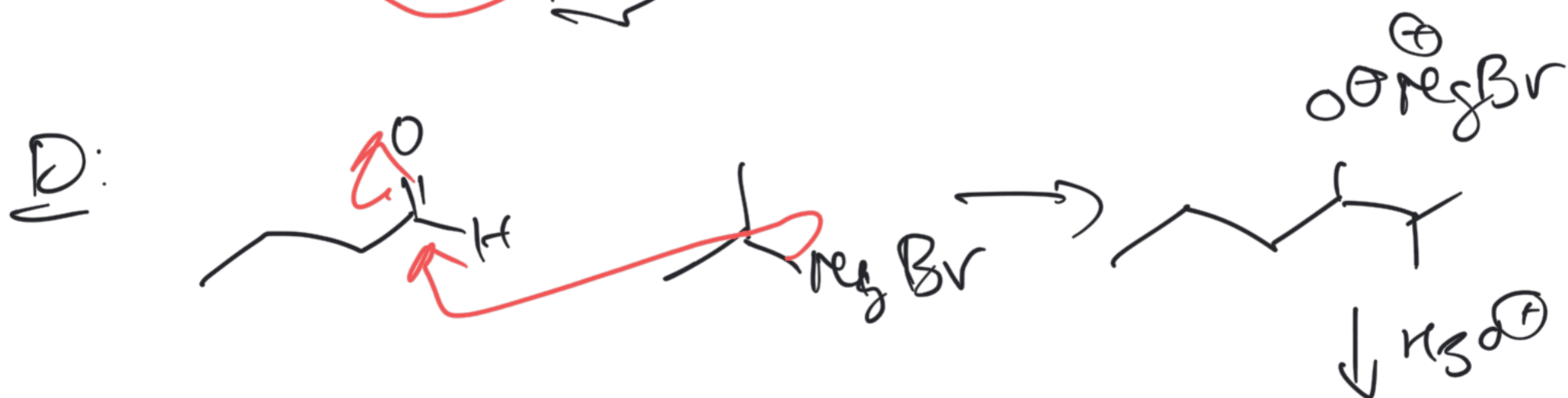
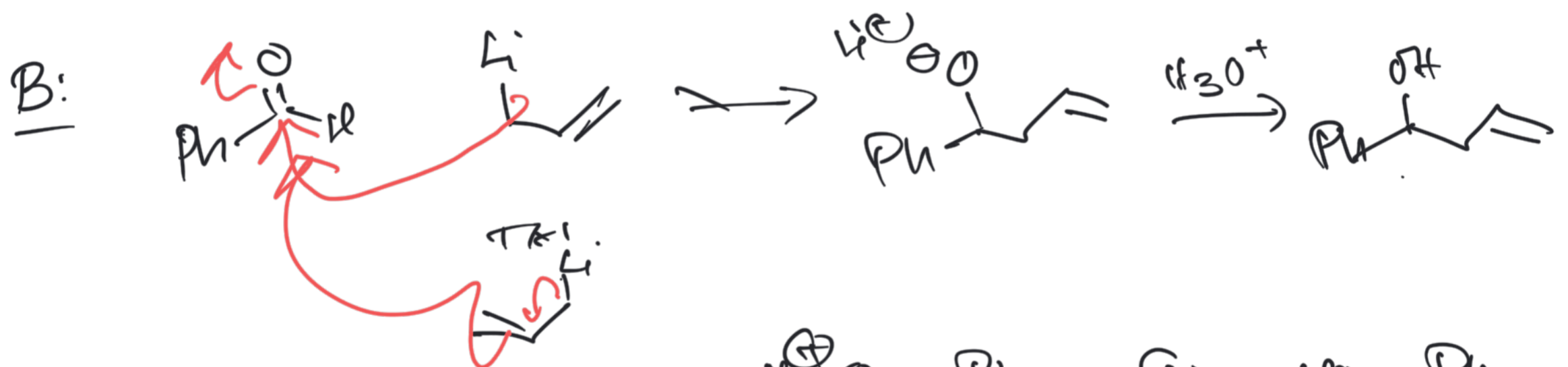
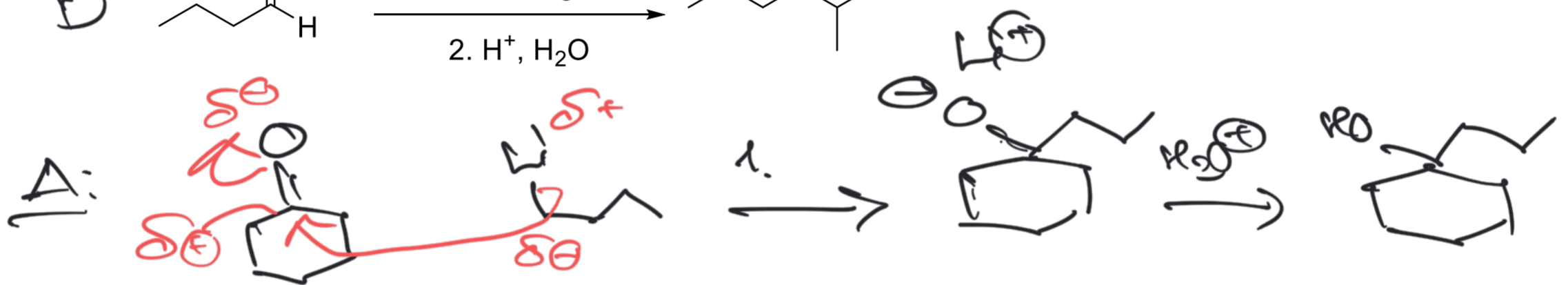
