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Contents

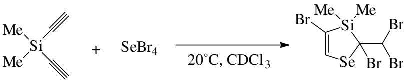
Regular Papers

Svetlana V. Amosova, Vladimir A. Shagun, Alexander V. Martynov, Natalia A. Makhaeva, Lyudmila I. Larina, Konstantin A. Lysenko, Mikhail G. Voronkov

J. Organomet. Chem. 692 (2007) 3307

Mechanism of the cyclization of dimethyl diethynyl silane with selenium tetrabromide: Computational and structural studies, and monitoring

The structure of 2,4-dibromo-2-dibromomethyl-3,3-dimethyl-1-selena-3-silacyclopentene-4, formed by regioselective electrophilic addition of $SeBr_4$ to dimethyl diethynyl silane, has been determined using X-ray analysis technique. Quantum chemistry methods were used to study elementary stages of the reaction. The formation of only five-membered heterocycle is explained by kinetically preferable ring closure through four-center transition state. The conclusions obtained by calculations were confirmed by monitoring of the reaction using ^{1}H NMR method.

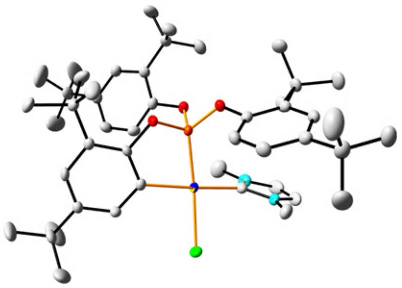


Alexandrina D. Tanase, Guido D. Frey, Eberhardt Herdtweck, Stephan D. Hoffmann, Wolfgang A. Herrmann

J. Organomet. Chem. 692 (2007) 3316

Preparation of NHC-substituted phosphitepalladacycles

The preparation of unsaturated NHC-substituted phosphitepalladacycles via phosphitepalladacycle acetato and chloro precursors and azolium salts with non-coordinating anions in DMSO is reported. With this one-pot synthesis NHC-substituted phosphitepalladacycles are obtained avoiding multi-step reactions.

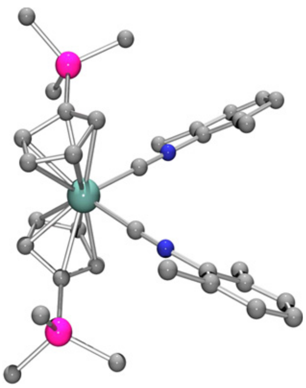


Antonio Antiñolo, Santiago García-Yuste, Antonio Otero, Juan C. Pérez-Flores, Isabel López-Solera, Ana M. Rodríguez

J. Organomet. Chem. 692 (2007) 3328

Heterocycle-containing niobocene derivatives from hydride–niobocene complexes. X-ray molecular structure of $[Cp'_2Nb(CNXylyl)_2][I_3]$ and $[Cp'_2Nb(H)(P(OMe)_3)] \cdot (bzta)'\text{-}NH_2$ [$(bzta)'\text{-}NH_2$ = 2-amino-6-methylbenzothiazole]

New niobocene complexes containing benzothiazole heterocycles, namely 2-aminobenzothiazole, bzta-NH_2, 2-hydroxybenzothiazole, bzta-OH, 2-mercaptobenzothiazole, bzta-SH, benzoxazole, namely 2-mercaptobenzoxazole, bzoa-SH, and triazines, namely 1,3,5-triaminetriazine, 1,3,5-trihydroxytriazine, 1,3,5-trimercaptotriazine, (C_3N_3)-1,3,5-$(XH)_3$, X = NH, O, S, have been prepared and spectroscopically characterised. The crystal structures of $[Cp'_2Nb(CNXylyl)_2][I_3]$ and $[Cp'_2Nb(H)$-$(P(OMe)_3)]$. $(bzta)'\text{-}NH_2$ [$(bzta)'\text{-}NH_2$ = 2-amino-6-methylbenzothiazole] ($Cp' = \eta^5$-$C_5H_4SiMe_3$) have been determined



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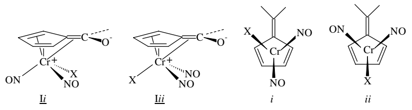
doi:10.1016/S0022-328X(07)00441-X

Yu-Pin Wang, Hsien-Li Leu, Yu Wang, Hsiu-Yao Cheng, Tso-Shen Lin

J. Organomet. Chem. 692 (2007) 3340

Cyclopentadienyl chromium complexes with halide, methyl, isothiocyanate and isoselenocyanate ligands: Structures of [η^5-(C_5H_4-$COOCH_3$)]Cr$(NO)_2$(Br) and [η^5-(C_5H_4-$COOCH_3$)]Cr$(NO)_2$(N=C=S)

Novel compounds, [η^5-(C_5H_4-$COOCH_3$)]Cr-$(NO)_2$(X) (X = Br, N=C=S, N=C=Se), have been prepared. The qualitative relationship of the NO group orientation and the nonplanarity of Cp-exocylic carbon has been addressed. The chemical shifts of C(2) and C(5) of Cp rings were unequivocally assigned using two-dimensional HetCOR-NMR spectroscopy. The electron density distribution in the cyclopentadienyl ring is discussed on the basis of ^{13}C NMR data and compared with calculations via density functional B3LYP correlation-exchange method.

