Structural, spectroscopic and catalytic properties of water-soluble hydride rhodium complexes $[RhH(Rtpa^{+} I^{-})_4]H_2O$ (R = Me, Et).

Autorzy

Florian P. Pruchnik

Piotr Smoleński

Ewa Gałdecka

Zdzisław Gałdecki

Rok wydania

1999

Czasopismo

Inorganica Chimica Acta

Numer woluminu

293

Strony

110-114

DOI

10.1016/S0020-1693(99)00228-5

Kolekcja

Naukowa

Język

Angielski

Typ publikacji

Artykuł

Streszczenie

New rhodium(I) hydrido complexes $[RhH(mtpa^{+}I^{-})_4]\cdot H_2O$ (**1**) and $[RhH(etpa^{+}I^{-})_4]\cdot H_2O$ (**2**) (where $mtpa^{+}I^{-}$=1-methyl-1-azonia-3,5-diaza-7-phosphatricyclo[3.3.1.1^{3,7}]decane iodide, $etpa^{+}I^{-}$=1-ethyl-1-azonia-3,5-diaza-7-phosphatricyclo[3.3.1.1^{3,7}]decane iodide) have been synthesized and characterized using ^{1}H, ^{31}P NMR and IR spectra and X-ray crystallography. Both complexes have the trigonal-bipyramidal structure. The ^{1}H NMR spectra indicate that in solutions the complexes have fluxional properties. The compounds are very stable in water under neutral atmosphere. They are efficient catalysts of hydrogenation of C=C bonds in two-phase catalytic systems

Słowa kluczowe

Crystal structures, Alkene hydrogenation, Rhodium complexes, Hydride complexes, Water-soluble complexes

Adres publiczny

https://doi.org/10.1016/S0020-1693(99)00228-5

Strona internetowa wydawcy

http://www.elsevier.com