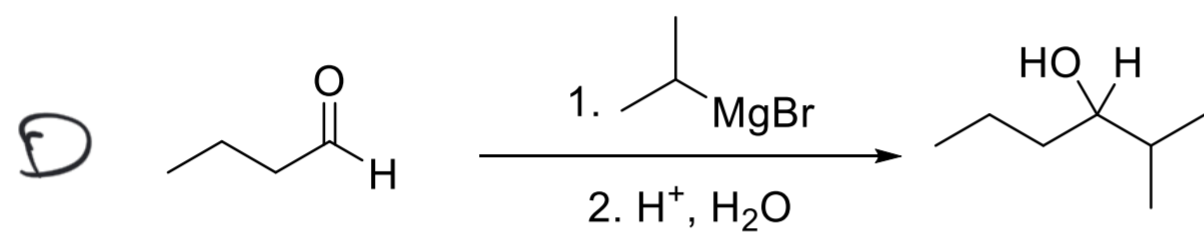
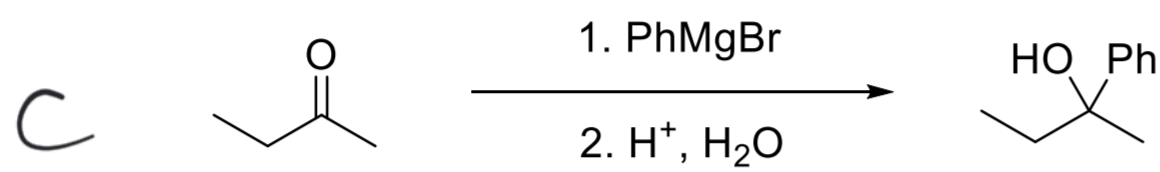