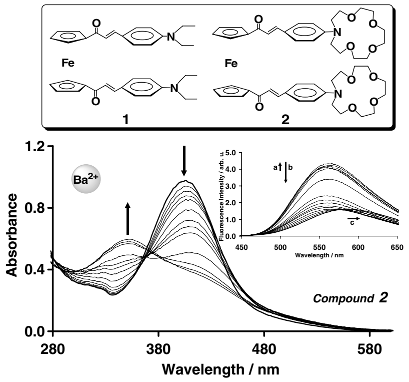


Béatrice Delavaux-Nicot, Jérôme Maynadié, Dominique Lavabre, Suzanne Fery-Forgues

J. Organomet. Chem. 692 (2007) 3351

Two electroactive ferrocenyl chalcones as original optical chemosensors for Ca^{2+} and Ba^{2+} cations in CH_3CN

The ferrocenyl ligands **1** and **2** are good sensors for detecting calcium and barium in CH_3CN by UV–Vis absorption spectroscopy. Contrary to what occurs for the cation electrochemical detection, each ligand detects both Ca^{2+} and Ba^{2+} salts in a similar manner. These chalcone derivatives exhibit fluorescence properties, which are not observed for their monosustituted counterparts. As multi-signalling chemosensors, they give an original non-monotonous fluorescence response upon addition of the above-mentioned cations.

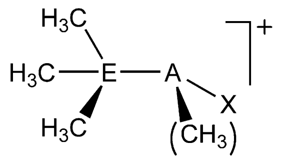


Rudolf Pietschnig

J. Organomet. Chem. 692 (2007) 3363

Effect of π-donating substituents on the dative or covalent character of adducts of some simple "enium" ions with PMe_3 and NMe_3

The bond situation of formal donor adducts of phosphenium, arsenium, and the isolobal selenenyl cations with trimethylphosphane and trimethylamine has been explored by quantum chemical methods on Hartree–Fock, DFT and MP2 level, which shows that a description as a dative donor–acceptor complex is limited to π-donor substituted "enium" ions.



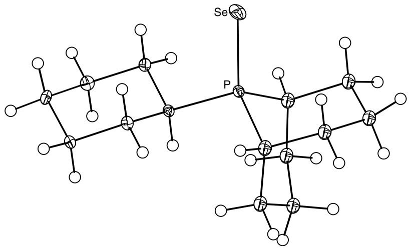
(E = P, N; X = CH_3, NH_2, A = P, As, Se)

Peter N. Bungu, Stefanus Otto

J. Organomet. Chem. 692 (2007) 3370

Steric and electronic properties in bicyclic phosphines. Crystal and molecular structures of Se = Phoban-Q (Q = C_2, C_3Ph, Cy and Ph)

The synthesis of a series of Phoban derivatives and their corresponding selenides are reported. The electronic properties of the ligands were determined by measuring the first order P–Se coupling constants by NMR while cone angle were calculated from the crystal structures as a measure of the steric properties.

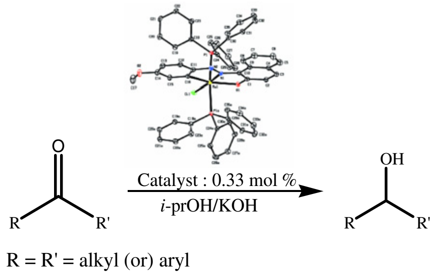


Sethuraman Kannan, Rengan Ramesh, Yu Liu

J. Organomet. Chem. 692 (2007) 3380

Ruthenium(III) mediated C–H activation of azonaphthol: Synthesis, structural characterization and transfer hydrogenation of ketones

Air stable orthometalated ruthenium(III)1-(arylazo)naphtholate complexes have been synthesized and characterized. The molecular structure of one of the complex **4** has been determined by single crystal X-ray diffraction and was employed as efficient catalyst in transfer hydrogenation of ketones in the presence of *i*-PrOH.

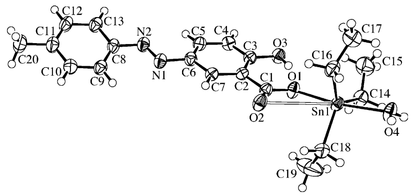


Tushar S. Basu Baul, Wandondor Rynjah, Xueqing Song, George Eng, Anthony Linden

J. Organomet. Chem. 692 (2007) 3392

Synthesis, spectra, and crystal structures of the triorganotin(IV) 5-[(*E*)-2-(4-methylphenyl)-1-diazenyl]-2-hydroxybenzoates ($Me_3Sn\{O_2CC_6H_3$-*p*-$OH[N{=}N(C_6H_4$-4-$CH_3)]\})_n$, $Et_3Sn\{O_2CC_6H_3$-*p*-$OH[N{=}N(C_6H_4$-4-$CH_3)]\}OH_2$, and $Bz_3Sn\{O_2CC_6H_3$-*p*-$OH[N{=}N(C_6H_4$-4-$CH_3)]\}$

Three triorganotin(IV) 5-[(*E*)-2-(4-methylphenyl)-1-diazenyl]-2-hydroxybenzoates, viz., ($Me_3Sn\{O_2CC_6H_3$-*p*-$OH[N{=}N(C_6H_4$-4-$CH_3)]\})_n$ (**1**), $Et_3Sn\{O_2CC_6H_3$-*p*-$OH[N{=}N(C_6H_4$-4-$CH_3)]\}OH_2$ (**2**), and $Bz_3Sn\{O_2CC_6H_3$-*p*-$OH[N{=}N(C_6H_4$-4-$CH_3)]\}$ (**3**), have been synthesized and their crystal structures have been determined. The interpretations of the structures are augmented by IR, NMR (^1H, ^{13}C, ^{119}Sn), and ^{119m}Sn Mössbauer experiments.

