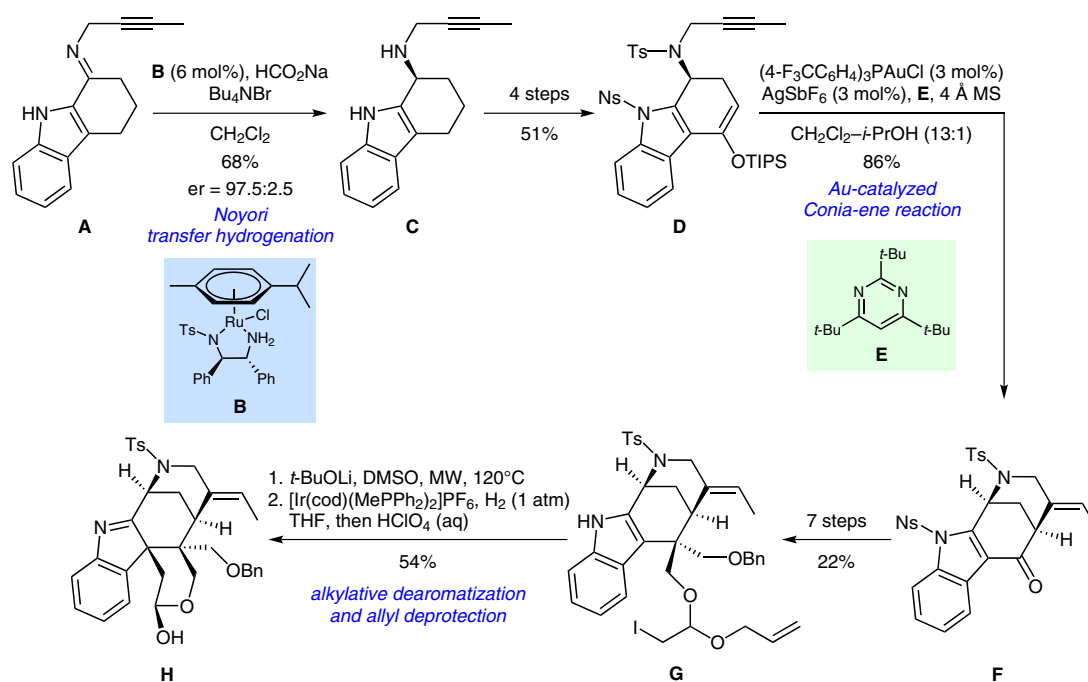
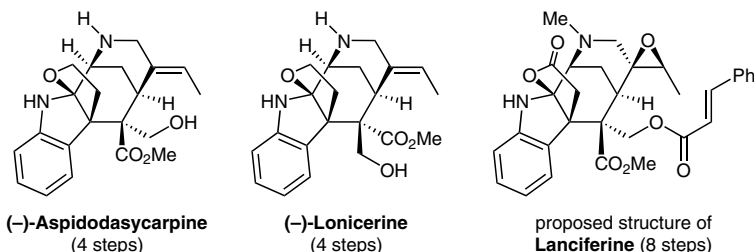


Total Synthesis of Indole Alkaloids



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.