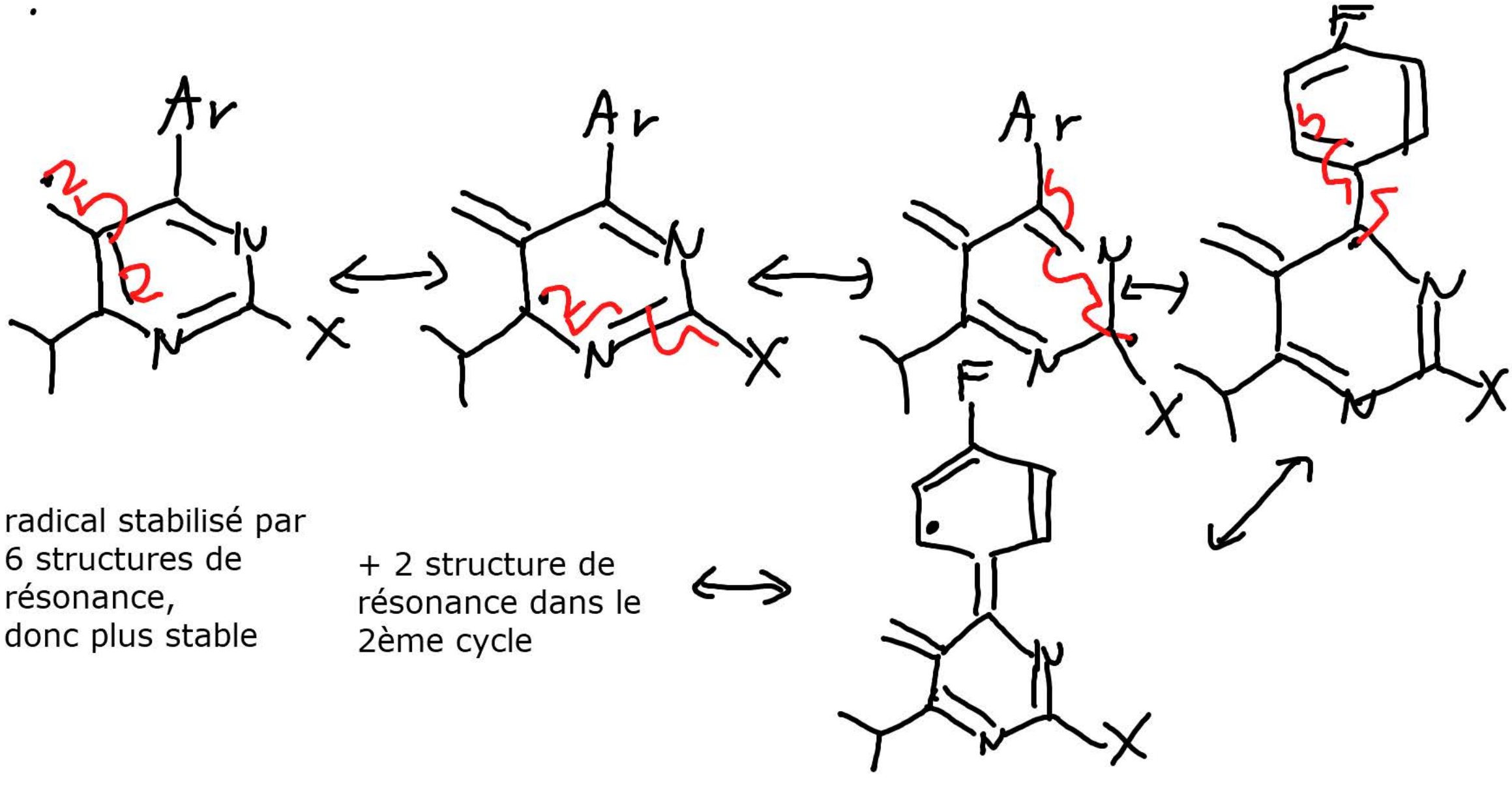


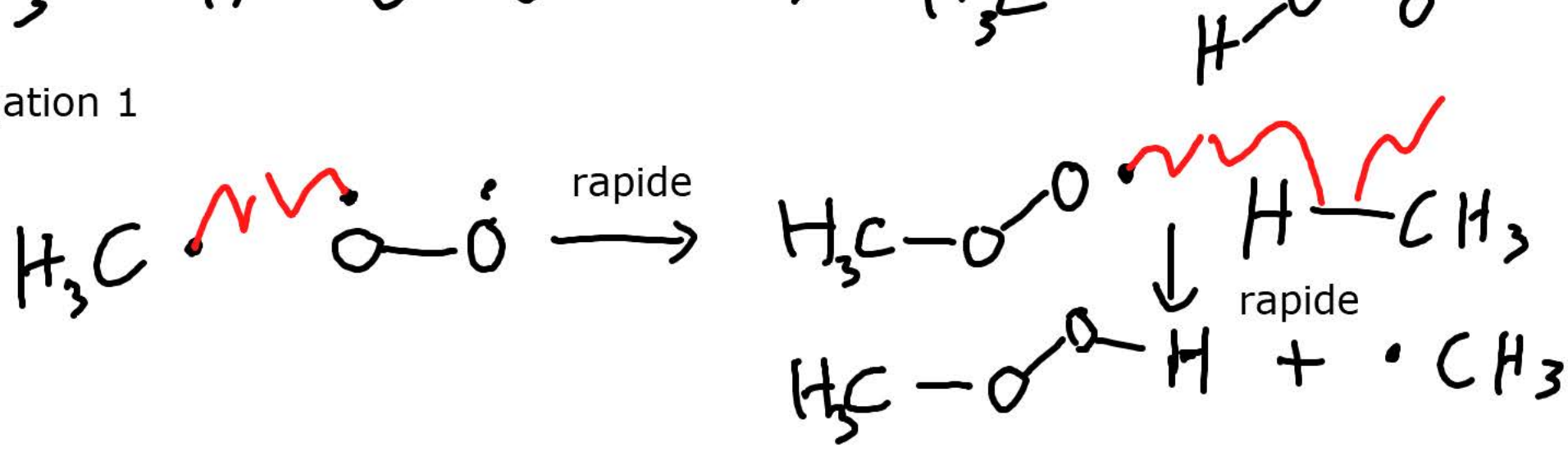
radical stabilisé par 6 structures de résonance, donc plus stable

