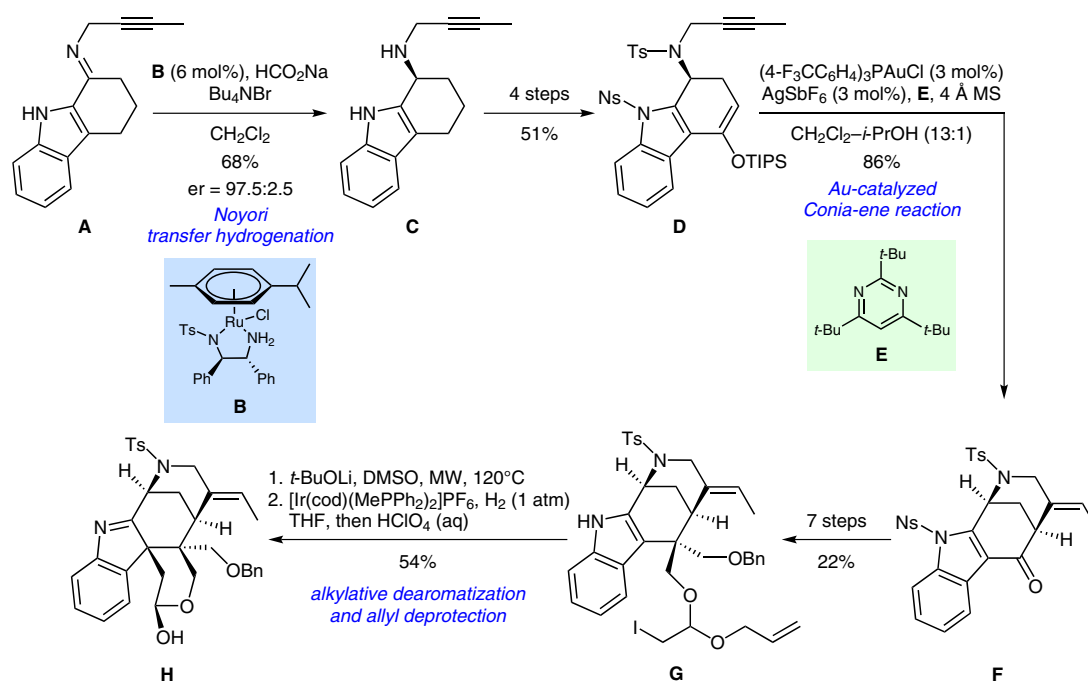
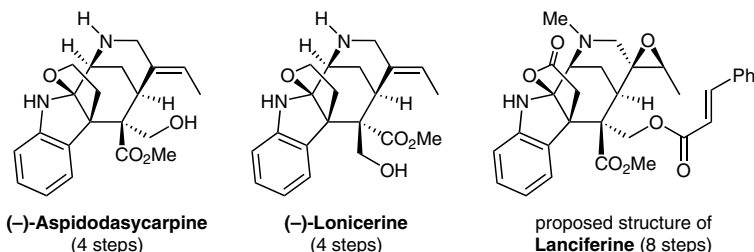


Y. LI, S. ZHU, J. LI, A. LI* (SHANGHAI INSTITUTE OF ORGANIC CHEMISTRY AND SHAOXING UNIVERSITY, P. R. OF CHINA)
 Asymmetric Total Syntheses of Aspidodasycarpine, Lonicerine, and the Proposed Structure of Lanciferine
J. Am. Chem. Soc. **2016**, *138*, 3982–3985.

Total Synthesis of Indole Alkaloids



Natural products synthesized from **H**:



Significance: Indole alkaloids represent challenging synthetic targets due to their highly congested architecture and rich chemical functionality. Li and co-workers report the first enantioselective total synthesis of (-)-aspidodasycarpine and (-)-lonicerine. Furthermore, the synthetically obtained lanciferine did not match the previously reported spectroscopic data from the isolation literature.

Comment: Chiral amine **C** was obtained by a highly enantioselective transfer hydrogenation of imine **A**. The key C–C bond forming Conia-ene reaction of silyl enol ether **D** proceeded under gold catalysis to give tetracycle **F**. From precursor **H**, both (-)-aspidodasycarpine and (-)-lonicerine were obtained in four steps. The proposed structure of lanciferine was obtained from **H** in eight steps and was secured by X-ray crystallography.

SYNFACTS Contributors: Erick M. Carreira, Alberto G. Kravina
 Synfacts 2016, 12(06), 0549 Published online: 17.05.2016
 DOI: 10.1055/s-0035-1562121; Reg-No.: C02616SF