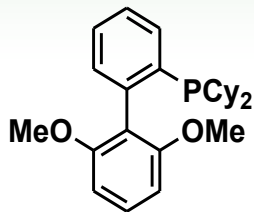
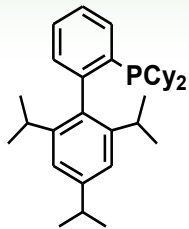


ホスフィンリガンド

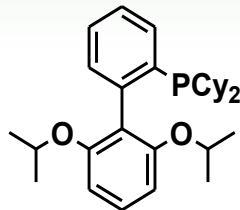
Buchwaldリガンド



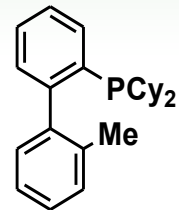
SPhos



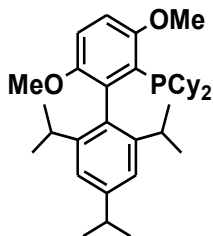
XPhos



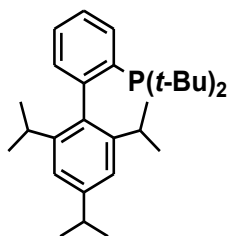
RuPhos



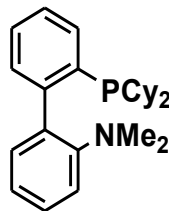
MePhos



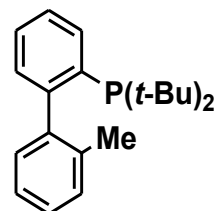
BrettPhos



t-Bu-XPhos



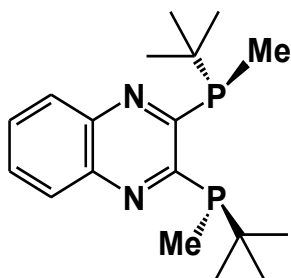
DavePhos



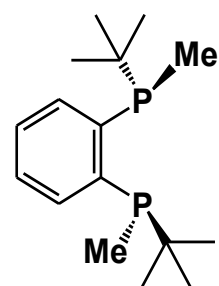
t-Bu-MePhos

100 kg 生産の工業化対応

P-キラルリガンド QuinoxP* & BenzP*



(R,R)-QuinoxP*



(R,R)-BenzP*

- 大気雰囲気でも安定な結晶性固体
- 不斉水素化および C-C または C-N 結合形成における 99.9% ee を超える優れたエナンチオ選択性
- (S,S)-QuinoxP* の対応も可能
- QuinoxP*® は日本化学が特許取得

 日本化学工業株式会社

営業本部 機能品営業部

Tel. 03-3636-8081 / Fax. 03-3636-8140

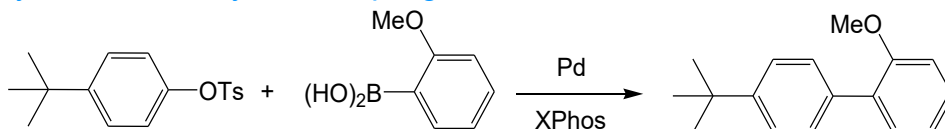
URL <https://www.nippon-chem.co.jp/>

使用例

XPhos

J. Am. Chem. Soc., 2003, 125, 6653.

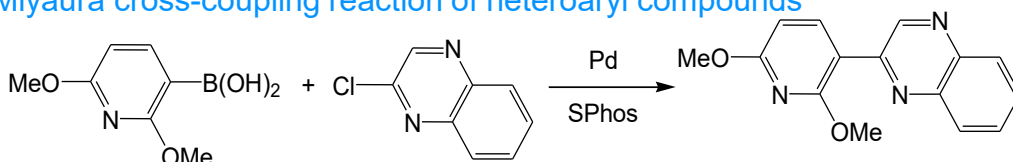
- Pd catalyzed Suzuki-Miyaura coupling reaction



SPhos

J. Am. Chem. Soc., 2005, 127, 4685.

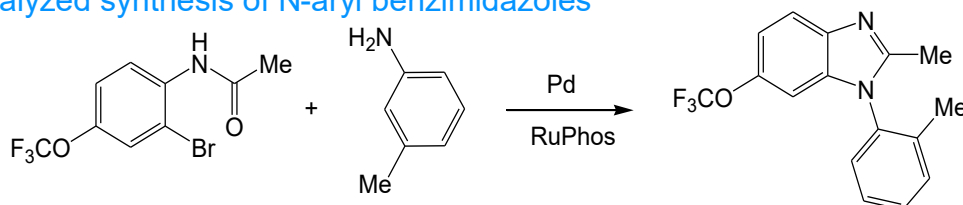
- Suzuki-Miyaura cross-coupling reaction of heteroaryl compounds



RuPhos

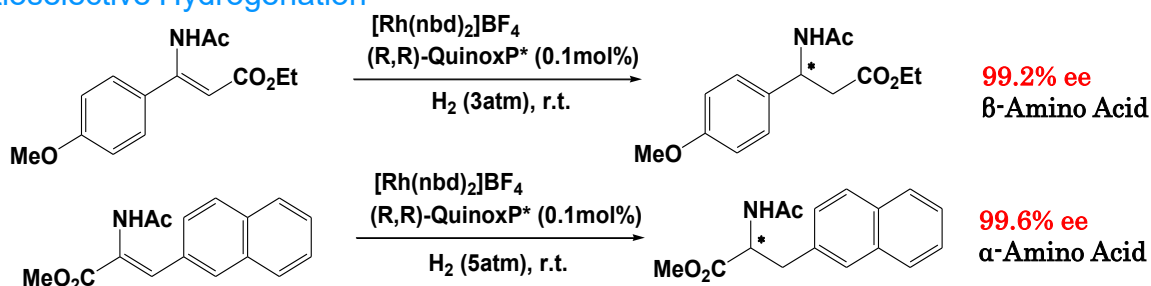
J. Am. Chem. Soc., 2004, 126, 13028.

- Pd catalyzed synthesis of N-aryl benzimidazoles



QuinoxP*

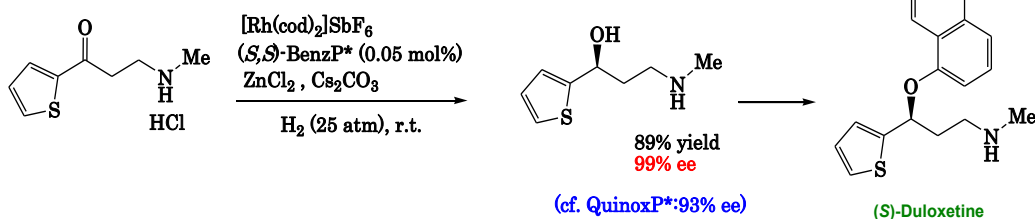
- Enantioselective Hydrogenation



BenzP*

Angew. Chem. Int. Ed. 2014, 53, 1.

- Enantioselective Hydrogenation



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