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SYNFACTS Highlights in Current Synthetic Organic Chemistry

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Category

Metal-Mediated Synthesis

Key words

alkynylation

boron

enantiospecificity

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Enantiospecific Alkynylation of Alkylboronic Esters

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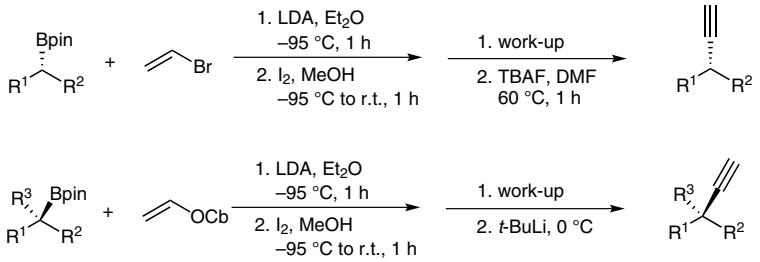
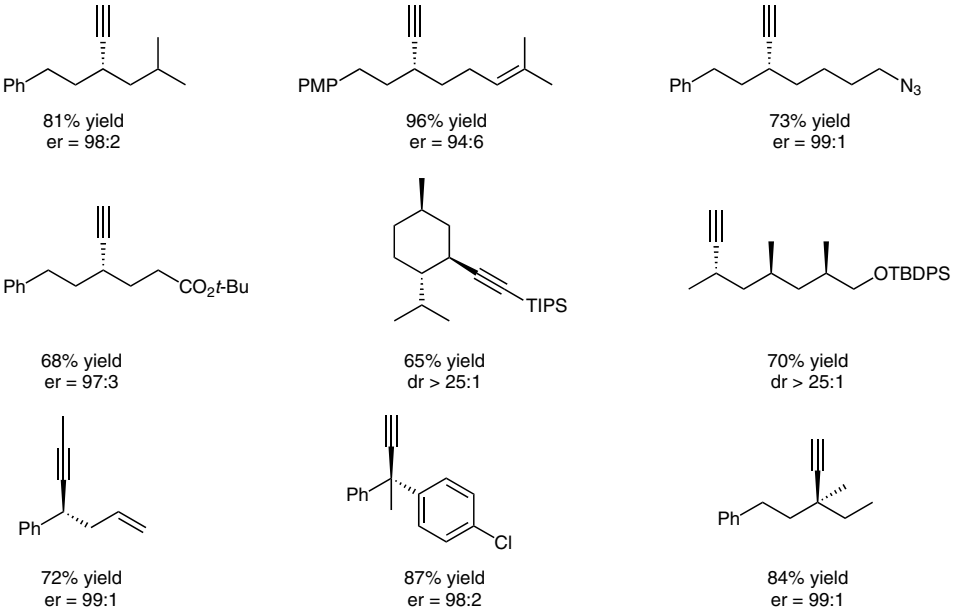
Alkynylation of Alkylboronic Esters



R^1 = Ph, Alk
R^2 = Alk
R^3 = H, Alk, Ar, All

Selected examples:



Significance: The authors report an enantiospecific deborylative alkynylation of secondary and tertiary alkyl pinacolboronic esters through a Zweifel-type alkenylation followed by a 1,2-elimination reaction in high yields and with excellent levels of enantioselectivity.

Comment: Internal and silyl-protected alkynes can be obtained by introducing suitable carbon- or silicon-based electrophiles after the base-mediated 1,2-elimination reaction.

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