

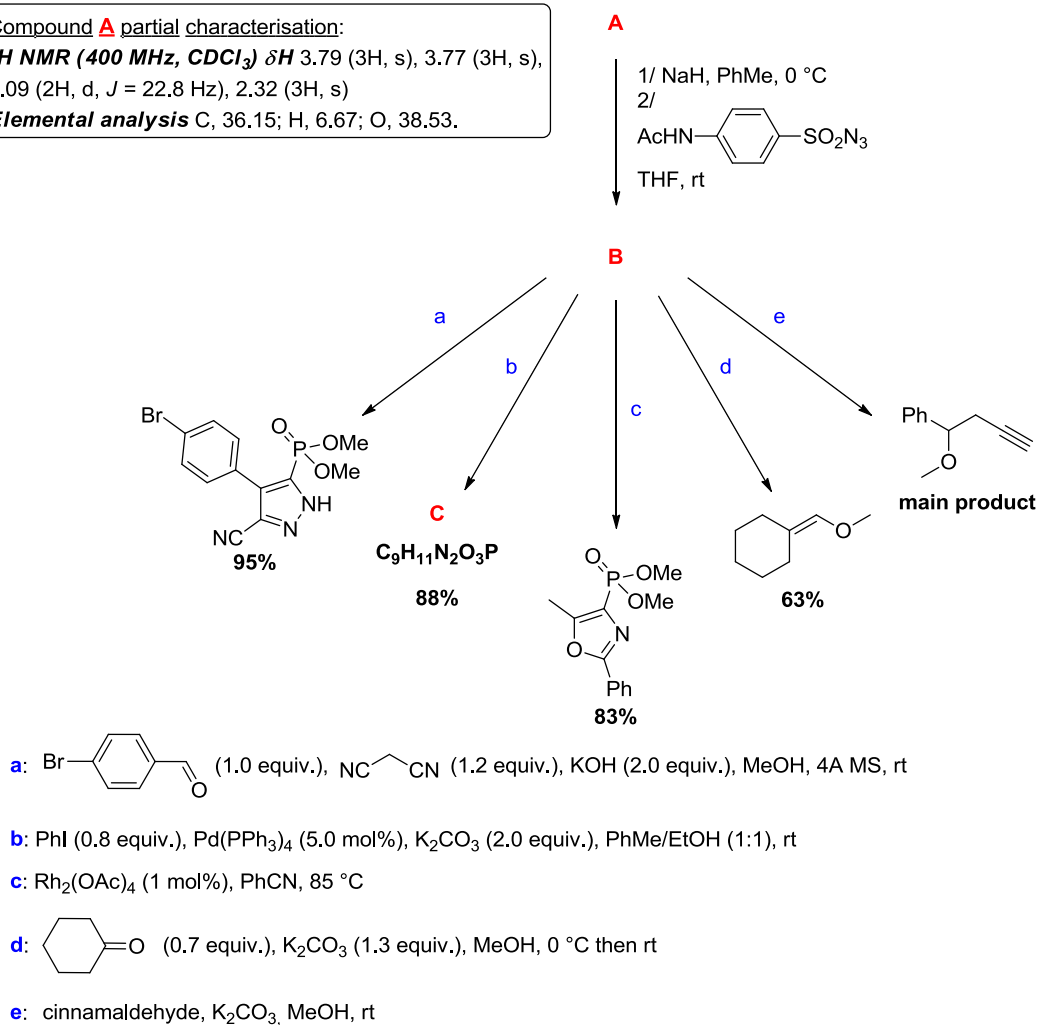
EAA Group Problems - 31/05/16

Problem 1. Please identify the structures of compounds **A**, **B** and **C**, and provide a detailed mechanism for the formation of all the different compounds.

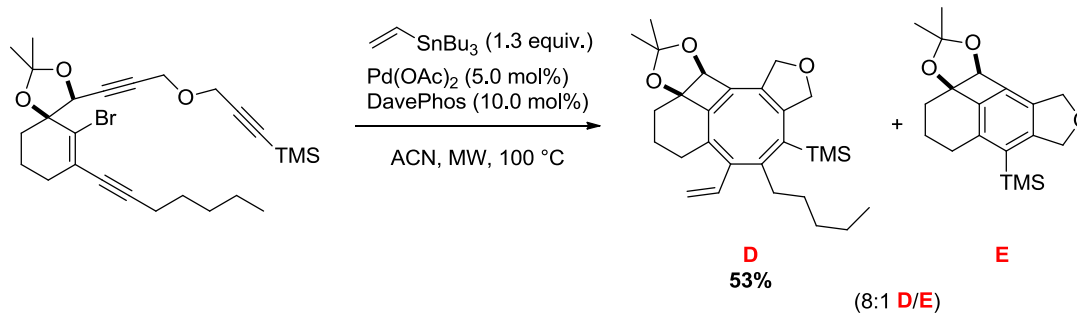
Compound **A** partial characterisation:

$^1\text{H NMR}$ (400 MHz, CDCl_3) δ 3.79 (3H, s), 3.77 (3H, s), 3.09 (2H, d, $J = 22.8$ Hz), 2.32 (3H, s)

Elemental analysis C, 36.15; H, 6.67; O, 38.53.



Problem 2. Please provide a mechanism for the formation of products **D** and **E**.



Problem 3. Please provide mechanisms for the formation of compounds F and G.

