

## Subject Index of Volume 586

- Aldehydes**  
Silylations of  $\alpha,\beta$ -unsaturated and aromatic carbonyl compounds with cobalt carbonyls, 48
- Alkenylcobalt carbonyl**  
Reaction of cobalt tetracarbonyl hydride with phenylacetylene, 41
- Alkenylphosphine**  
Reactivity of  $\text{BH}_3$  and 9-BBN towards palladium(II) complexes of diphenylvinyl- and diphenylallyl-phosphine; X-ray structures of  $[\text{PdCl}_2(\text{PPh}_2\text{CH}_2\text{CH}_2\text{CH}_3)_2]$  and  $[\text{PdCl}_2(\text{PPh}_2\text{CH}_2\text{CH}=\text{CH}_2)_2]$ , 234
- Amidinato**  
 $N,N'$ -Unsubstituted amidinato metallacycle complexes of Group 13 metal alkyls: the crystal structure of trimeric  $[\{\text{Me}_2\text{Al}(\mu\text{-HNCPhNH})\}_3]$ , 138
- Aminoquinoline**  
Chloro(3- or 5-aminoquinoline)rhodium(I) organocomplexes showing  $\text{N}\cdots\text{H}\cdots\text{Cl}$  and  $\text{C}\cdots\text{H}\cdots\text{Rh}$  weak interactions, 150
- Aqueous-phase catalysis**  
Reaction intermediates in the Pd/tppts-catalyzed aqueous phase hydrocarboxylation of olefins monitored by NMR spectroscopy (tppts =  $\text{P}(\text{C}_6\text{H}_4\text{-}m\text{-SO}_3\text{Na})_3$ ), 196
- Aromatic carbonyl compounds**  
Silylations of  $\alpha,\beta$ -unsaturated and aromatic carbonyl compounds with cobalt carbonyls, 48
- Aryl and hetaryl acetylenes**  
Fluoride-ion-mediated reactions of trimethylsilylacetylene with carbonyl compounds and terminal acetylenes, 184
- Aryloxide ligand**  
Synthesis, characterization, and reactivity of titanium(IV) complexes supported by proximally bridged *p*-tert-butyl-calix[4]arene ligands, 223
- Asymmetric reduction**  
Asymmetric induction by amino acid ligands in chromium(II)-assisted reduction of ketones, 106
- Benzylcobalt carbonyls**  
Preparation and molecular structures of benzyl- and phenylacetyl-cobalt carbonyls, 61
- Bidentate ligand**  
Synthesis and crystal structure of a rhodium(III) complex bearing a hypervalent phosphorus(V) ligand as a bidentate ligand and equilibrium between bidentate and monodentate structures in solution, 171
- Bis(cyclopentadienyl) bridged complexes**  
Derivatisierung der Brückenfunktion in homo- und heterodinuclearen  $\mu$ -Bis(cyclopentadienyldiyl)keton-Komplexen: Stereogenes Kohlenstoffatom und Vinyliden als Brücken zwischen zwei Cp-Liganden, 111
- Borabicyclononane**  
Reactivity of  $\text{BH}_3$  and 9-BBN towards palladium(II) complexes of diphenylvinyl- and diphenylallyl-phosphine; X-ray structures of  $[\text{PdCl}_2(\text{PPh}_2\text{CH}_2\text{CH}_2\text{CH}_3)_2]$  and  $[\text{PdCl}_2(\text{PPh}_2\text{CH}_2\text{CH}=\text{CH}_2)_2]$ , 234
- Calix[4]arene ligand**  
Synthesis, characterization, and reactivity of titanium(IV) complexes supported by proximally bridged *p*-tert-butyl-calix[4]arene ligands, 223
- Carbene complexes**  
Influence of the presence of heteroatoms in the olefin chain on the Pauson–Khand reaction with metal (Cr, W) carbene enyne complexes, 247
- Carbohydrate derivatives**  
Synthesis of Rh(I) and Ir(I) metal complexes with the first two chiral dithiolate ligands derived from carbohydrates, 125
- Carbonyl**  
Synthesis and characterization of  $\text{FvW}_2(\text{CO})_4\text{L}_2(\text{SR})_2$  ( $\text{L} = \text{CO}$ ,  $\text{PPh}_2\text{Me}$ ;  $\text{R} = \text{H}$ , *i*-Pr,  $\text{CH}_2\text{Ph}$ , Ph) type (fulvalene)tungsten dihydrosulfides and dithiolates, 31
- Carbonylation**  
Comparative investigation of the regioselectivity in styrene and  $\alpha$ -methylstyrene hydroalkoxycarbonylation as a function of palladium catalyst structure, 85
- Carbonylation reactions**  
Investigation of the reactivity of palladium(0) complexes with nitroso compounds: relevance to the palladium–phenanthroline catalysed carbonylation reactions of nitroarenes, 190
- Carbonyl compounds**  
Fluoride-ion-mediated reactions of trimethylsilylacetylene with carbonyl compounds and terminal acetylenes, 184
- Carboxylate**  
Synthesis, spectroscopic characterisation of 1,1,2,3,4,5-hexahydro-1,1-dicarboxylatotellurophenes and crystal structures of 1,1,2,3,4,5-hexahydro-1,1-di(benzoato)- and 1,1-di(4-nitrobenzoato)tellurophene, 119
- Catalysis**  
Asymmetric hydroformylation of styrene using rhodium and platinum complexes of diphosphites containing atropisomeric backbones and chiral 1,3,2-dioxaphosphorinane moieties, 70  
Comparative investigation of the regioselectivity in styrene and  $\alpha$ -methylstyrene hydroalkoxycarbonylation as a function of palladium catalyst structure, 85
- Chiral dithiolates**  
Synthesis of Rh(I) and Ir(I) metal complexes with the first two chiral dithiolate ligands derived from carbohydrates, 125
- Chirality**  
Asymmetric hydroformylation catalyzed by rhodium(I) complexes of novel chiral spiro ligands, 159
- Chromium**  
Asymmetric induction by amino acid ligands in chromium(II)-assisted reduction of ketones, 106  
The rate and mechanism of oxidative addition of  $\text{H}_2$  to the  $\text{Cr}(\text{CO})_3\text{C}_5\text{Me}_5$  radical—generation of a model for reaction of  $\text{H}_2$  with the  $\text{Co}(\text{CO})_4$  radical, 23
- Chromium**  
Homogeneous transition metal catalysis: from the water gas shift reaction to nuclear waste vitrification, 2