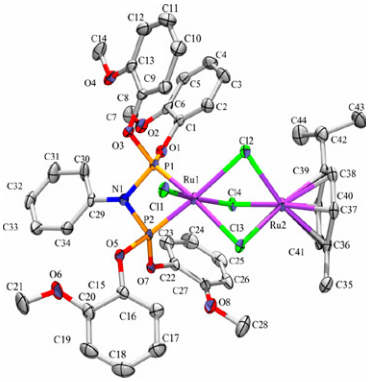


Chelladurai Ganesamoorthy, Joel T. Mague, Maravanji S. Balakrishna

J. Organomet. Chem. 692 (2007) 3400

Synthesis and structural studies of Rh^I, Pd^I, Ni^{II} complexes and one-pot synthesis of binuclear Ru^{II} complex [(η^6-*p*-cymene)Ru(μ_2-$Cl)_3Ru\{PhN(P(OC_6H_4OMe$-*o*$)_2)_2\}Cl$]

The reactivity of phenylaminobis(phosphonite), $PhN\{P(OC_6H_4OMe$-*o*$)_2\}_2$ (**1**) with group 8–10 metal derivatives is described. The ligand exhibits both chelating and bridging modes of coordination.

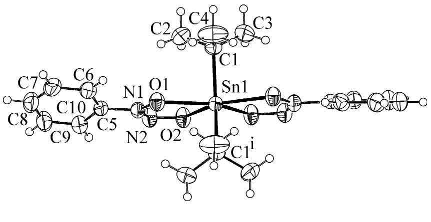


Attila Szorcsik, László Nagy, István Kökény, Andrea Deák, Michelangelo Scopelliti, Tiziana Fiore, Lorenzo Pellerito

J. Organomet. Chem. 692 (2007) 3409

Preparation and structural studies on diorganotin(IV) complexes of *N*-nitroso-*N*-phenylhydroxylaminates

Diorganotin(IV)-complexes of the *N*-nitroso-*N*-phenylhydroxylaminates (hereinafter cupf), $Et_2Sn(cupf)_2$ (**1**), $Bu_2Sn(cupf)_2$ (**2**), $\{[Bu_2Sn(cupf)]_2O\}_2$ (**3**), *t*-$Bu_2Sn(cupf)_2$ (**4**) and $Oc_2Sn(cupf)_2$ (**5**, **6**) were prepared and characterised by FT-IR, Mössbauer and multinuclear NMR spectroscopic measurements. The X-ray diffraction analysis of **4** revealed that the tin centre is in a skew-trapezoidal geometry.

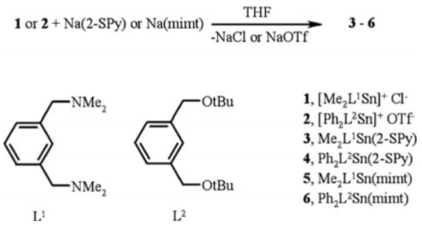


Jana Martincová, Libor Dostál, Jan Taraba, Aleš Růžička, Roman Jambor

J. Organomet. Chem. 692 (2007) 3415

Mercapto derivatives of triorganotin Y,C,Y-pincer complexes: Role of Y,C,Y-chelating ligands in a new coordination mode of organotin compounds

Treatment of ionic organotin compounds [Me$_2$L^{1}Sn]$^+$[Cl]$^-$ (**1**) and [Ph$_2$L^{2}Sn]$^+$[OTf]$^-$ (**2**) with appropriate sodium salts Na-2-SPy and Na(mimt) provided Me$_2$L^{1}Sn-2-SPy (**3**), Ph$_2$L^{2}Sn-2-SPy (**4**), Me$_2$L^{1}Sn(mimt) (**5**), Ph$_2$L^{2}Sn(mimt) (**6**). While polar group 2-SPy exists in its thiol-tautomeric form in compounds **3** and **4**, the second polar group (mimt) has been stabilized as the thione-tautomeric form by triorganotin fragments R$_2$L$^{1\text{-}2}$Sn in compounds **5** and **6**. The reactivity of **4** containing non-coordinated nitrogen atom of 2-SPy polar group towards CuCl and AgNO$_3$ is also reported.

