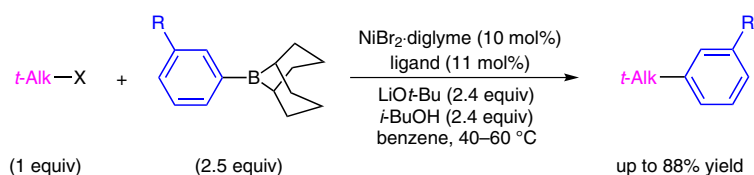
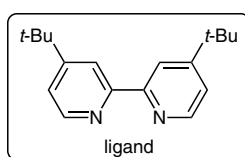


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Nickel-Catalyzed Carbon-Carbon Bond-Forming Reactions of Unactivated Tertiary Alkyl Halides: Suzuki Arylations
J. Am. Chem. Soc. **2013**, *135*, 624–627.

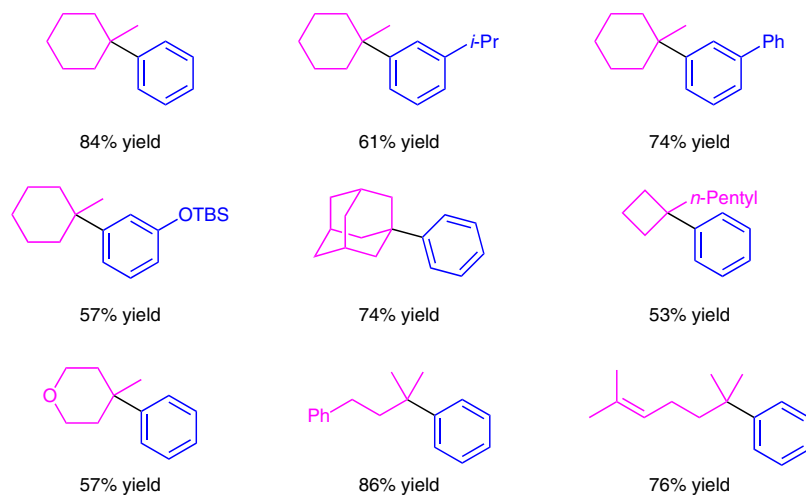
Ni-Catalyzed Suzuki Arylation of Unactivated Tertiary Alkyl Halides



t-Alk = unactivated tertiary alkyl
R = H, Me, *i*-Pr, Ph, OTBS, *Oi*-Pr
X = Cl, Br, I



Selected examples:



Significance: The first nickel-catalyzed Suzuki cross-coupling reaction of unactivated tertiary alkyl halides has been disclosed. Both the nickel catalyst as well as the bipyridine ligand are commercially available. The desired products have been obtained in excellent yields.

Comment: The described reaction is very versatile since the synthesis of the all-carbon quaternary carbon centers does not suffer from isomerization of the alkyl group. Preliminary mechanistic studies indicate the generation of a radical intermediate along the reaction pathway.

SYNFACTS Contributors: Paul Knochel, Christoph Sämann
Synfacts 2013, 9(4), 0421 Published online: 15.03.2013
DOI: 10.1055/s-0032-1318384; Reg-No.: P02713SF

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Category

Metal-Mediated
Synthesis

Key words

Suzuki cross-
coupling

tertiary alkyl
halides

nickel

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of the month