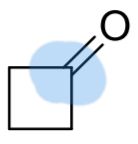
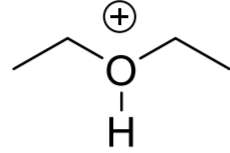


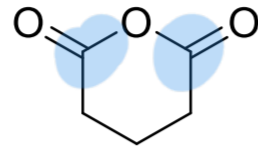
1. Kukin seuraavista molekyyleistä on elektrofiilinen. Tunnista elektrofiilinen atomi ja piirrä mekanismi, jossa yleinen nukleofiili  $\text{Nu}^-$  reagoi molekyylin kanssa. Anna tuotteen rakenne kussakin kohdassa.



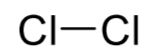
A



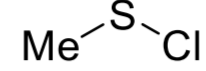
B



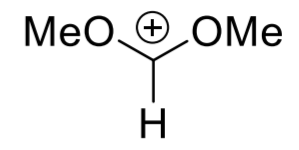
C



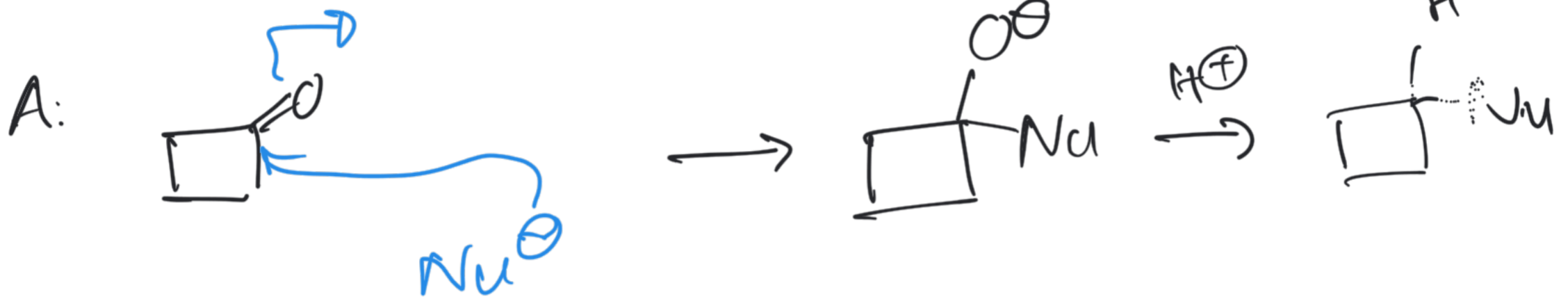
D



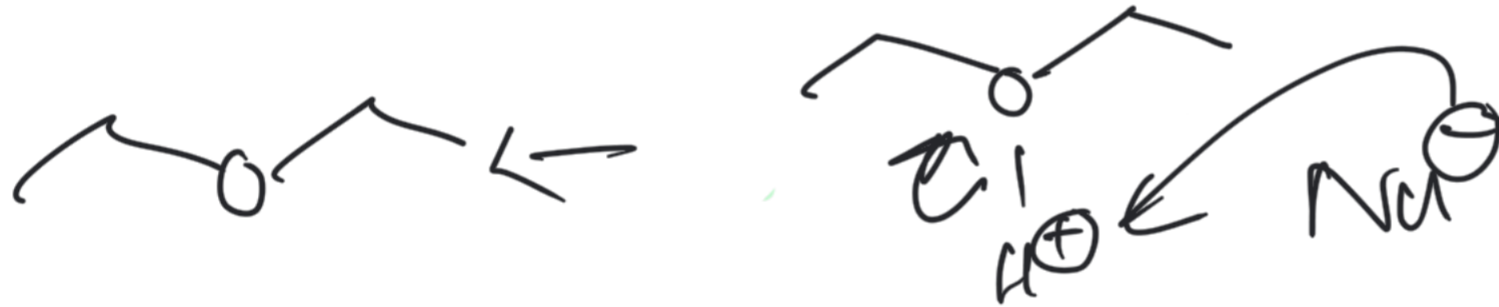
E



F

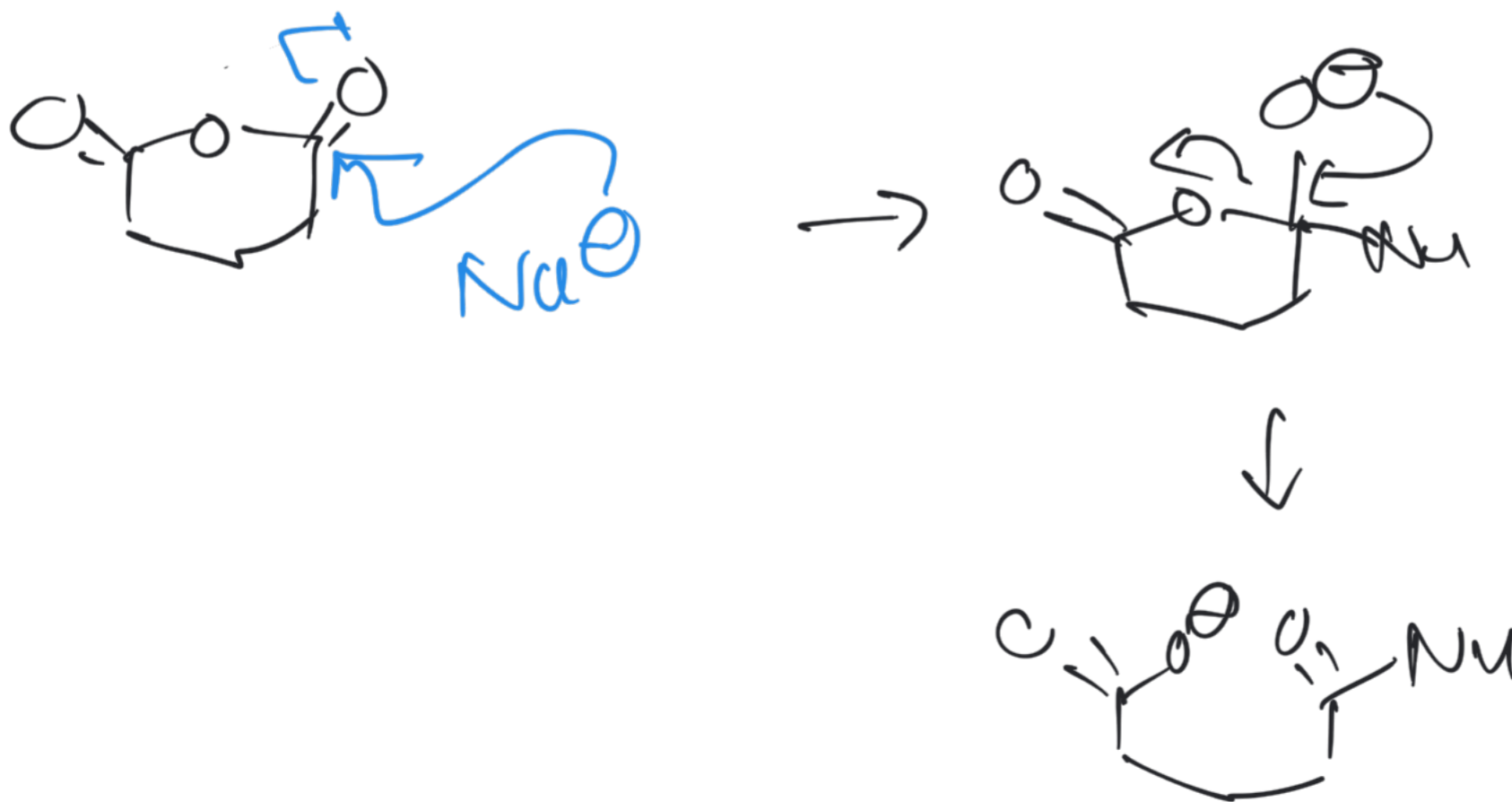


B:



