Synthesis of (−)-Himalensine A

Significance: (−)-Himalensine A is a highly congested alkaloid featuring a trinorcalyciphylline A skeleton. Dixon, Paton, and co-workers report its first enantioselective synthesis in 23 steps involving an intramolecular amidofuran Diels–Alder reaction (see also Synfacts 2018, 14(02), 0111).

Comment: The enantioselective, intramolecular Diels–Alder reaction of B afforded tetracycle D. A Stetter cyclization of L using NHC catalyst M forged the final ring of the carbon framework. Subsequent amide reduction completed the total synthesis.