+ 2 structure de résonance dans le 2ème cycle

combustion du méthane

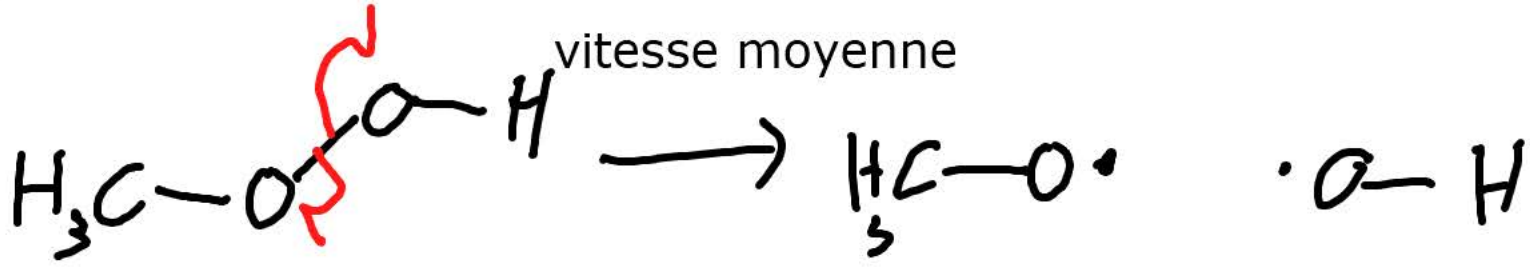
Initiation

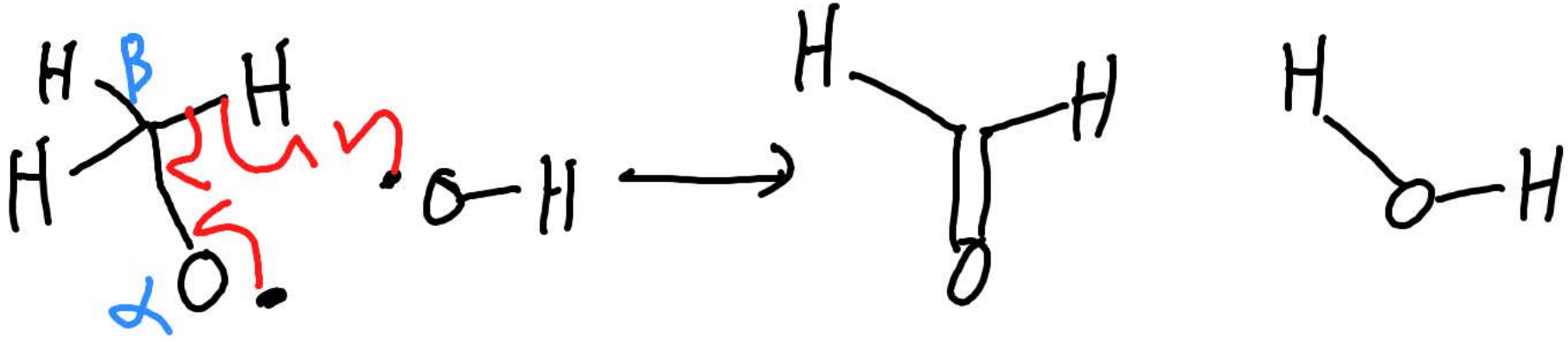
propagation 1



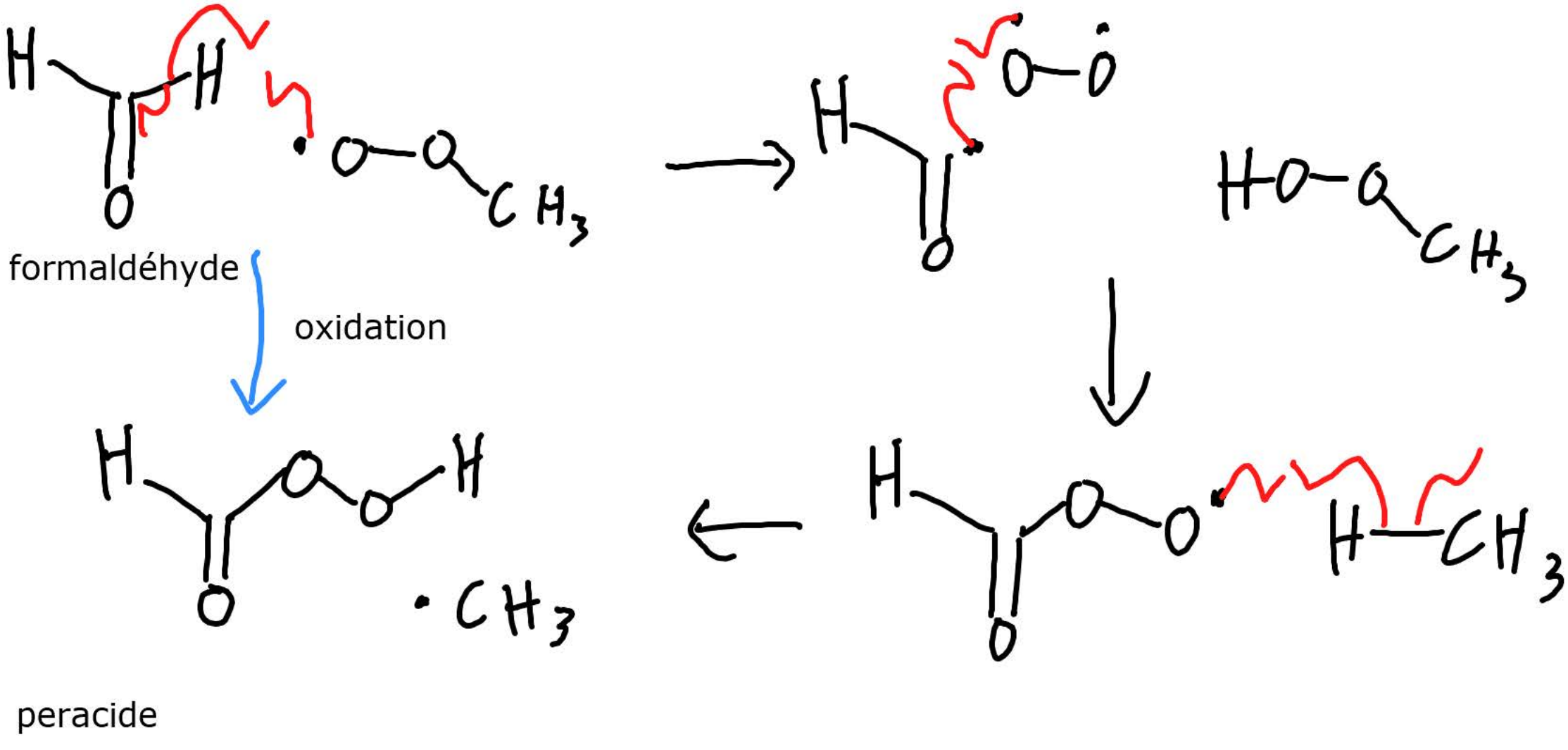
initiation

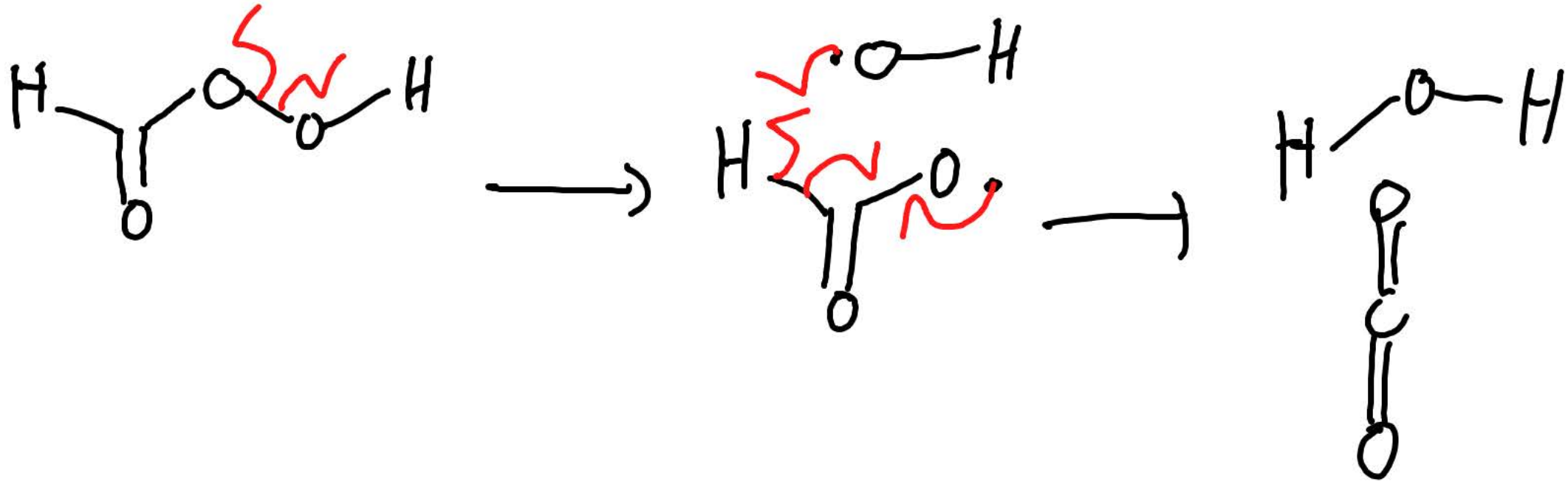