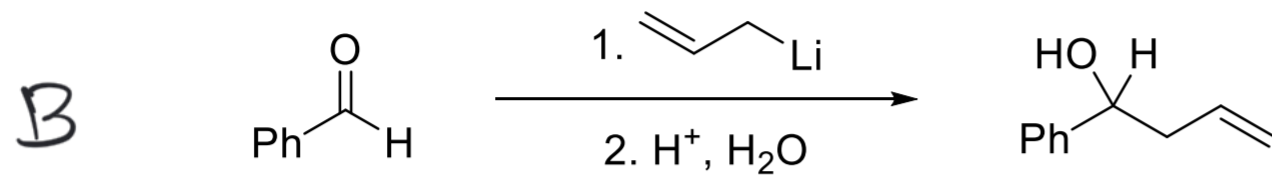
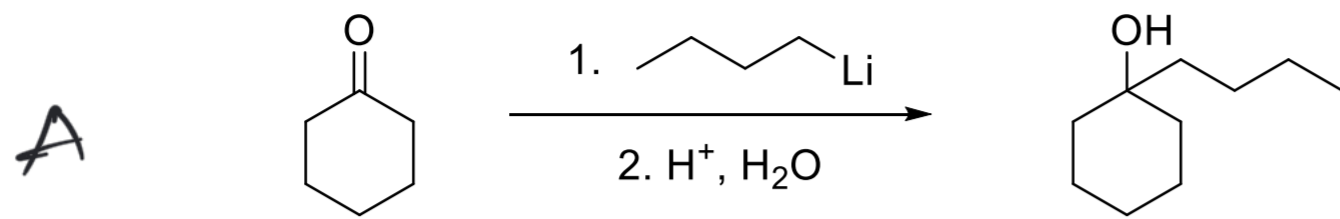
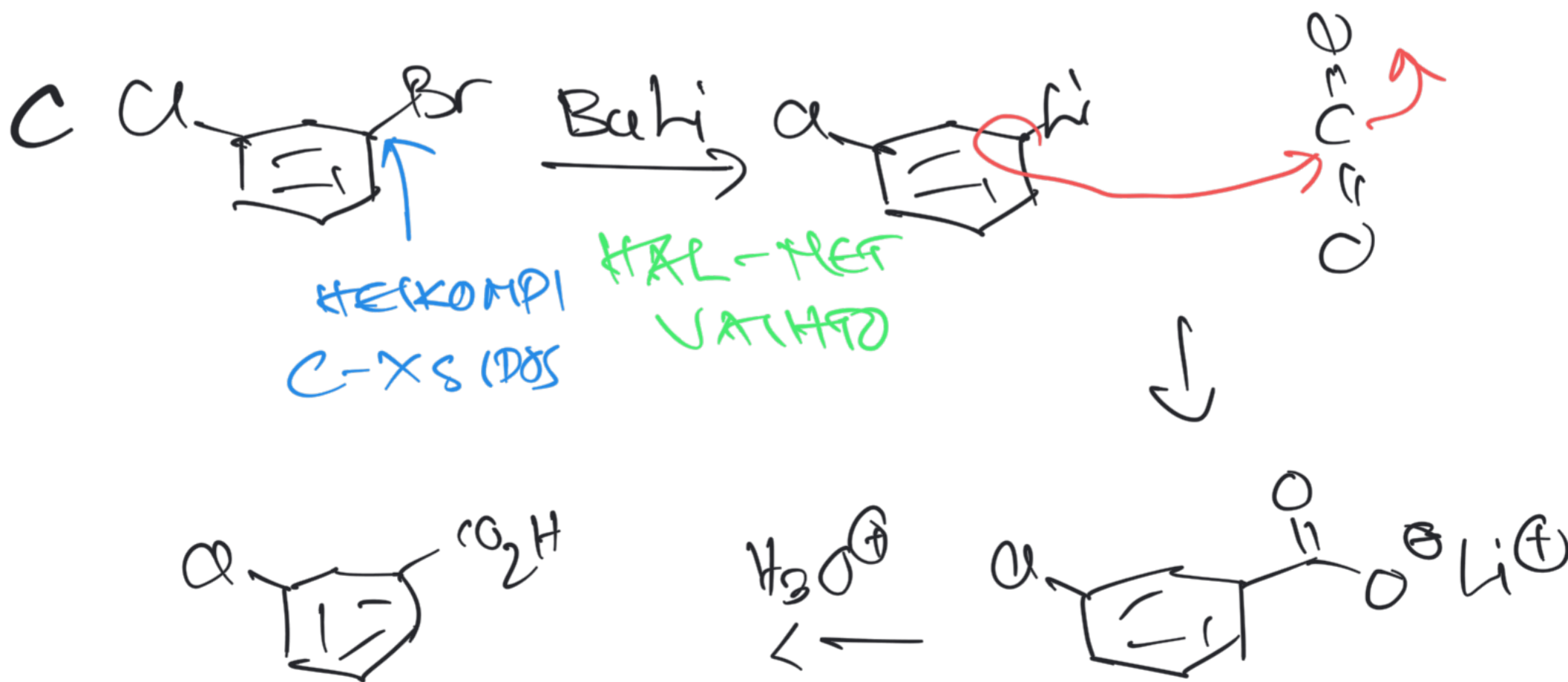
