

New

CHEMISTRY

TCI

CAAC (Cyclic Alkyl Amino Carbene) Precursor

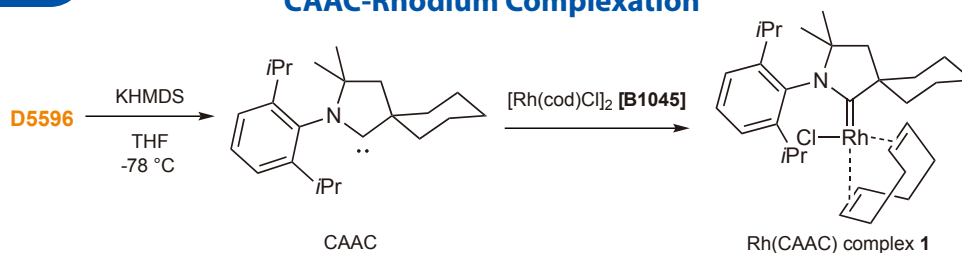


Advantages

- Stronger σ -donating property than NHC
- Applicable to complexation with various metals
- CAAC-Rh complex efficiently catalyzes hydrogenation

Applications

CAAC-Rhodium Complexation

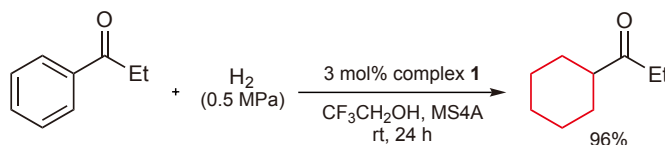


Experimental procedure:

[Rh(cod)Cl]₂ (194 mg, 0.393 mmol), **D5596** (300 mg, 1.05 eq.) and KHMDS (236 mg, 1.5 eq.) are added to a schlenk tube under an argon atmosphere. Dry THF (18 mL) is added dropwise over 10 min to the solids at -78 °C. The suspension is stirred for 10 min at -78 °C, after which the reaction mixture is allowed to warm up to room temperature. After stirring for 16 h at room temperature, the suspension is filtered, concentrated, adsorbed on silica gel and purified twice by column chromatography. After evaporation of the solvents, the complex is precipitated from a concentrated solution in dichloromethane with pentane to yield the desired complex **1** as yellow powder. Yield 63% (282 mg, 0.492 mmol).

M. P. Wiesenfeldt, Z. Nairoukh, W. Li, F. Glorius, *Science* **2017**, 357, 908.

CAAC-Rhodium Complex Catalyzed Hydrogenation



Y. Wei, B. Rao, X. Cong, X. Zeng, *J. Am. Chem. Soc.* **2015**, 137, 9250.

2-(2,6-Diisopropylphenyl)-3,3-dimethyl-2-azaspiro[4.5]dec-1-en-2-ium Hydrogen Dichloride

1g / 5g [D5596]

Related Product

[Rh(cod)Cl]₂ (= Chloro(1,5-cyclooctadiene)rhodium(I) Dimer)

100mg / 1g [B1045]

For further information please refer to our website at www.TCIchemicals.com.

CAAC



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