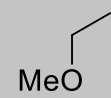


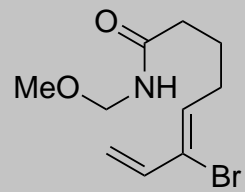


10 ep (Overall)
8 ep (LLS)

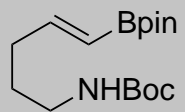


4

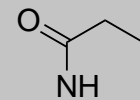
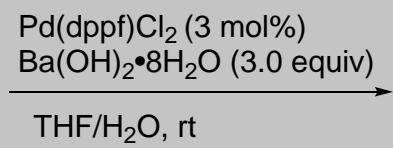


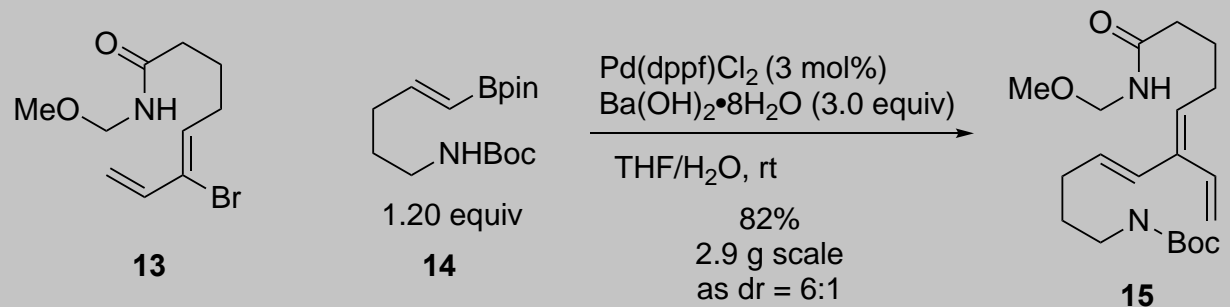


13

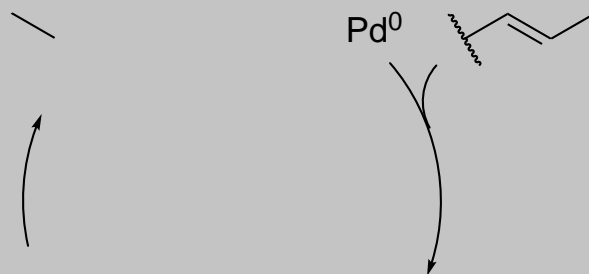


14

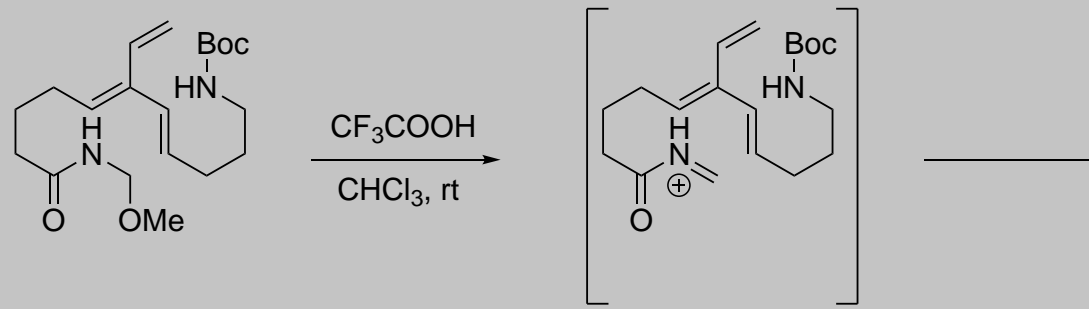


