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Contents

Communications

Masanobu Wakasa, Yuya Takamori, Toshiyuki Takayanagi, Masayuki Orihara, Tsuyoshi Kugita

J. Organomet. Chem. 692 (2007) 2855

Re-examination of the photochemical reaction of octaisopropylcyclotetragermane

The photochemistry of octaisopropylcyclote-tragermane was studied by laser flash photolysis and trapping experiments. Upon irradiation of the cyclotetragermane, the main reaction was a ring opening to form octaisopropyltetragermane-1,4-diyl biradical ($\lambda_{\rm max}$ = 310 and 550 nm), but generations of diisopropylgermylene and tetraisopropyldigermene are negligible.

Review

Issa M. El-Nahhal, Nizam M. El-Ashgar

J. Organomet. Chem. 692 (2007) 2861

A review on polysiloxane-immobilized ligand systems: Synthesis, characterization and applications

The two immobilized ligand systems, iminobis (N-2-aminoethylacetamide) and iminobis (N-diethylenetrimineacetamide) ligand systems were prepared by the reaction of the immobilized diethyliminoacetate polysiloxane with ethylenediamine and diethylenetriamine, respectively.

Regular Papers

Stefan Dilsky

J. Organomet. Chem. 692 (2007) 2887

Molybdenum and tungsten complexes of the neutral tripod ligands $HC(pz)_3$ and $MeC(CH_2-PPh_2)_3$

Seven-coordinated complexes of tungsten and molybdenum containing the facially coordinating ligands $HC(pz)_3$ (1) and $MeC(CH_2-PPh_2)_3$ (2) have a 4:3 piano stool geometry with almost perfect C_S symmetry in the crystal. In solution, they show the typical fluxional behavior for seven-coordinated complexes. Complete oxidative decarbonylation occurs when $[HC(pz)_3Mo(CO)_3]$ (4) or $[MeC(CH_2-PPh_2)_3Mo(CO)_3]$ (6) are treated with an excess of I_2 or Br_2 .

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Supriya Biswas, Mahammad Ali

J. Organomet. Chem. 692 (2007) 2897

Transition metal carbene chemistry⁷: Nucleophilic substitution reactions of imidazolide and benzimidazolide ions with Fischer carbene complexes in MeOH

Rate constants for the nucleophilic substitution reactions of imidazolide and benzimidazolide ions with 4-Cr-Z and 5 in MeOH at 25 °C are reported. The Hammett ρ values are 1.50 ± 0.10 and 1.51 ± 0.08 for 4-Cr-Z-IZ $^-$ and 4-Cr-Z-BIZ $^-$ reactions, respectively. The comparable reactivity and also almost identical ρ values indicate that there is no difference in reactivity due to slightly bigger size of benzimidazolide over imidazolide ions and bond formation at the transition states are equally progressed.

$$(CO)_{5}Cr = C \xrightarrow{SMe} + N \xrightarrow{k_1} (CO)_{5}Cr = C \xrightarrow{N}$$

$$+ Cr \cdot Z \qquad IZ \qquad T_d$$

$$- k_2 \qquad (CO)_{5}Cr = C \xrightarrow{N}$$

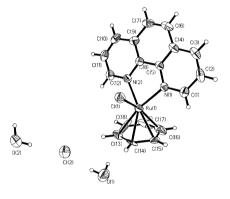
$$Cr \cdot Z \cdot IZ$$

J.G. Małecki, M. Jaworska, R. Kruszynski

J. Organomet. Chem. 692 (2007) 2903

Synthesis, molecular, crystal and electronic structure of [(C₆H₆)RuCl(1,10-C₁₂H₈N₂)]Cl

The $[(C_6H_6)RuCl(1,10-C_{12}H_8N_2)]Cl$ complex has been prepared and studied by IR, UV–Vis, 1H NMR spectroscopy and X-ray crystallography. The complex was obtained by reaction of $[(C_6H_6)RuCl_2]_2$ with 1,10-phenatroline in acetone. The electronic spectrum of the compound has been calculated by the TDDFT method.

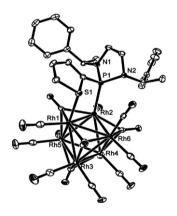


Marina M. Tomashevskaya, Sergey P. Tunik, Ivan S. Podkorytov, Brian T. Heaton, Jonathan A. Iggo, Matti Haukka, Tapani A. Pakkanen, Päivi L. Pirilä, Jouni Pursiainen

J. Organomet. Chem. 692 (2007) 2911

A novel heterobidentate chiral phosphine and its coordination chemistry in transition metal clusters

The optically active new ligand *R*,*R*-PHAZAN has been prepared and the products resulting from the reactions with Rh₆(CO)₁₅NCMe, H₃RhOs₃(CO)₁₂, and H₄Ru₄(CO)₁₂ have been investigated by X-ray crystallography and a variety of multinuclear NMR methods.



Sergiusz Luliński, Janusz Serwatowski

J. Organomet. Chem. 692 (2007) 2924

A diverse structural behaviour of boronated *ortho*-phthalaldehydes: A crystal structure of 1,3-dihydro-1,3-dihydroxy-4-formylbenzo[c]-[2,1]oxaborole

Two isomeric boronated *ortho*-phthalaldehydes 3- and 4-[B(OH)₂]-1,2-C₆H₃(CHO)₂ reveal a different structural behaviour in solution; the former compound undergoes a tautomeric rearrangement to form 1,3-dihydro-1,3-dihydroxy-4-formylbenzo[c][2,1]oxaborole.

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