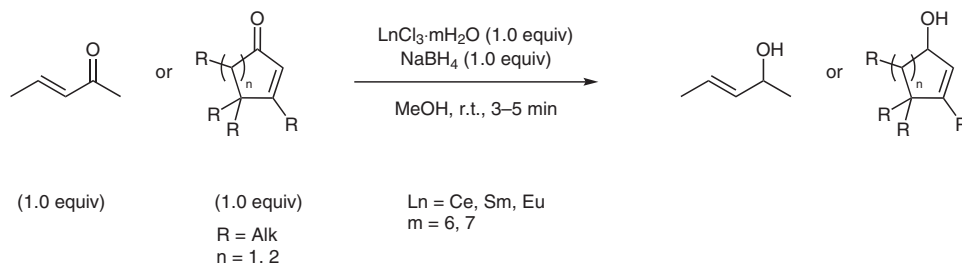
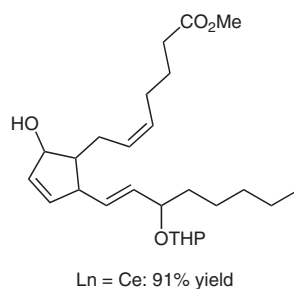
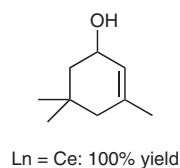
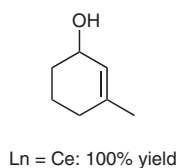
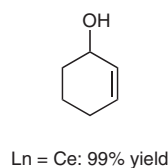
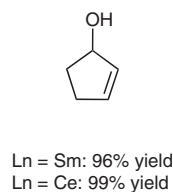
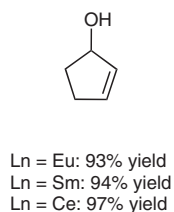
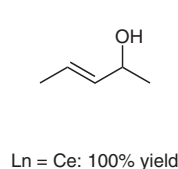


1,2-Reduction of Conjugated Ketones: The Luche Reduction



Examples:



Significance: In 1978, Luche reported the selective 1,2-reduction of α,β -unsaturated ketones by using sodium borohydride in the presence of various lanthanide chlorides, leading to allylic alcohols in excellent yields.

Comment: Remarkably, the use of lanthanide salts allowed the selective 1,2-reduction of several unsaturated ketones. Additionally, the undesired 1,4-reduction product was not formed which, until then, was a common byproduct in metal hydride mediated reduction methods.

Review: G. A. Molander *Chem. Rev.* **1992**, *92*, 29–68.