (408) 61

$\text{M}^+[\text{M}'\text{M}''(\text{CO})_9\text{L}]^-$  ( $\text{M}^+ = \text{Na}^+$ ,  $\text{PPN}^+$ ;  $\text{M}' = \text{Cr, W}$ ;  $\text{M}'' = \text{Mn, Re}$ ;  $L = \text{CO, PR}_3$ ), kinetic studies of the cleavage of (Y.K. Park, S.J. Kim, J.H. Kim, I.S. Han, C.H. Lee, H.S. Choi), (408) 193

## Rhodium

$\{(\eta^5\text{-C}_5\text{Me}_5)\text{RhCl}(\mu\text{-Cl})\}_2$ , reactivity towards some potentially bidentate ligands (G. García, G. Sánchez, I. Romero, I. Solano, M.D. Santana, G. López), (408) 241

Dirhodium(II) compound with bridging orthometallated dimethylphenylphosphine ligands, synthesis and characterisation of (E.C. Morrison, D.A. Tocher), (408) 105

Hydrosilylation of the C=C double bond employing homogeneous catalysis with transition metals (R. Skoda-Földes, L. Kollár, B. Heil), (408) 297

Iron, cobalt and rhodium complexes of the optically active diolefin (+)-nopadiene and its derivatives; crystal structure of  $\text{C}_5\text{Me}_5\text{Rh}(\text{nopadiene})$  (A. Salzer, H. Schmalke, R. Stauber, S. Streiff), (408) 403

Rhodium trichloride, cyclometallation with 1-phenylpyrazole; X-ray crystal structure of the resulting product (P.J. Steel), (408) 395

Tetrahydrofurfurylcyclopentadiene and its thallium, manganese, and rhodium complexes, synthesis of; low temperature matrix photolysis of the manganese complex (T.E. Bitterwolf, K.A. Lott, A.J. Rest), (408) 137

## Ruthenium

- 1-*para*-Benzoquinonyl-2,3,4,5-tetraphenylcyclopentadienyl ruthenium(II) carbonyl complexes, preparation of (S.B. Colbran, D.C. Craig, W.M. Harrison, A.E. Grimley), (408) C33  
 Ruthenium(II)-alkenyl bonds, formation of alkenedithiocarboxylate and alkenecarboxylate ligands by insertion of CS<sub>2</sub> and CO<sub>2</sub> into (H. Loumrhari, J. Ros, R. Yáñez, M.R. Torres), (408) 233

## Silicon

- Bis(trimethylsilyl)- and bis(trimethylgermyl)carbodiimide, electron diffraction study of the gas-phase structure of (A. Hammel, H.V. Volden, A. Haaland, J. Weidlein, R. Reischmann), (408) 35  
 Eight-membered cyclotrisilazoxanes, rate studies of the acid-catalysed solvolysis of (Z. Lasocki, M. Witkowa), (408) 27  
 Hydrosilylation of the C=C double bond employing homogeneous catalysis with transition metals (R. Skoda-Földes, L. Kollár, B. Heil), (408) 297  
 Lithiumbis(di-tert-butylfluorosilyl)phosphide, a cyclic zwitterion; synthesis and X-ray structure of (U. Klingebiel, M. Meyer, U. Pieper, D. Stalke), (408) 19  
 [(Me<sub>3</sub>SiC<sub>5</sub>H<sub>4</sub>)<sub>3</sub>U]<sub>2</sub>[\mu-O] oxo-bridged bimetallic organouranium complex, synthesis and crystal structure of (J.-C. Berthet, J.-F. Le Maréchal, M. Nierlich, M. Lance, J. Vigner, M. Ephritikhine), (408) 335  
 (Me<sub>3</sub>Si)<sub>3</sub>SiSH, a new radical-based reducing agent (M. Ballestri, C. Chatgilialoglu, G. Seconi), (408) C1  
 Metal-bridging versus chelating Me<sub>2</sub>Si(C<sub>5</sub>H<sub>4</sub>)<sub>2</sub>-ligands in binuclear complexes; crystal structures of non-sublimed [Me<sub>2</sub>Si(C<sub>5</sub>H<sub>4</sub>)<sub>2</sub>Yb(\mu-Br)]<sub>2</sub> and [(C<sub>5</sub>H<sub>5</sub>)<sub>2</sub>Yb(\mu-Cl)]<sub>2</sub> (T. Akhnoukh, J. Müller, K. Qiao, X.-F. Li, R.D. Fischer), (408) 47  
 Silyl-bridged di- to tetranuclear ferrocenes; synthesis, cyclic voltammetry and oxidation of (H. Atzkern, J. Hiermeier, F.H. Köhler, A. Steck), (408) 281  
 Silylenes, their role in the direct synthesis of methylchlorosilanes (M.P. Clarke, I.M.T. Davidson), (408) 149

## Silver

- [{Co<sub>2</sub>(CO)<sub>6</sub>PhC<sub>2</sub>}<sub>2</sub>] acetylene-linked dimeric cluster, synthesis and structural characterisation of (B.F.G. Johnson, J. Lewis, P.R. Raithby, D.A. Wilkinson), (408) C9  
 Group IB metal heteronuclear cluster compounds in the solid state, high-resolution <sup>31</sup>P-<sup>{1}H</sup> nuclear magnetic resonance studies of (S.S.D. Brown, I.D. Salter, D.J. Smith, N.J. Clayden, C.M. Dobson), (408) 439

