Synthesis and structure of trans-[Rh(CO)(PPh₃)₂(NCBH₃)]

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Supporting information

S1. General experimental procedures

All operations were carried out in atmosphere of dry argon using Schlenk techniques. All solvents were purified according to standard procedures. CDCl₃ was washed with water, dried over CaCl₂ and distilled over CaH₂ before use. NaBH₃CN was purchased from Aldrich and used as received. IR spectra were recorded with the Specord 75 IR instrument (CaF₂ windows). NMR studies were performed at the Centre for Magnetic Resonance, St. Petersburg State University. The spectra were recorded on a Bruker spectrometer AVANCE III 400, at operating frequencies 400.13 MHz (¹H spectra), 100.61 MHz (¹³C{¹H}) spectra), 161.97 MHz (³¹P{¹H}) spectra and 128.38 MHz (¹¹B) spectra in CDCl₃ as solvent at 223 K. The ¹H chemical shifts were referenced to TMS using solvent residual protons as internal standards, 7.26 ppm for CDCl₃; the ¹³C chemical shifts were measured for samples with natural ¹³C abundance and were referenced to TMS, using solvent ¹³C as internal standard, 77.1 ppm for CDCl₃. The ³¹P chemical shifts were measured with 85% phosphoric acid as external standard, δ ³¹P 0.0 ppm. ¹¹B chemical shifts were externally referenced to BF₃OEt₂ (δ ¹¹B 0.00 ppm).