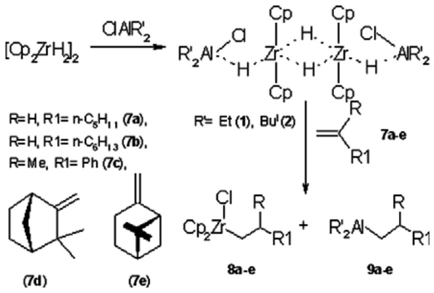


Lyudmila V. Parfenova, Rushana F. Vil'danova, Svetlana V. Pechatkina, Leonard M. Khalilov, Usein M. Dzhemilev

J. Organomet. Chem. 692 (2007) 3424

New effective reagent [Cp$_2$ZrH$_2$ · ClAlEt$_2$]$_2$ for alkene hydrometallation

New bimetallic complex [Cp$_2$ZrH$_2$ · ClAlEt$_2$]$_2$ was synthesized, and its reactivity in hydrometallation reaction with the following alkenes was studied: hept-1-ene, okt-1-ene, α-methylstyrene, (1*S*)-β-pinene, (+)-camphene.

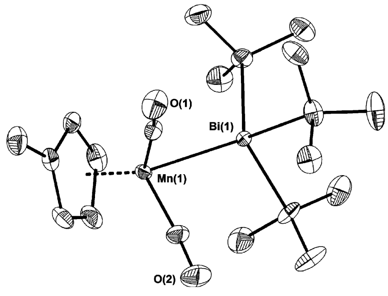


H.J. Breunig, E. Lork, C.I. Rat, R.P. Wagner

J. Organomet. Chem. 692 (2007) 3430

Syntheses and crystal structures of [^{t}Bu$_3$SbCr(CO)$_5$], [^{t}Bu$_3$BiM(CO)$_5$] (M = Cr, W), and [^{t}Bu$_3$BiMnCp′(CO)$_2$] (Cp′ = η^5-C$_5$H$_4$CH$_3$)

Syntheses and crystal structures of [^{t}Bu$_3$SbCr(CO)$_5$], [^{t}Bu$_3$BiM(CO)$_5$] [M = Cr, W] and [^{t}Bu$_3$BiMnCp′(CO)$_2$] Cp′ = CH$_3$C$_5$H$_4$ are reported.

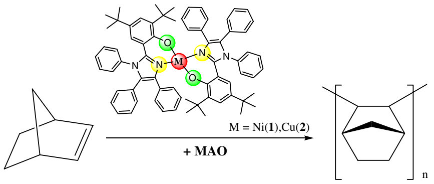


Feng-Tai Chen, Guang-Rong Tang, Guo-Xin Jin

J. Organomet. Chem. 692 (2007) 3435

Novel nickel(II) and copper(II) complexes with phenoxy-imidazole ligands: Syntheses, crystal structures and norbornene addition polymerization

Nickel and copper complexes **1** and **2** with phenoxy-imidazole ligands have been synthesized, characterized and used as catalysts for the addition polymerization of norbornene in the presence of methylaluminoxane (MAO) as co-catalyst in high activities.

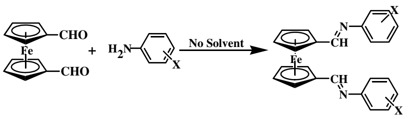


Christopher Imrie, Phumelele Kleyi,
Vincent O. Nyamori, Thomas I.A. Gerber,
Demetrius C. Levendis, Jennifer Look

J. Organomet. Chem. 692 (2007) 3443

Further solvent-free reactions of ferrocenylaldehydes: Synthesis of 1,1′-ferrocenyldiimines and ferrocenylacrylonitriles

Grinding one equivalent of 1,1′-ferrocenedicarboxaldehyde with 2.2 equivalents of an aniline without solvent provided excellent yields of 1,1′-ferrocenyldiimines. Grinding of ferrocenecarboxaldehyde and 4-substituted phenylacetonitriles under solvent-free conditions provided good yields of the substituted ferrocenylacrylonitriles.

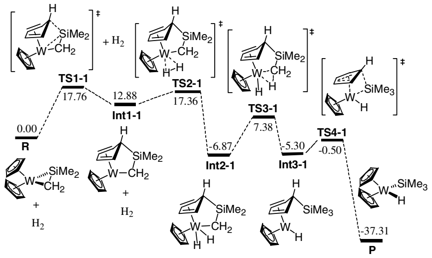


Siwei Bi, Shufen Zhu, Zhenwei Zhang,
Zhaodong Yuan

J. Organomet. Chem. 692 (2007) 3454

Reaction mechanisms of Cp-containing silene complexes toward H_2: A DFT study

Reaction of Cp-containing silene complexes toward H_2 has been theoretical investigated. Our results of calculations indicate that the pathway involving migration of silicon group is the most favored, which agrees well with Berry's proposal.

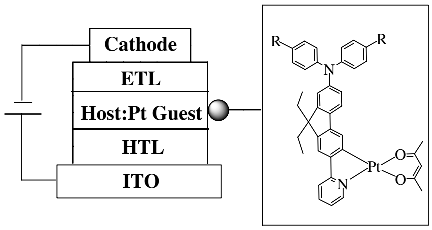


Gui-Jiang Zhou, Xing-Zhu Wang,
Wai-Yeung Wong, Xiao-Ming Yu,
Hoi-Sing Kwok, Zhenyang Lin

J. Organomet. Chem. 692 (2007) 3461

New platinum(II) complexes as triplet emitters for high-efficiency monochromatic pure orange electroluminescent devices

New platinum(II) cyclometalates of (9,9-diethyl-7-pyridin-2-ylfluoren-2-yl)diarylamine are demonstrated to be highly efficient phosphors for use in monochromatic and white light sources. The merits of improved hole transportation and suppressed aggregate formation render the fabricated orange-emitting organic light-emitting diodes to achieve efficiencies up to 6.64% and 15.41 cd/A.

