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Zinc-Mediated Highly α-Regioselective 1,4-Addition of Chalcones with Prenyl Bromide in THF
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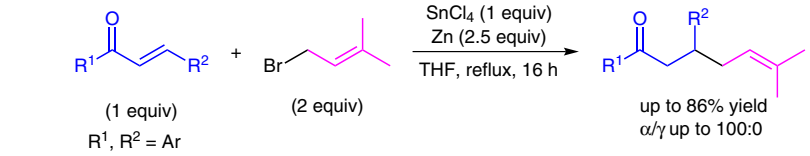
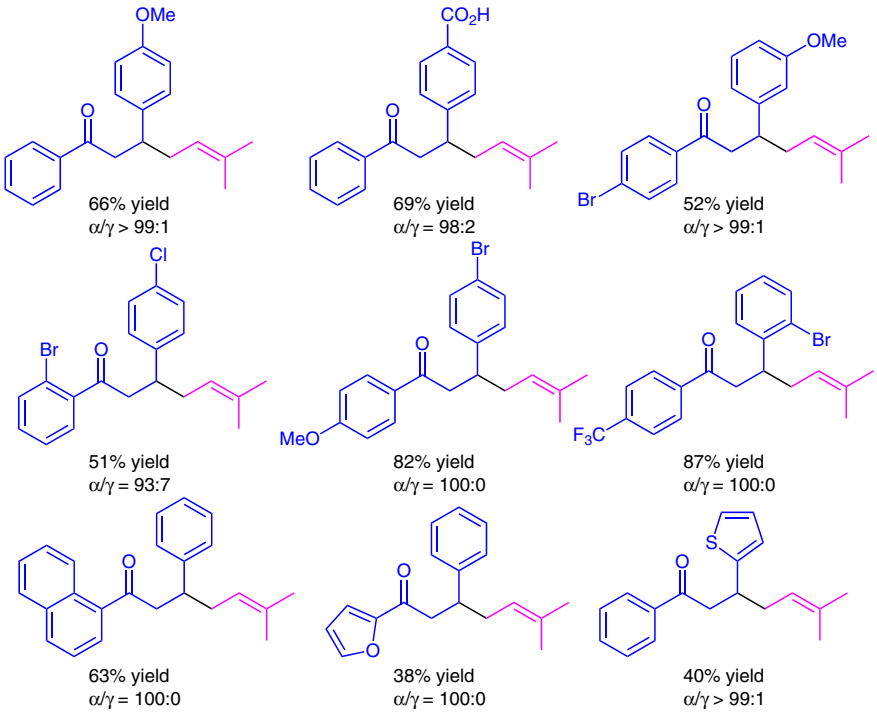
Highly α-Regioselective 1,4-Addition of Chalcones with Prenyl Bromide



Selected examples:



Significance: An efficient method for the introduction of a prenyl group onto the β-position of chalcones by zinc-mediated conjugate addition in the presence of tin(IV) chloride ($SnCl_4$) is reported. The corresponding products are obtained in high yields and excellent α/γ-selectivities.

Comment: The reaction has proven to be highly α-regioselective in a 1,4-manner. Moreover, the α-regioselectivity of these additions is higher than that of the corresponding addition of allylic barium, lithium, and copper reagents.

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