

## SYNFACTS Highlights in Current Synthetic Organic Chemistry

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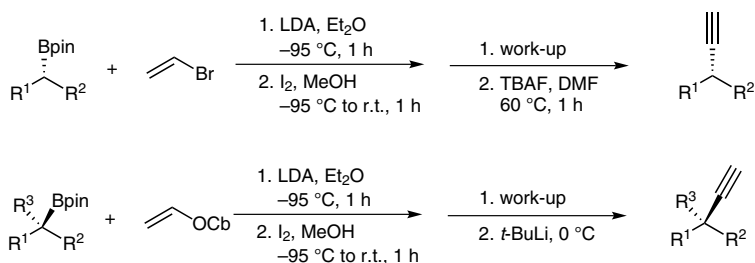
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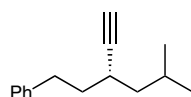
Y. WANG, A. NOBLE, E. L. MYERS, V. K. AGGARWAL\* (UNIVERSITY OF BRISTOL, UK)  
 Enantiospecific Alkynylation of Alkylboronic Esters  
*Angew. Chem. Int. Ed.* **2016**, *55*, 4270–4274.

## Alkynylation of Alkylboronic Esters

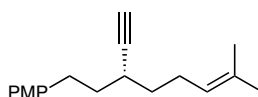


R<sup>1</sup> = Ph, Alk  
 R<sup>2</sup> = Alk  
 R<sup>3</sup> = H, Alk, Ar, All

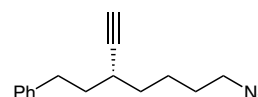
### Selected examples:



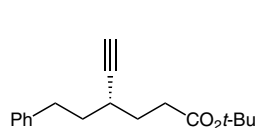
81% yield  
 er = 98:2



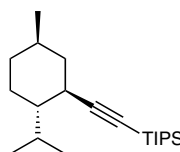
96% yield  
 er = 94:6



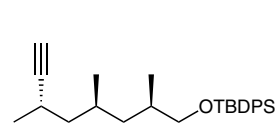
73% yield  
 er = 99:1



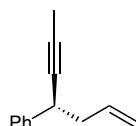
68% yield  
 er = 97:3



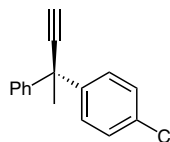
65% yield  
 dr > 25:1



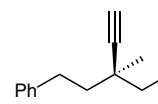
70% yield  
 dr > 25:1



72% yield  
 er = 99:1



87% yield  
 er = 98:2



84% yield  
 er = 99:1

**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.

**SYNFACTS Contributors:** Paul Knochel, Marthe Ketels  
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