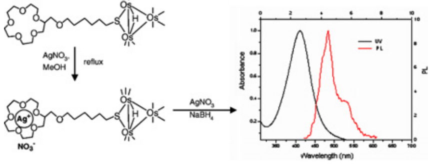


Moawia O.E. Ahmed, Chunxiang Li,
Weng Kee Leong

J. Organomet. Chem. 692 (2007) 3474

Luminescent silver nanoparticles stabilised by a crown ether capped with an organometallic cluster

Silver nanoparticles protected with the crown ether (6-mercaptohexyloxy)methyl-15-crown-5, or the triosmium cluster derivative $Os_3(\mu\text{-H})(CO)_{10}$[(6-mercaptohexyloxy)methyl-15-crown-5], show good stability, are soluble in a wide range of organic solvents, and are luminescent.

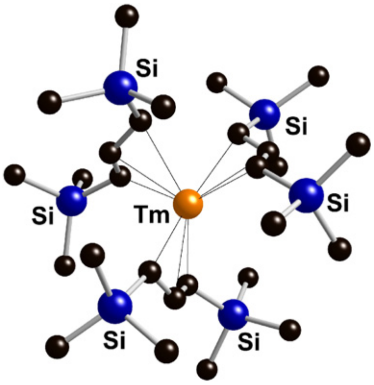


Rosemary E. White, Timothy P. Hanusa, Benjamin E. Kucera

J. Organomet. Chem. 692 (2007) 3479

Compositional variations in monomeric trimethylsilylated allyl lanthanide complexes

The composition of lanthanide complexes formed from alkali metal derivatives of the bis(1,3-trimethylsilyl)allyl anion and lanthanide salts varies with the stoichiometry of the reagents and the identity of counterions. The metal–allyl distances in the complexes correlate reasonably well with the metal radii, consistent with primarily ionic bonding.

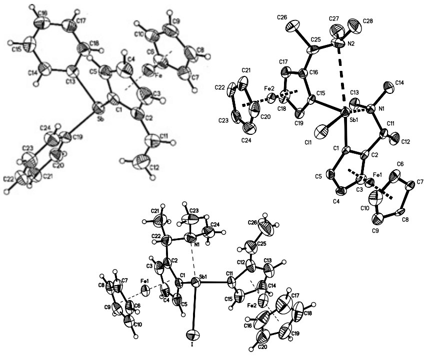


Jaime Vázquez, Pankaj Sharma, A. Cabrera, A. Toscano, S. Hernández, J. Pérez, R. Gutiérrez

J. Organomet. Chem. 692 (2007) 3486

Formation of (vinyl-ferrocenyl)stibines involving β-elimination: Hypervalent Sb–N bonding

Unusual syntheses of vinyl substituted ferrocenylstibines viz. diphenyl(2-vinylferrocenyl) stibine (**2**) and iodo-(*N*,*N*-dimethylaminoethylferrocenyl)(2-vinylferrocenyl)stibine (**4**) involving β-elimination, are reported. Stibines Ph_2SbFc (**1**) or Fc_2SbCl (**3**) containing dimethylaminoethyl-pendant arm on a ferrocenyl ring on reaction with MeI gives vinyl substituted ferrocenylstibines. All the new stibines were characterized by IR, mass, ^1H, ^{13}C, COSY, HETCOR NMR spectroscopy. The structures of all of these 1,2-disubstituted ferrocenylstibines were determined by X-ray diffraction analyses. The compounds (**3**) and (**4**) show hypervalent bonding between the antimony and nitrogen atoms giving **6** and **5** coordinated antimony, respectively. This is the first report on ferrocenylstibines containing a vinyl group in their framework.

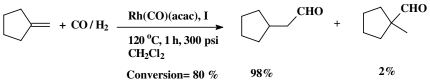


Jimoh Tijani, Bassam El Ali

J. Organomet. Chem. 692 (2007) 3492

Rhodium-catalyzed hydroformylation of olefins: Effect of [bis(2,4-di-*tert*-butyl) pentaerythritol] diphosphite (alkanox P-24) on the regioselectivity of the reaction

Rhodium (I) with [bis(2,4-di-*tert*-butyl) pentaerythritol] diphosphite (**I**) as a ligand represents an active catalysts system for highly regioselective hydroformylation of various alkenes. Excellent ratios (19 and 24) of linear to branched aldehydes were obtained with the hydroformylation of 1-octene. The reaction was applied to various olefinic substrates including the internal alkenes.

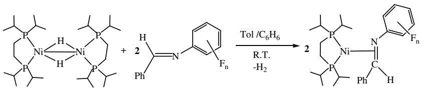


Ana L. Iglesias, Miguel Muñoz-Hernández, Juventino J. García

J. Organomet. Chem. 692 (2007) 3498

Fluoro aromatic imine nickel(0) complexes: Synthesis and structural studies

The [(dippe)Ni] moiety coordinates in a (η^2-*C*,*N*) fashion to a series of fluoroaromatic imines were synthesized and characterized by multinuclear NMR as well as *X*-ray diffraction studies for several of the complexes.

