



Subject Index of Volume 497

Addition to aldehydes

Addition of a sterically hindered, chiral crotyl *ansa*-titanocene complex to aldehydes (B.A. Kuntz, R. Ramachandran, N.J. Taylor, J. Guan and S. Collins), 133

Alkylation

Alkylation and reductive dimerization of half-sandwich imido vanadium dichlorides (J.-K.F. Buijink, A. Meetsma, J.H. Teuben, H. Kooijman and A.L. Spek), 161

Amide

First amido-functionalized *ansa*-molybdenocene-type complexes (W.A. Herrmann, W. Baratta and M.J.A. Morawietz), C4

Amino-functionalized cyclopentadienyl

First amido-functionalized *ansa*-molybdenocene-type complexes (W.A. Herrmann, W. Baratta and M.J.A. Morawietz), C4

Ansa-metallocene

Application of the double Pauson–Khand cyclization to the synthesis of bis(cyclopentadienes): preparation of phenyl-bridged bis(tetrahydroindenyl)titanium and zirconium dichlorides (R.L. Halterman, T.M. Ramsey, N.A. Pailes and M.A. Khan), 43

Ansa-metallocenes

Monitoring the electronic features of rigid C₁-bridged Group 4 ansa-metallocenes by using the dynamic and structural properties of their s-*cis*-η⁴-butadiene complexes (T. Bürgi, H. Berke, D. Wing-bermühle, C. Psiorz, R. Noe, T. Fox, M. Knickmeier, M. Berlekamp, R. Fröhlich and G. Erker), 149

Base-free cation NMR spectroscopy

Synthesis of bis(*tert*-butyl)cyclopentadienyl derivatives of titanium and zirconium. NMR spectra and dynamic behaviour of the base-free [Zr(1,3-¹Bu₂-η⁵-C₅H₃)(CH₂Ph)₂]⁺ cation (J.I. Amor, T. Cuenca, M. Galakhov and P. Royo), 127

Boron

Polymerization of norbornene and 1,5-hexadiene by [Cp^{*}TiMe₂]-[MeB(C₆F₅)₃] (D. Jeremic, Q. Wang, R. Quyoun and M.C. Baird), 143

(Butadiene)metallocene complexes

Monitoring the electronic features of rigid C₁-bridged Group 4 ansa-metallocenes by using the dynamic and structural properties of their s-*cis*-η⁴-butadiene complexes (T. Bürgi, H. Berke, D. Wing-bermühle, C. Psiorz, R. Noe, T. Fox, M. Knickmeier, M. Berlekamp, R. Fröhlich and G. Erker), 149

Carbon monoxide

Copolymerization of cyclopentene and carbon monoxide with palladium catalysts (E. Amevor, R. Bürl and G. Consiglio), 81

Catalysis

Easy formation of titanocene hydride–magnesium complexes in the (C₅H_{5-n}Me_n)₂TiCl₂ (*n* = 3–5)–dibutylmagnesium systems (R. Gyepes, K. Mach, I. Císařová, J. Loub, J. Hiller and P. Šindelář), 33

Chiral

Application of the double Pauson–Khand cyclization to the synthesis of bis(cyclopentadienes): preparation of phenyl-bridged bis(tetrahydroindenyl)titanium and zirconium dichlorides (R.L. Halterman, T.M. Ramsey, N.A. Pailes and M.A. Khan), 43

Chirality

Synthesis of chiral and C₂-symmetric iron(II) and cobalt(II) complexes bearing a new tetradentate amine ligand system (B. Rieger, A.S. Abu-Surrah, R. Fawzi and M. Steiman), 73

Chiral titanocene

Preparation and X-ray structure of a novel chiral methylene bridged titanocene complex (C.A. Willoughby, W.M. Davis and S.L. Buchwald), 11

Cobalt

Synthesis of chiral and C₂-symmetric iron(II) and cobalt(II) complexes bearing a new tetradentate amine ligand system (B. Rieger, A.S. Abu-Surrah, R. Fawzi and M. Steiman), 73

Copolymerization

Copolymerization of cyclopentene and carbon monoxide with palladium catalysts (E. Amevor, R. Bürl and G. Consiglio), 81