## CIDNP

Reaction of cobalt tetracarbonyl hydride with phenylacetylene, 41

## Cobalt

Derivatisierung der Brückenfunktion in homo- und heterodinuclearen  $\mu$ -Bis(cyclopentadiendiyl)keton-Komplexen: Stereogenes Kohlenstoffatom und Vinyliden als Brücken zwischen zwei Cp-Liganden, 111

Selected reactions of cobalt carbonyl complexes placed under vacuum conditions, 18

Silylations of  $\alpha,\beta$ -unsaturated and aromatic carbonyl compounds with cobalt carbonyls, 48

The rate and mechanism of oxidative addition of  $H_2$  to the  $^1Cr(CO)_3C_5Me_5$  radical—generation of a model for reaction of  $H_2$  with the  $^1Co(CO)_4$  radical, 23

## Cobalt tetracarbonyl hydride

Reaction of cobalt tetracarbonyl hydride with phenylacetylene, 41

## CO-factored force field

Direct calculation of CO-factored force constants from  $^{12}C^{16}O$  stretching frequencies in  $LM(CO)_4$  molecules with  $C_{3v}$  symmetry, 254

## Cyclo-addition

Addition of nitrile oxides to 2,3-dihydrofurylsilanes. Crystal and molecular structure of tetrahydrofuro-[2,3-*d*]-isoxazolylsilanes, 200

## Cyclodimerization

Stereospecific cyclodimerization of 1-methylphosphole 1-oxide: a theoretical study, 166

## DFT molecular orbital calculations

Synthesis of Rh(I) and Ir(I) metal complexes with the first two chiral dithiolate ligands derived from carbohydrates, 125

Diastereomeric  $\eta^3$ -allyl-cobalt complexes

Solution- and solid-state NMR study of intermediate  $\eta^3$ -allyl-cobalt tricarbonyl type complexes in 3-methyl-1,2-butadiene polymerization, 54