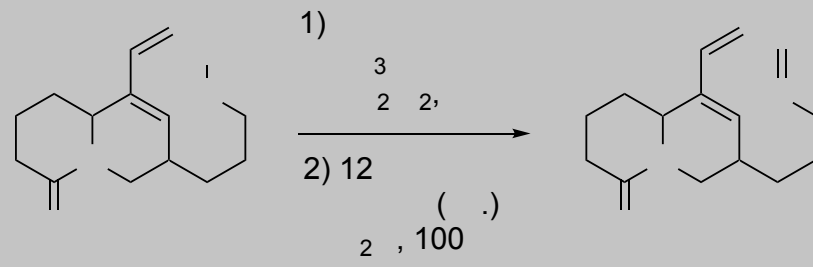


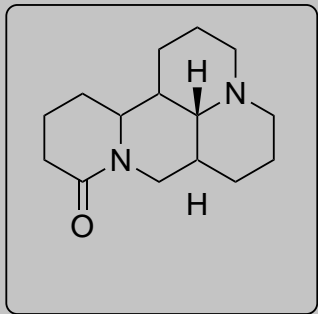
Stereoinvertive Suzuki coupling



This process, which is a guided boron experience in the related Negishi-Hiyama methodology, is a well-known feature of a stereoinvertive Suzuki-Miyaura cross-coupling

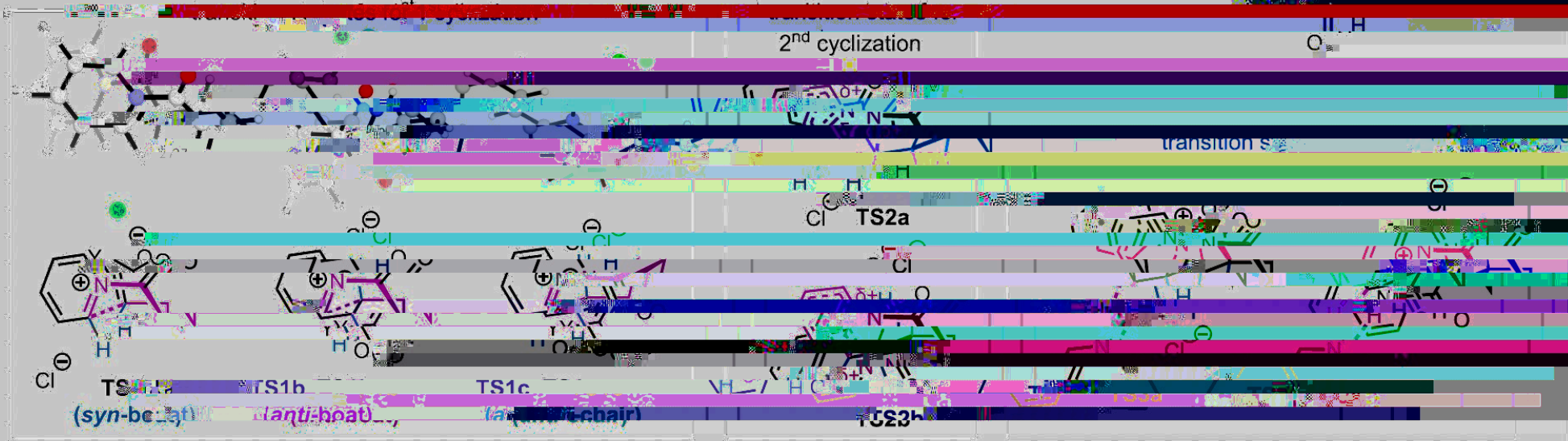
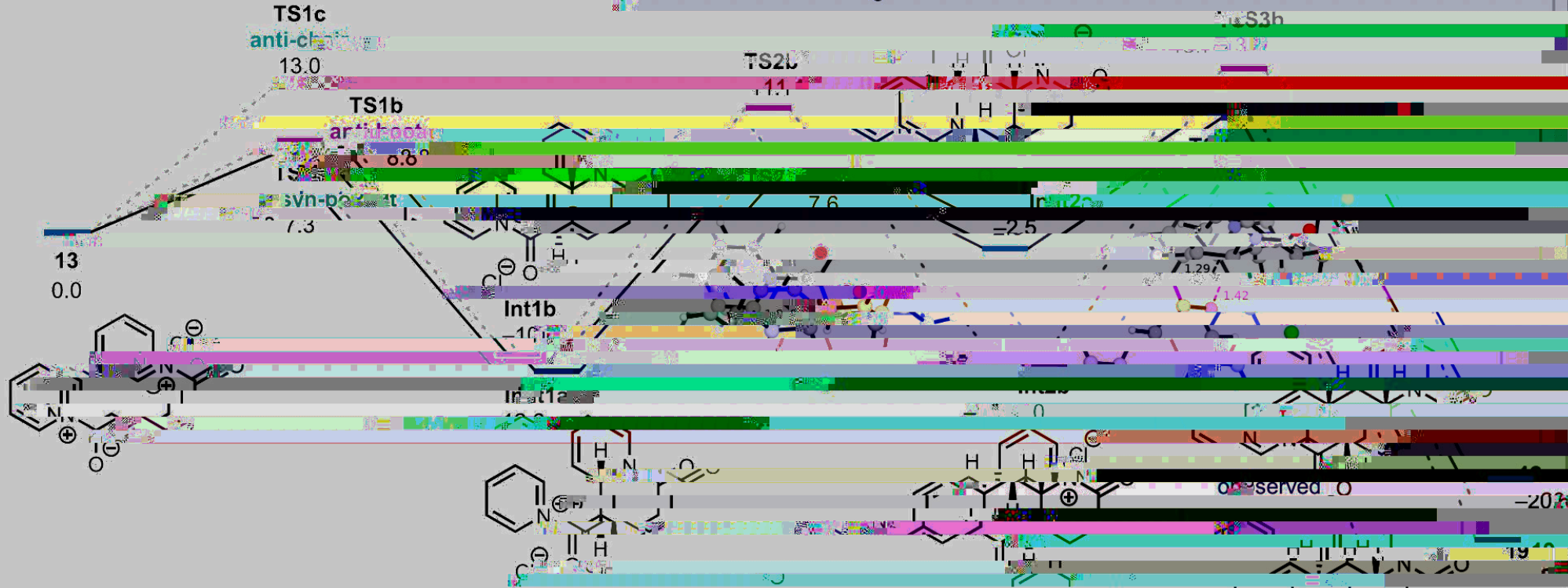