vitesse moyenne



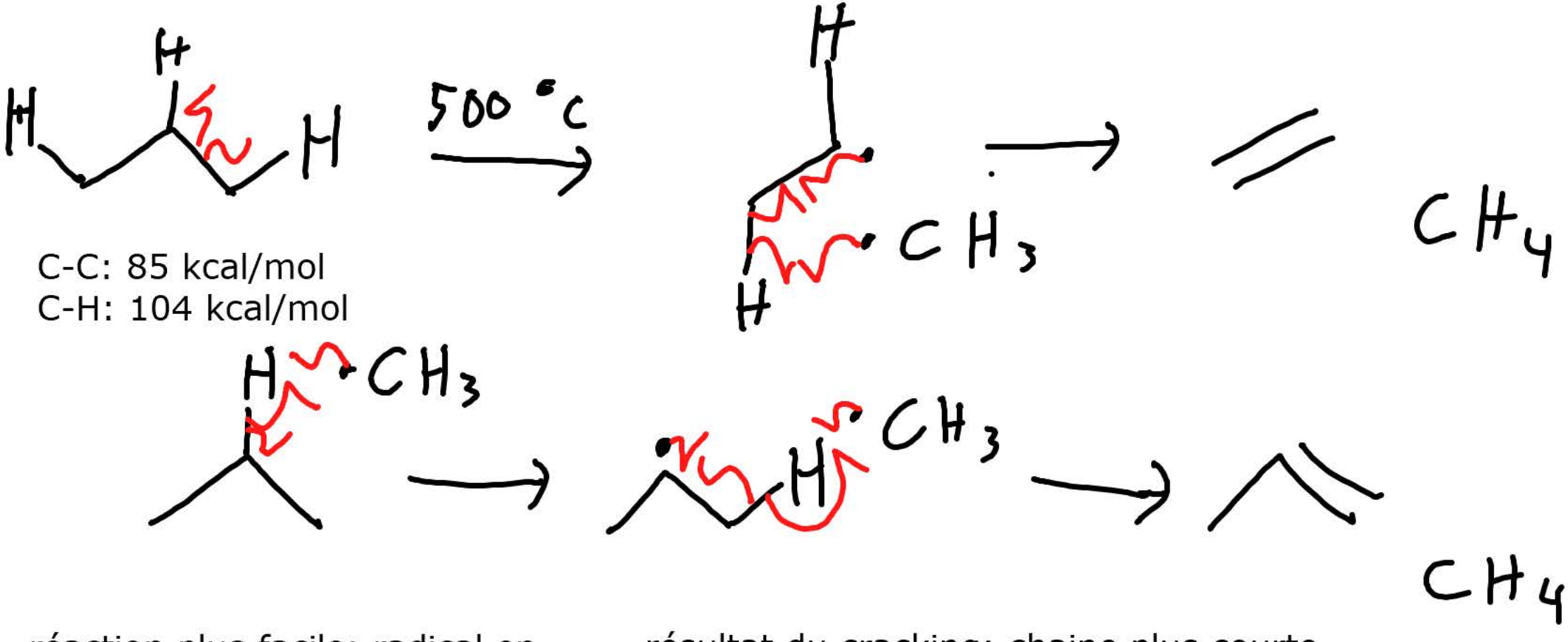


élimination beta


formaldéhyde
oxidation
peracide



cracking du pétrole

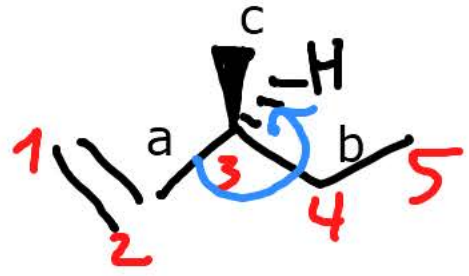


C-C: 85 kcal/mol
C-H: 104 kcal/mol

réaction plus facile: radical en position secondaire plus stable