## Dienamine formation

Formation of functionalized [3]ferrocenophane derivatives by an enamine condensation reaction, 218

## Diethylsilylium cation

Radiochemical study of the reaction between the diethylsilylium cation and benzene in gas and liquid phases: experimental and theoretical evidence for rearrangements of the diethylsilylium cation, 241

## Dihydrofurylsilanes

Addition of nitrile oxides to 2,3-dihydrofurylsilanes. Crystal and molecular structure of tetrahydrofuro-[2,3-*d*]-isoxazolylsilanes, 200

## Diphosphite

Asymmetric hydroformylation of styrene using rhodium and platinum complexes of diphosphites containing atropisomeric backbones and chiral 1,3,2-dioxaphosphorinane moieties, 70

## Electronic effects

Influence of the presence of heteroatoms in the olefin chain on the Pauson–Khand reaction with metal (Cr, W) carbene enyne complexes, 247

## Enamine condensation reaction

Formation of functionalized [3]ferrocenophane derivatives by an enamine condensation reaction, 218

## Enephosphoramidate

A general synthesis of 2- or 3-alkyl substituted 5-hydroxymethyl- $\delta$ -valerolactones, precursors of 5-formyl- $\delta$ -valerolactones, via lithiated *N*-allyl(bisdimethylamino)-*N*-methylphosphoramidate carbanions, 208

## EPR

Paramagnetic ruthenium(III) *ortho*-metallated complexes. Synthesis, spectroscopic and redox properties, 176

## Equilibrium

Synthesis and crystal structure of a rhodium(III) complex bearing a hypervalent phosphorus(V) ligand as a bidentate ligand and equilibrium between bidentate and monodentate structures in solution, 171

## Ferrocene

Formation of functionalized [3]ferrocenophane derivatives by an enamine condensation reaction, 218

## [3]Ferrocenophane synthesis

Formation of functionalized [3]ferrocenophane derivatives by an enamine condensation reaction, 218

## Fluoride ion

Fluoride-ion-mediated reactions of trimethylsilylacetylene with carbonyl compounds and terminal acetylenes, 184

## Fluxionality

Chloro(3- or 5-aminoquinoline)rhodium(I) organocomplexes showing  $N-H\cdots Cl$  and  $C-H\cdots Rh$  weak interactions, 150

## Force constants

Direct calculation of CO-factored force constants from  $^{12}C^{16}O$  stretching frequencies in  $LM(CO)_4$  molecules with  $C_{3v}$  symmetry, 254

## Free-radical reaction

Reaction of cobalt tetracarbonyl hydride with phenylacetylene, 41

## Free radicals

The rate and mechanism of oxidative addition of  $H_2$  to the  $^1Cr(CO)_3C_5Me_5$  radical—generation of a model for reaction of  $H_2$  with the  $^1Co(CO)_4$  radical, 23

## Fulvalene

Synthesis and characterization of  $FvW_2(CO)_4L_2(SR)_2$  ( $L = CO$ ,  $PPh_2Me$ ;  $R = H, i-Pr, CH_2Ph, Ph$ ) type (fulvalene)tungsten dihydrosulfides and dithiolates, 31

## Grignard reaction

Reactions of partially solvated Grignard reagents with a ketone, 145

## Grignard reagents

Reactions of partially solvated Grignard reagents with a ketone, 145

## Group 13

*N,N'*-Unsubstituted amidinato metallacycle complexes of Group 13 metal alkyls: the crystal structure of trimeric  $\{[Me_2Al(\mu-HNCPH)NH]\}_3$ , 138

## Group 8

An unusual norbornadiene coupling product: synthesis, characterization, and structure of the ruthenocene ( $C_5Me_5$ ) $Ru(\eta^5-C_5H_4C_9H_{11})$ , 258

## Heterodinuclear complexes

Derivatisierung der Brückenfunktion in homo- und heterodinuclearen  $\mu$ -Bis(cyclopentadiendiyl)keton-Komplexen: Stereogenes Kohlenstoffatom und Vinyliden als Brücken zwischen zwei Cp-Liganden, 111

## Homodinuclear complexes

Derivatisierung der Brückenfunktion in homo- und heterodinuclearen  $\mu$ -Bis(cyclopentadiendiyl)keton-Komplexen: Stereogenes Kohlenstoffatom und Vinyliden als Brücken zwischen zwei Cp-Liganden, 111

