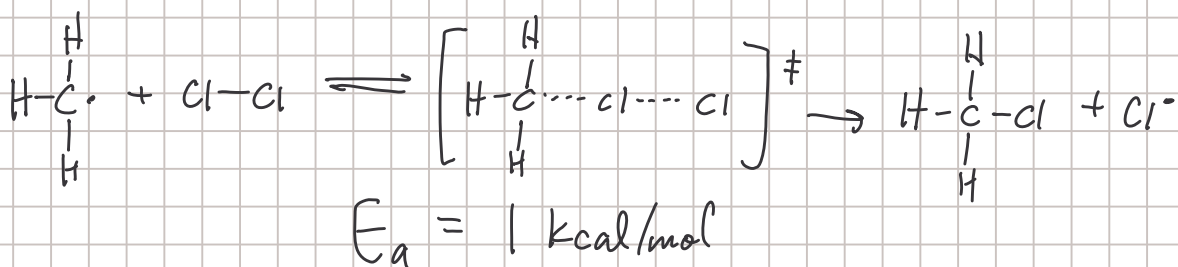
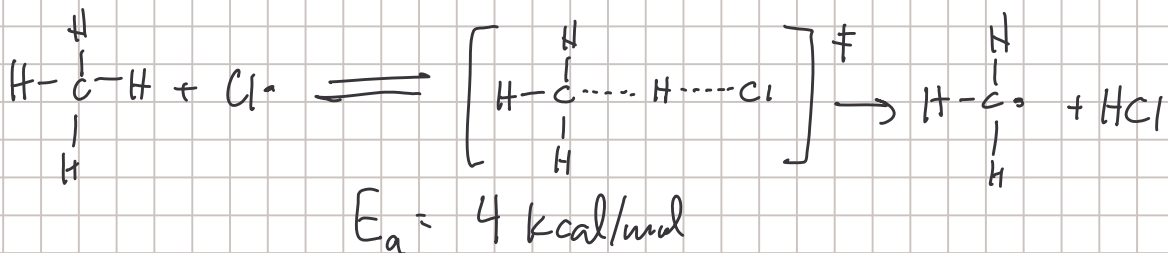


