Enantioselective Total Synthesis of (−)-Zygadenine
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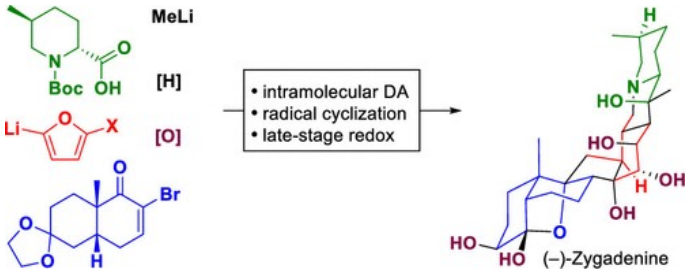
steroidal alkaloid

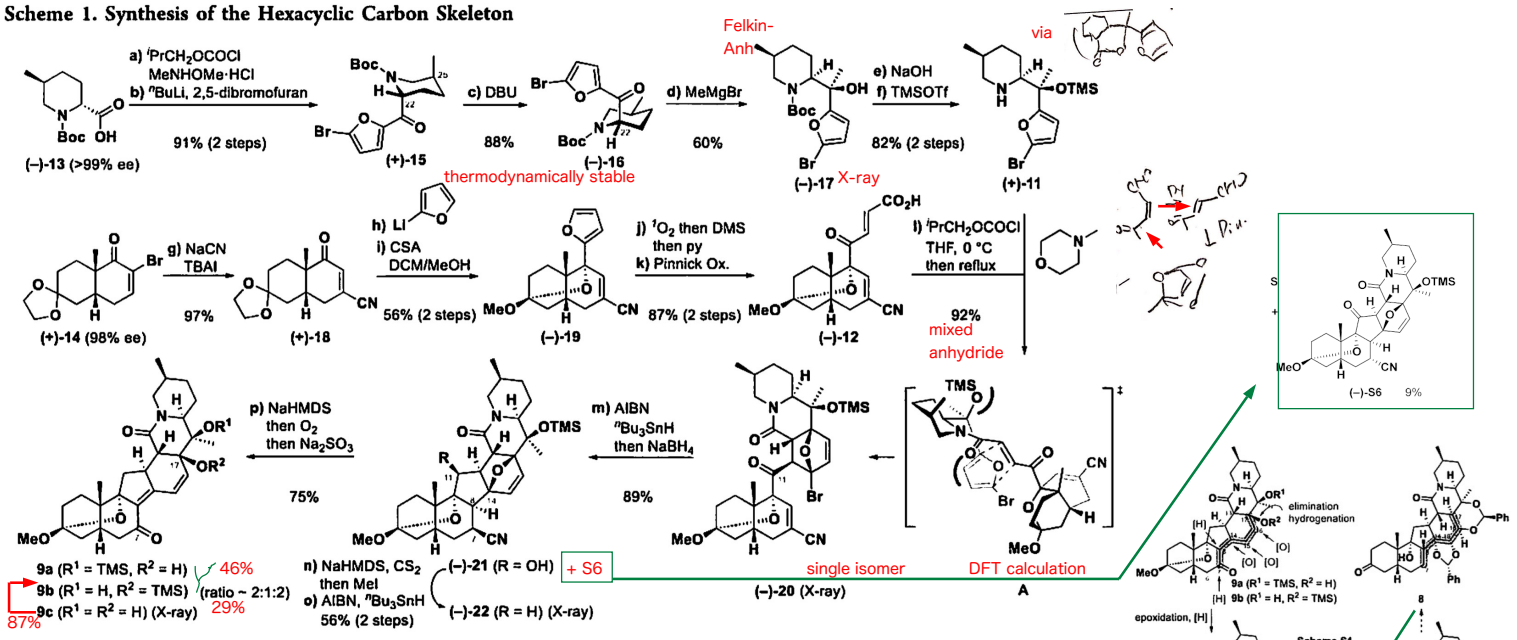
stereoselective IMDA followed by a radical cyclization