## Homogeneous catalysis

Homogeneous catalytic hydroaminomethylation of steroids with aminoalcohols, 101

*N*-Heterocyclic carbenes: application of ruthenium–alkylidene complexes in ring-opening metathesis polymerization, 263

## Homogenous catalysis

Homogeneous transition metal catalysis: from the water gas shift reaction to nuclear waste vitrification, 2

## Hydroboration

Reactivity of  $BH_3$  and 9-BBN towards palladium(II) complexes of diphenylvinyl- and diphenylallyl-phosphine; X-ray structures of  $[PdCl_2(PPh_2CH_2CH_2CH_3)]_2$  and  $[PdCl_2(PPh_2CH_2CH=CH_2)]_2$ , 234

## Hydrocarboxylation

Reaction intermediates in the Pd/tppts-catalyzed aqueous phase hydrocarboxylation of olefins monitored by NMR spectroscopy (tppts =  $P(C_6H_4\text{-}m\text{-}SO_3Na)_3$ ), 196

## Hydroformylation

Asymmetric hydroformylation catalyzed by rhodium(I) complexes of novel chiral spiro ligands, 159

Asymmetric hydroformylation of styrene using rhodium and platinum complexes of diphosphites containing atropisomeric backbones and chiral 1,3,2-dioxaphosphorinane moieties, 70

Coordination chemistry and hydroformylation activity of platinum complexes containing 1-aryl-phospholes, 79

Reaction of cobalt tetracarbonyl hydride with phenylacetylene, 41

## Hydroformylation–aminomethylation

Homogeneous catalytic hydroaminomethylation of steroids with aminoalcohols, 101

## Hydrogen

The rate and mechanism of oxidative addition of  $H_2$  to the  $Cr(CO)_3C_5Me_5$  radical—generation of a model for reaction of  $H_2$  with the  $Co(CO)_4$  radical, 23

## Hydrogenation

Homogeneous transition metal catalysis: from the water gas shift reaction to nuclear waste vitrification, 2

## Hydrogen bonding

Chloro(3- or 5-aminoquinoline)rhodium(I) organocomplexes showing N–H $\cdots$ Cl and C–H $\cdots$ Rh weak interactions, 150

## Hydrosulfide

Synthesis and characterization of  $FvW_2(CO)_4L_2(SR)_2$  (L = CO,  $PPh_2Me$ ; R = H, *i*-Pr,  $CH_2Ph$ , Ph) type (fulvalene)tungsten dihydrosulfides and dithiolates, 31

## Hypervalent phosphorus ligand

Synthesis and crystal structure of a rhodium(III) complex bearing a hypervalent phosphorus(V) ligand as a bidentate ligand and equilibrium between bidentate and monodentate structures in solution, 171

## Infrared spectra

Direct calculation of CO-factored force constants from  $^{12}C^{16}O$  stretching frequencies in  $LM(CO)_4$  molecules with  $C_{3v}$  symmetry, 254

## Iodo-alkene

Homogeneous coupling and carbonylation reactions of steroids possessing iodoalkene moieties. Catalytic and mechanistic aspects, 94

## Iridium(I)

Synthesis of Rh(I) and Ir(I) metal complexes with the first two chiral dithiolate ligands derived from carbohydrates, 125

## Iron

Derivatisierung der Brückenfunktion in homo- und heterodinuclearen  $\mu$ -Bis(cyclopentadiendiyl)keton-Komplexen: Stereogenes Kohlenstoffatom und Vinyliden als Brücken zwischen zwei Cp-Liganden, 111

Homogeneous transition metal catalysis: from the water gas shift reaction to nuclear waste vitrification, 2

## Isomerism

Synthesis and characterization of  $FvW_2(CO)_4L_2(SR)_2$  (L = CO,  $PPh_2Me$ ; R = H, *i*-Pr,  $CH_2Ph$ , Ph) type (fulvalene)tungsten dihydrosulfides and dithiolates, 31

## Ketones

Asymmetric induction by amino acid ligands in chromium(II)-assisted reduction of ketones, 106

