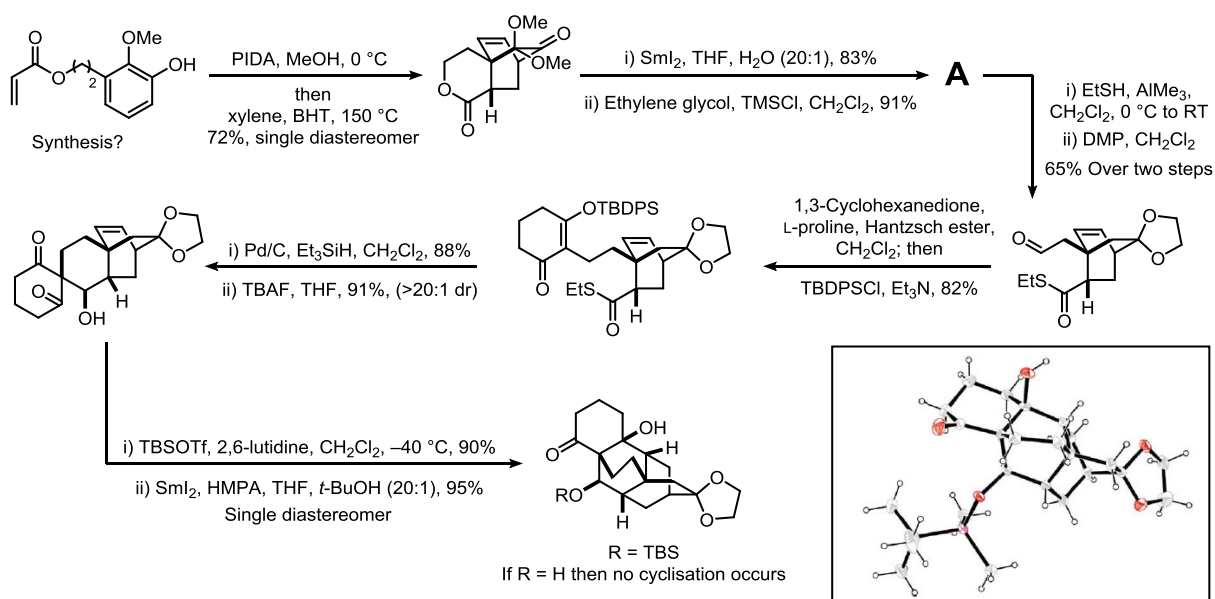


Group problems 13<sup>th</sup> of June 2017  
(Yes they are terpanoid themed)

**Problem 1**

Please provide mechanisms, stereochemical rationals (where appropriate) and structural determination of intermediate **A**. Can you suggest a synthesis for the starting material? In addition, please give special note to the significance of the silyl ether for successful radical cyclisation (final step). PIDA = (Diacetoxyiodo)benzene, BHT =butylated hydroxytoluene, Hantzsch ester = hydride source.



**Problem 2**

Please provide mechanisms, stereochemical rationals (where appropriate) and structural determination of intermediate **B**. While (-)-sinoracutine was successfully synthesised/isolated it was found to quickly isomerise to (+)-sinoracutine, please propose a plausible mechanism.