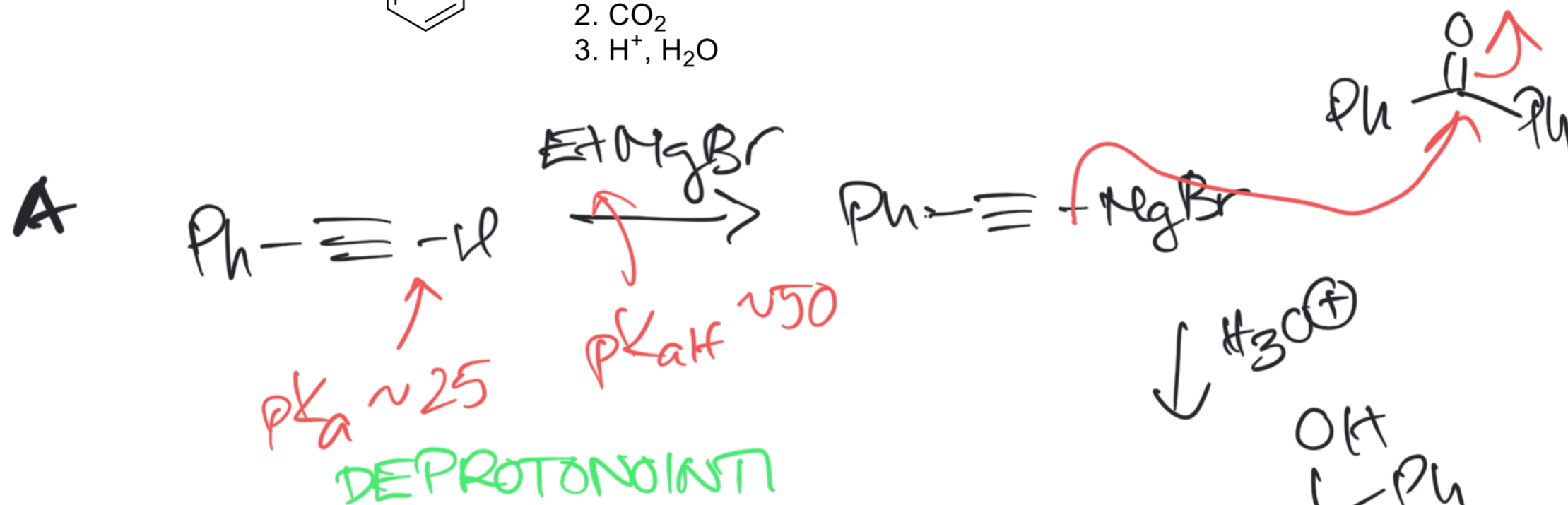
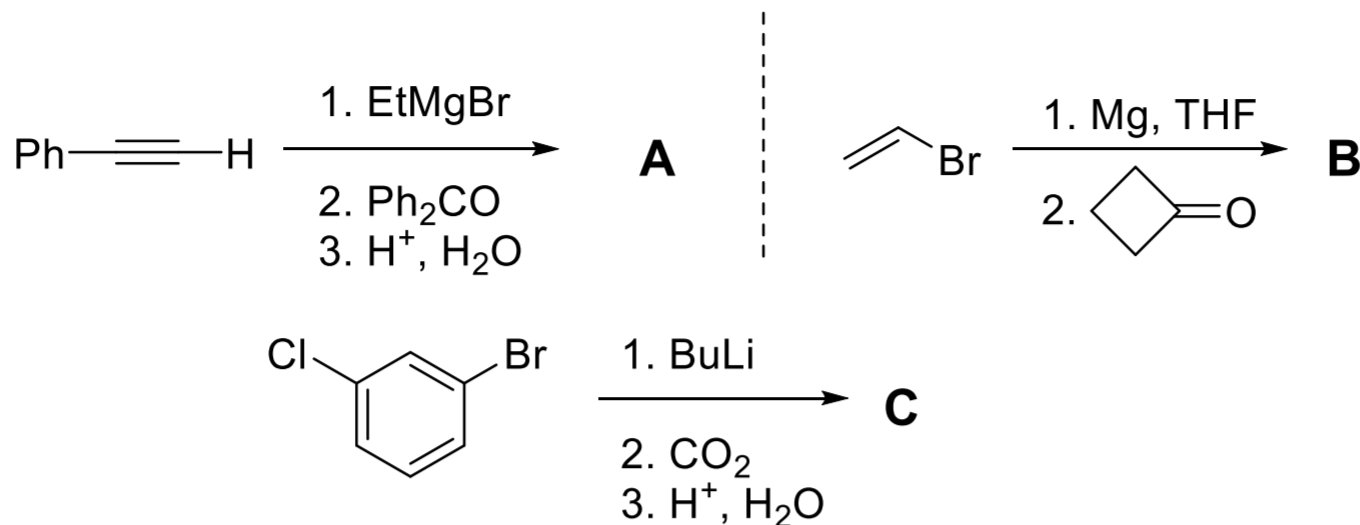


