Synthesis of Platinum(II) Phoshine Isocyanide Complexes and Study of Their Stability in Isomerization and Ligand Disproportionation Reactions

M. A. Kinzhalov[a]*, M. V. Kashina[a], A. S. Mikherdov[a], S. A. Katkova[a], and V. V. Suslonov[a]

[a] *St. Petersburg State University, Universitetskaya nab. 7–9, St. Petersburg, 199034 Russia*
**e-mail: m.kinzhalov@spbu.ru*

Received April 19, 2018

Abstract—Phosphine isocyanide complexes *cis*-[$PtCl_2$(CNMes)(P)] with mesitylisocyanide and phoshine ligands were synthesized in yields of 92–98%. The products were characterized by mass spectrometry, IR and ^{1}H NMR, COSY, NOESY, HSQC, and HMBC spectroscopy, and X-ray diffraction analysis. The solid-state and solution structures of the complexes and their stability in isomerization and ligand disproportionation reactions were studied.

Keywords: platinum complexes, isocyanides, phosphines

DOI: 10.1134/S107036321806021X