résultat du cracking: chaine plus courte, contiennent plus d'alcènes

nomenclature des alcènes



(S)-3-méthylpent-1-ène

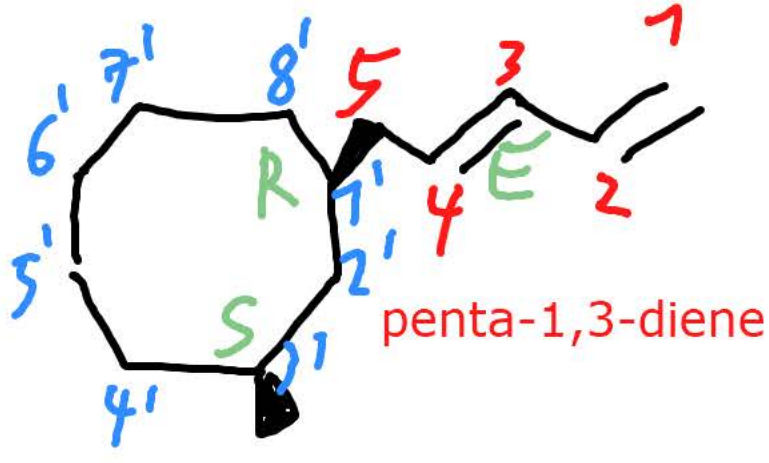
(E)-hept-3-ène

"S" mais H devant
donc R

(R)-3-bromo-cyclopent-1-ène

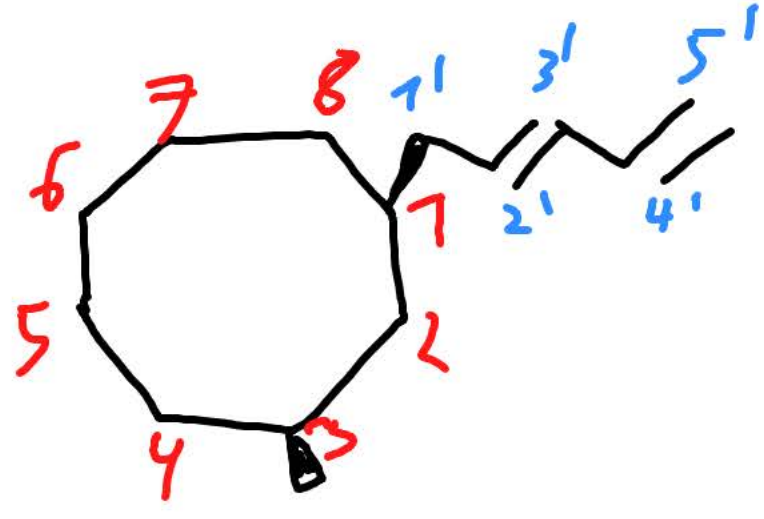
.