Silylations of  $\alpha,\beta$ -unsaturated and aromatic carbonyl compounds with cobalt carbonyls, 48

## Lithium reagents

A general synthesis of 2- or 3-alkyl substituted 5-hydroxymethyl- $\delta$ -valerolactones, precursors of 5-formyl- $\delta$ -valerolactones, via lithiated *N*-allyl(bisdimethylamino)-*N*-methylphosphoramidate carbanions, 208

## Mechanism

Comparative investigation of the regioselectivity in styrene and  $\alpha$ -methylstyrene hydroalkoxycarbonylation as a function of palladium catalyst structure, 85

## Metal carbonyls

Selected reactions of cobalt carbonyl complexes placed under vacuum conditions, 18

## Metallacycle

*N,N'*-Unsubstituted amidinato metallacycle complexes of Group 13 metal alkyls: the crystal structure of trimeric  $\{[Me_2Al(\mu-HNCPH)NH]\}_3$ , 138

## Metal–metal bond

Derivatisierung der Brückenfunktion in homo- und heterodinuclearen  $\mu$ -Bis(cyclopentadiendiyl)keton-Komplexen: Stereogenes Kohlenstoffatom und Vinyliden als Brücken zwischen zwei Cp-Liganden, 111

## Molecular structures

Preparation and molecular structures of benzyl- and phenylacetyl-cobalt carbonyls, 61

## Molybdenum

Homogeneous transition metal catalysis: from the water gas shift reaction to nuclear waste vitrification, 2

*N*-Heterocyclic carbene

*N*-Heterocyclic carbenes: application of ruthenium–alkylidene complexes in ring-opening metathesis polymerization, 263

## Nitrile oxides

Addition of nitrile oxides to 2,3-dihydrofurylsilanes. Crystal and molecular structure of tetrahydrofuro-[2,3-*d*]-isoxazolyli-silanes, 200

## Nitroarenes

Investigation of the reactivity of palladium(0) complexes with nitroso compounds: relevance to the palladium–phenanthroline catalysed carbonylation reactions of nitroarenes, 190

## NMR

Coordination chemistry and hydroformylation activity of platinum complexes containing 1-aryl-phospholes, 79

## Norbornadiene

An unusual norbornadiene coupling product: synthesis, characterization, and structure of the ruthenocene ( $C_5Me_5$ )Ru( $\eta^5-C_5H_4C_9H_{11}$ ), 258

## Nozaki–Hiyama–Kishi reaction

Asymmetric induction by amino acid ligands in chromium(II)-assisted reduction of ketones, 106

## Nuclear waste treatment

Homogeneous transition metal catalysis: from the water gas shift reaction to nuclear waste vitrification, 2

2,3-*O*-Isopropylidene glycerol

A general synthesis of 2- or 3-alkyl substituted 5-hydroxymethyl- $\delta$ -valerolactones, precursors of 5-formyl- $\delta$ -valerolactones, via lithiated *N*-allyl(bisdimethylamino)-*N*-methylphosphoramidate carbanions, 208

## Olefin metathesis

*N*-Heterocyclic carbenes: application of ruthenium–alkylidene complexes in ring-opening metathesis polymerization, 263

## Olefin polymerization

Synthesis, characterization, and reactivity of titanium(IV) complexes supported by proximally bridged *p*-*tert*-butyl-calix[4]arene ligands, 223

**Ortho-metallation**

Paramagnetic ruthenium(III) *ortho*-metallated complexes. Synthesis, spectroscopic and redox properties, 176

**Oxidative addition**

Homogeneous coupling and carbonylation reactions of steroids possessing iodoalkene moieties. Catalytic and mechanistic aspects, 94

The rate and mechanism of oxidative addition of H<sub>2</sub> to the <sup>1</sup>Cr(CO)<sub>3</sub>C<sub>5</sub>Me<sub>5</sub> radical—generation of a model for reaction of H<sub>2</sub> with the <sup>1</sup>Co(CO)<sub>4</sub> radical, 23

**Palladium**

Comparative investigation of the regioselectivity in styrene and  $\alpha$ -methylstyrene hydroalkoxycarbonylation as a function of palladium catalyst structure, 85

Homogeneous coupling and carbonylation reactions of steroids possessing iodoalkene moieties. Catalytic and mechanistic aspects, 94

