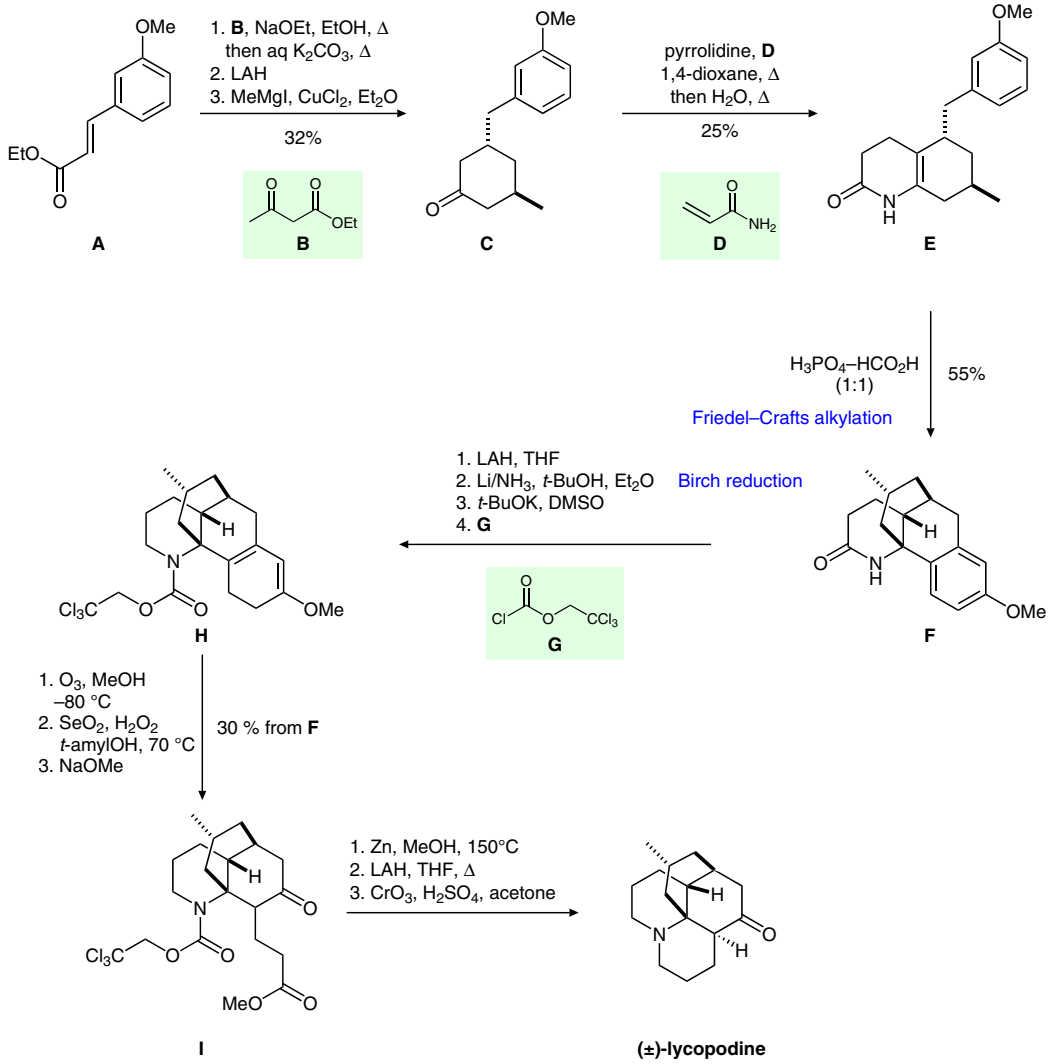
G. STORK, R. A. KRETCHMER, R. H. SCHLESSINGER (COLUMBIA UNIVERSITY, NEW YORK, USA)

The Stereospecific Total Synthesis of dl-Lycopodine
J. Am. Chem. Soc. **1968**, *90*, 1647–1648, DOI: 10.1021/ja01008a042.

Total Synthesis of (±)-Lycopodine



Significance: In 1968, Stork and co-workers reported the total synthesis of the alkaloid natural product (±)-lycopodine. This natural product, isolated over 130 years ago, is part of a family of compounds that have long attracted attention for the bioactivity and structural complexity.

Comment: Cyclization followed by conjugate addition furnishes ketone **C**, which is then elaborated to amide **E**. After Friedel–Crafts alkylation and functional group modulation, enol ether **H** is subjected to ozonolysis and selenium dioxide-mediated oxidation. Keto ester **I** then rapidly gave access to the natural product.

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