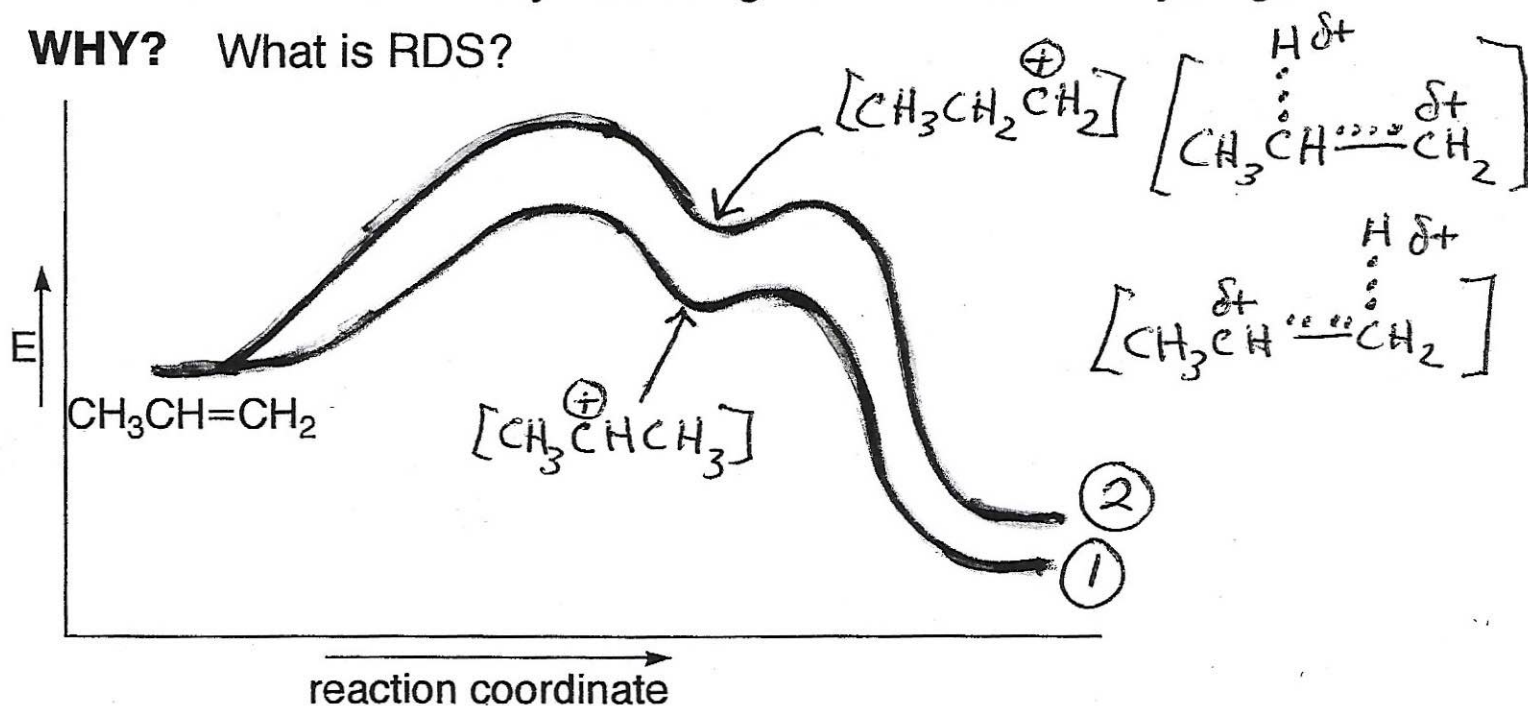


Regiospecific: product is formed from only one of two possible orientations of addition

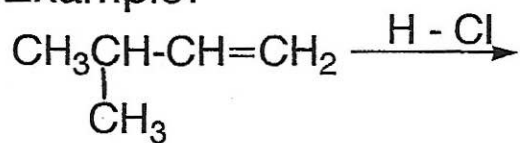
Markovnikov's Rule (observation): The addition of HX to the double bond of an alkene results in a product with the acidic proton bonded to the carbon that already has the greater number of hydrogens.

WHY? What is RDS?

