Ligand vs. Metal Basicity: Reactions of 2-(Diphenylphosphanyl)anilido and 2-(Diphenylphosphanyl)phenolato Complexes of Rhodium(I) and Iridium(I) with HBF₄

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Z. Naturforsch. 2010, 65b, 376–382; received November 14, 2009

Dedicated to Professor Rolf W. Saalfrank on the occasion of his 70th birthday

Treatment of [M(CO)(PPh₃)(2-Ph₂PC₆H₄NR-κN,κP)], where M/NR = Rh/NH (1), Rh/NH₂ (7), Rh/NHCH₃ (8), Ir/NH (3), and Ir/NH₂ (9), Ir/NHCH₃ (10). Similar protonation of [Rh(CO)(PPh₃)(2-Ph₂PC₆H₄O-κO,κP)] (5) in CH₂Cl₂ afforded [Rh(CO)(PPh₃)(2-Ph₂PC₆H₄OH-κO,κP)]BF₄ (11), but furnished [Rh(CO)(PPh₃)-(NCCH₃)(2-Ph₂PC₆H₄OH-κP)]BF₄ (12) if carried out in CH₃CN. [Ir(CO)(PPh₃)(2-Ph₂PC₆H₄O-κO,κP)] (6) reacted with HBF₄ by protonation at the central metal atom and oxidative addition to give [IrH(FBF₃)(CO)(PPh₃)(2-Ph₂PC₆H₄O-κO,κP)] (13), the substitutionally labile BF₄⁻ ligan

Keywords: P,N Ligands, P,O Ligands, Rhodium Complexes, Iridium Complexes, Protonation