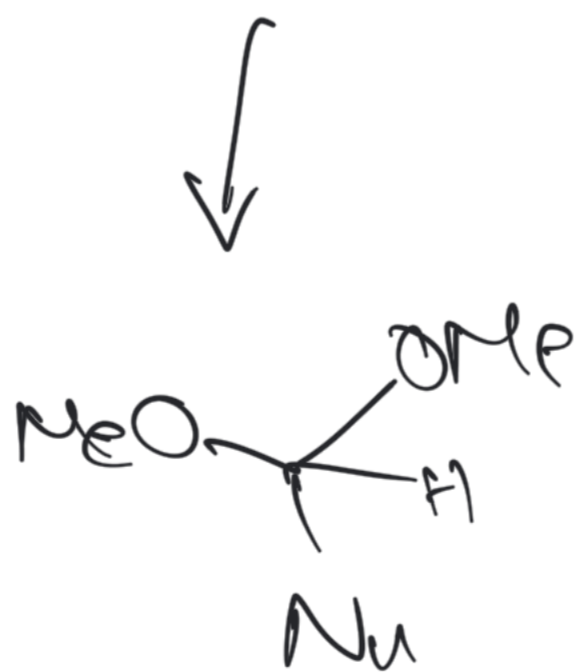
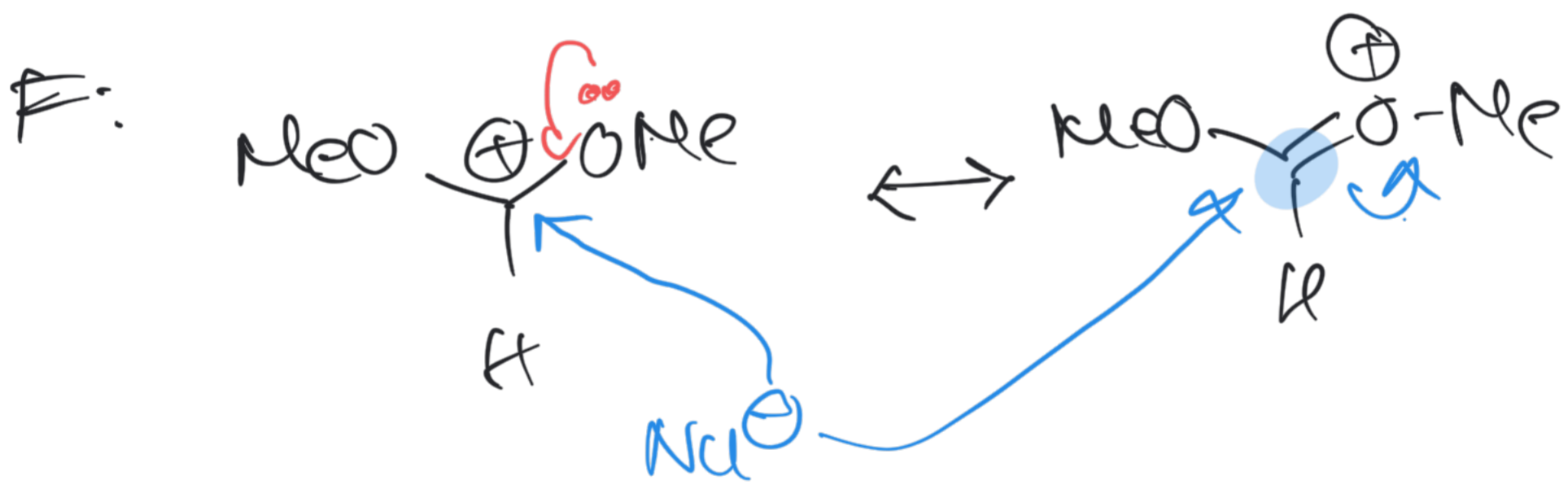
H elektropositiivisempi kuin C  
 $\Rightarrow$  LUMO alampi E

