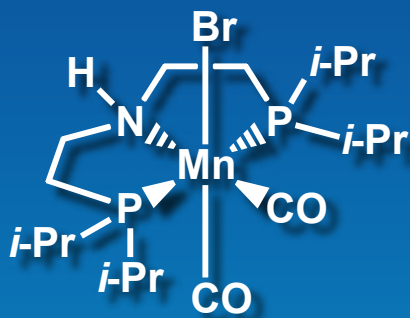


Highly Air-stable Manganese Catalyst Usable for Versatile Hydrogenations



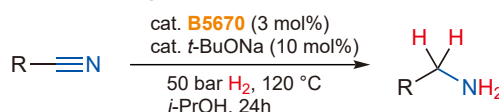
Bromodicarbonyl
[bis[(2-diisopropylphosphino)-
ethyl]amine]manganese(I)
100mg
[B5670]

Advantages

- Highly Air-stable Manganese Complex
- Applicable to Various Hydrogenation and Transfer Hydrogenation Reactions
- Alternative to Precious Metal Catalysts

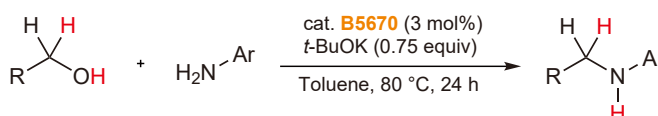
Applications

Hydrogenation of Nitriles, Ketones and Aldehydes



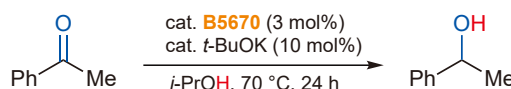
Reference S. Elangovan, C. Topf, S. Fischer, H. Jiao, A. Spannenberg, W. Baumann, R. Ludwig, K. Junge, M. Beller, *J. Am. Chem. Soc.* **2016**, 138, 8809.

Formal N-Alkylation of Aryl Amines with Alcohols



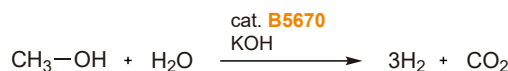
Reference S. Elangovan, J. Neumann, J. Sortais, K. Junge, C. Darcel, M. Beller, *Nat. Commun.* **2016**, 7, 12641.

Transfer Hydrogenation of Ketones



Reference M. Perez, S. Elangovan, A. Spannenberg, K. Junge, M. Beller, *ChemSusChem* **2017**, 10, 83.

Dehydrogenation of Methanol



Reference M. Andrez-Fernandez, L. K. Vogt, S. Fischer, W. Zhou, H. Jiao, M. Garbe, S. Elangovan, K. Junge, H. Junge, R. Ludwig, M. Beller, *Angew. Chem. Int. Ed.* **2017**, 56, 559.

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