ancienne règle: les insaturations dominent



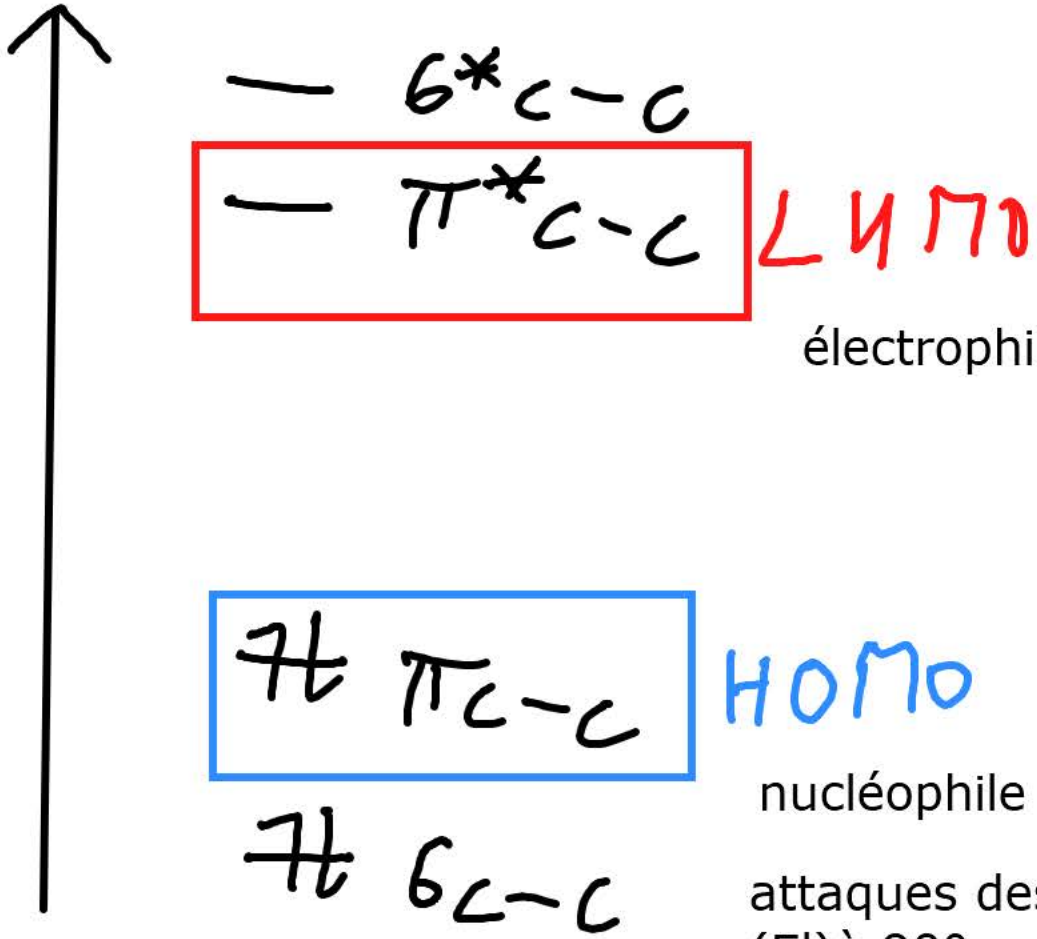
(E)-5-((1R,3S)-(3-méthyl-cyclooctyl))-penta-1,3-diène

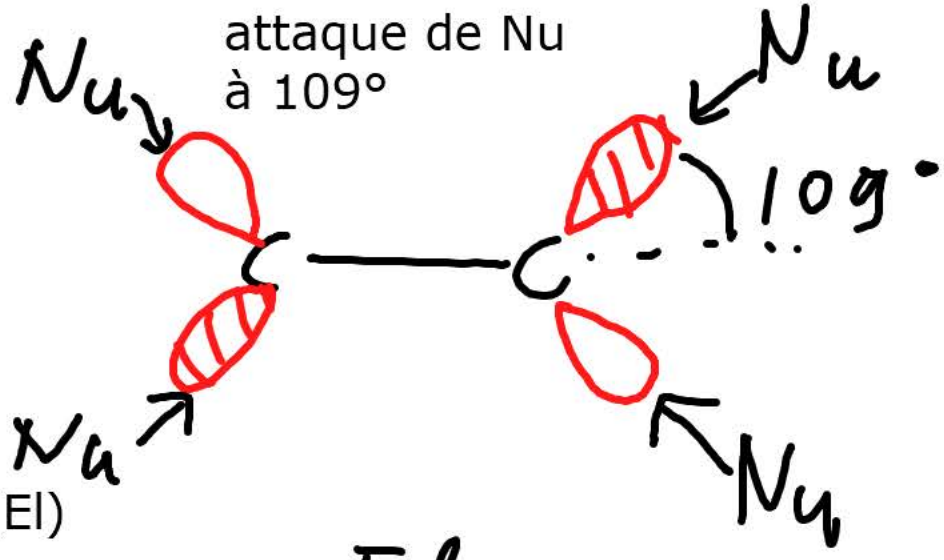
nouvelles règles: 1) cycle 2) nombre d'atome, 3) insaturations