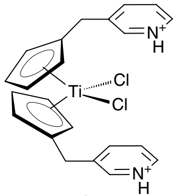


Gregory D. Potter, Michael C. Baird,
Susan P.C. Cole

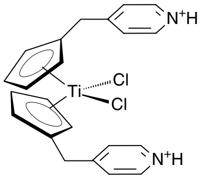
J. Organomet. Chem. 692 (2007) 3508

A new series of titanocene dichloride derivatives bearing cyclic alkylammonium groups: Assessment of their cytotoxic properties

Ten new water soluble titanocene dichloride derivatives have been synthesized and characterized and their cytotoxicities against the human lung cancer cell line A549 have been assessed. The potencies of the four compounds vary greatly, but the dicationic 3-picolylium and 4-picolylium compounds, **6b** and **7b**, exhibit IC_{50} values that are unusually low for this class of compounds.



6b



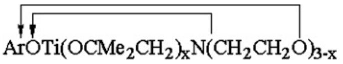
7b

Sang-deok Mun, Junseong Lee, So Han Kim,
Younjin Hong, Young-ho Ko,
Young Kook Shin, Jeong Hak Lim,
Chang Seop Hong, Youngkyu Do, Youngjo Kim

J. Organomet. Chem. 692 (2007) 3519

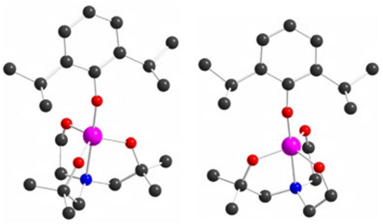
Titanatranes containing tetradentate ligands with controlled steric hindrance

New monomeric titanatranes



$ArOTi(OCMe_2CH_2)_xN(CH_2CH_2O)_{3-x}$

(Ar = 2, 6-di-*i*-Pr-phenyl; x = 0, **5**; x = 1, **6**; x = 2, **7**; x = 3, **8**) were synthesized from the corresponding tetradentate ligands **1**–**4**, respectively, using an equimolar mixture of Ti(O-*i*-Pr)$_4$ and 2,6-di-*i*-Pr-phenol. These compounds show the catalytic activity for the ring opening polymerization of *l*-lactide.

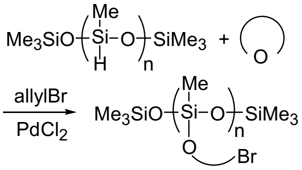


Joji Ohshita, Ko Inata, Yuki Izumi,
Atsutaka Kunai

J. Organomet. Chem. 692 (2007) 3526

Palladium-catalyzed synthesis of poly(bromoalkoxy- and bromoalkanoyloxymethylsiloxane)s from poly(hydromethylsiloxane)s

Treatment of poly(hydromethylsiloxane)s with mixtures of allyl bromide and cyclic ethers in the presence of a catalytic amount of $PdCl_2$ gave the corresponding poly[(bromoalkoxy)methylsiloxane]s in good yield. A similar reaction with γ-butyrolactone produced poly[(bromobutanoyloxy)methylsiloxane].

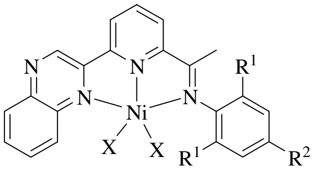


Sherrif Adewuyi, Gang Li, Shu Zhang,
Wenqing Wang, Peng Hao, Wen-Hua Sun,
Ning Tang, Jianjun Yi

J. Organomet. Chem. 692 (2007) 3532

Nickel(II) complexes chelated by 2-quinoxalinyl-6-iminopyridines: Synthesis, crystal structures and ethylene oligomerization

A series of nickel (II) complexes ligated by tridentate ligands of 2-quinoxalinyl-6-iminopyridines was synthesized and characterized. In the presence of Et_2AlCl, these complexes displayed high catalytic activity for ethylene oligomerization and the dimmers were produced as main products.



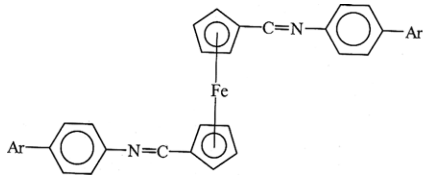
Notes

Zareen Akhter, Asifa Nigar,
Muhammad Y. Razzaq, Humaira M. Siddiqi

J. Organomet. Chem. 692 (2007) 3542

Synthesis and physico-analytical studies of some novel ferrocenyl Schiff base derivatives

A series of ferrocenyl Schiff base derivatives was synthesized by condensation reactions of 1,1′-ferrocenedicarboxaldehyde with aromatic amines and characterized by their physical properties, elemental, FTIR, ^{1}H NMR, ^{13}C NMR spectral and thermal analysis.