Crystal structure

Easy formation of titanocene hydride–magnesium complexes in the (C₅H_{5-n}Me_n)₂TiCl₂ (*n* = 3–5)–dibutylmagnesium systems (R. Gyepes, K. Mach, I. Císařová, J. Loub, J. Hiller and P. Šindelář), 33

Preparation and crystal structures of the complexes (η⁵-C₅H₃Me-CMe₂-η⁵-C₁₃H₈)MCl₂ (M = Zr or Hf): mechanistic aspects of the catalytic formation of a syndiotactic–isotactic stereoblock-type polypropylene (A. Razavi and J.L. Atwood), 105

Cyclopentadienyl

Synthesis of bis(*tert*-butyl)cyclopentadienyl derivatives of titanium and zirconium. NMR spectra and dynamic behaviour of the base-free [Zr(1,3-¹Bu₂-η⁵-C₅H₃)(CH₂Ph)₂]⁺ cation (J.I. Amor, T. Cuenca, M. Galakhov and P. Royo), 127

Cyclopentene

Copolymerization of cyclopentene and carbon monoxide with palladium catalysts (E. Amevor, R. Bürl and G. Consiglio), 81

Density functional study

A density functional study on the insertion mechanism and chain termination in Kaminsky-type catalysts; comparison of frontside and backside attack (J.C.W. Lohrenz, T.K. Woo, L. Fan and T. Ziegler), 91

Diisopropylamide ligands

Structural studies of monocyclopentadienyl titanium and zirconium complexes containing a diisopropylamide ligand. Evidence of a β-agostic interaction in (C₅H₅)M[N(ⁱC₃H₇)₂] (R.M. Pupi, J.N. Coalter and J.L. Petersen), 17

Dynamic behaviour

Monitoring the electronic features of rigid C₁-bridged Group 4 ansa-metallocenes by using the dynamic and structural properties of their s-cis- η^4 -butadiene complexes (T. Bürgi, H. Berke, D. Wingbermühle, C. Psiorz, R. Noe, T. Fox, M. Knickmeier, M. Berlekamp, R. Fröhlich and G. Erker), 149

Early transition metals

A density functional study on the insertion mechanism and chain termination in Kaminsky-type catalysts; comparison of frontside and backside attack (J.C.W. Lohrenz, T.K. Woo, L. Fan and T. Ziegler), 91

EHT calculations

Monitoring the electronic features of rigid C₁-bridged Group 4 ansa-metallocenes by using the dynamic and structural properties of their s-cis- η^4 -butadiene complexes (T. Bürgi, H. Berke, D. Wingbermühle, C. Psiorz, R. Noe, T. Fox, M. Knickmeier, M. Berlekamp, R. Fröhlich and G. Erker), 149

Electrochemistry

Synthesis, structure and electrochemistry of the first fulvalene derivative of an actinide (P. Scott and P.B. Hitchcock), C1

Fluorenyl ligands

Silylene-bridged fluorenyl-containing ligands and zirconium complexes with C₁ and C_s symmetry: general synthesis and olefin polymerization catalysis (Y.-X. Chen, M.D. Rausch and J.C.W. Chien), 1

Fluxionality

Monitoring the electronic features of rigid C₁-bridged Group 4 ansa-metallocenes by using the dynamic and structural properties of their s-cis- η^4 -butadiene complexes (T. Bürgi, H. Berke, D. Wingbermühle, C. Psiorz, R. Noe, T. Fox, M. Knickmeier, M. Berlekamp, R. Fröhlich and G. Erker), 149

Group IV metal alkyl complexes

Cationic group IV metal alkyl complexes and their role as olefin polymerization catalysts: The formation of ethyl-bridged dinuclear and heterodinuclear zirconium and hafnium complexes (M. Bochmann and S.J. Lancaster), 55

Hafnium

Cationic group IV metal alkyl complexes and their role as olefin polymerization catalysts: The formation of ethyl-bridged dinuclear and heterodinuclear zirconium and hafnium complexes (M. Bochmann and S.J. Lancaster), 55

Preparation and crystal structures of the complexes (η^5 -C₅H₃Me-CMe₂- η^5 -C₁₂H₈)₂MCl₂ (M = Zr or Hf): mechanistic aspects of the catalytic formation of a syndiotactic-isotactic stereoblock-type polypropylene (A. Razavi and J.L. Atwood), 105

