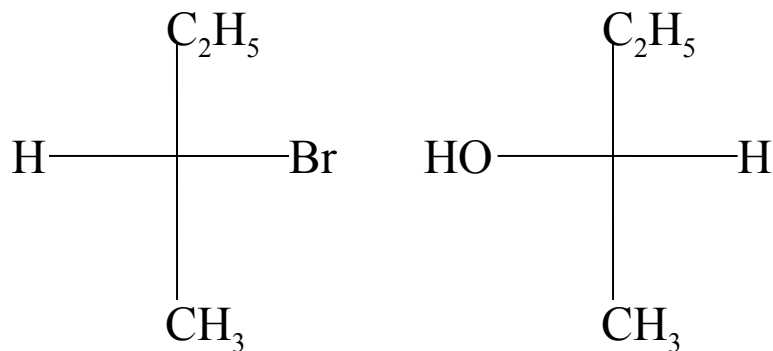
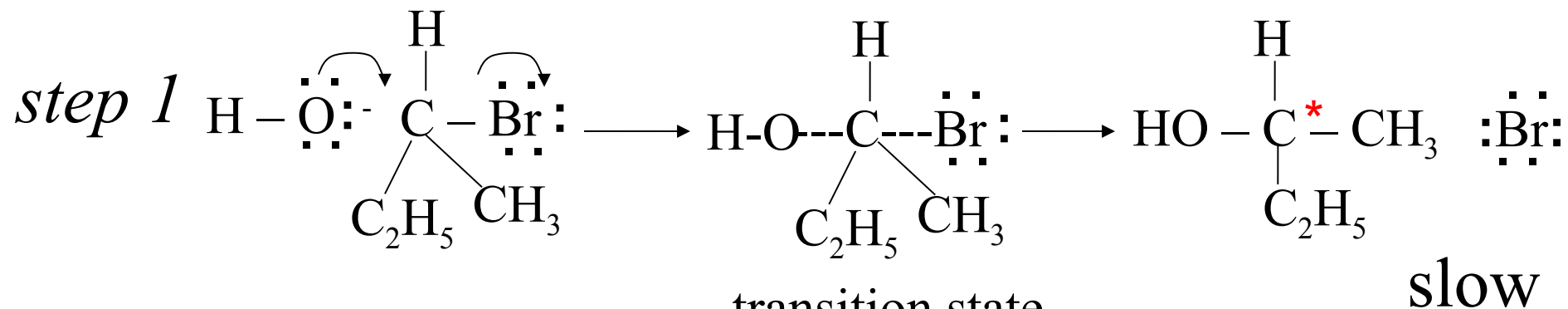


Nucleophilic Substitution

S_N2

rate determining step **bimolecular**



stereocenter inverted

reactants are optically active ✓
products are optically active

$$\text{rate} = k [\text{R}-\text{X}][\text{OH}^-]$$