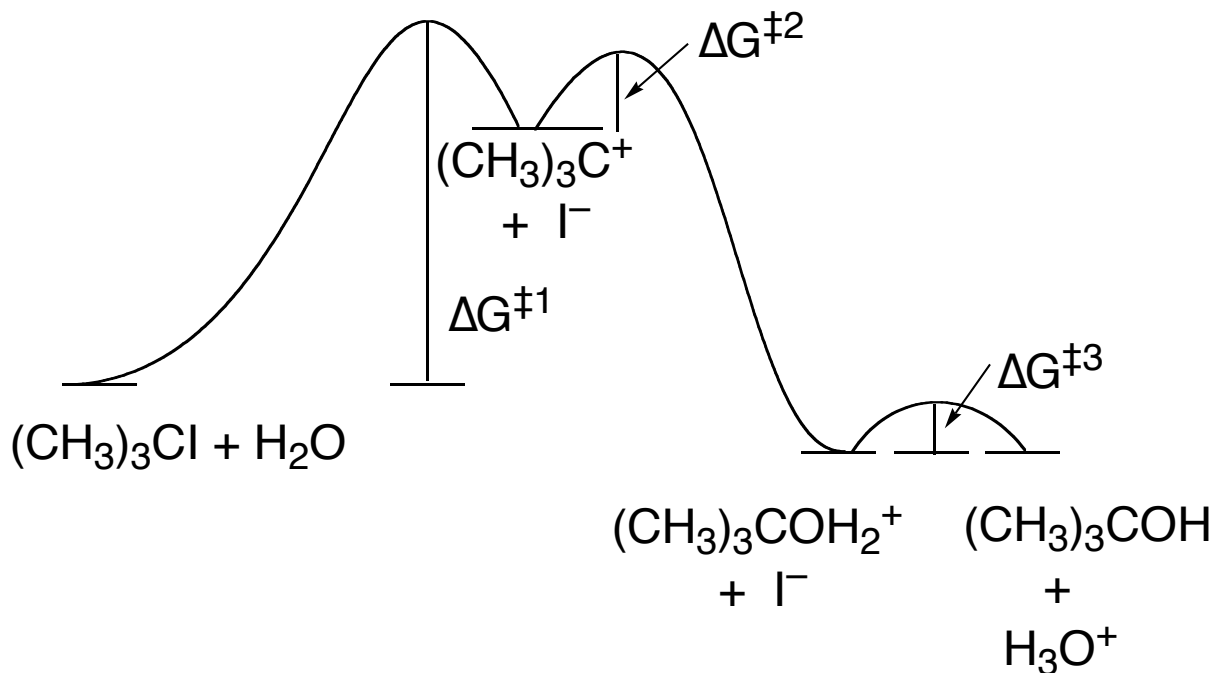


Energy Diagram for an S_N1 Reaction



- Step 1 Endothermic, large ΔG^\ddagger , rate limiting
Step 2,3 Exothermic, small ΔG^\ddagger , not rate limiting
- Result Cation disappears as fast as it is formed.

Reaction cannot go faster than rate limiting step.