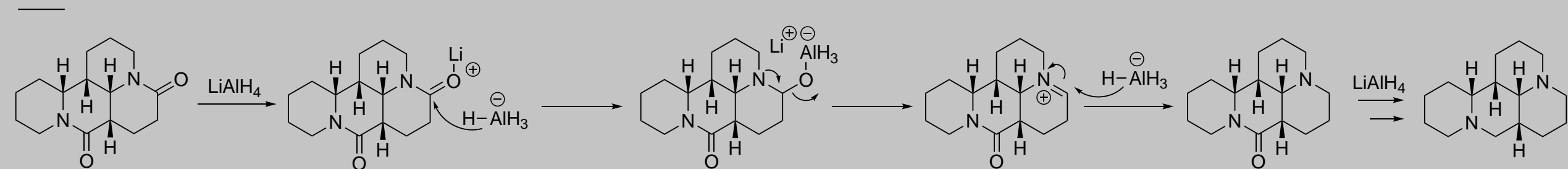
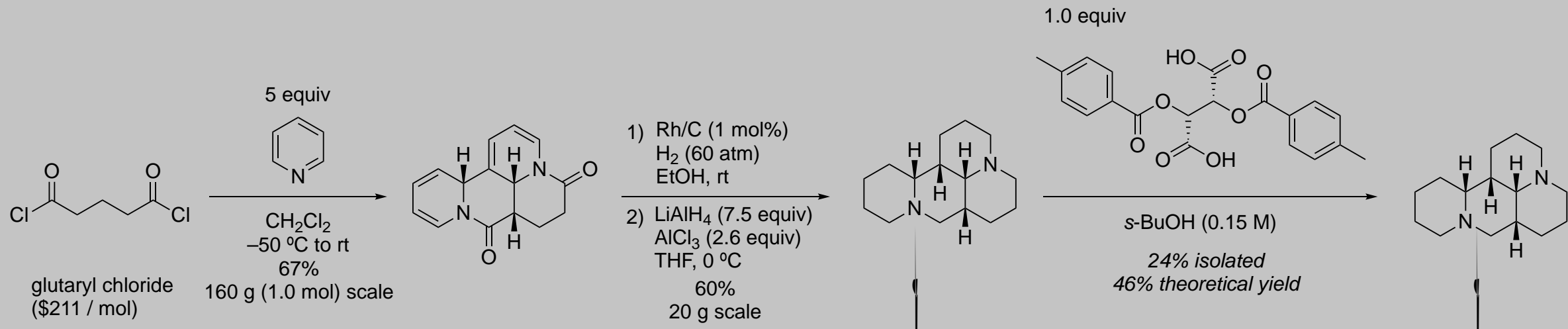


