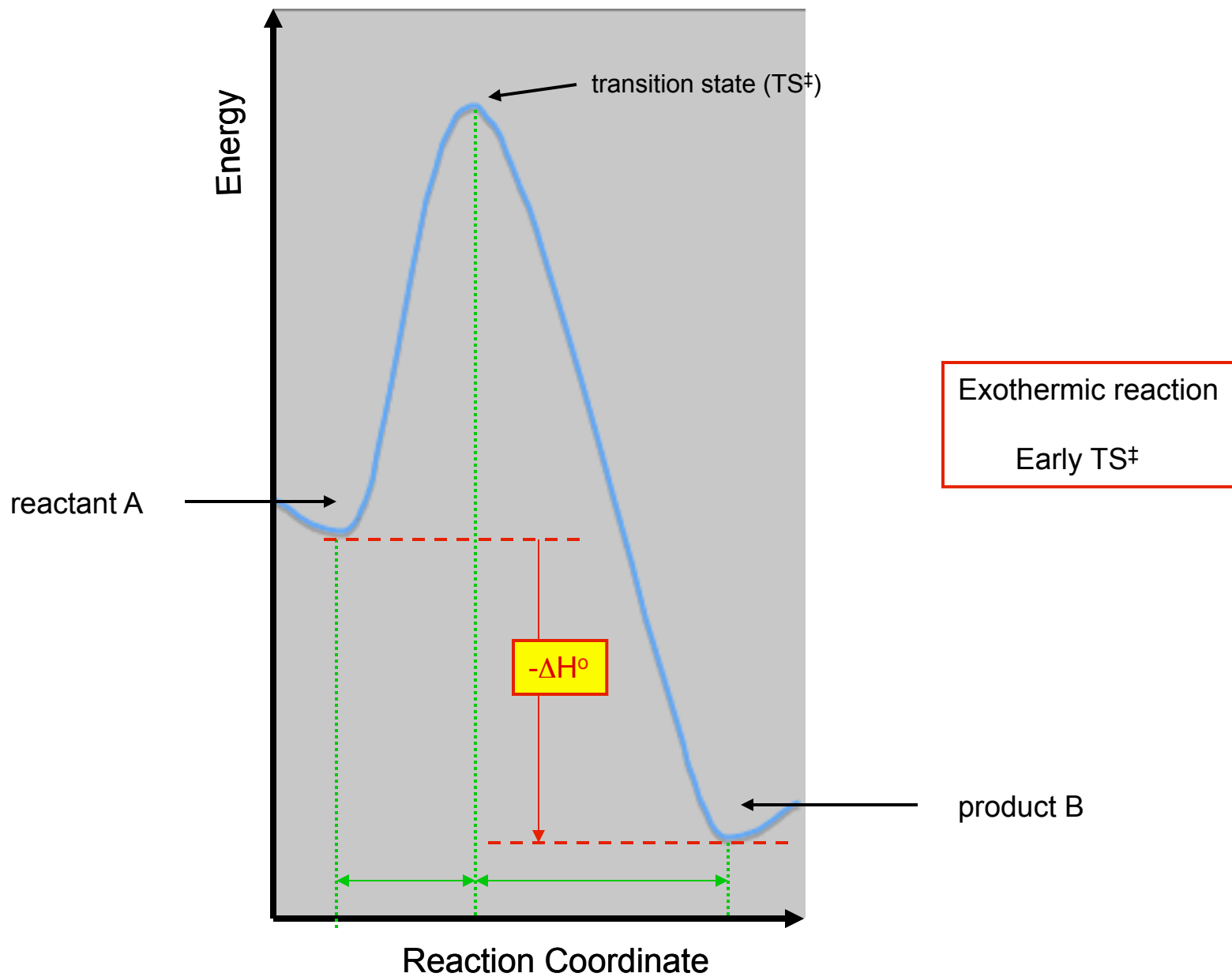


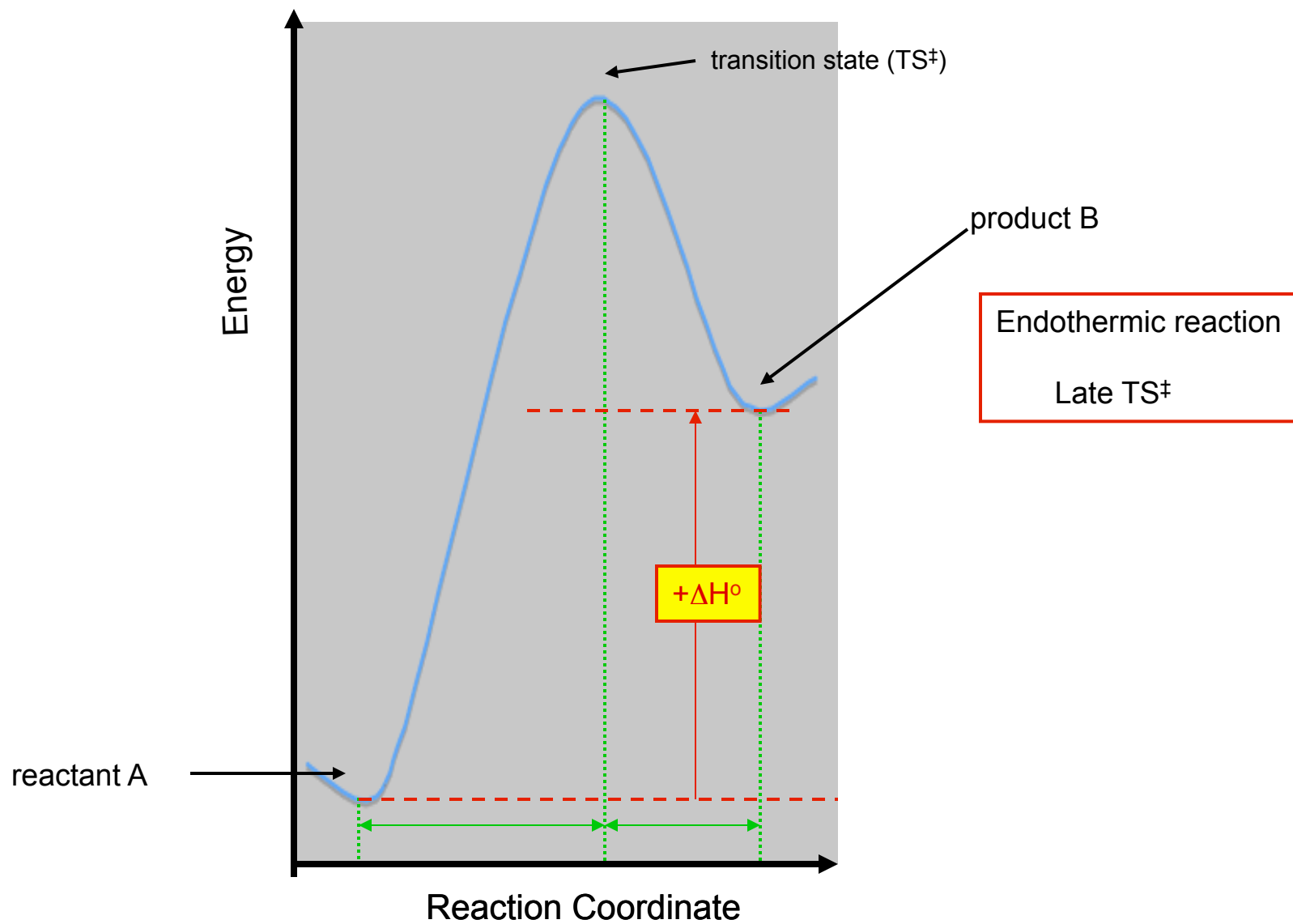
A blue line graph on a light gray background representing a reaction coordinate diagram. The curve starts at a medium energy level on the left, dips slightly to a local minimum, then rises to a sharp peak representing the transition state. After the peak, it falls to a deep minimum representing the products, and finally rises slightly at the far right. The text "Reaction Coordinates" is written in blue, italicized font across the middle of the graph.