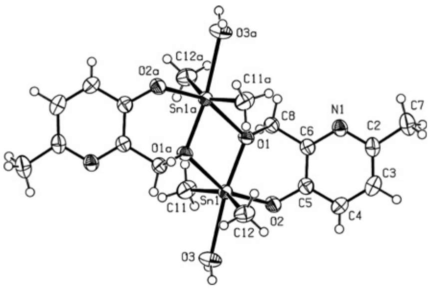


José S. Casas, Alfonso Castiñeiras,
Félix Condori, María D. Couce,
Umberto Russo, Agustín Sánchez, José Sordo,
José M^a Varela, Ezequiel M. Vázquez López

J. Organomet. Chem. 692 (2007) 3547

Synthesis, structure and cytotoxicity of diorganotin(IV) complexes of 2,6-lutidine-α^2,3-diol (Lu): The crystal structures of Lu and [SnMe$_2$(H$_2$O)(Lu-2H)]

New organotin(IV) complexes of 2,6-lutidine-α^2,3-diol (Lu) with the general formula [SnR$_2$(Lu-2H)] were prepared and their structures and antitumor activities compared with those of the analogous pyridoxine complexes.

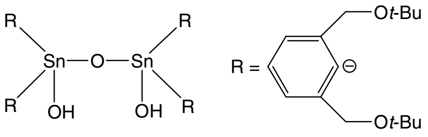


Blanka Kašná, Roman Jambor,
Markus Schürmann, Klaus Jurkschat

J. Organomet. Chem. 692 (2007) 3555

[2,6-(t-BuOCH$_2$)$_2$C$_6$H$_3$Sn(OH)]$_2$O: A rare example of a monomeric tetraorganodistannoxane stabilized by intramolecular hydrogen bridges

The title compound is the only second example of a monomeric tetraorganodistannoxane. Intramolecular Sn···O interactions as well as O···H–O bridges contribute to the stability of this compound.

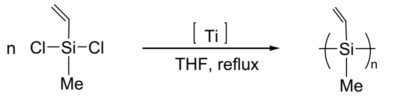


Guoqiao Lai, Zhifang Li, Jiabang Huang,
Jianxiong Jiang, Huayu Qiu, Yongjia Shen

J. Organomet. Chem. 692 (2007) 3559

Direct construction of silicon–silicon bond by using the low-valent titanium reagent

The reductive dimerization or polymerization of organochlorosilanes has been achieved by using the low-valent titanium reducing agent other than the alkali metals that are invariable used in the Wurtz-type coupling reaction. Applying this method, the corresponding disilanes or poly(methylvinylsilane) was obtained in good yields. The poly(methylvinylsilane) synthesized by this method is highly pure with a high molecular weight and a narrow molecular weight distribution (M_w/M_n = 1.6, M_n = 16,860).



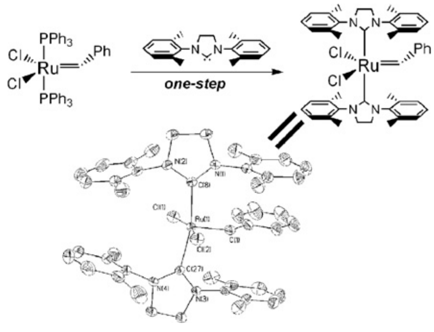
M_n = 16,860, M_w/M_n = 1.6

Wenzhen Zhang, Chenxi Bai, Xiaobing Lu, Ren He

J. Organomet. Chem. 692 (2007) 3563

Facile one-step synthesis of bis(NHC) ruthenium benzylidene catalyst for ring-closing metathesis

Bis(NHC) ruthenium benzylidene complex (H$_2$IMe)$_2$(Cl)$_2$Ru=CHPh (**9**) [H$_2$IMe = 1,3-bis(2,6- dimethylphenyl)-4,5-dihydroimidazol-2-ylidene] was synthesized facilely by one-step reaction of (PPh$_3$)$_2$(Cl)$_2$Ru=CHPh with *N*-heterocyclic carbene H$_2$IMe. Complex **9** proved to exhibit remarkable catalytic activity for ring-closing metathesis reaction at increased temperature. The structure of complex **9** was also confirmed by X-ray crystallography.

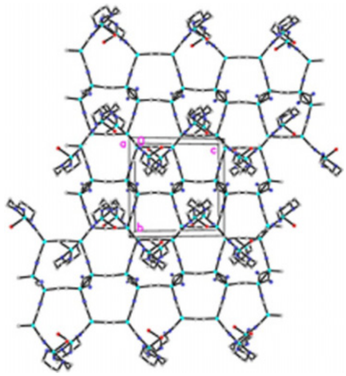


Shu-Zhong Zhan, Wei Li, Jian-Ge Wang, An-Qi Liang, Yuan-Fu Deng

J. Organomet. Chem. 692 (2007) 3568

Assembly of cyano-bridged Cu(II)/Cu(II) and Cu(I)/Cu(II) compounds obtained by controlled ration of cyanide

One reaction system of Cu^{2+}, dipn, and CN$^-$ with two different molar ratio sets of 1:1:5, and 2:1:8 produced two compounds **1** [Cu^{II}(dipn)][Cu^{II}(CN)$_4$], and **2** [Cu^{II}(dipn)]$_2$[Cu$^{I}_4$(CN)$_8$]·2H$_2$O, respectively (dipn = dipropylenetriamine). Their structures were determined by X-ray crystallography. Compound **2** is built from Cu(I) and Cu(II) centers, which are bridged by cyanide groups and metal–metal bonds. The magnetic properties of **1** and **2** were investigated in 2–300 K. Compound **1** exhibits an antiferromagnetic exchange interaction between copper(II) ions mediated by cyano-bridges.

