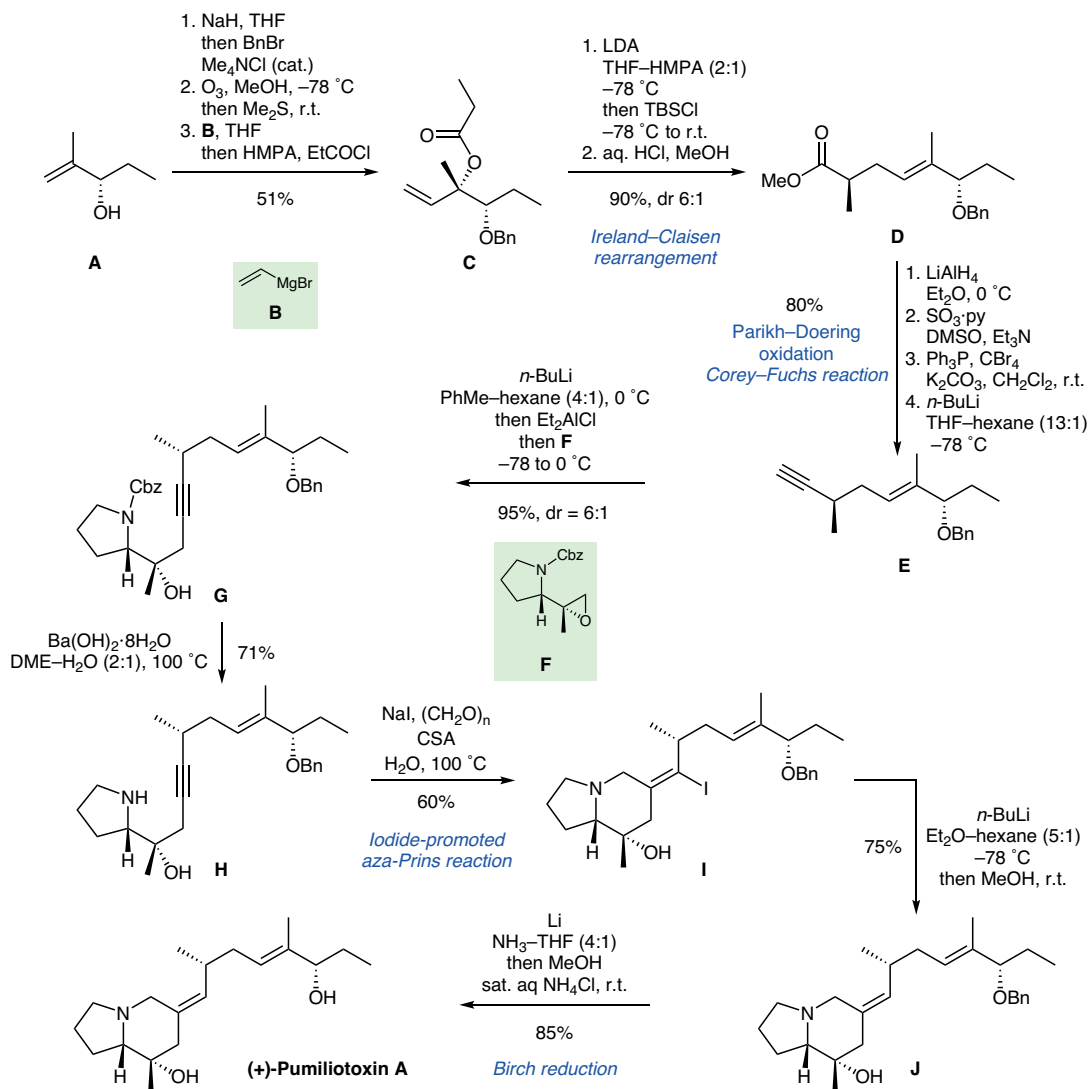


# Total Synthesis of (+)-Pumiliotoxin A



**Significance:** Overman and co-workers report the total synthesis of (+)-pumiliotoxin A. The alkaloid was isolated in 1967 from the skin of the Panamanian poison frog *Dendrobates pumilio*. The skin secretions of these frogs have been employed by the Noanamá and the Emberá Native American tribes to poison blow darts.

**Comment:** Alkyne **E** is coupled with proline-derived building block **F** through an aluminum-mediated epoxide opening. The octahydroindolizine motif is constructed through an iodide-promoted aza-Prins reaction. The synthesis was completed after a deiodination and Birch reduction sequence, thus giving access to (+)-pumiliotoxin A.