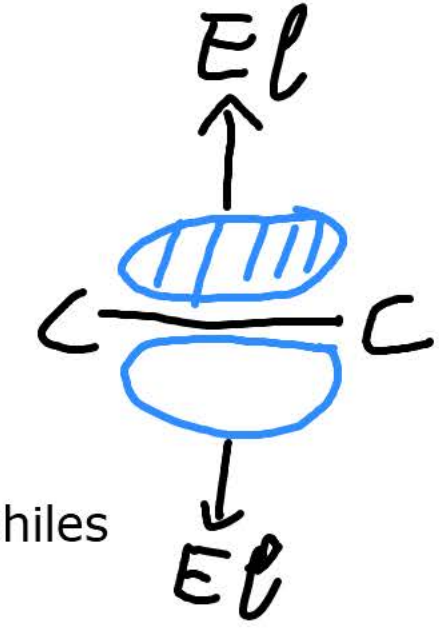


(1R,3S)-3-méthyl-1-((E)-penta-2,4-diényl)-cyclooctane

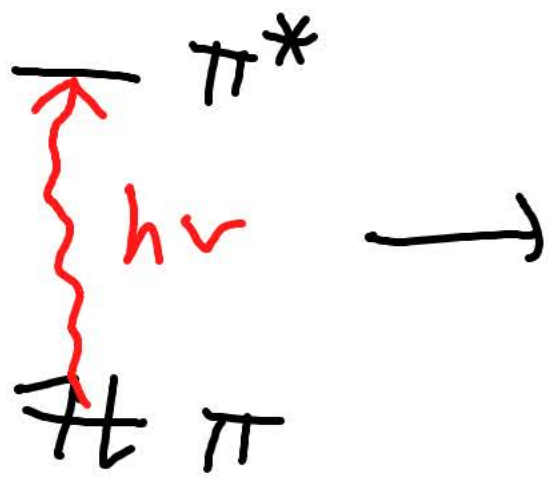
HOMO/LUMO des alcènes



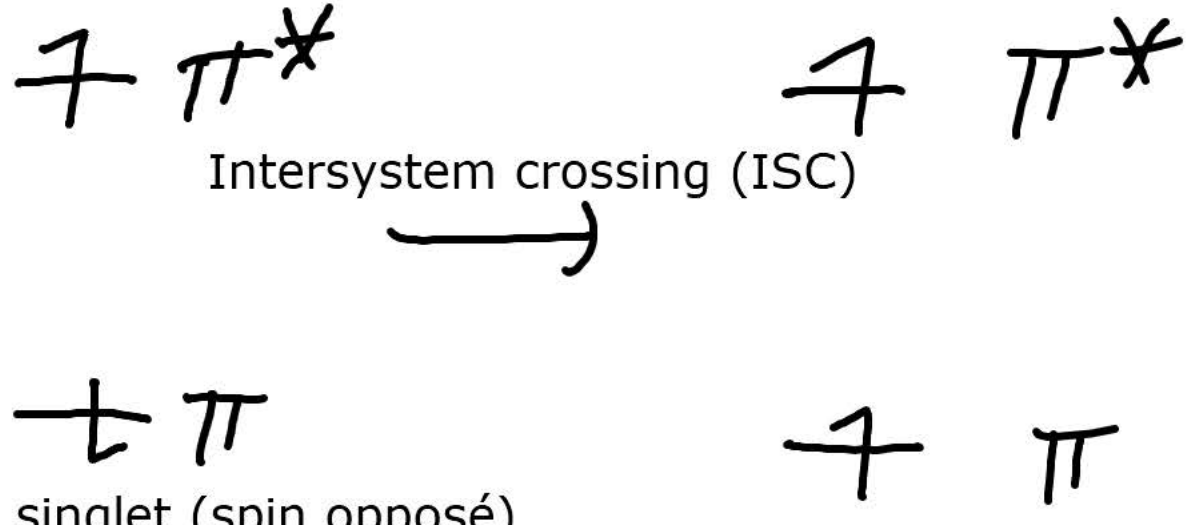