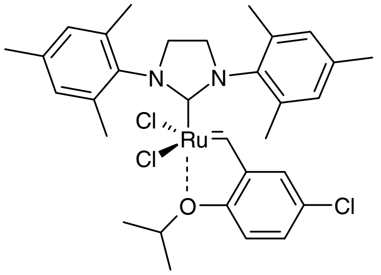


Roberta Ettari, Nicola Micale

J. Organomet. Chem. 692 (2007) 3574

Chloro-substituted Hoveyda–Grubbs ruthenium carbene: Investigation of electronic effects

A series of applications of cross and ring-closing metathesis have been made to investigate the application profile of the chloro-substituted Hoveyda–Grubbs ruthenium carbene with respect to its precursor.

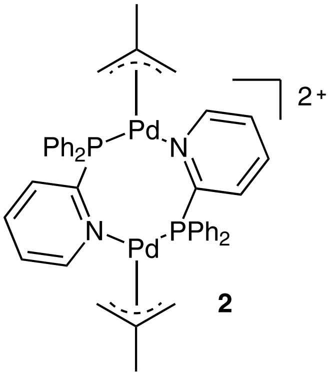


A. Scrivanti, F. Benetollo, A. Venzo, M. Bertoldini, V. Beghetto, U. Matteoli

J. Organomet. Chem. 692 (2007) 3577

Cationic palladium(II)-allyl-complexes containing 2-pyridyldiphenylphosphine: X-ray crystal structure of the binuclear complex [Pd(η^3-2-Me-allyl)(μ-Ph$_2$PPy)]$_2$(BF$_4$)$_2$. Detection of an intramolecular C(allyl)–H···phenyl ring π-interaction

Treatment of [PdCl(η^3-2-Me-allyl)(Ph$_2$PPy)] with AgBF$_4$ affords the binuclear complex **2**. A peculiar feature is represented by the absence of bonding interactions between the two palladium atoms. The X-ray structure of **2** reveals the existence of a CH/π interaction.



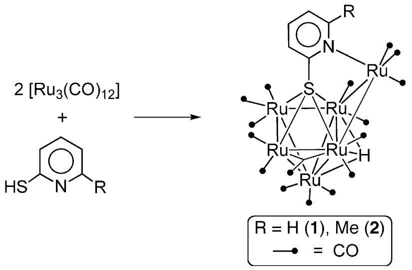
2

Javier A. Cabeza, Ignacio del Río, Pablo García-Álvarez, Daniel Miguel

J. Organomet. Chem. 692 (2007) 3583

A new coordination mode for (pyrid-2-yl)thiolate (L) ligands: Synthesis and characterization of $[Ru_6(\mu_3\text{-}H)(\mu_5\text{-}\kappa^2\text{-}L)(\mu\text{-}CO)(CO)_{15}]$

The reactions of $[Ru_3(CO)_{12}]$ with 0.5 equiv. of 2-mercaptopyridine or 2-mercapto-6-methylpyridine give hexaruthenium cluster complexes that contain (pyrid-2-yl)thiolate ligands displaying a novel μ_5-κ^2-coordination mode.

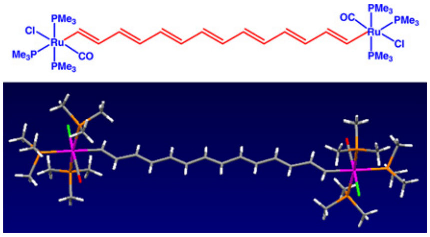


Ping Yuan, Xiang-hua Wu, Guang-ao Yu, Dan Du, Sheng Hua Liu

J. Organomet. Chem. 692 (2007) 3588

Synthesis and characterization of bimetallic ruthenium complexes connected through linear $(CH)_{14}$ chain

The longest $(CH)_x$-bridged bimetallic complex $[RuCl(CO)(PMe_3)_3]_2[\mu\text{-}(CH{=}CH)_7]$ has been synthesized and characterized. The bimetallic complex shows good electronic communication between two metals and good stability.



Junseong Lee, Youngkyu Do, Youngjo Kim

J. Organomet. Chem. 692 (2007) 3593

Facile synthesis and X-ray structures of $(\eta^5\text{-}C_5Me_5)Ti(OAr^F)_3$ ($OAr^F = OC_6F_5, OCH_2C_6F_5$, and $OCH_2C_6F_2H_3$)

New half-sandwich titanocene complexes $(\eta^5\text{-}C_5Me_5)Ti(OC_6F_5)_3$ (**1**), $(\eta^5\text{-}C_5Me_5)Ti(OCH_2C_6F_5)_3$ (**2**), and $(\eta^5\text{-}C_5Me_5)Ti(OCH_2C_6F_2H_3)_3$ (**3**) were synthesized via methoxide displacement in $(\eta^5\text{-}C_5Me_5)Ti(OMe)_3$ with corresponding aryloxy or benzyloxy ligands. These compounds have been characterized by spectroscopic methods including X-ray crystallography.