Reaction Coordinates

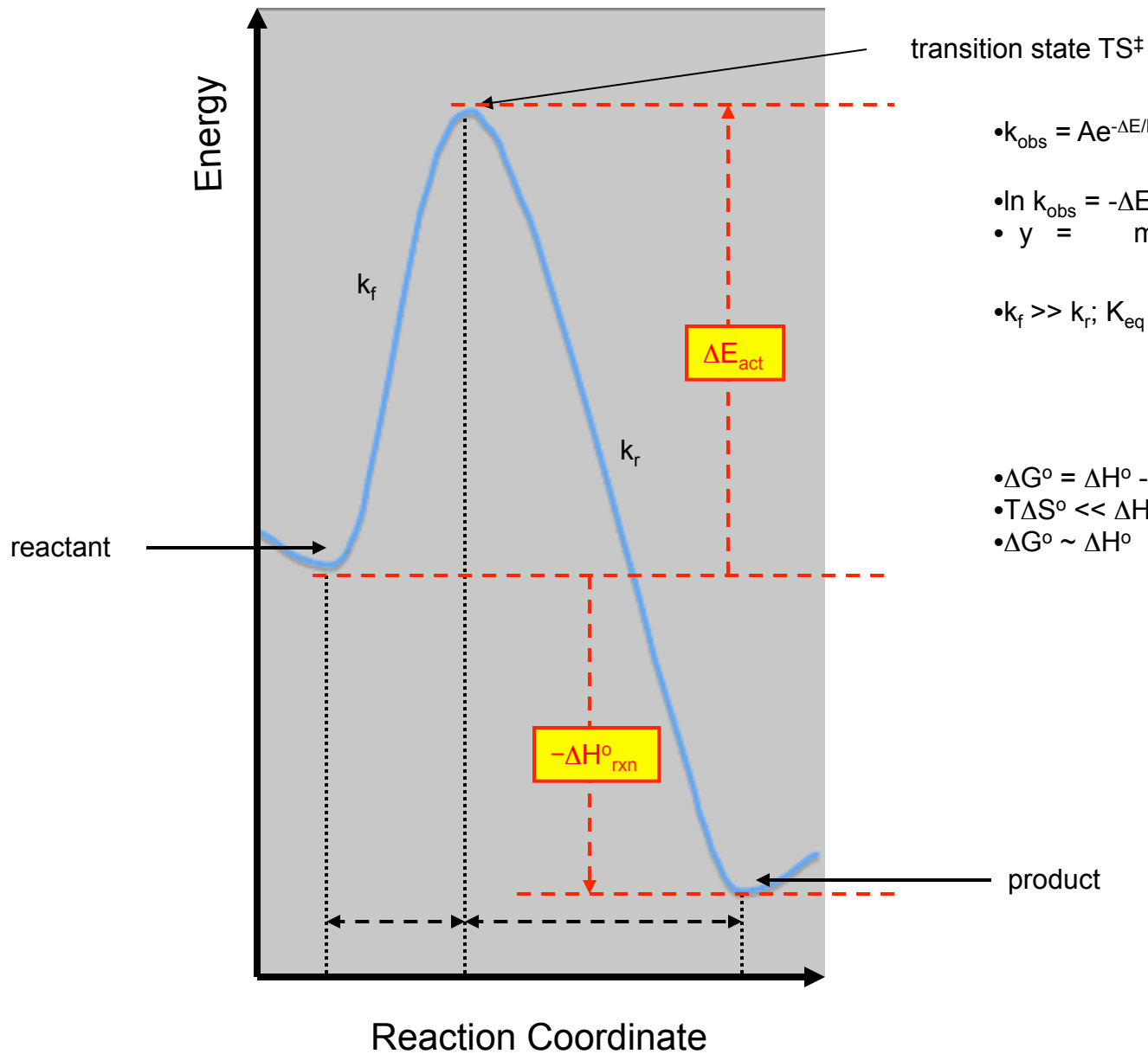
The Hammond Postulate



The Hammond Postulate



Activation Energy - E_a



- $k_{obs} = Ae^{-\Delta E/RT}$

