Synthesis of Alkaloid (±)-G. B. 13

Significance: G. B. 13 is one of the 28 Galbulimima alkaloids isolated from a tree in Papua New Guinea. Some members of the family (e.g. himbacine) have potentially useful biological activity. The key step in the synthesis depicted is an unprecedented intramolecular rhodium(I)-catalyzed hydroarylation reaction (H → I).

Comment: A vexatious step was the 1,3-allylic transposition of the alcohol C. A variety of reagents and conditions offered little hope until the discovery that the Parikh–Doering conditions were effective.