photochimie des alcènes

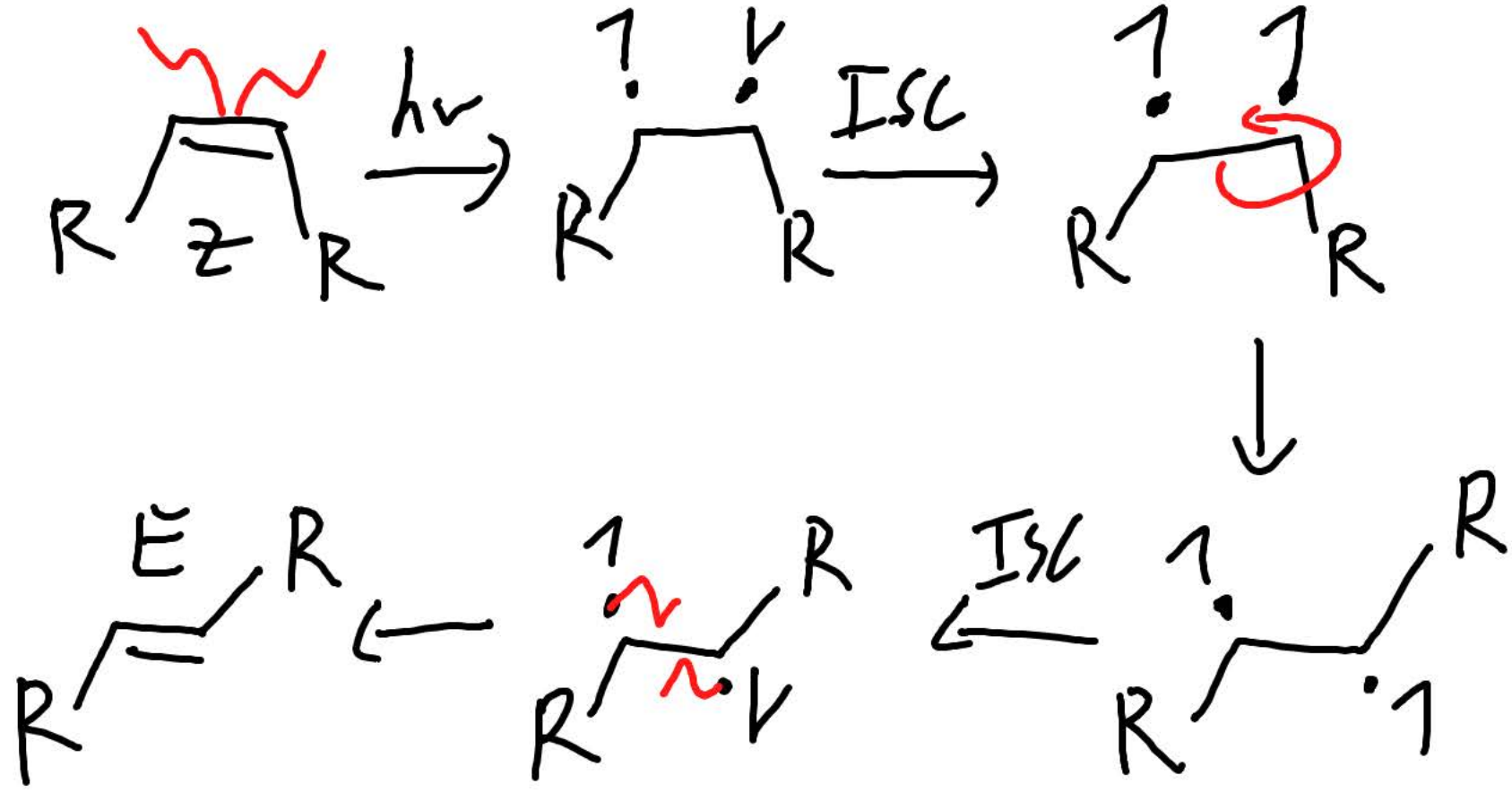


alcène seul: lumière UV
plusieurs alcènes conjugués: lumière visible

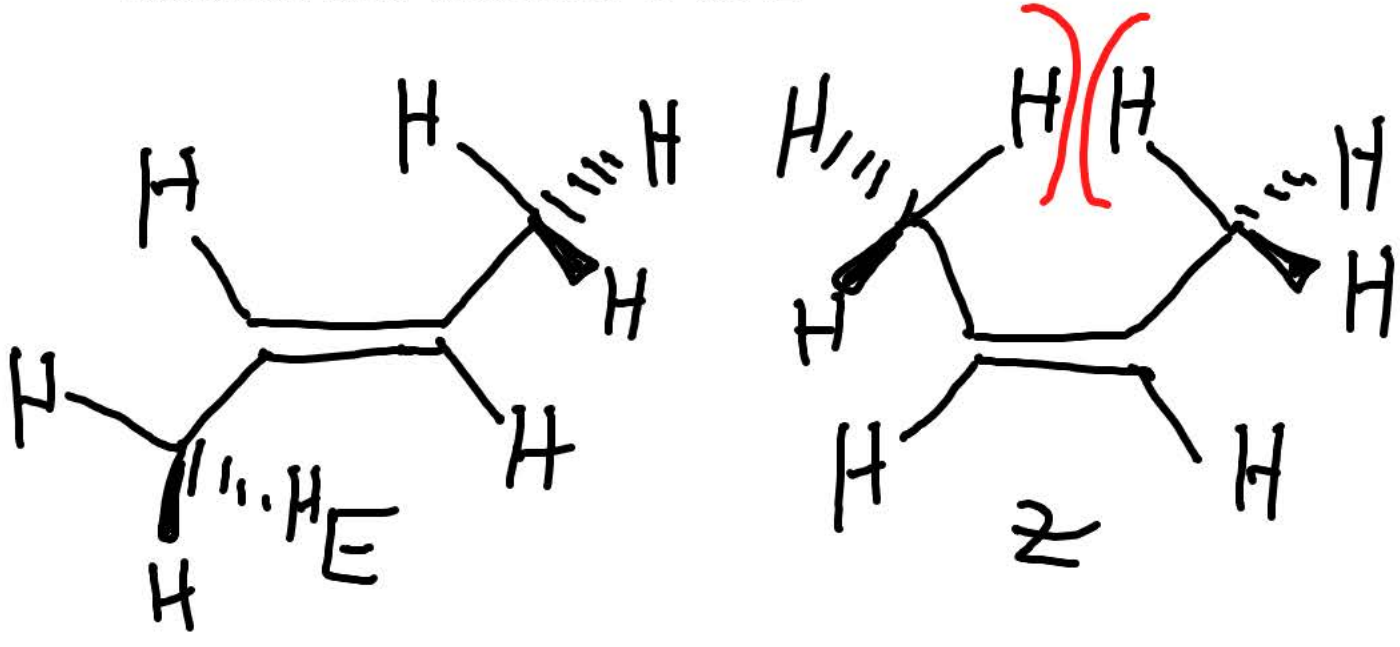


singlet (spin opposé)