- $\ln k_{obs} = -\Delta E/R(1/T) + \ln A$

- $y = mx + b$

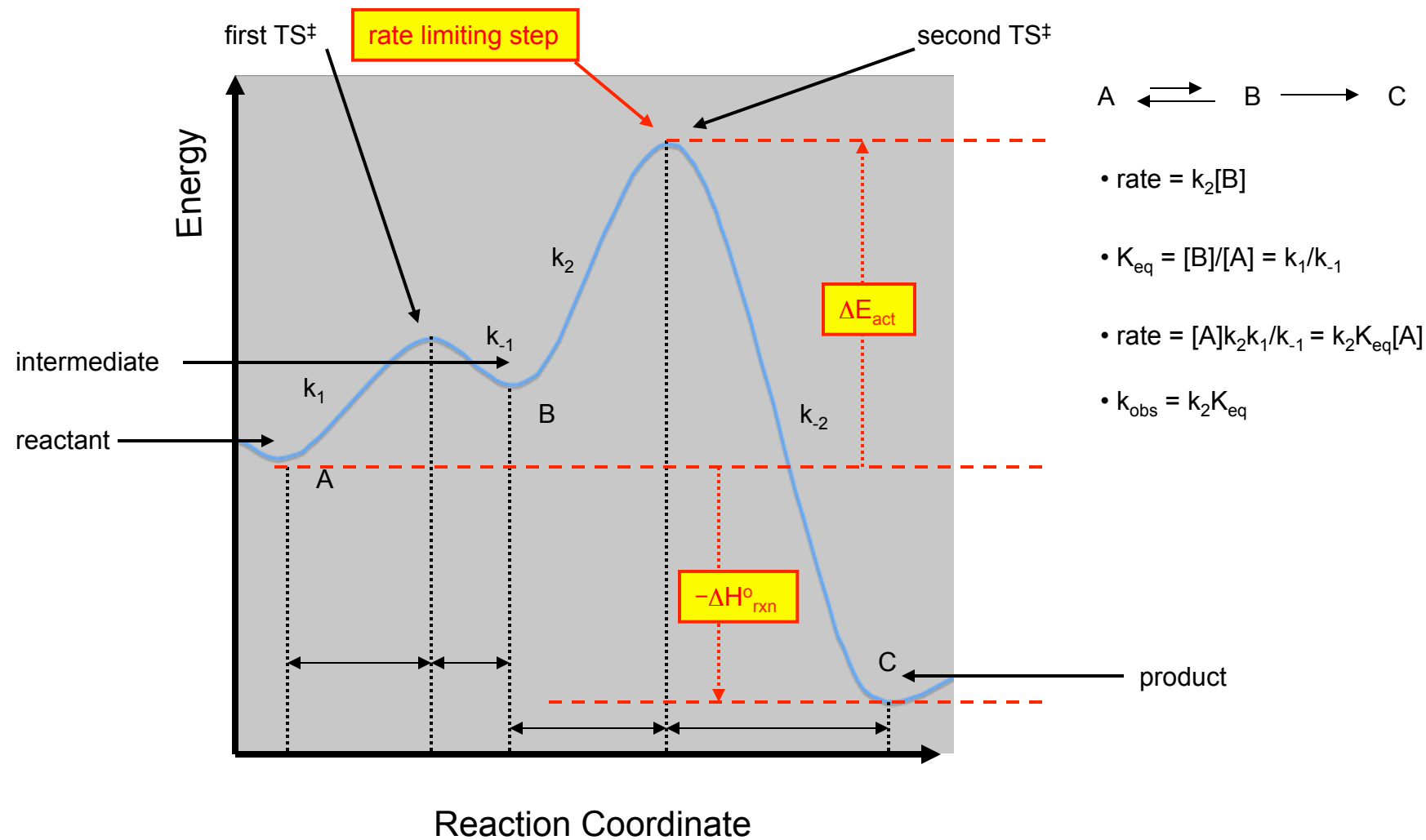
- $k_f \gg k_r$; $K_{eq} = k_f/k_r = [\text{product}]/[\text{reactant}]$