Investigation of the reactivity of palladium(0) complexes with nitroso compounds: relevance to the palladium–phenanthroline catalysed carbonylation reactions of nitroarenes, 190

Reaction intermediates in the Pd/tppts-catalyzed aqueous phase hydrocarboxylation of olefins monitored by NMR spectroscopy (tppts = P(C<sub>6</sub>H<sub>4</sub>-*m*-SO<sub>3</sub>Na)<sub>3</sub>), 196

**Palladium(II)**

Reactivity of BH<sub>3</sub> and 9-BBN towards palladium(II) complexes of diphenylvinyl- and diphenylallyl-phosphine; X-ray structures of [PdCl<sub>2</sub>(PPh<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>CH<sub>3</sub>)<sub>2</sub>] and [PdCl<sub>2</sub>(PPh<sub>2</sub>CH<sub>2</sub>-CH=CH<sub>2</sub>)<sub>2</sub>], 234

**Paramagnetic**

Paramagnetic ruthenium(III) *ortho*-metallated complexes. Synthesis, spectroscopic and redox properties, 176

**Pauson–Khand cycloadditions**

Influence of the presence of heteroatoms in the olefin chain on the Pauson–Khand reaction with metal (Cr, W) carbene enyne complexes, 247

**Phenanthroline**

Investigation of the reactivity of palladium(0) complexes with nitroso compounds: relevance to the palladium–phenanthroline catalysed carbonylation reactions of nitroarenes, 190

**Phenylacetylcobalt carbonyls**

Preparation and molecular structures of benzyl- and phenylacetylcobalt carbonyls, 61

**Phenylacetylene**

Reaction of cobalt tetracarbonyl hydride with phenylacetylene, 41

**Phosphine**

Homogeneous coupling and carbonylation reactions of steroids possessing iodoalkene moieties. Catalytic and mechanistic aspects, 94

Synthesis and characterization of FvW<sub>2</sub>(CO)<sub>4</sub>L<sub>2</sub>(SR)<sub>2</sub> (L = CO, PPh<sub>2</sub>Me; R = H, *i*-Pr, CH<sub>2</sub>Ph, Ph) type (fulvalene)tungsten dihydrosulfides and dithiolates, 31

**Phosphine–borane**

Reactivity of BH<sub>3</sub> and 9-BBN towards palladium(II) complexes of diphenylvinyl- and diphenylallyl-phosphine; X-ray structures of [PdCl<sub>2</sub>(PPh<sub>2</sub>CH<sub>2</sub>CH<sub>2</sub>CH<sub>3</sub>)<sub>2</sub>] and [PdCl<sub>2</sub>(PPh<sub>2</sub>CH<sub>2</sub>-CH=CH<sub>2</sub>)<sub>2</sub>], 234

**Phosphole**

Coordination chemistry and hydroformylation activity of platinum complexes containing 1-aryl-phospholes, 79

**Phosphole oxide**

Stereospecific cyclodimerization of 1-methylphosphole 1-oxide: a theoretical study, 166

**Platinum**

Asymmetric hydroformylation of styrene using rhodium and platinum complexes of diphosphites containing atropisomeric backbones and chiral 1,3,2-dioxaphosphorinane moieties, 70

Coordination chemistry and hydroformylation activity of platinum complexes containing 1-aryl-phospholes, 79

**Radiochemical**

Radiochemical study of the reaction between the diethylsilylium cation and benzene in gas and liquid phases: experimental and theoretical evidence for rearrangements of the diethylsilylium cation, 241

**Rearrangements**

Radiochemical study of the reaction between the diethylsilylium cation and benzene in gas and liquid phases: experimental and theoretical evidence for rearrangements of the diethylsilylium cation, 241

**Rhodium**

Asymmetric hydroformylation of styrene using rhodium and platinum complexes of diphosphites containing atropisomeric backbones and chiral 1,3,2-dioxaphosphorinane moieties, 70

Chloro(3- or 5-aminoquinoline)rhodium(I) organocomplexes showing N–H···Cl and C–H···Rh weak interactions, 150

Homogeneous transition metal catalysis: from the water gas shift reaction to nuclear waste vitrification, 2