Stereochemical nonrigidity in metallocenium ions (A.R. Siedle and R.A. Newmark), 119

Half-sandwich complexes

Alkylation and reductive dimerization of half-sandwich imido vanadium dichlorides (J.-K.F. Buijink, A. Meetsma, J.H. Teuben, H. Kooijman and A.L. Spek), 161

1,5-hexadiene polymerization

Polymerization of norbornene and 1,5-hexadiene by [Cp^{*}TiMe₂]-[MeB(C₆F₅)₂] (D. Jeremic, Q. Wang, R. Quyoun and M.C. Baird), 143

Homogeneous Ziegler–Natta catalysis

Crystal structure and propene polymerization characteristics of bridged zirconocene catalysts (W. Kaminsky, O. Rabe, A.-M.

Schauwienold, G.U. Schupfner, J. Hanss and J. Kopf), 181

Hydride

Easy formation of titanocene hydride–magnesium complexes in the (C₅H₅-_nMe_n)₂TiCl₂ (*n* = 3–5)–dibutylmagnesium systems (R. Gyepes, K. Mach, I. Císařová, J. Loub, J. Hiller and P. Šindelář), 33

Imido complexes

Alkylation and reductive dimerization of half-sandwich imido vanadium dichlorides (J.-K.F. Buijink, A. Meetsma, J.H. Teuben, H. Kooijman and A.L. Spek), 161

Insertion reactions

Insertion reactions of electrophilic iron carbene complexes with organosilanes: a synthetic and mechanistic study (E. Scharrer and M. Brookhart), 61

Iron

Insertion reactions of electrophilic iron carbene complexes with organosilanes: a synthetic and mechanistic study (E. Scharrer and M. Brookhart), 61

Synthesis of chiral and C₂-symmetric iron(II) and cobalt(II) complexes bearing a new tetradentate amine ligand system (B. Rieger, A.S. Abu-Surrah, R. Fawzi and M. Steiman), 73

Synthesis, structure and electrochemistry of the first fulvalene derivative of an actinide (P. Scott and P.B. Hitchcock), C1

Iron carbene complexes

Insertion reactions of electrophilic iron carbene complexes with organosilanes: a synthetic and mechanistic study (E. Scharrer and M. Brookhart), 61

Isomerization

Growing chain isomerizations in metallocene-catalyzed Ziegler–Natta 1-alkene polymerization (V. Busico and R. Cipullo), 113

Kaminsky-type catalysts

A density functional study on the insertion mechanism and chain termination in Kaminsky-type catalysts; comparison of frontside and backside attack (J.C.W. Lohrenz, T.K. Woo, L. Fan and T. Ziegler), 91

Magnesium

Easy formation of titanocene hydride–magnesium complexes in the (C₅H₅-_nMe_n)₂TiCl₂ (*n* = 3–5)–dibutylmagnesium systems (R. Gyepes, K. Mach, I. Císařová, J. Loub, J. Hiller and P. Šindelář), 33

Mechanistic studies

Mechanistische Untersuchungen der Propenpolymerisation mit dem katalytischen System [2,4-Cyclopentadien-1-yliden(methylethyliden)]H-inden-1-yliden]zirkoniumdichlorid–Methylaluminoxan (P. Montag, Y. V.d. Leek, K. Angermund und G. Fink), 201

Mechanistic study

A density functional study on the insertion mechanism and chain termination in Kaminsky-type catalysts; comparison of frontside and backside attack (J.C.W. Lohrenz, T.K. Woo, L. Fan and T. Ziegler), 91

rac-ansa Metallocenes

C₂-symmetric ansa metallocenes of titanium and zirconium with a ligand system that yields pure rac isomer: preparation and crystal structures of rac-[(η^5 -C₅H₂-2-SiMe₃-4-CMe₃)₂SiMe₂)MCl₂ (M = Ti or Zr) (S.T. Chacon, E.B. Coughlin, L.M. Henling and J.E. Bercaw), 171

Metallocenium ions

Stereochemical nonrigidity in metallocenium ions (A.R. Siedle and R.A. Newmark), 119

Methylaluminoxane

The influence of methylaluminoxane concentration on propene polymerization with homogeneous metallocene-based Ziegler–Natta catalysts (S. Jüngling and R. Mülhaupt), 27