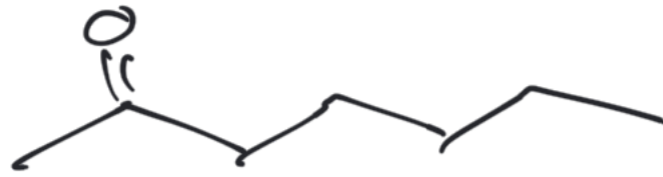
1. Ehdota mekanismit seuraaville reaktioille:



2. Mitä syntyy seuraavissa reaktioissa?

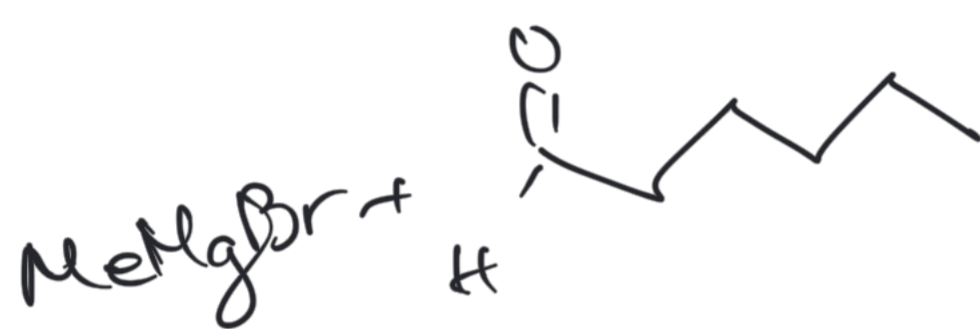


3. Ehdota kaksi synteesiä ampiaisen feromonille heptan-2-oni.

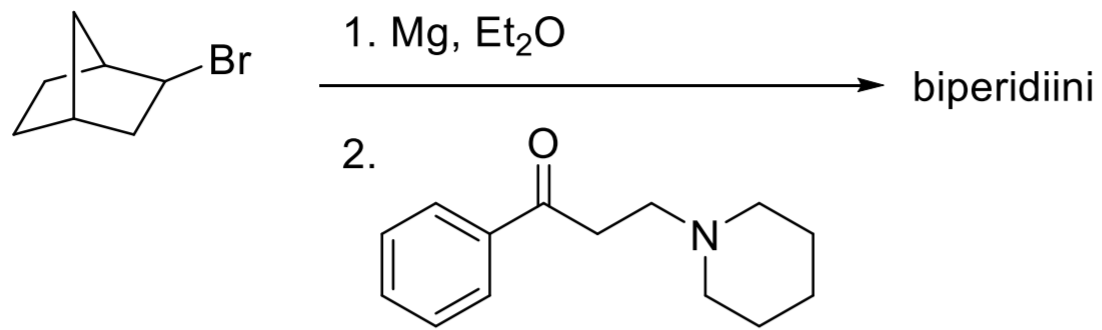