triplet (spin parallèles) plus stable

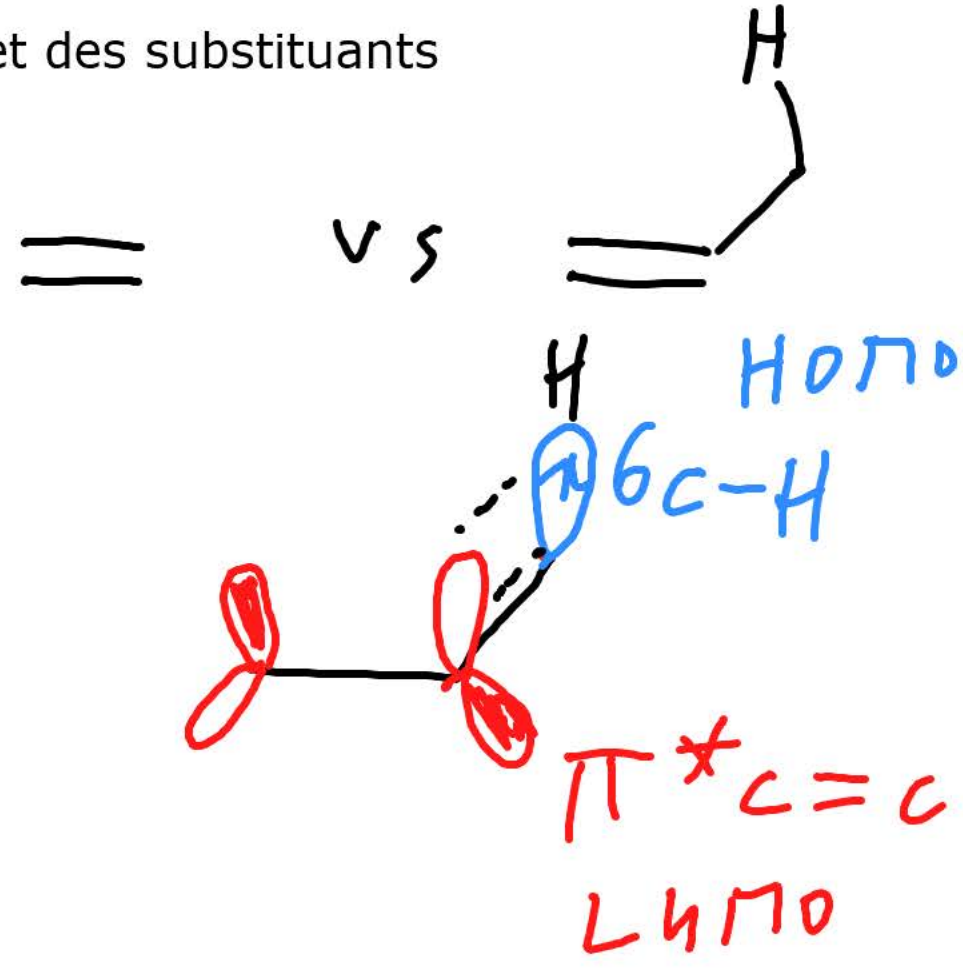

R
Z
R
hν
R
R
ISC
R
R
R
E
R
R
R
hν
ISC
R
R
R

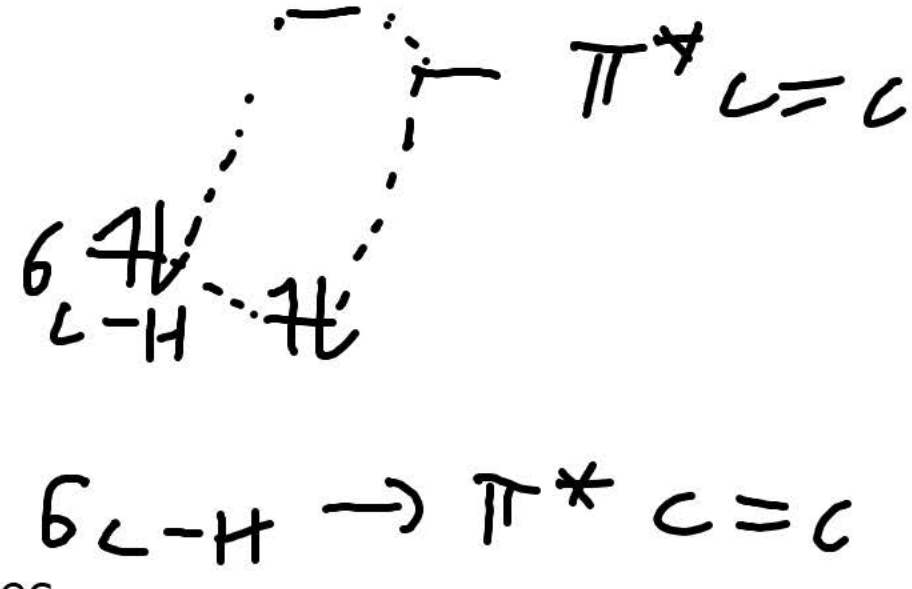
stabilité des alcènes: E vs Z



alcéne E est plus stable pour des raisons stériques, plus les substituants sont grands, plus la différence est grande

effet des substituants





chaque substituant peut stabiliser par interactions avec la LUMO de la double liaison