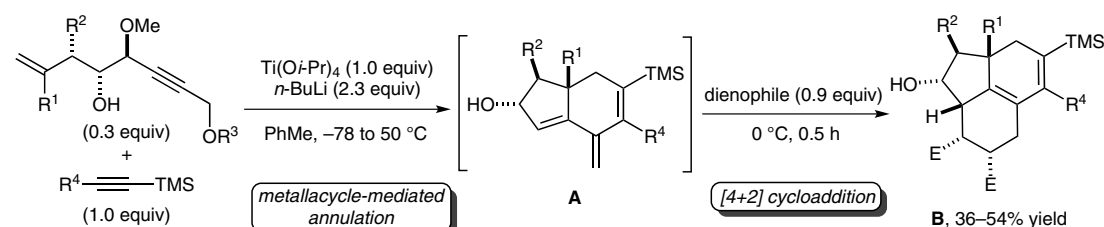
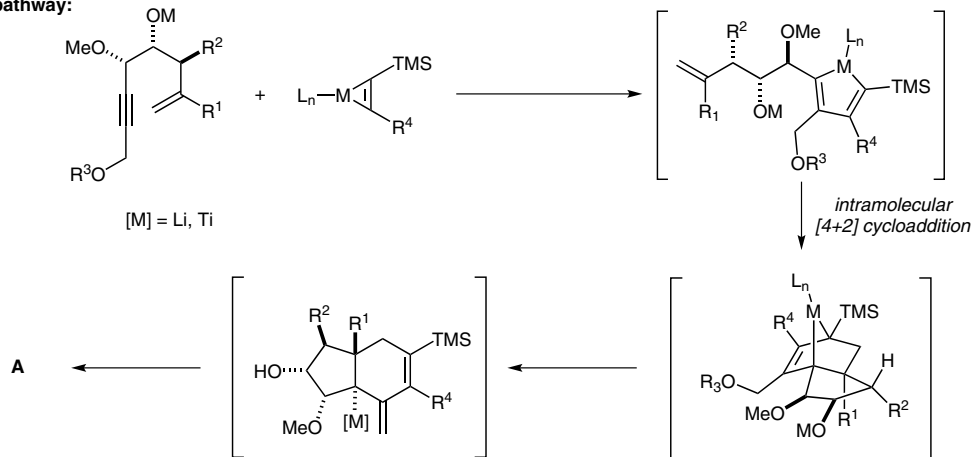


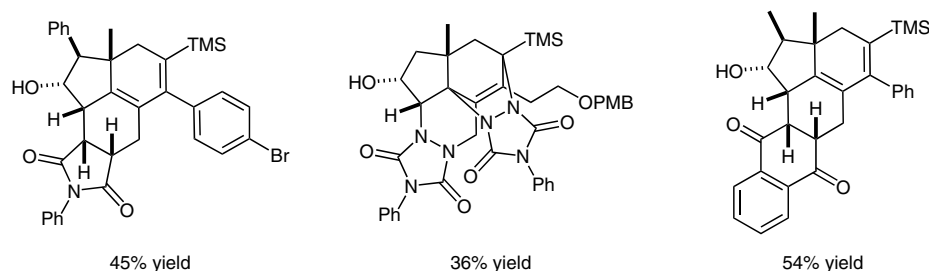
Metallacycle-Mediated Annulation for the Synthesis of Hydroindanes

R¹ = Me, BnR² = H, Me, PhR³ = Me, PMBR⁴ = Me, Ph, 4-BrC₆H₄, CH₂CH₂OPMB, *i*-propenyl

Proposed pathway:



Selected examples:



Significance: Cheng and Micalizio report a stereoselective annulation reaction to afford cross-conjugated triene-containing hydroindanes that are subsequently trapped by a dienophile in a [4+2]-cycloaddition reaction to obtain highly functionalized carbo- and heterocyclic systems.

Comment: The tendency of products of type **A** to undergo Diels–Alder-based dimerization upon standing was harnessed to accomplish this reaction cascade of annulation and intermolecular cycloaddition.

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