C:

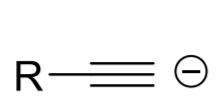




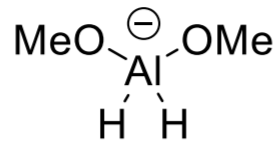
elektrofili:  $\sigma^*(\text{C}-\text{Cl})$



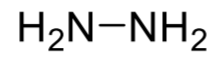
2. Kukin seuraavista molekyyleistä on nukleofiilinen. Tunnista nukleofiilinen atomi ja piirrä mekanismi, jossa yleinen elektrofiili  $E^+$  reagoi molekyylin kanssa. Anna tuotteen rakenne kussakin kohdassa.



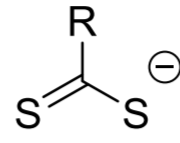
A



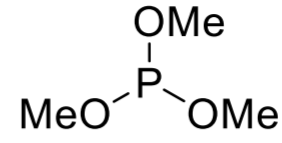
B



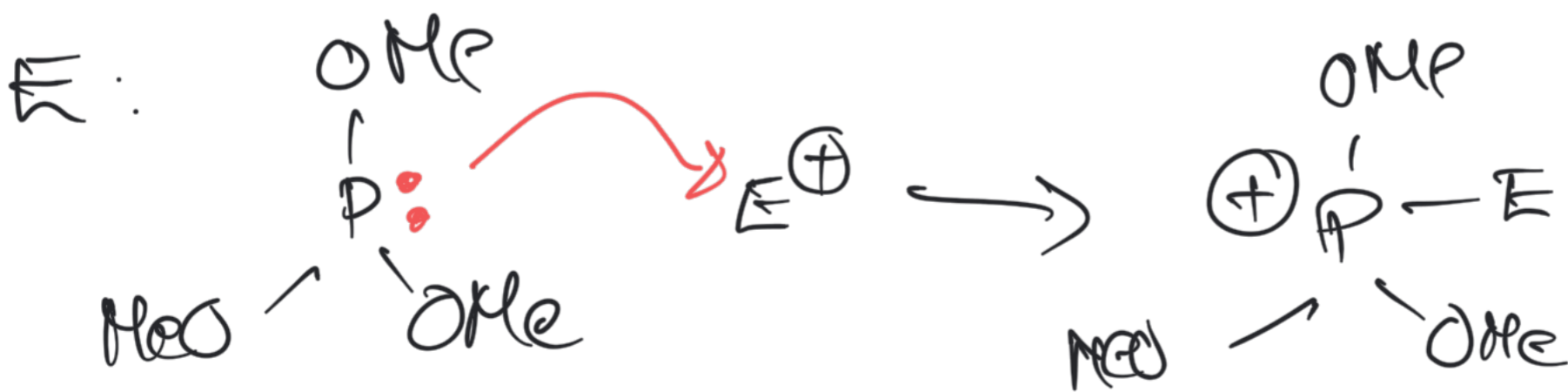
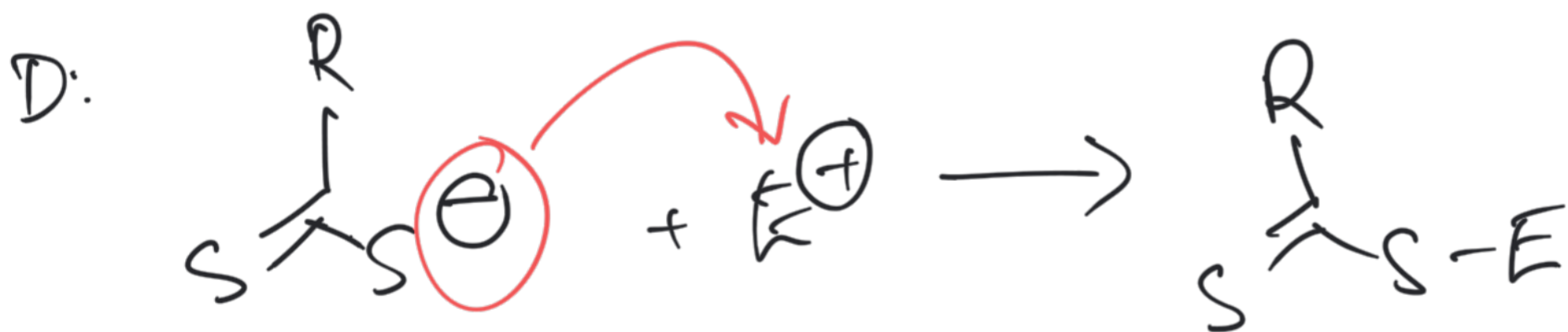
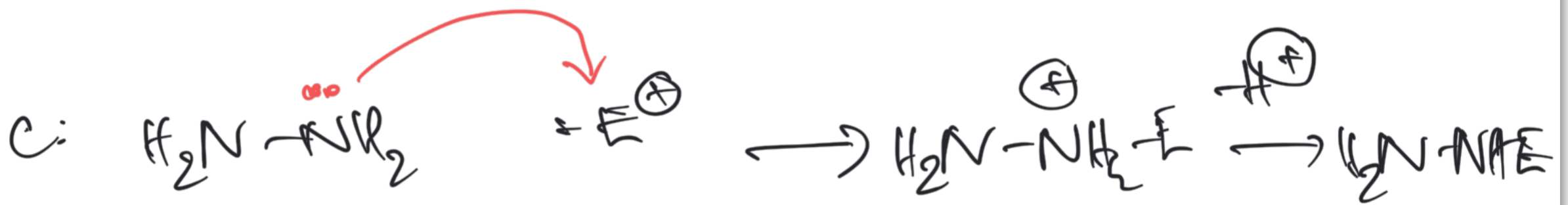
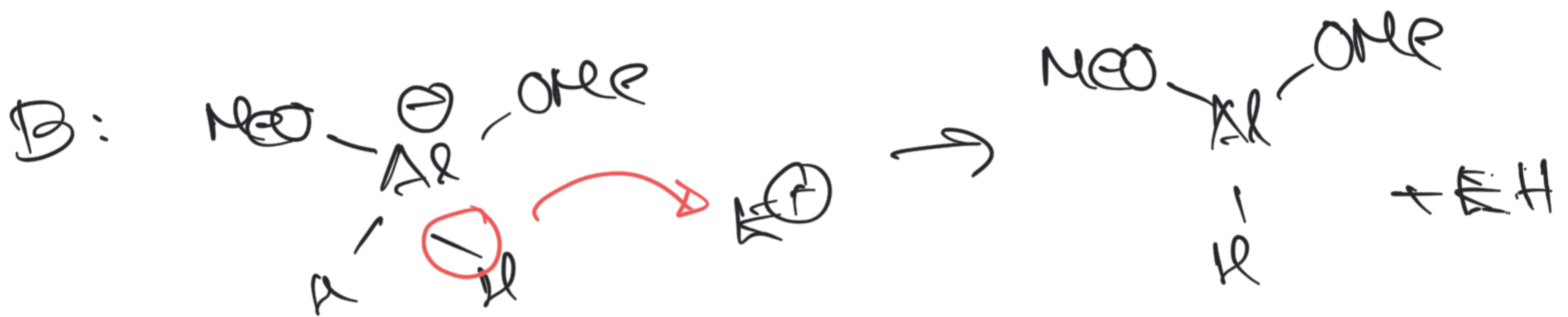
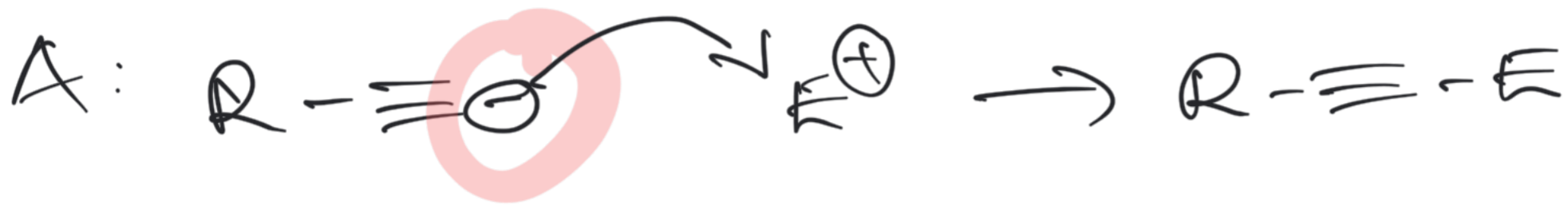
C



