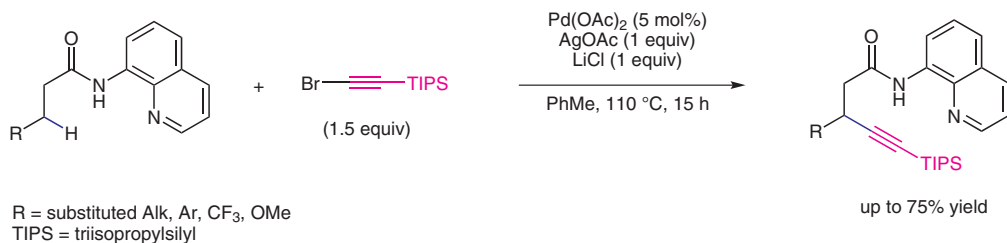
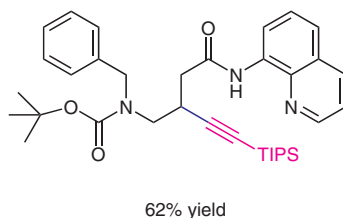
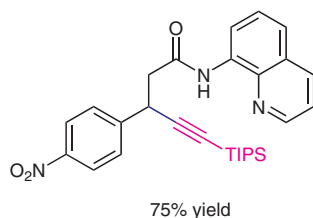
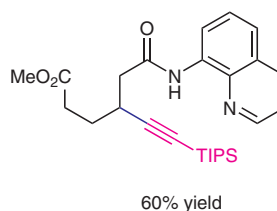
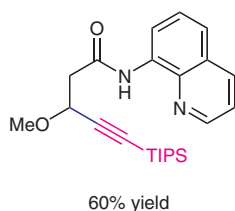
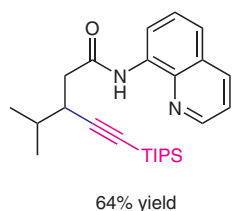


Y. ANO, M. TOBISU,* N. CHATANI* (OSAKA UNIVERSITY, SUITA, JAPAN)
Palladium-Catalyzed Direct Ethynylation of C(sp³)-H Bonds in Aliphatic Carboxylic Acid Derivatives
J. Am. Chem. Soc. **2011**, *133*, 12984-12986.

Pd-Catalyzed Direct Alkynylation of Aliphatic C-H Bonds



Selected examples:



Significance: The first palladium-catalyzed alkylation of unactivated C(sp³)-H bonds in aliphatic carboxylic acid derivatives has been disclosed. 8-Aminoquinoline proved to be the best directing group to promote the desired alkynylation reaction.

Comment: Interestingly, replacement of the 8-aminoquinoline moiety with a 1-aminonaphthyl group or N-methylation of the amide group completely inhibited the ethynylation reaction, indicating that both, the nitrogen of the quinoline moiety and the NH group of the amide are essential for the reaction.

SYNFACTS Contributors: Paul Knochel, Andreas K. Steib
Synfacts 2011, 11, 1223-1223 Published online: 19.10.2011
DOI: 10.1055/s-0031-1289194; Reg-No.: P12311SF

2011 © THIEME STUTTGART • NEW YORK

Category

Metal-Mediated
Synthesis

Key words

alkynylation

C-H activation

palladium

SYNFACT
of the month