- $\Delta G^\circ = \Delta H^\circ - T\Delta S^\circ$;

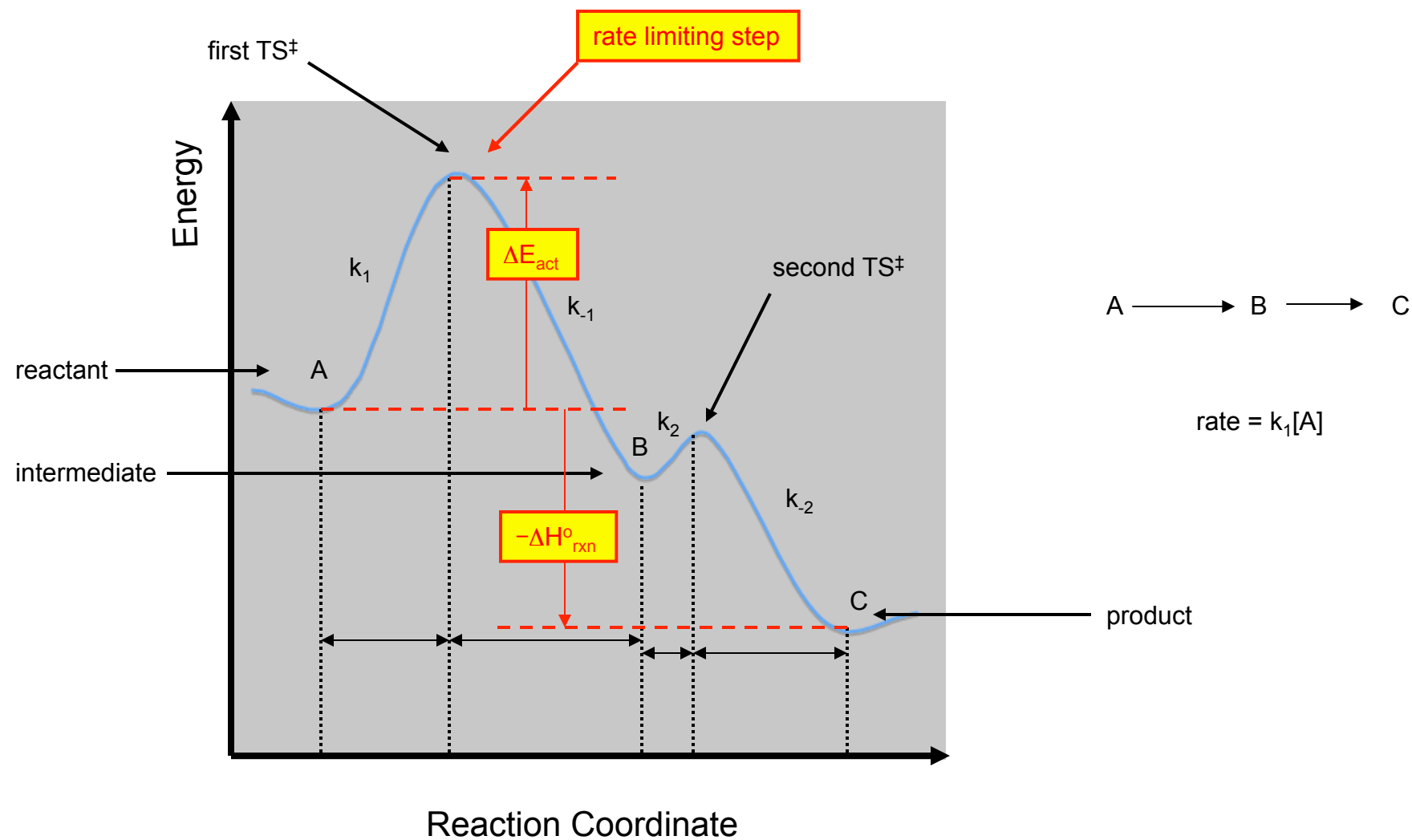
- $T\Delta S^\circ \ll \Delta H^\circ$

- $\Delta G^\circ \sim \Delta H^\circ$

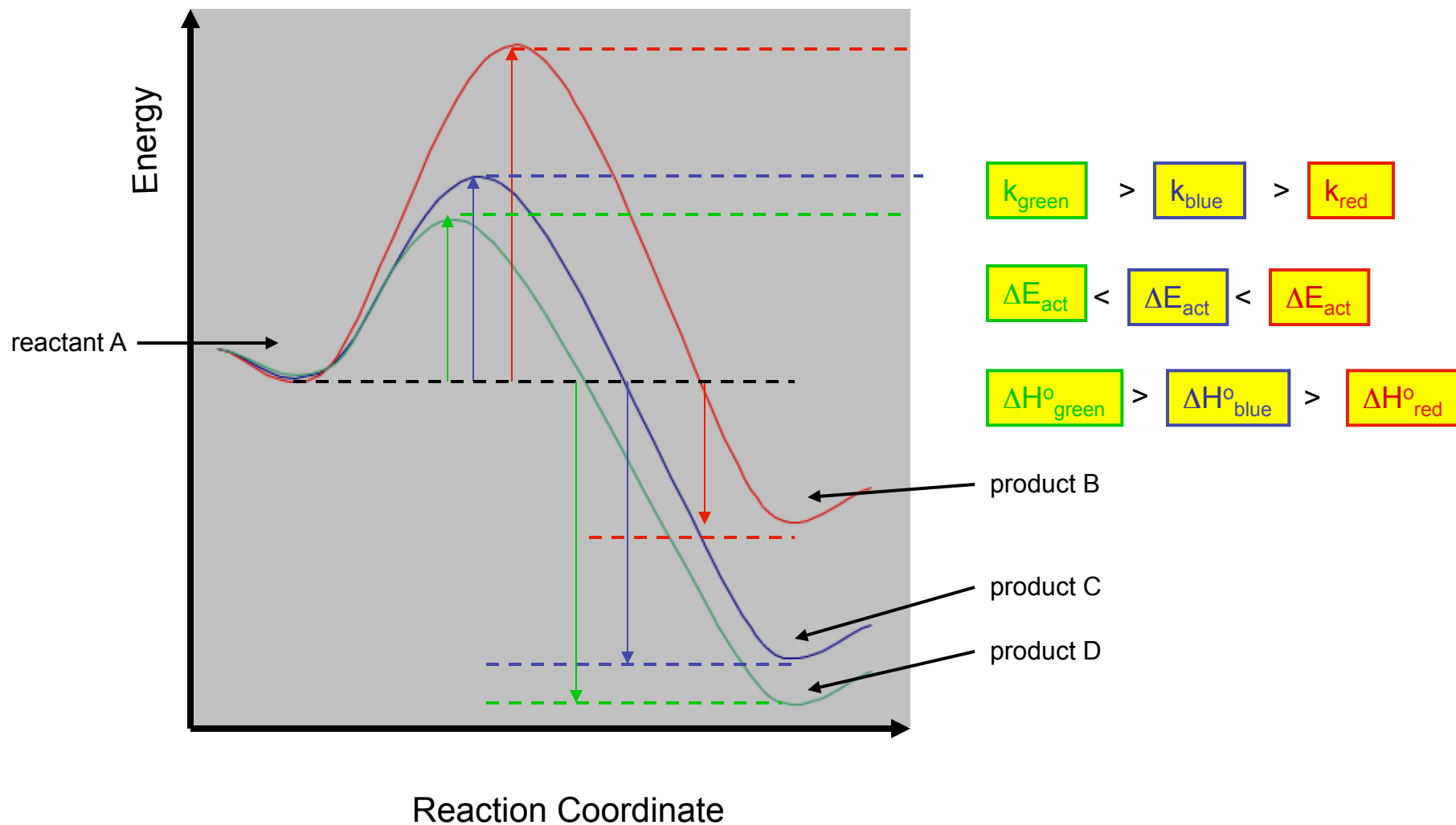
A Preliminary Equilibrium, Exothermic Reaction



