

A Salt Metathesis Route to Ruthenium Carbene Complex Isomers with Pyridine Dicarboxamide-derived Chelate Pincer Ligands

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Reaction of the doubly deprotonated pyridine 2,6-dicarboxamido ligand (**1**) with (PCy₃)₂Cl₂Ru=CHPh (**3a**) in THF gave a mixture of (lig)(PCy₃)Ru=CHPh isomers (**4**). The pentane soluble N,N,O-**4** isomer was isolated by extraction and characterized by X-ray diffraction. The O,N,O-**4** isomer was identified in the residue. Single crystals of the closely related complex (lig)(NHC)Ru=CHPh, O,N,O-**5**, were obtained from the reaction of **1** with (NHC)(PCy₃)Cl₂Ru=CHPh (**3b**) and used for the X-ray crystal structure analysis of the system.

Key words: Chelate Ligand, Salt Metathesis, Ruthenium Carbene Complexes, Isomeric Coordination Compounds