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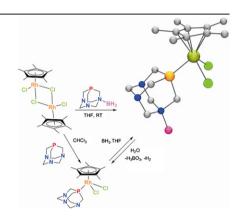
Regular Papers

Sandra Bolaño, Alberto Albinati, Jorge Bravo, Maria Caporali, Luca Gonsalvi, Louise Male, M.ª Mar Rodríguez-Rocha, Andrea Rossin, Maurizio Peruzzini

J. Organomet. Chem. 693 (2008) 2397

Synthesis and reactivity of rhodium(III) pentamethylcyclopentadienyl complexes of N–B– $PTA(BH_3)$: X-ray crystal structures of $[Cp^*RhCl_2\{N$ –B– $PTA(BH_3)\}]$ and $[Cp^*Rh\{N$ –B– $PTA(BH_3)\}(\eta^2$ – CH_2 = CHPh)]

New rhodium coordination complexes of the boronated PTA cage as a P-bonded ligand have been prepared by reaction with [Cp*RhCl(µ-Cl)₂ or by direct boronation with BH₃ of preformed PTA complexes. The hydride [Cp*Rh{N-B-PTA(BH₃)}H₂] is also accessible either by reaction of $[Cp^*Rh\{N-B-$ PTA(BH₃)}Cl₂] with NaBH₄ or by direct hydroboration of the known [Cp*Rh(PTA)Cl₂] with excess NaBH4 as borane source. Moderately slow hydrolysis of the N-boranyl rhodium complexes affords dihydrogen, H₃BO₃ and the corresponding PTA derivatives, including the water-soluble dihydride [Cp*Rh(PTA)H₂].



Ulrich Hintermair, Thibaut Gutel, Alexandra M.Z. Slawin, David J. Cole-Hamilton, Catherine C. Santini, Yves Chauvin

J. Organomet. Chem. 693 (2008) 2407

Direct *in situ* synthesis of cationic N-heterocyclic carbene iridium and rhodium complexes from neat ionic liquid: Application in catalytic dehydrogenation of cyclooctadiene

A new one-pot synthesis of cationic N-heterocyclic carbene (NHC) complexes of rhodium and iridium from neat dialkylimidazolium ionic liquids (ILs) in the absence of external bases, leaves pure, catalytically active IL solutions faster, cleaner and more efficient than traditional syntheses of such NHC complexes.

William P. Freeman, Yi Joon Ahn, T. Keith Hollis, J. Andrew Whitaker, Victor C. Vargas, Ramel J. Rubio, Karen D. Alingog, Eike B. Bauer, Fook S. Tham

J. Organomet. Chem. 693 (2008) 2415

Isomerization in bent phosphametallocenes: Combining rotational barriers and the intramolecular slip-inversion-slip mechanism to control stereo-conformation Four new phosphazirconocenes were prepared, and a crystal structure was obtained demonstrating unambiguously the *meso* configuration. Propylene polymerization was chosen to provide by inference insight into the phosphametallocene rotational dynamics. Phosphazirconocene 9 was found to produce isotactic and atactic polypropylene. A model based on computations is proposed.

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Nadia M. Comerlato, Glaucio B. Ferreira, R. Alan Howie, Carolina X.A. Silva, James L. Wardell

J. Organomet. Chem. 693 (2008) 2424

Synthesis of bis(tert-butyl)(2-thioxo-1,3-dithiole-4,5-dithiolato)stannane, Bu^t_2Sn -(dmit), and bis(tert-butyl)(2-oxo-1,3-dithiole-4,5-dithiolato)stannane, Bu^t_2Sn -(dmio): Crystal structures, at 120 K, of polymeric Bu^t_2Sn (dmit), and two polymorphs of Bu^t_2Sn (dmio), a polymer and a cyclic tetramer

Crystal structures, at 120 K, of polymeric Bu^r₂Sn(dmit), and two polymorphs of Bu^r₂Sn(dmio), a polymer and a cyclic tetramer are reported.

