

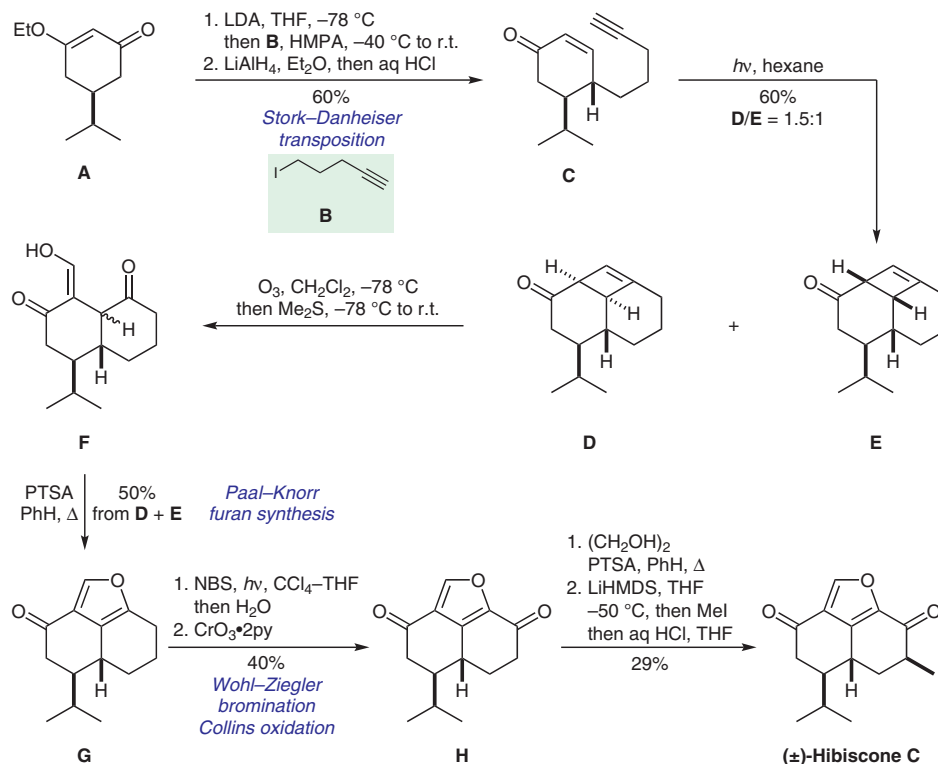
(±)-hibiscone Cfuranosesqui-
terpenoidStork–Danheiser
transposition

[2+2] cycloaddition

Paal–Knorr furan
synthesisSynfact
Classic

E. R. KOFT, A. B. SMITH, III* (UNIVERSITY OF PENNSYLVANIA, PHILADELPHIA, USA)
Total Synthesis of Hibiscone C (Gmelofuran)
J. Am. Chem. Soc. **1982**, *104*, 5568–5570.

Synthesis of (±)-Hibiscone C



Significance: In 1982, Koft and Smith reported the first total synthesis of (±)-hibiscone C, a furanosesquiterpenoid which was isolated from the heart wood of *Hibiscus elatus*. The synthesis featured the first example of a photochemical intramolecular enone–alkyne cycloaddition.

Comment: Alkylation of **A** with **B** followed by reductive Stork–Danheiser transposition afforded **C**. Irradiation of **C** gave an inconsequential mixture of **D** and **E**, which was converted into **G** via ozonolysis and Paal–Knorr furan synthesis. Allylic oxidation followed by α -methylation yielded (±)-hibiscone C.