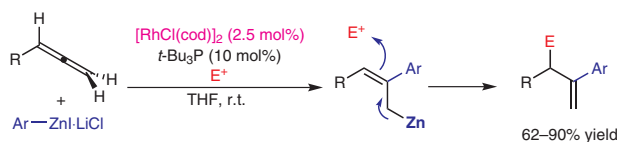
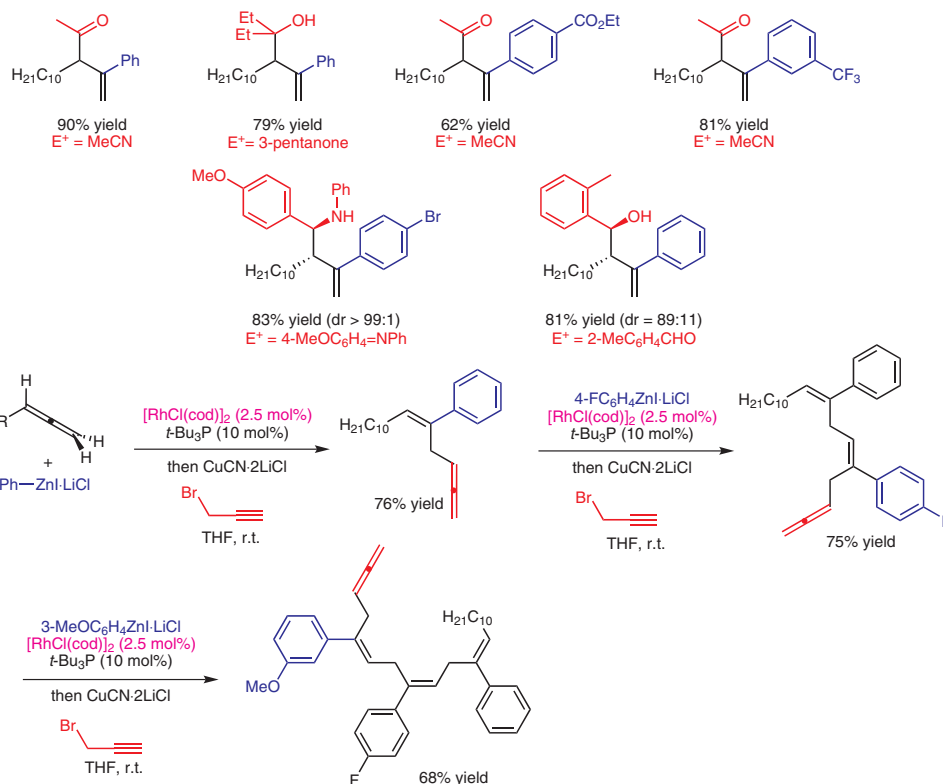


Y. YOSHIDA, K. MURAKAMI, H. YORIMITSU,* K. OSHIMA* (KYOTO UNIVERSITY, JAPAN)
 Rhodium-Catalyzed Arylzincation of Terminal Allenes Providing Allylzinc Reagents and Its Application to Versatile
 Three-Component Coupling Reaction
J. Am. Chem. Soc. **2010**, *132*, 8878-8879.

Stereoselective Rhodium-Catalyzed Arylzincation of Terminal Allenes



Selected examples:



Significance: A novel efficient rhodium-catalyzed multicomponent reaction using an arylzinc iodide, a monosubstituted allene and an electrophile (E^+) is reported. With acetonitrile and imines or aldehydes as electrophiles the use of Barbier-type conditions furnished the best yields. The reaction is highly diastereoselective, and thus allowed the synthesis of a stereodefined skipped polyene.

Comment: Multicomponents allow an easy one-pot access to molecular complexity. Multicomponent reactions involving allenes have recently attracted increased attention due to their efficiency. The high stereoselectivity of this reaction makes it a very valuable tool for modern synthesis.

Review: S. Ma *Chem. Rev.* **2005**, *105*, 2829-2871.

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 Synthesis

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terminal allenes
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 rhodium

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1171