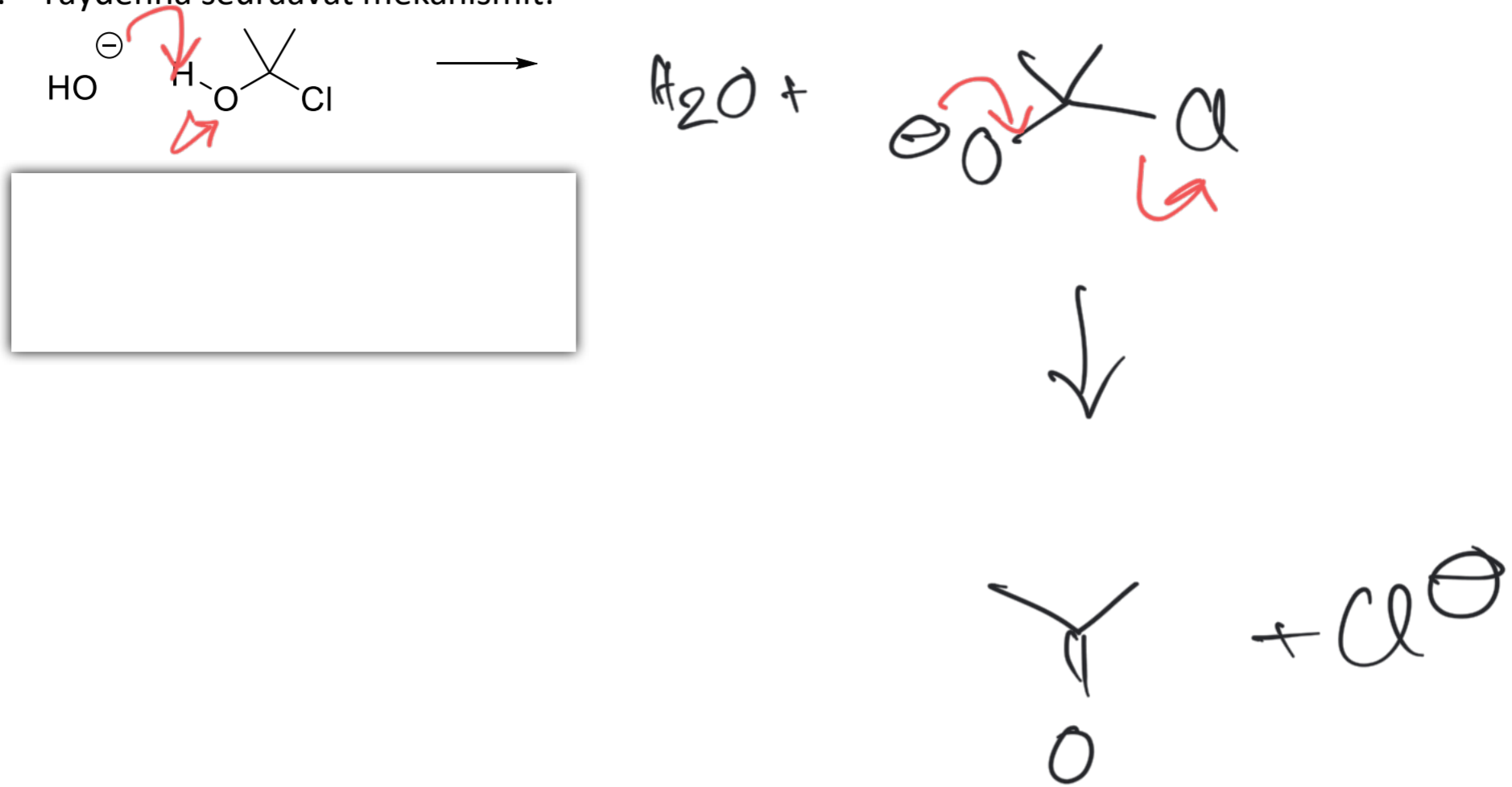
D



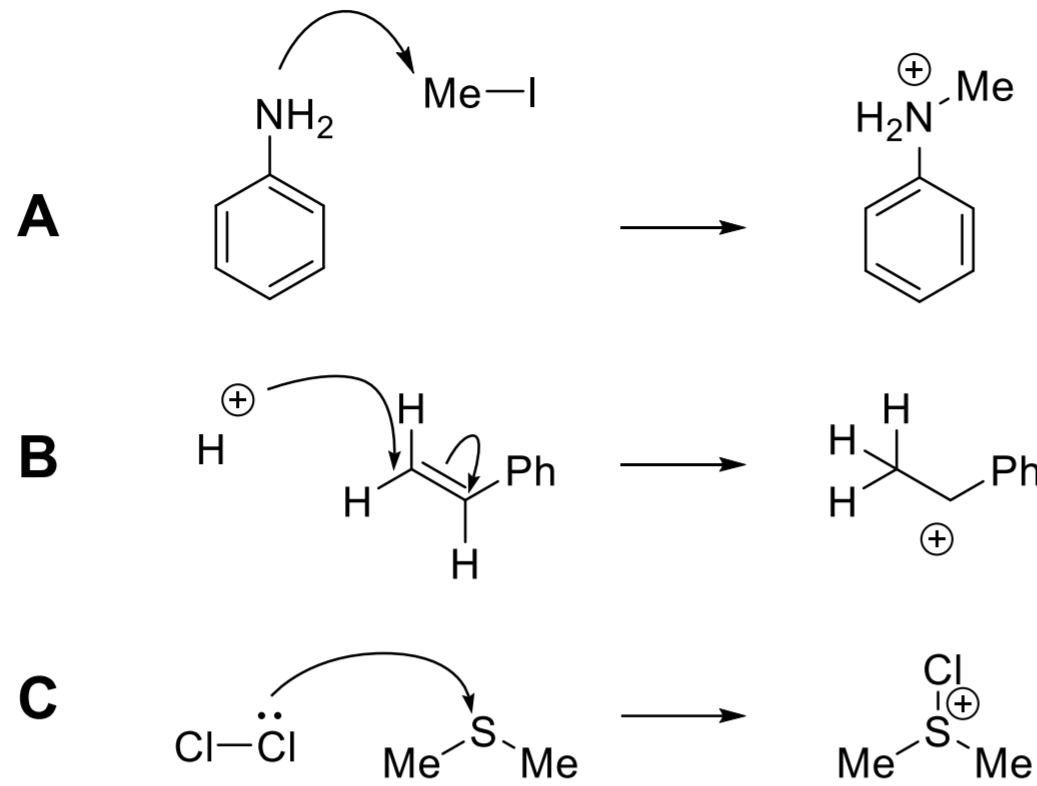
E



3. Täydennä seuraavat mekanismit:



4. Seuraavat reaktiot tuottavat annetun tuotteen, mutta reaktioiden mekanismit ovat väärin! Mikä kussakin reaktiossa on väärin. Esitä kullekin reaktiolle järkevämpi mekanismi.



5. Tunnista edellisen tehtävän mekanismeissa kunkin nukleofiilin HOMO ja kunkin elektrofiilin LUMO.