## Technetium

- LTc(CO)<sub>3</sub> compounds (L = C<sub>5</sub>Me<sub>5</sub>, C<sub>5</sub>Me<sub>4</sub>Et, C<sub>9</sub>H<sub>7</sub>), preparation and characterisation of; crystal structures of (η<sup>5</sup>-C<sub>5</sub>Me<sub>5</sub>)M(CO)<sub>3</sub> (M = Tc, Re), (η<sup>5</sup>-C<sub>5</sub>Me<sub>4</sub>Et)Tc(CO)<sub>3</sub> and (η<sup>5</sup>-C<sub>9</sub>H<sub>7</sub>)Tc(CO)<sub>3</sub> (K. Raptis, E. Dornberger, B. Kanellakopulos, B. Nuber, M.L. Ziegler), (408) 61

## Thallium

- Tetrahydrofurfurylcyclopentadiene and its thallium, manganese, and rhodium complexes, synthesis of; low temperature matrix photolysis of the manganese complex (T.E. Bitterwolf, K.A. Lott, A.J. Rest), (408) 137

## Tin

- Dimethyltin dibenzoate, X-ray crystal structure of (E.R.T. Tiekkink), (408) 323  
 (Ph<sub>3</sub>Sn)<sub>2</sub>Yb(THF)<sub>4</sub>, a compound with an ytterbium–tin bond; synthesis and structure of (M.N. Bochkarev, V.V. Khramenkov, Yu.F. Rad'kov, L.N. Zakharov, Yu.T. Struchkov), (408) 329  
 {[R<sub>2</sub>Sn(O<sub>2</sub>C<sup>t</sup>Bu)]<sub>2</sub>O}<sub>2</sub> (R = Me, Et, <sup>n</sup>Pr and <sup>n</sup>Bu), synthesis and characterisation of; X-ray crystal structures of {[R<sub>2</sub>Sn(O<sub>2</sub>C<sup>t</sup>Bu)]<sub>2</sub>O}<sub>2</sub> (R = Me, Et) (C. Vatsa, V.K. Jain, T. Kesavadas, E.R.T. Tiekkink) (408) 157  
 Triorganytin fluorides, solid-state <sup>119</sup>Sn NMR studies of coordination in (H. Bai, R.K. Harris, H. Reuter), (408) 167

**Tungsten**

$[(\eta^5\text{-C}_5\text{H}_5)(\text{CO})_3\text{M}(\text{HgX})]$  ( $\text{M} = \text{Cr, Mo, W; X} = \text{Cl, Br, I, N}_3, \text{SCN}$ ) complexes, interaction with  $\text{M}'(\text{CO})_3(\text{bipy})$  ( $\text{M}' = \text{Mo, W}$ ) fragments; trimetallic compounds containing  $\text{M}-\text{Hg}-\text{M}'-\text{X}$  arrays (J. Granizo, M.E. Vargas), (408) 357

Iron(II), tungsten(II) and molybdenum(II) ( $\eta^5$ -iodocyclopentadienyl)metallo methyl derivatives, methyl-iodine exchange in the presence of palladium (C. Lo Sterzo) (408) 253

$\text{M}^+[\text{M}'\text{M}''(\text{CO})_4\text{L}]^-$  ( $\text{M}^+ = \text{Na}^+, \text{PPN}^+; \text{M}' = \text{Cr, W; M}'' = \text{Mn, Re; L} = \text{CO, PR}_3$ ), kinetic studies of the cleavage of (Y.K. Park, S.J. Kim, J.H. Kim, I.S. Han, C.H. Lee, H.S. Choi), (408) 193

Trimethylphosphine-substituted  $\eta^2$ -thiocarbene complexes of tungsten, preparation and reactions of (W. Schütt, N. Ullrich, F.R. Kreißl), (408) C5

**Uranium**

$[(\text{Me}_3\text{SiC}_5\text{H}_4)_3\text{U}]_2[\mu\text{-O}]$  oxo-bridged bimetallic organouranium complex, synthesis and crystal structure of (J.-C. Berthet, J.-F. Le Maréchal, M. Nierlich, M. Lance, J. Vigner, M. Ephritikhine), (408) 335

**Vanadium**

$\text{Cp}_2\text{VCl}(\text{AsF}_6)$  and other vanadocene(IV) hexafluoropnictogenate species, synthesis and EPR spectroscopic characterisation of; HF-catalysed oxidation to cationic vanadocenium(V) complexes; structure of  $[\text{Cp}_2\text{VCl}_2]^+[\text{AsF}_6]^-$  (F.H. Görlitz, P.K. Gowik, T.M. Klapötke, D. Wang, R. Meier, J. v. Welzen), (408) 343

**Ytterbium**

Metal-bridging versus chelating  $\text{Me}_2\text{Si}(\text{C}_5\text{H}_4)_2$ -ligands in binuclear complexes; crystal structures of non-sublimed  $[\text{Me}_2\text{Si}(\text{C}_5\text{H}_4)_2\text{Yb}(\mu\text{-Br})]_2$  and  $[(\text{C}_5\text{H}_5)_2\text{Yb}(\mu\text{-Cl})]_2$  (T. Akhnoukh, J. Müller, K. Qiao, X.-F. Li, R.D. Fischer), (408) 47

$(\text{Ph}_3\text{Sn})_2\text{Yb}(\text{THF})_4$ , a compound with an ytterbium–tin bond; synthesis and structure of (M.N. Bochkarev, V.V. Khramenkov, Yu.F. Rad'kov, L.N. Zakharov, Yu.T. Struchkov), (408) 329

**Book reviews**

Directory of graduate research 1989 (C. Eaborn), (408) C22

Gmelin handbook of inorganic chemistry, 8th edition, organotitanium compounds, part 5 (G.J. Leigh), (408) C22