**Rhodium catalyst**

Homogeneous catalytic hydroaminomethylation of steroids with aminoalcohols, 101

**Rhodium complex**

Synthesis and crystal structure of a rhodium(III) complex bearing a hypervalent phosphorus(V) ligand as a bidentate ligand and equilibrium between bidentate and monodentate structures in solution, 171

**Rhodium(I)**

Synthesis of Rh(I) and Ir(I) metal complexes with the first two chiral dithiolate ligands derived from carbohydrates, 125

**Ring-opening metathesis polymerization**

An unusual norbornadiene coupling product: synthesis, characterization, and structure of the ruthenocene (C<sub>5</sub>Me<sub>5</sub>)Ru( $\eta^5$ -C<sub>5</sub>H<sub>4</sub>C<sub>9</sub>H<sub>11</sub>), 258

*N*-Heterocyclic carbenes: application of ruthenium–alkylidene complexes in ring-opening metathesis polymerization, 263

**Ruthenium**

An unusual norbornadiene coupling product: synthesis, characterization, and structure of the ruthenocene (C<sub>5</sub>Me<sub>5</sub>)Ru( $\eta^5$ -C<sub>5</sub>H<sub>4</sub>C<sub>9</sub>H<sub>11</sub>), 258

Derivatisierung der Brückenfunktion in homo- und heterodinuclearen  $\mu$ -Bis(cyclopentadiendiyl)keton-Komplexen: Stereogenes Kohlenstoffatom und Vinyliden als Brücken zwischen zwei Cp-Liganden, 111

*N*-Heterocyclic carbenes: application of ruthenium–alkylidene complexes in ring-opening metathesis polymerization, 263

**Ruthenocene**

An unusual norbornadiene coupling product: synthesis, characterization, and structure of the ruthenocene (C<sub>5</sub>Me<sub>5</sub>)Ru( $\eta^5$ -C<sub>5</sub>H<sub>4</sub>C<sub>9</sub>H<sub>11</sub>), 258

**Ruthenium(III)**

Paramagnetic ruthenium(III) *ortho*-metallated complexes. Synthesis, spectroscopic and redox properties, 176

**Schiff base**

Paramagnetic ruthenium(III) *ortho*-metallated complexes. Synthesis, spectroscopic and redox properties, 176

**Secondary bonds**

Synthesis, spectroscopic characterisation of 1,1,2,3,4,5-hexahydro-1,1-dicarboxylatotellurophenes and crystal structures of 1,1,2,3,4,5-hexahydro-1,1-di(benzoato)- and 1,1-di(4-nitrobenzoato)tellurophene, 119