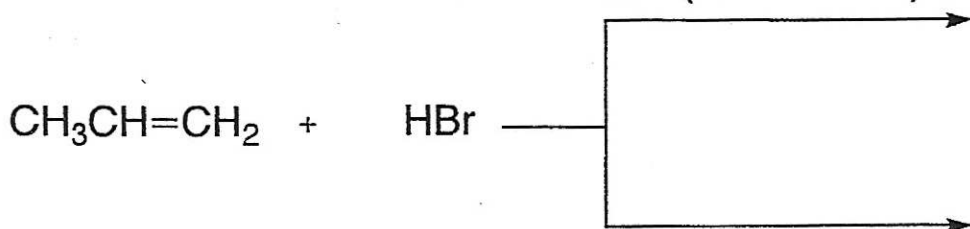


Mark's Rule (extended): In an electrophilic addition, E^+ adds in a way that generates the most stable intermediate.

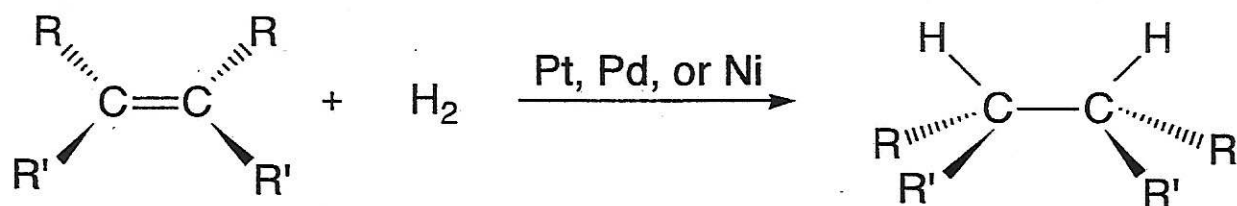
Example:



Free Radical Addition of HBr (A Puzzle?)

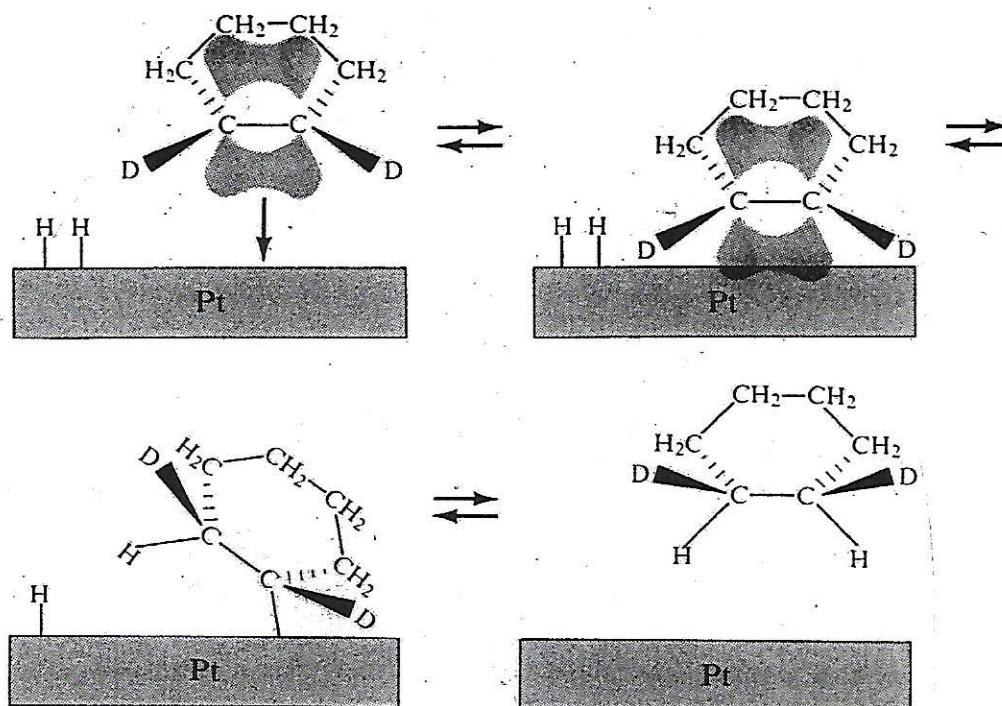


III. Addition of H - H: Catalytic Hydrogenation



Heterogeneous reaction - reaction takes place on the surface of the solid catalyst

Function of catalyst:



Steric factors may direct product formation: less sterically hindered face of double bond approaches catalyst