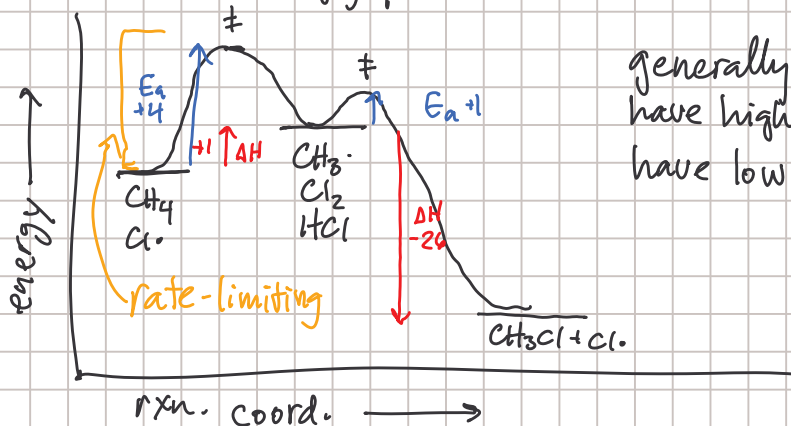
Ch 4

Note Title

9/26/2005



Reaction-energy profile



generally, endothermic steps have high E_a , exothermic steps have low E_a

Rate-limiting step: step w/ highest E_a

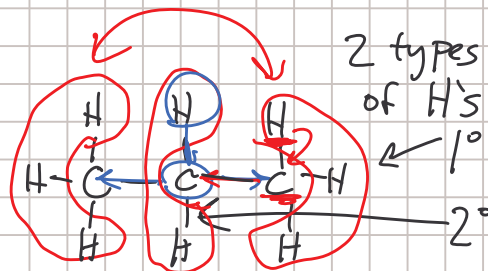
defines kinetics for entire reaction

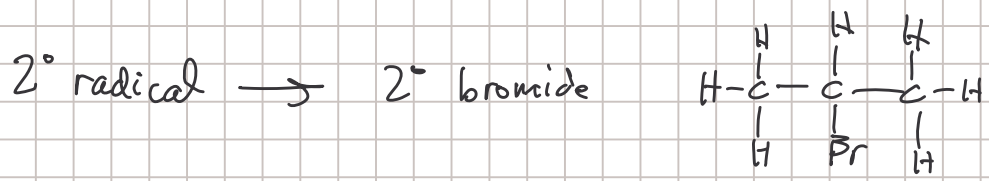
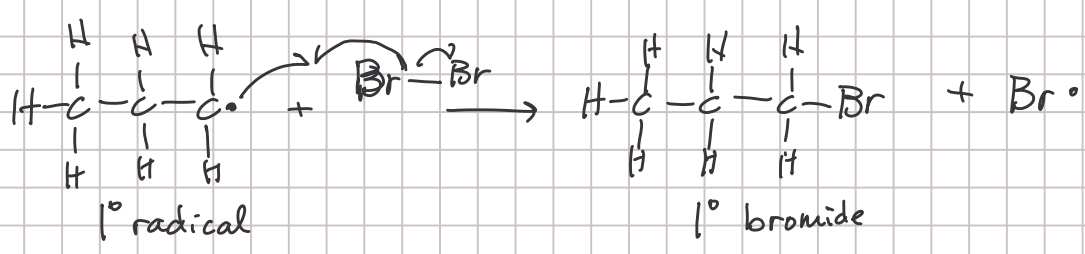
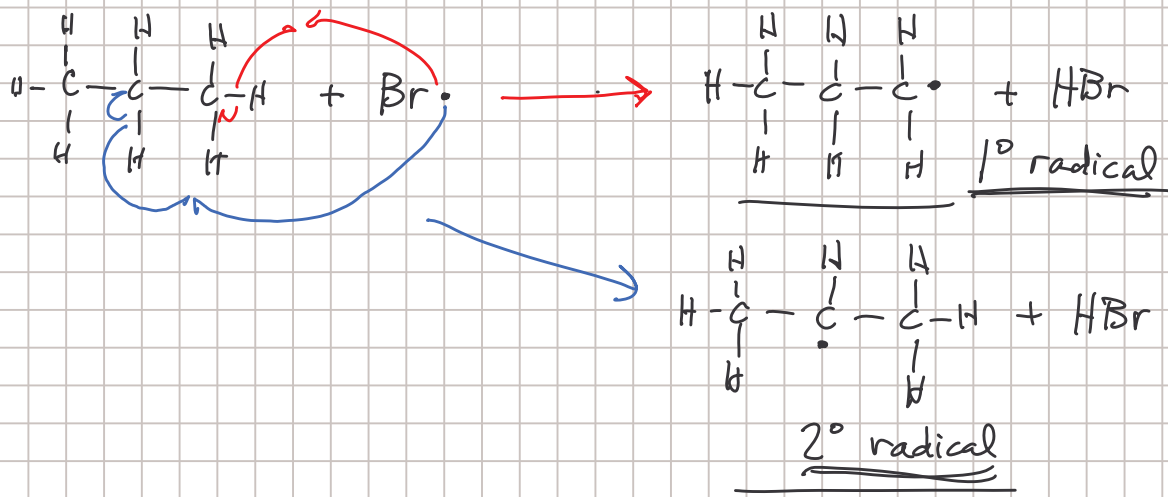
(in this case, abstraction of H is rate-limiting)

Selectivity in halogenation

CH_4 has 4 equivalent hydrogens

$\text{CH}_3\text{CH}_2\text{CH}_3$

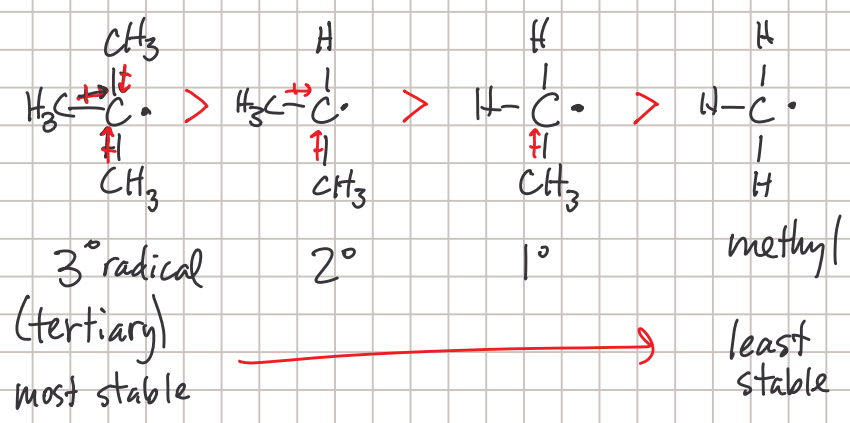




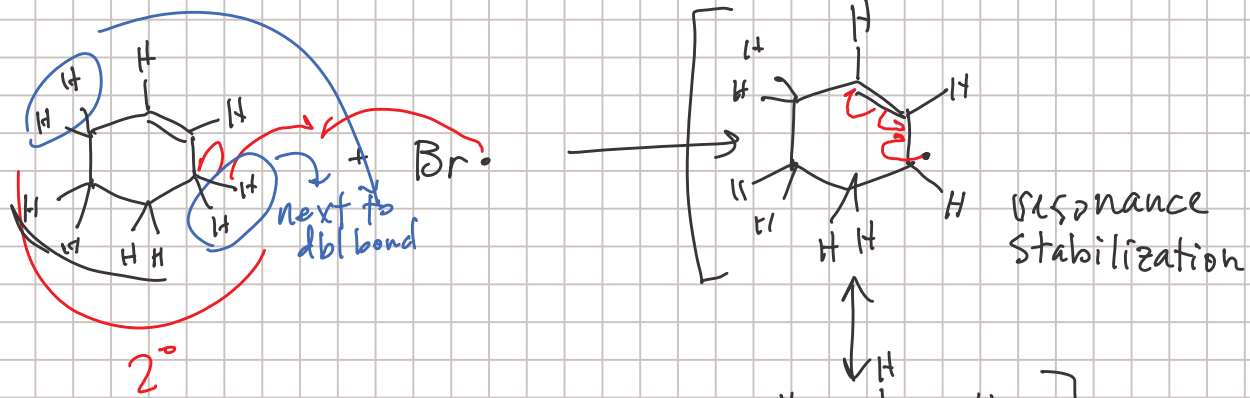
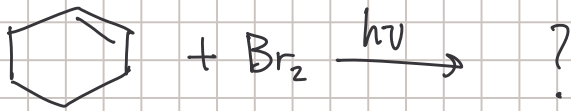
2 possible products which is major?

Radicals are electron-deficient (lack octet)

anything that can replace some e⁻ density will stabilize radical



inductive stabilization (e⁻ density donation through σ bond)



hydrogens attached to double/triple bonds usu. not abstracted