- Semiempirical and ab initio calculations  
Stereospecific cyclodimerization of 1-methylphosphole 1-oxide: a theoretical study, 166
- Silanes  
Addition of nitrile oxides to 2,3-dihydrofurylsilanes. Crystal and molecular structure of tetrahydrofuro-[2,3-*d*]-isoxazolylsilanes, 200
- Silicon  
Silylations of  $\alpha,\beta$ -unsaturated and aromatic carbonyl compounds with cobalt carbonyls, 48
- Silylation  
Silylations of  $\alpha,\beta$ -unsaturated and aromatic carbonyl compounds with cobalt carbonyls, 48
- Solution- and solid-state NMR  
Solution- and solid-state NMR study of intermediate  $\eta^3$ -allyl-cobalt tricarbonyl type complexes in 3-methyl-1,2-butadiene polymerization, 54
- Solvation effects  
Reactions of partially solvated Grignard reagents with a ketone, 145
- Spiro ligands  
Asymmetric hydroformylation catalyzed by rhodium(I) complexes of novel chiral spiro ligands, 159
- Stereospecificity  
Stereospecific cyclodimerization of 1-methylphosphole 1-oxide: a theoretical study, 166
- Steric congestion  
Coordination chemistry and hydroformylation activity of platinum complexes containing 1-aryl-phospholes, 79
- Steric effects  
Influence of the presence of heteroatoms in the olefin chain on the Pauson–Khand reaction with metal (Cr, W) carbene enyne complexes, 247
- Steroid  
Homogeneous catalytic hydroaminomethylation of steroids with aminoalcohols, 101
- Steroids  
Homogeneous coupling and carbonylation reactions of steroids possessing iodoalkene moieties. Catalytic and mechanistic aspects, 94
- Structure  
*N,N'*-Unsubstituted amidinato metallacycle complexes of Group 13 metal alkyls: the crystal structure of trimeric  $\{[Me_2Al(\mu-HNCPH_2NH)]_3\}$ , 138
- Styrene  
Reaction of cobalt tetracarbonyl hydride with phenylacetylene, 41
- Substitution  
Synthesis and characterization of  $FvW_2(CO)_4L_2(SR)_2$  (L = CO,  $PPh_2Me$ ; R = H, *i*-Pr,  $CH_2Ph$ , Ph) type (fulvalene)tungsten dihydrosulfides and dithiolates, 31
- Tellurium  
Synthesis, spectroscopic characterisation of 1,1,2,3,4,5-hexahydro-1,1-dicarboxylatellurophenes and crystal structures of 1,1,2,3,4,5-hexahydro-1,1-di(benzoato)- and 1,1-di(4-nitrobenzoato)tellurophene, 119
- Tetracarbonyls  
Direct calculation of CO-factored force constants from  $^{12}C^{16}O$  stretching frequencies in  $LM(CO)_4$  molecules with  $C_{3v}$  symmetry, 254
- Thiolate  
Synthesis and characterization of  $FvW_2(CO)_4L_2(SR)_2$  (L = CO,  $PPh_2Me$ ; R = H, *i*-Pr,  $CH_2Ph$ , Ph) type (fulvalene)tungsten dihydrosulfides and dithiolates, 31
- Thioxanthate  
Synthesis and characterization of  $FvW_2(CO)_4L_2(SR)_2$  (L = CO,  $PPh_2Me$ ; R = H, *i*-Pr,  $CH_2Ph$ , Ph) type (fulvalene)tungsten dihydrosulfides and dithiolates, 31
- Titanium(IV)  
Synthesis, characterization, and reactivity of titanium(IV) complexes supported by proximally bridged *p*-*tert*-butylcalix[4]arene ligands, 223
- tppts  
Reaction intermediates in the Pd/tppts-catalyzed aqueous phase hydrocarboxylation of olefins monitored by NMR spectroscopy (tppts =  $P(C_6H_4\text{-}m\text{-}SO_3Na)_3$ ), 196
- Trimer  
*N,N'*-Unsubstituted amidinato metallacycle complexes of Group 13 metal alkyls: the crystal structure of trimeric  $\{[Me_2Al(\mu-HNCPH_2NH)]_3\}$ , 138
- Trimethylsilylacetylene  
Fluoride-ion-mediated reactions of trimethylsilylacetylene with carbonyl compounds and terminal acetylenes, 184
- Tungsten  
Derivatisierung der Brückenfunktion in homo- und heterodinuclearen  $\mu$ -Bis(cyclopentadiendiyl)keton-Komplexen: Stereogenes Kohlenstoffatom und Vinyliden als Brücken zwischen zwei Cp-Liganden, 111  
Homogeneous transition metal catalysis: from the water gas shift reaction to nuclear waste vitrification, 2  
Synthesis and characterization of  $FvW_2(CO)_4L_2(SR)_2$  (L = CO,  $PPh_2Me$ ; R = H, *i*-Pr,  $CH_2Ph$ , Ph) type (fulvalene)tungsten dihydrosulfides and dithiolates, 31
- Vacuum conditions  
Selected reactions of cobalt carbonyl complexes placed under vacuum conditions, 18
- $\delta$ -Valerolactone  
A general synthesis of 2- or 3-alkyl substituted 5-hydroxymethyl- $\delta$ -valerolactones, precursors of 5-formyl- $\delta$ -valerolactones, via lithiated *N*-allyl(bisdimethylamino)-*N*-methylphosphoramidate carbanions, 208
- Water gas shift reaction  
Homogeneous transition metal catalysis: from the water gas shift reaction to nuclear waste vitrification, 2
- X-ray structure  
Asymmetric hydroformylation catalyzed by rhodium(I) complexes of novel chiral spiro ligands, 159  
Investigation of the reactivity of palladium(0) complexes with nitroso compounds: relevance to the palladium-phenanthroline catalysed carbonylation reactions of nitroarenes, 190