Molecular mechanics calculations

Crystal structure and propene polymerization characteristics of bridged zirconocene catalysts (W. Kaminsky, O. Rabe, A.-M. Schauwienold, G.U. Schupfner, J. Hanss and J. Kopf), 181

Molybdenum

First amido-functionalized *ansa*-molybdenocene-type complexes (W.A. Herrmann, W. Baratta and M.J.A. Morawietz), C4

NMR spectroscopy

Preparation and crystal structures of the complexes ($\eta^5\text{-C}_5\text{H}_3\text{Me-CMe}_2\text{-}\eta^5\text{-C}_{13}\text{H}_8\text{)}\text{MCl}_2$ (M = Zr or Hf): mechanistic aspects of the catalytic formation of a syndiotactic–isotactic stereoblock-type polypropylene (A. Razavi and J.L. Atwood), 105

Norbornene polymerization

Polymerization of norbornene and 1,5-hexadiene by [$\text{Cp}^*\text{TiMe}_2\text{-[MeB(C}_6\text{F}_5)_3]$] (D. Jeremic, Q. Wang, R. Quyoun and M.C. Baird), 143

Olefin

Silylene-bridged fluorenyl-containing ligands and zirconium complexes with C_1 and C_s symmetry: general synthesis and olefin polymerization catalysis (Y.-X. Chen, M.D. Rausch and J.C.W. Chien), 1

Olefin metathesis catalyst

The syntheses and activities of polystyrene-supported olefin metathesis catalysts based on $\text{Cl}_2(\text{PR}_3)_2\text{Ru=CH-CH=CPh}_2$ (S.B.T. Nguyen and R.H. Grubbs), 195

Olefin polymerization catalyst

Cationic group IV metal alkyl complexes and their role as olefin polymerization catalysts: The formation of ethyl-bridged dinuclear and heterodinuclear zirconium and hafnium complexes (M. Bochmann and S.J. Lancaster), 55

Palladium

Copolymerization of cyclopentene and carbon monoxide with palladium catalysts (E. Amavor, R. Bürl and G. Consiglio), 81

Pauson–Khand cyclization

Application of the double Pauson–Khand cyclization to the synthesis of bis(cyclopentadienes): preparation of phenyl-bridged bis(tetrahydroindenyl)titanium and zirconium dichlorides (R.L. Halterman, T.M. Ramsey, N.A. Pailes and M.A. Khan), 43

Phenyl-bridged metallocenes

Application of the double Pauson–Khand cyclization to the synthesis of bis(cyclopentadienes): preparation of phenyl-bridged bis(tetrahydroindenyl)titanium and zirconium dichlorides (R.L. Halterman, T.M. Ramsey, N.A. Pailes and M.A. Khan), 43

Polymerization

Growing chain isomerizations in metallocene-catalyzed Ziegler–Natta 1-alkene polymerization (V. Busico and R. Cipullo), 113

Polymerization catalysis

Silylene-bridged fluorenyl-containing ligands and zirconium complexes with C_1 and C_s symmetry: general synthesis and olefin polymerization catalysis (Y.-X. Chen, M.D. Rausch and J.C.W. Chien), 1

Polystyrene supported catalysts

The syntheses and activities of polystyrene-supported olefin metathesis catalysts based on $\text{Cl}_2(\text{PR}_3)_2\text{Ru=CH-CH=CPh}_2$ (S.B.T. Nguyen and R.H. Grubbs), 195

Propene polymerization

Crystal structure and propene polymerization characteristics of bridged zirconocene catalysts (W. Kaminsky, O. Rabe, A.-M. Schauwienold, G.U. Schupfner, J. Hanss and J. Kopf), 181

Mechanistische Untersuchungen der Propenpolymerisation mit dem katalytischen System [2,4-Cyclcopentadien-1-yliden(methylethyliden)1H-inden-1-yliden]zirkoniumdichlorid–Methylaluminoxan (P. Montag, Y. V.d. Leek, K. Angermund und G. Fink), 201

The influence of methylaluminoxane concentration on propene polymerization with homogeneous metallocene-based Ziegler–Natta catalysts (S. Jüngling and R. Mülhaupt), 27