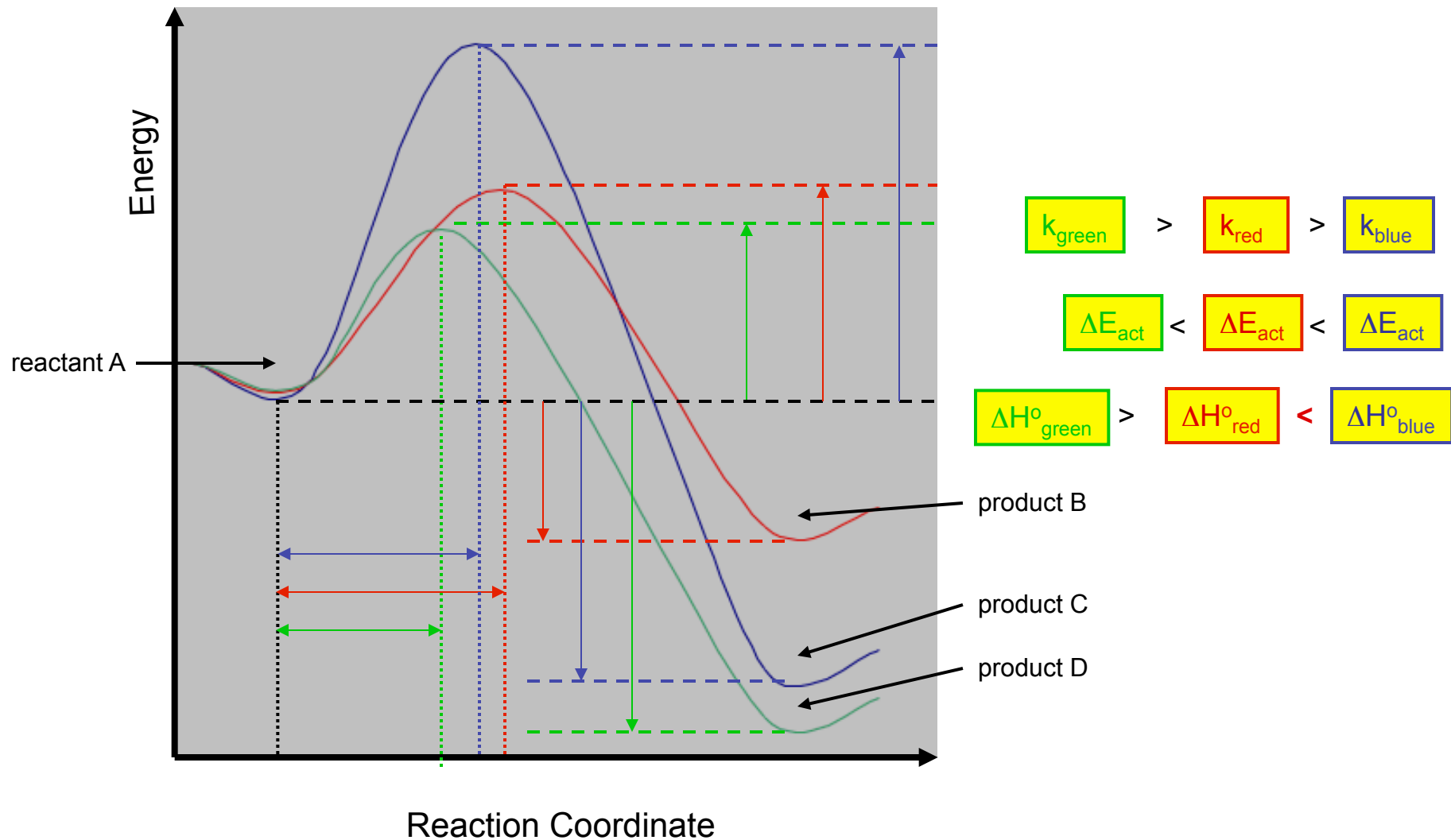
An Irreversible Reaction with an Intermediate



