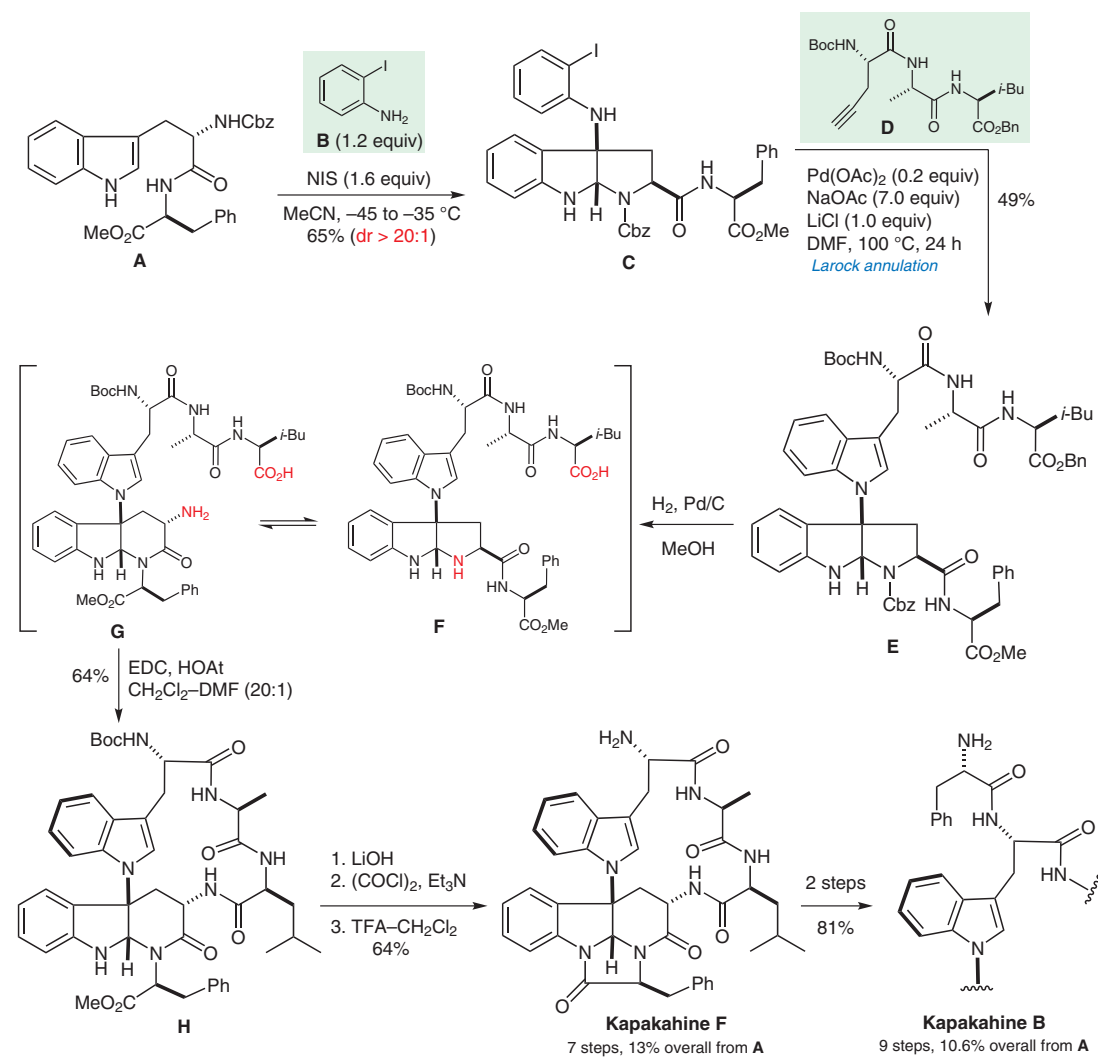


Synthesis of Kapakahines B and F



Significance: Kapakahines are metabolites of the sponge *Cribrorchalina olemda*. Kapakahine B has modest antileukemic activity but kapakahine F is inactive. A salient feature of this short and efficient synthesis is the in situ kinetic trapping of the α -carboline **G** which is in dynamic equilibrium with the pyrroloindoline **F**.

Comment: Cyclization of the amino acid **F** (participating atoms highlighted in red) gives a macrocycle (not shown) in 6% yield together with the desired α -carboline **G**. All the steps leading up to **H** were performed on a gram scale.