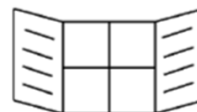
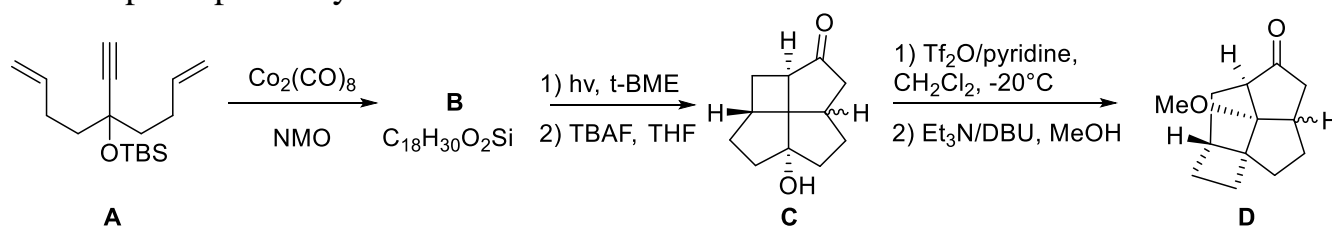


Fenestrane: Fenestra and alkane

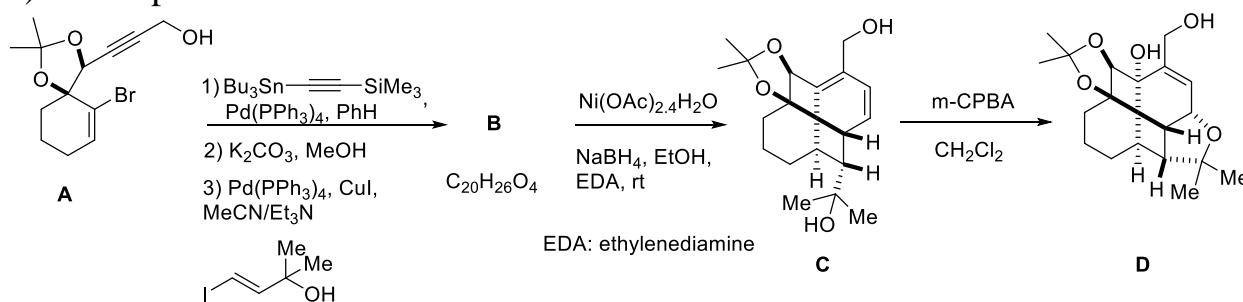


Problem 1

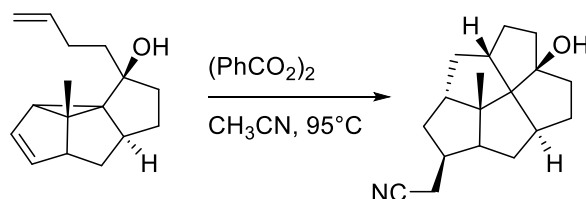
a) Please provide a mechanism and stereochemicals rational (where applicable) for each step. Propose a synthesis for **A**.



b) Please provide a mechanism for **C** and **D** and structure for **B**.

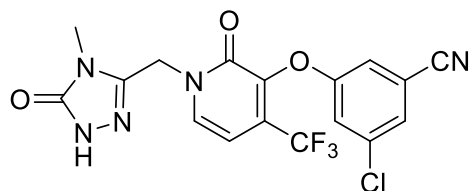


c) Please provide a mechanism and justify the stereochemistry.



Problem 2

Please come up with a retro and forward synthesis for the following molecule.



Doravirine (MK-1439)- HIV Treatment