KETONI: ~~HEPTAN-2-ONI~~ ALKOOLI

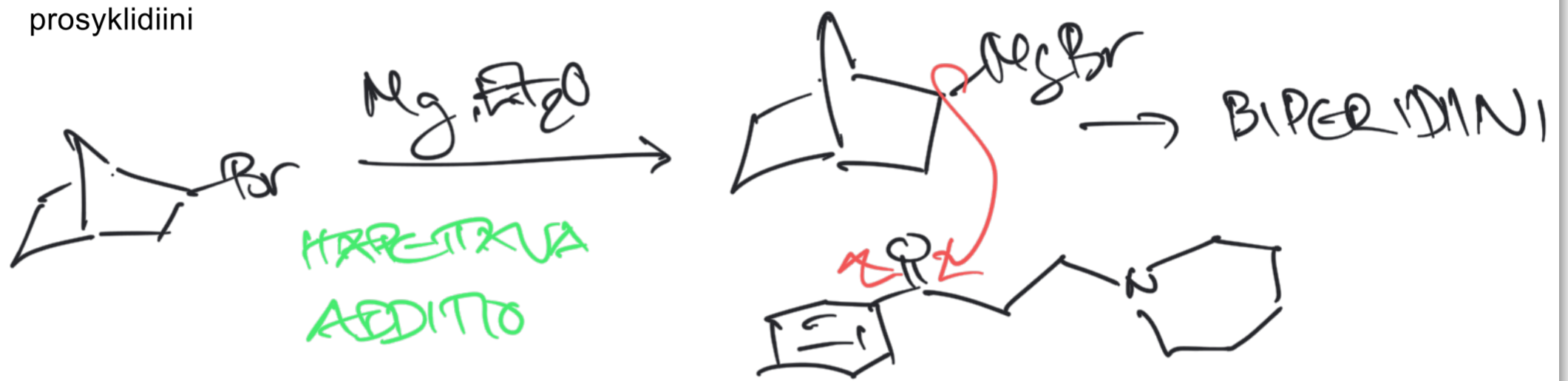
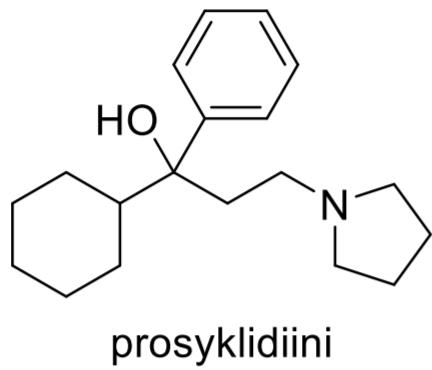
ESIM



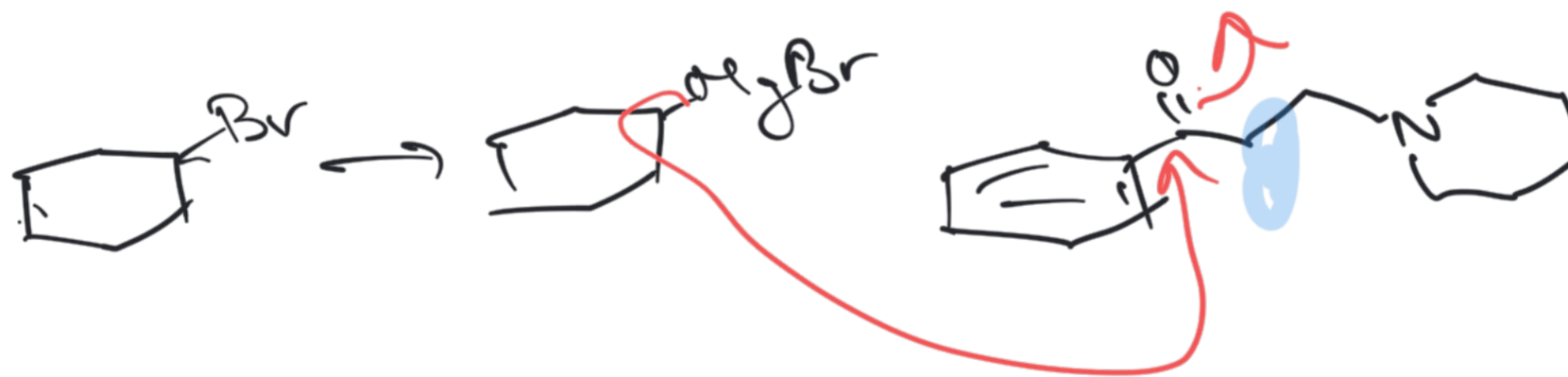
4. Kouristuslääke (spasmolyytti) biperidiini valmistetaan alla kuvatulla Grignard-reaktiolla. Mikä on lääkkeen rakenne?



