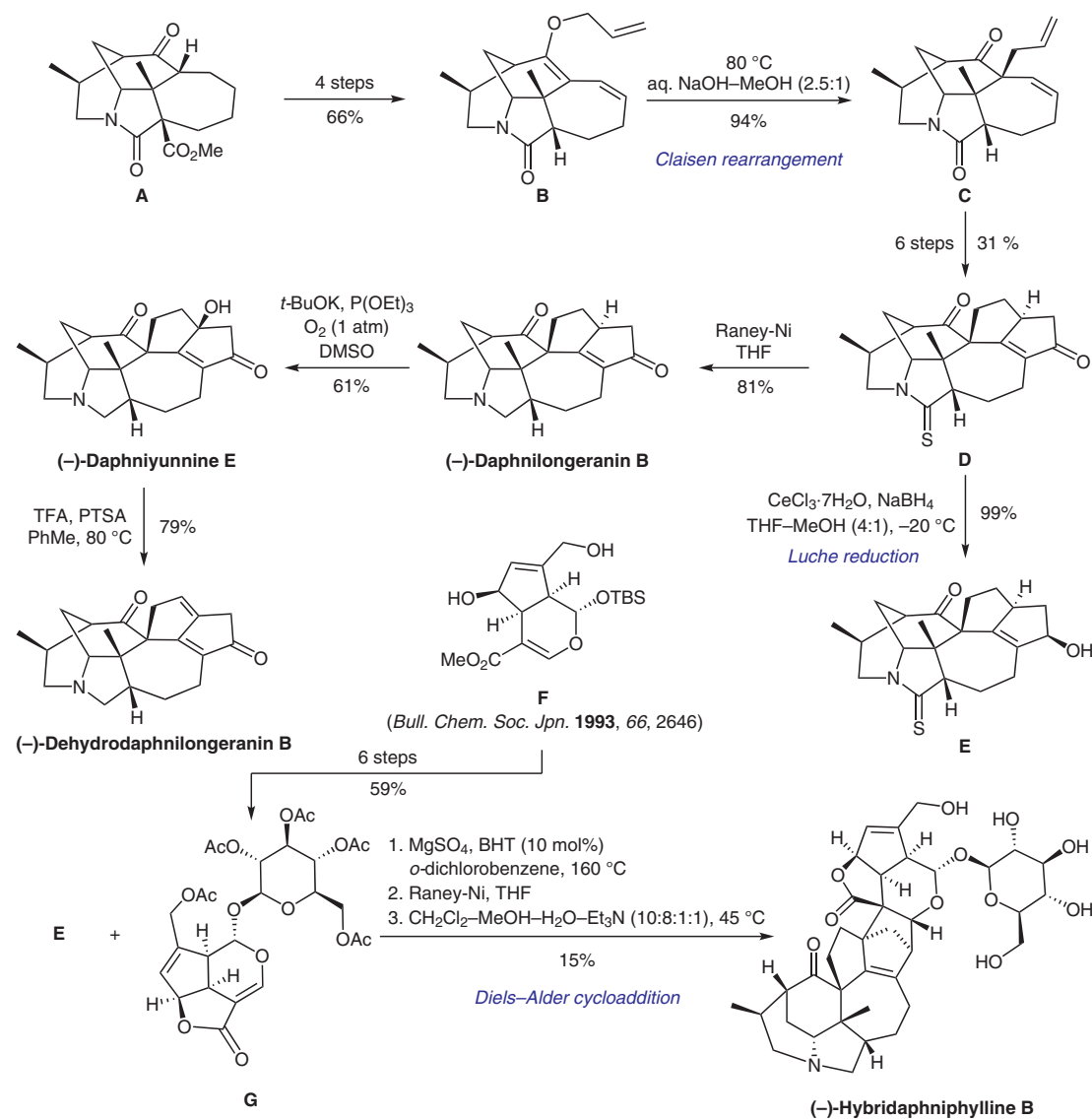


W. ZHANG, M. DING, J. LI, Z. GUO, M. LU, Y. CHEN, L. LIU, Y.-H. SHEN, A. LI* (SHANGHAI INSTITUTE OF ORGANIC CHEMISTRY AND SECOND MILITARY MEDICAL UNIVERSITY, SHANGHAI, P. R. OF CHINA)
 Total Synthesis of Hybridaphniphylline B
J. Am. Chem. Soc. **2018**, *140*, 4227–4231.

Syntheses of *Daphniphyllum* Alkaloids



Significance: The first total synthesis of (–)-hybridaphniphylline B in addition to three other *daphniphyllum* alkaloids was accomplished. The synthetic strategy relied on a biomimetic Diels–Alder cycloaddition to forge the stereochemically dense decacyclic skeleton.

Comment: Utilizing previously synthesized **A** (*J. Am. Chem. Soc.* **2017**, *139*, 14893), hexacycle **D** was accessed in eleven steps through an optimized Claisen rearrangement. **D** served as a common intermediate for the synthesis of four natural products.

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(–)-hybridaphniphylline B

daphniphyllum alkaloids

Diels–Alder cycloaddition

Claisen rearrangement

biomimetic synthesis