C-nor-D-homo steroid skeleton

refunctionalizing A ring may improve the efficiency



Scheme 1. Synthesis of the Hexacyclic Carbon Skeleton



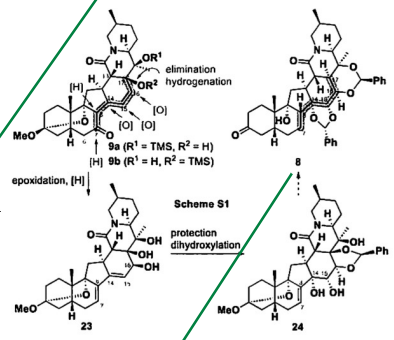
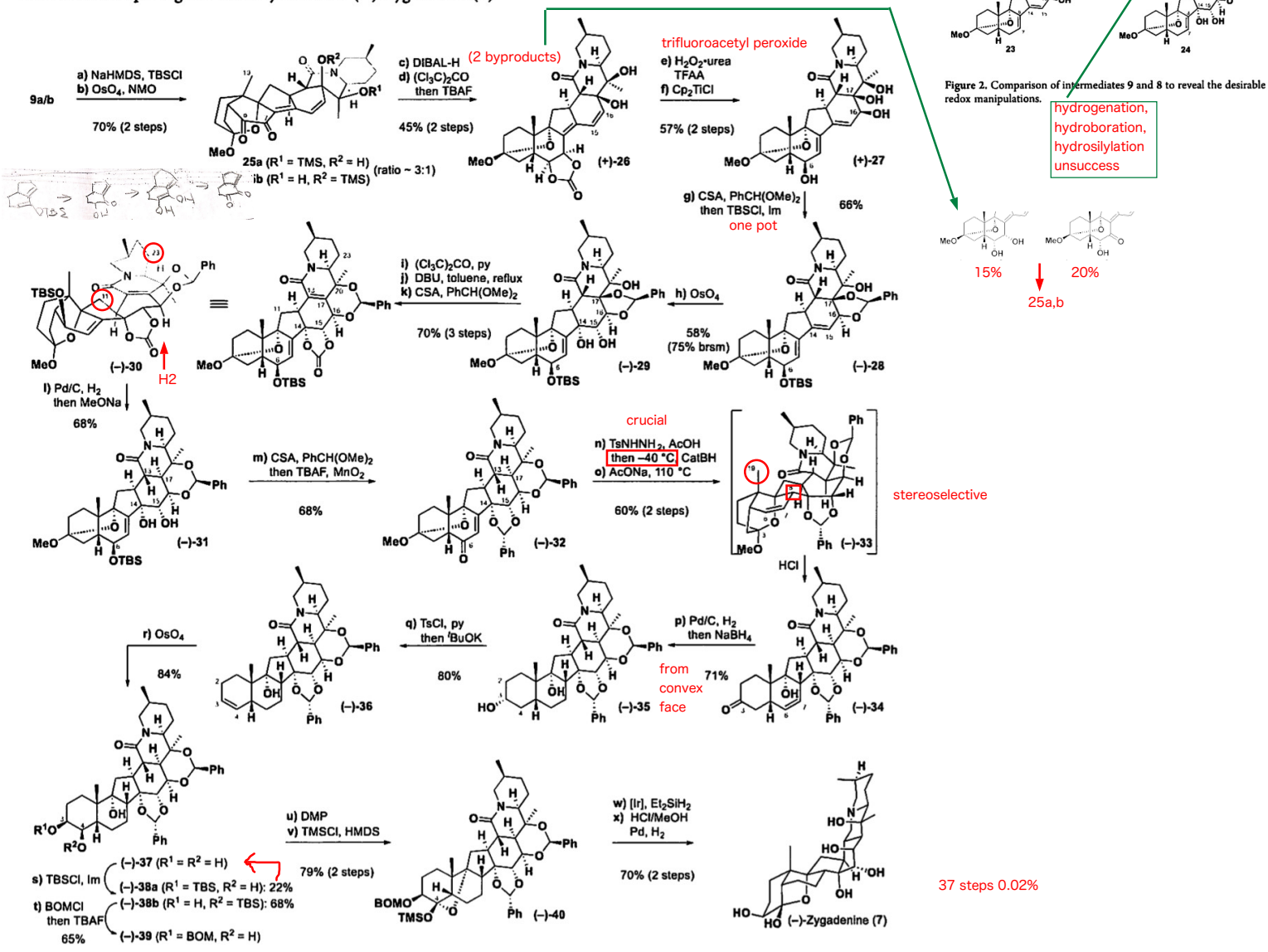


Figure 2. Comparison of intermediates 9 and 8 to reveal the desirable redox manipulations.

hydrogenation, hydroboration, hydrosilylation unsuccess

Scheme 2. Completing the Total Synthesis of (−)-Zygadenine (7)



37 steps 0.02%