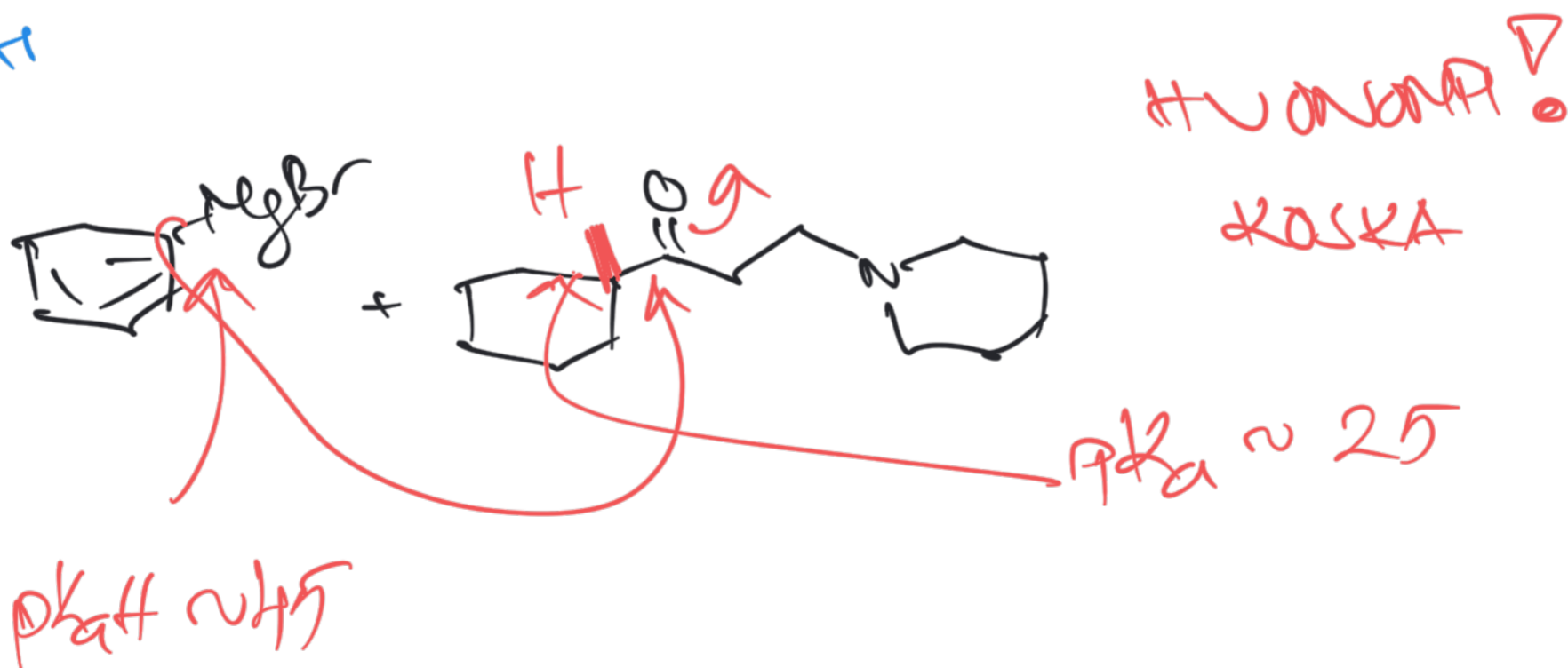
Ehdota, miten Parkinsonin tautilääke prosyklidiini voitaisiin valmistaa.



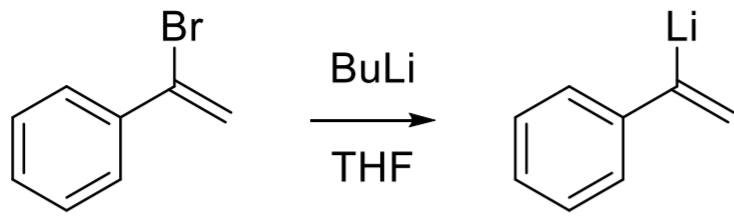
PROSYKLIDIINI: ESIM



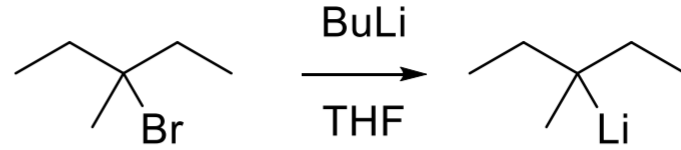
TRI



5. Miksi litiumyhdiste D voidaan tehdä halogeeni-metallivaihdolla, mutta ei litiumyhdistettä E?



D



E



ANIONI LLA ENEMMÄN S-LUONNETTA (sp²)
C-Li SIDOKSESSA



sp³ ENEMMÄN P-LUONNETTA!

LITIUUM MUODOSTA SIDOKSEN 2S-ORBITALILLA.
HIILEN sp²-ORBITALI ON ENEMMÄLTÄÄN
LÄHEMPÄÄ Li 2S-ORBITALIA KUIN HIILEN sp³

