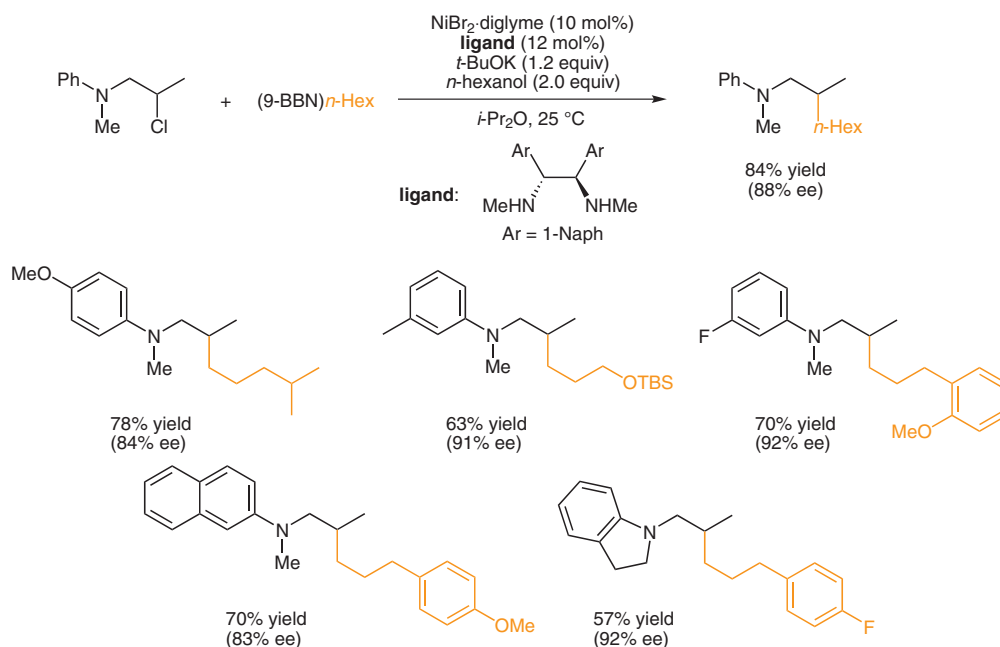


Z. LU, A. WILSILY, G. C. FU* (MASSACHUSETTS INSTITUTE OF TECHNOLOGY, CAMBRIDGE, USA)

Stereoconvergent Amine-Directed Alkyl–Alkyl Suzuki Reactions of Unactivated Secondary Alkyl Chlorides

J. Am. Chem. Soc. **2011**, *133*, 8154–8157.

Amine-Directed Alkyl–Alkyl Suzuki Reactions



Significance: This work reports the development of a stereoconvergent aryl amine directed alkyl–alkyl Suzuki coupling. In this protocol, unactivated secondary alkyl chlorides serve as substrates and the desired products are generally obtained with good enantioselectivity using a C₂-symmetric 1,2-diamine ligand.

Comment: Structure–enantioselectivity studies indicated that the aryl amine is the primary coordination site to the catalyst. Consistently, the introduction of an additional methylene unit between the aryl amine moiety and the chloride leads to a product with essentially no enantiomeric excess.

SYNFACTS Contributors: Paul Knochel, Thomas Kunz
Synfacts 2011, 8, 0885–0885 Published online: 20.07.2011
DOI: 10.1055/s-0030-1260728; Reg-No.: P08811SF

2011 © THIEME STUTTGART • NEW YORK

Category

Metal-Mediated
Synthesis

Key words

nickel

Suzuki coupling

alkyl–alkyl coupling

SYNFACTS
of the month