

手性磷酸催化芳香胺与硝基烯烃的不对称加成反应

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摘要 以轴手性联萘酚为原料, 合成了一系列手性磷酸催化剂, 并首次将其应用于催化芳香胺和硝基烯烃的不对称氮杂迈克尔加成反应中, 产物 β -硝基胺的产率和对映选择性分别达 65%~95% 和 16%~70%。

关键词: 手性磷酸 芳香胺 硝基烯烃 氮杂迈克尔加成

Abstract: Chiral phosphoric acid was found to be an effective organocatalyst in the enantioselective aza-Michael addition of aromatic amines to nitroolefins giving the corresponding β -nitroamine products in good yields (65% - 95%) with moderate to good enantiomeric excesses (16% - 70%). This study represents the first example of a chiral phosphoric acid catalyzed asymmetric aza-Michael addition reaction.

Keywords: chiral phosphoric acid, aromatic amine, nitroolefin, aza-Michael addition

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