Reaction mechanism

Insertion reactions of electrophilic iron carbene complexes with organosilanes: a synthetic and mechanistic study (E. Scharrer and M. Brookhart), 61

Reduction

Alkylation and reductive dimerization of half-sandwich imido vanadium dichlorides (J.-K.F. Buijink, A. Meetsma, J.H. Teuben, H. Kooijman and A.L. Spek), 161

Ruthenium

The syntheses and activities of polystyrene-supported olefin metathesis catalysts based on $\text{Cl}_2(\text{PR}_3)_2\text{Ru=CH-CH=CPh}_2$ (S.B.T. Nguyen and R.H. Grubbs), 195

Silicon

Insertion reactions of electrophilic iron carbene complexes with organosilanes: a synthetic and mechanistic study (E. Scharrer and M. Brookhart), 61

Solid state structures

Synthesis of chiral and C_2 -symmetric iron(II) and cobalt(II) complexes bearing a new tetradentate amine ligand system (B. Rieger, A.S. Abu-Surrah, R. Fawzi and M. Steiman), 73

Stereochemical nonrigidity

Stereochemical nonrigidity in metallocenium ions (A.R. Siedle and R.A. Newmark), 119

Tetradentate amine ligand

Synthesis of chiral and C_2 -symmetric iron(II) and cobalt(II) complexes bearing a new tetradentate amine ligand system (B. Rieger, A.S. Abu-Surrah, R. Fawzi and M. Steiman), 73

Thorium

Synthesis, structure and electrochemistry of the first fulvalene derivative of an actinide (P. Scott and P.B. Hitchcock), C1

Titanium

C_2 -symmetric *ansa* metallocenes of titanium and zirconium with a ligand system that yields pure *rac* isomer: preparation and crystal structures of *rac*- $\{\eta^5\text{-C}_5\text{H}_2\text{-2-SiMe}_3\text{-4-CMe}_3\}_2\text{SiMe}_2\text{-MCl}_2$ (M = Ti or Zr) (S.T. Chacon, E.B. Coughlin, L.M. Henling and J.E. Bercaw), 171

Polymerization of norbornene and 1,5-hexadiene by [$\text{Cp}^*\text{TiMe}_2\text{-[MeB(C}_6\text{F}_5)_3]$] (D. Jeremic, Q. Wang, R. Quyoun and M.C. Baird), 143

Preparation and X-ray structure of a novel chiral methylene bridged titanocene complex (C.A. Willoughby, W.M. Davis and S.L. Buchwald), 11

Structural studies of monocyclopentadienyl titanium and zirconium complexes containing a diisopropylamide ligand. Evidence of a β -agostic interaction in $(\text{C}_5\text{H}_5)\text{M}[\text{N}(\text{iC}_3\text{H}_7)_2]$ (R.M. Pupi, J.N. Coalter and J.L. Petersen), 17

Synthesis of bis(*tert*-butyl)cyclopentadienyl derivatives of titanium and zirconium. NMR spectra and dynamic behaviour of the base-free $[\text{Zr}(1,3\text{-}^1\text{Bu}_2\text{-}\eta^5\text{-C}_5\text{H}_3\text{)}\text{XCH}_2\text{Ph}]^+$ cation (J.I. Amor, T. Cuena, M. Galakhov and P. Royo), 127

Titanium, *Ansa*-titanocene

Addition of a sterically hindered, chiral crotyl *ansa*-titanocene complex to aldehydes (B.A. Kuntz, R. Ramachandran, N.J. Taylor, J. Guan and S. Collins), 133

Titanocene

Application of the double Pauson–Khand cyclization to the synthesis of bis(cyclopentadienes): preparation of phenyl-bridged bis(tetrahydroindenyl)titanium and zirconium dichlorides (R.L. Halterman, T.M. Ramsey, N.A. Pailes and M.A. Khan), 43

Easy formation of titanocene hydride–magnesium complexes in the $(C_5H_{5-n}Me_n)_2TiCl_2$ ($n = 3–5$)–dibutylmagnesium systems (R. Gyepes, K. Mach, I. Císařová, J. Loub, J. Hiller and P. Šindelář), 33