Eduardo Arnáiz, Jaime Blanco-Urgoiti, Delbrin Abdi, Gema Domínguez, Javier Pérez Castells

I. Organomet. Chem. 693 (2008) 2431

Construction of quaternary centres for natural polycycles: The Pauson-Khand approach

Starting from suitable functionalized enynes including an aromatic ring that templates the reaction, polycyclic ketones are obtained with a quaternary carbon. The products obtained are intermediates in the synthesis of various natural products like the Hamigeran family and the steroidic alkaloid Conessine.

Sawako Miyamura, Hayato Tsurugi, Tetsuya Satoh, Masahiro Miura

J. Organomet. Chem. 693 (2008) 2438

Rhodium-catalyzed regioselective arylation of phenylazoles and related compounds with arylboron reagents via C-H bond cleavage

Direct ortho-arylation of phenylazoles with arylboron reagents under rhodium catalysis proceeds efficiently to afford the corresponding mono- or diarylated products. Ethyl chloroacetate and potassium fluoride effectively act as a hydrogen acceptor and a promoter, respectively. Azobenzene as well as 2-phenylpyridine also undergo the direct arylation under similar conditions.

Nicholas C. Lloyd, Hugh W. Morgan, Brian K. Nicholson, Ron S. Ronimus

J. Organomet. Chem. 693 (2008) 2443

Substituted phenylarsonic acids; structures and spectroscopy

Spectroscopic data for 15 substituted phenylarsonic acids are reported, together with the X-ray structures of five examples which form extensive H-bonded networks in the crystals.

Contents

Irene Veroni, Christiana A. Mitsopoulou, Fernando J. Lahoz

J. Organomet. Chem. 693 (2008) 2451

Synthesis, spectroscopic properties and crystal structure of mononuclear tricarbonylrhenium(I) chloride complexes carrying 6-functionalised quinoxalines

A series of novel 6-functionalized 2,2′-pyridylquinoxalines and their corresponding Re(CO)₃Clpq complexes were synthesized by basic organic and organometallic routes. The compounds were fully characterized and the crystal structure of Re-(CO)₃ClPq-CH₃ was elucidated. The spectroscopic data reveal the important role of the substituent at 6-position and the non equivalent role of the pyridine and quinoxaline moieties of the chelating ligand.

Notes

Viviana B. Dorn, Mercedes A. Badajoz, María T. Lockhart, Alicia B. Chopa, Adriana B. Pierini

J. Organomet. Chem. 693 (2008) 2458

Synthesis of cyclohexadienylstannanes – Novel example of vinylic $S_{\rm RN}1$ mechanism: A theoretical and experimental study

Structurally similar (diethoxyphosphoryl)-oxy-1,3-cyclohexadienes do not behave in the same way towards trimethyltinsodium in liquid ammonia, under ET conditions. We suggest a $S_{\rm RN}1$ mechanism for the substitution process. The dissimilar behavior is due to differences in spin density of their radical anions. Our experimental results are supported by computational calculations.

$$R = H, 5-Me$$

$$R = H, 5-Me$$

$$NH_3(1)$$

$$S_{RN}1$$

$$R = H, 3-Me, 4-Me, 6-Me$$

$$Very Slow Reaction
$$R = S_{NM} = S_$$$$

Daniel P. Sweat, Chad E. Stephens

J. Organomet. Chem. 693 (2008) 2463

A modified synthesis of tellurophene using NaBH₄ to generate sodium telluride

A modified synthesis of tellurophene by reaction of diacetylene with sodium telluride is described. The primary modification involves the convenient in situ generation of sodium telluride by reduction of tellurium metal with NaBH₄ in water.

Yang Li, Fritz E. Kühn

J. Organomet. Chem. 693 (2008) 2465

A straightforward preparation of acetonitrile ligated silver perfluoroalkoxy aluminate $[Ag(NCCH_3)_4][Al\{OC(CF_3)_3\}_4]$

A new, easy and straightforward synthesis of acetonitrile ligated silver perfluoroalk-oxy aluminate is described, avoiding the use of expensive AgF and working without an ultrasonic bath, affording 90% product yield.

$$\begin{bmatrix} (F_3C)_3C & O-C(CF_3)_3 \\ O-AI & O-C(CF_3)_3 \end{bmatrix}$$

$$(F_3C)_3C$$

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