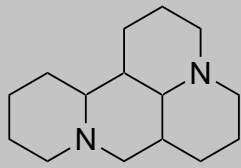


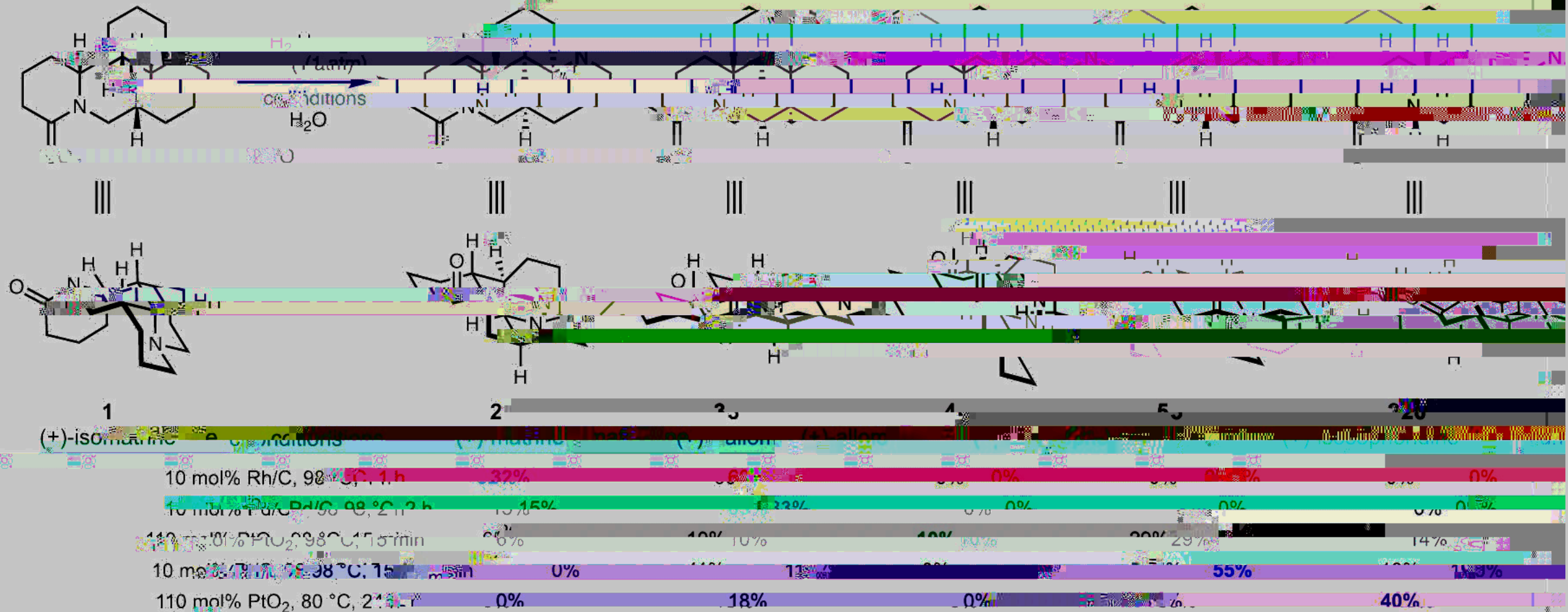
4 ep (Overall)!!

(D) Reaction coordinate diagram for the synthesis of ...









the first total synthesis of the l-pipecolin alkaloid (-)-ophoridine, and the first synthesis of (+)-isomarine, (+)-marine, (+)-allomarine, and (+)-