Triplet state

Easy formation of titanocene hydride–magnesium complexes in the $(C_5H_{5-n}Me_n)_2TiCl_2$ ($n = 3–5$)–dibutylmagnesium systems (R. Gyepes, K. Mach, I. Císařová, J. Loub, J. Hiller and P. Šindelář), 33

Vanadium

Alkylation and reductive dimerization of half-sandwich imido vanadium dichlorides (J.-K.F. Buijink, A. Meetsma, J.H. Teuben, H. Kooijman and A.L. Spek), 161

X-ray structure

Preparation and X-ray structure of a novel chiral methylene bridged titanocene complex (C.A. Willoughby, W.M. Davis and S.L. Buchwald), 11

Synthesis, structure and electrochemistry of the first fulvalene derivative of an actinide (P. Scott and P.B. Hitchcock), C1

Ziegler–Natta catalysts

Growing chain isomerizations in metallocene-catalyzed Ziegler–Natta 1-alkene polymerization (V. Busico and R. Cipullo), 113

The influence of methylalumoxane concentration on propene polymerization with homogeneous metallocene-based Ziegler–Natta catalysts (S. Jüngling and R. Mülhaupt), 27

Zirconium

C_2 -symmetric *ansa* metallocenes of titanium and zirconium with a ligand system that yields pure *rac* isomer: preparation and crystal structures of *rac*- $\{(\eta^5-C_5H_2-2-SiMe_3-4-CMe_3)_2SiMe_2\}MCl_2$ ($M = Ti$ or Zr) (S.T. Chacon, E.B. Coughlin, L.M. Henling and J.E. Bercaw), 171

Cationic group IV metal alkyl complexes and their role as olefin polymerization catalysts: The formation of ethyl-bridged dinuclear and heterodinuclear zirconium and hafnium complexes (M. Bochmann and S.J. Lancaster), 55

Mechanistische Untersuchungen der Propenpolymerisation mit dem katalytischen System [2,4-Cyclpentadien-1-yliden(methylethyliden)1H-inden-1-yliden]zirkoniumdichlorid–Methylaluminoxan (P. Montag, Y. V.d. Leek, K. Angermund und G. Fink), 201

Preparation and crystal structures of the complexes $(\eta^5-C_5H_3Me-CMe_2-\eta^5-C_{13}H_8)MCl_2$ ($M = Zr$ or Hf): mechanistic aspects of the catalytic formation of a syndiotactic–isotactic stereoblock-type polypropylene (A. Razavi and J.L. Atwood), 105

Silylene-bridged fluorenyl-containing ligands and zirconium complexes with C_1 and C_s symmetry: general synthesis and olefin polymerization catalysis (Y.-X. Chen, M.D. Rausch and J.C.W. Chien), 1

Stereochemical nonrigidity in metallocenium ions (A.R. Siedle and R.A. Newmark), 119

Structural studies of monocyclopentadienyl titanium and zirconium complexes containing a diisopropylamide ligand. Evidence of a β -agostic interaction in $(C_5H_5)M[N(^1C_3H_7)_2]$ (R.M. Pupi, J.N. Coalter and J.L. Petersen), 17

Synthesis of bis(*tert*-butyl)cyclopentadienyl derivatives of titanium and zirconium. NMR spectra and dynamic behaviour of the base-free $[Zr(1,3-^1Bu_2-\eta^5-C_5H_3)(CH_2Ph)_2]^+$ cation (J.I. Amor, T. Cuenca, M. Galakhov and P. Royo), 127

Zirconocene

Application of the double Pauson–Khand cyclization to the synthesis of bis(cyclopentadienes): preparation of phenyl-bridged bis(tetrahydroindenyl)titanium and zirconium dichlorides (R.L. Halterman, T.M. Ramsey, N.A. Pailes and M.A. Khan), 43

Crystal structure and propene polymerization characteristics of bridged zirconocene catalysts (W. Kaminsky, O. Rabe, A.-M. Schauwienold, G.U. Schupfner, J. Hanss and J. Kopf), 181

Zirconocene cation

Synthesis of bis(*tert*-butyl)cyclopentadienyl derivatives of titanium and zirconium. NMR spectra and dynamic behaviour of the base-free $[Zr(1,3-^1Bu_2-\eta^5-C_5H_3)(CH_2Ph)_2]^+$ cation (J.I. Amor, T. Cuenca, M. Galakhov and P. Royo), 127