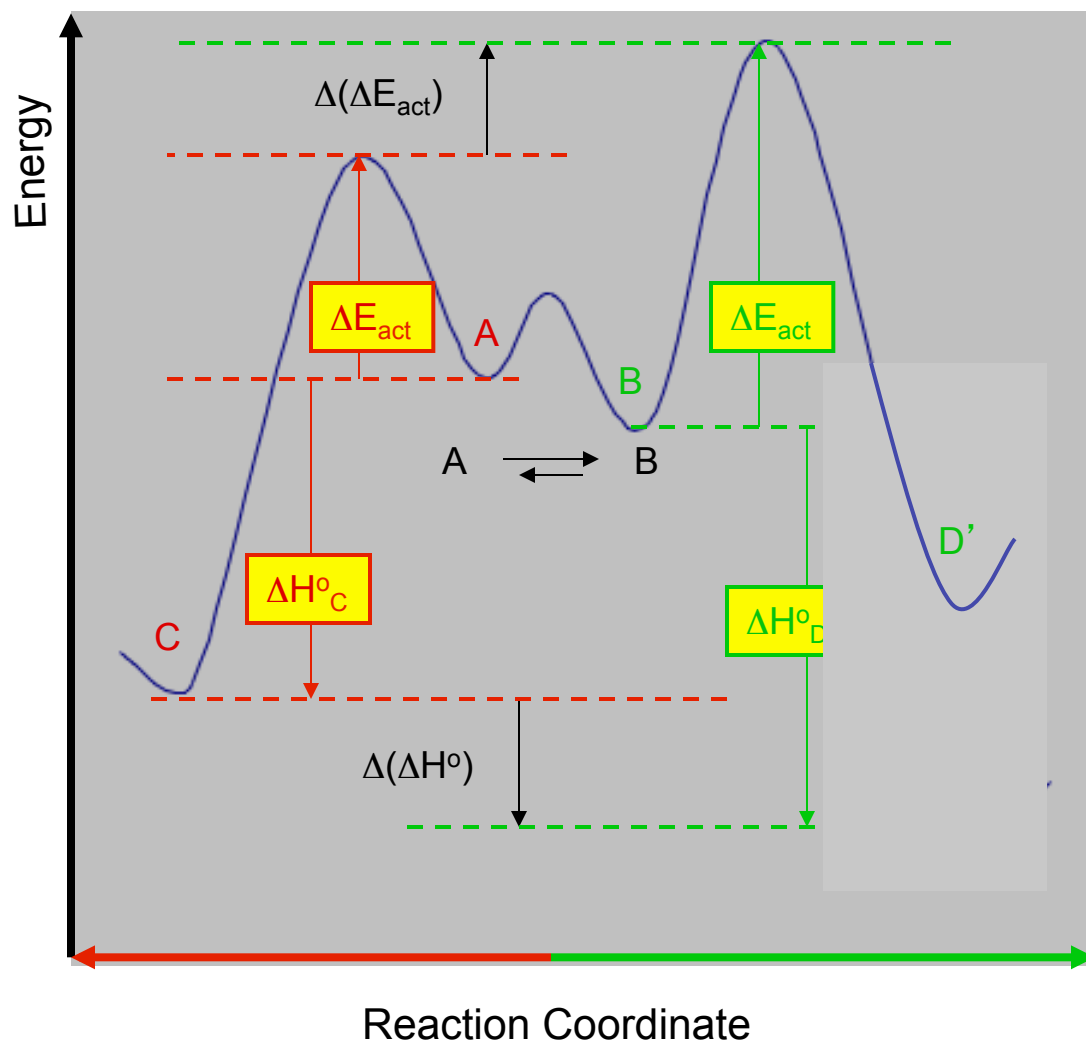
Competitive Irreversible Reactions - I



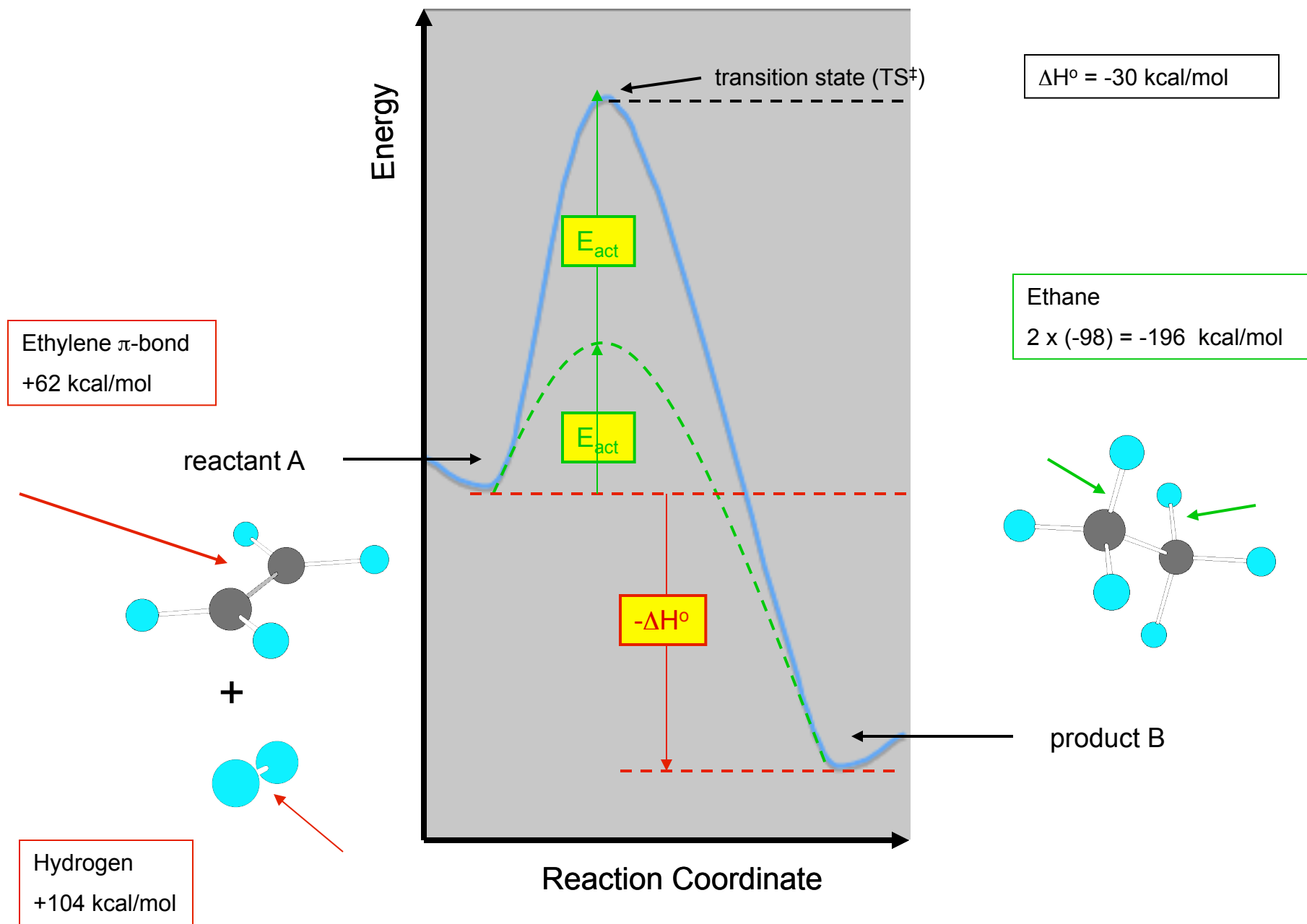
Competitive Irreversible Reactions - II



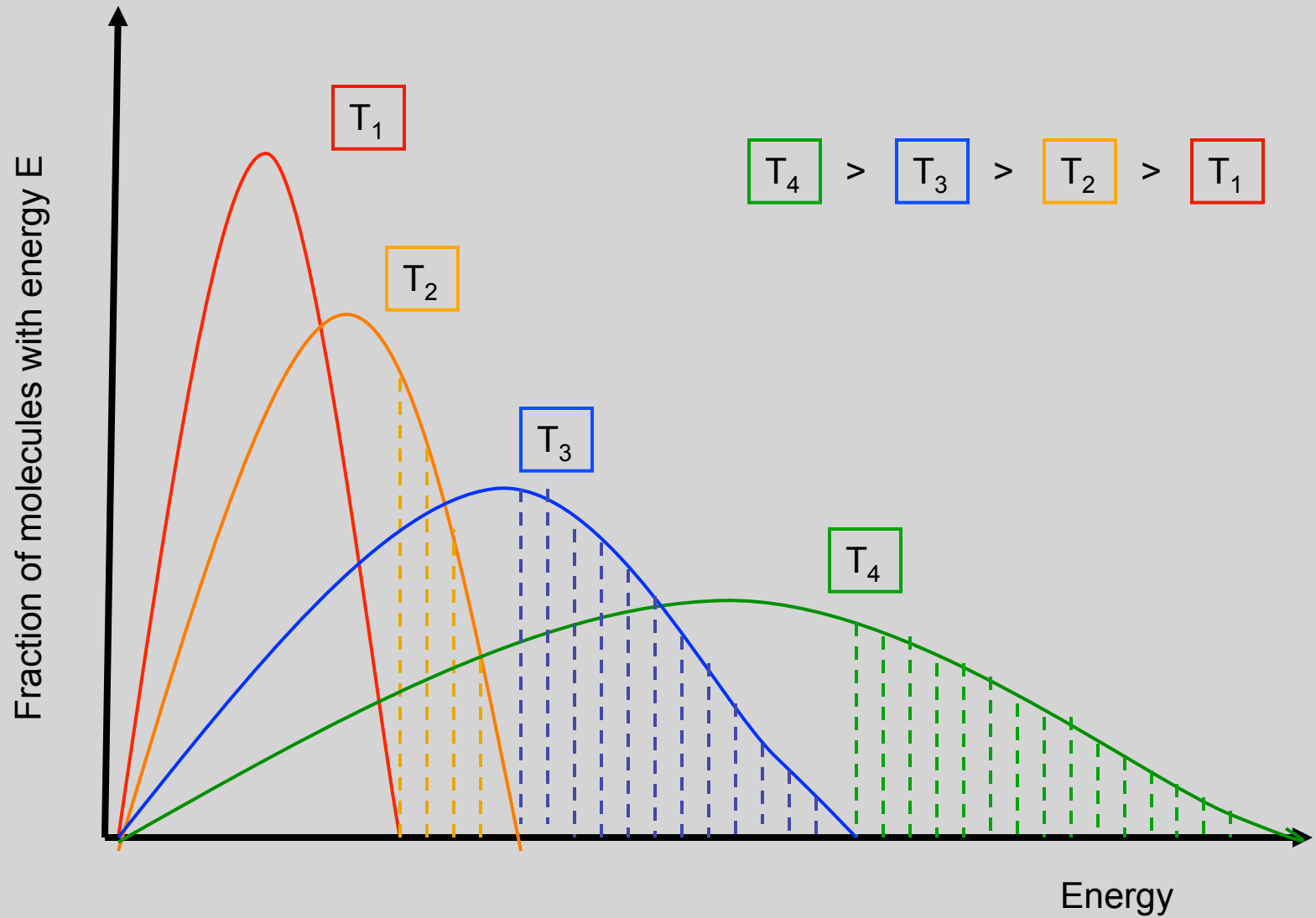
The Curtin - Hammett Principle



The Role of a Catalyst



The Distribution of Reactive Molecules



A blue sine wave is plotted on a light gray background. The wave starts at a mid-level on the left, dips slightly, then rises to a peak before falling to a trough and ending at a mid-level on the right. The text "The End" is written in a blue, italicized serif font, centered horizontally and partially overlaid by the wave.

The End