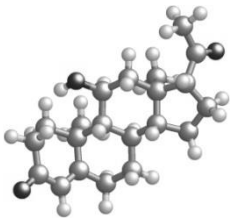


Chem!stry

Name: …… **( )**

Class: ……

Date: …… **/** …… **/** ……

Energy Profiles for Exothermic and Endothermic Reactions

Reagents **W** and **X** react together to form products **Y** and **Z**. On the axis shown below, sketch the energy profile for this reaction assuming that it is **a)** *exothermic* and **b)** *endothermic*. On each energy profile you should indicate the activation energy ($\mathbf{E_a}$) as well as the overall enthalpy change for the reaction (**ΔH**). Finally, illustrate the effect that a *catalyst* has on the energy profile of each reaction.

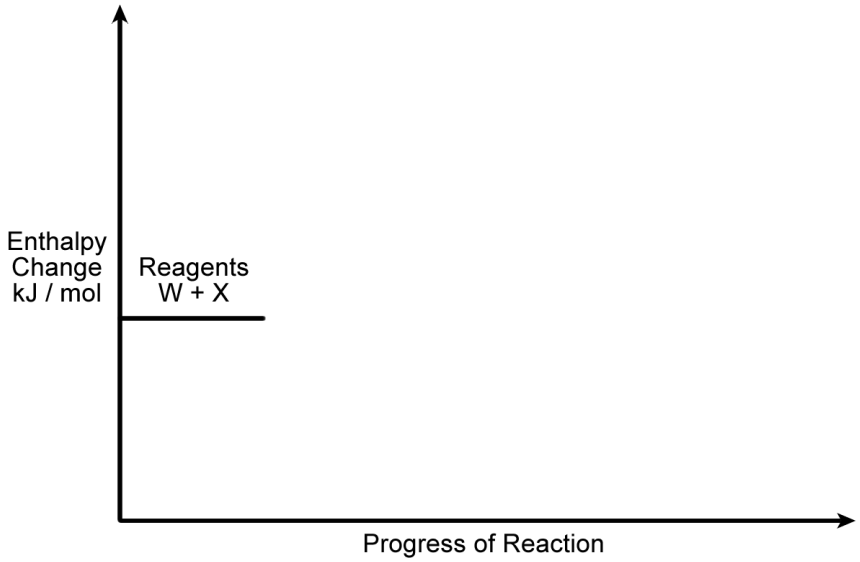
a) Exothermic Reaction

- Is energy absorbed from, or released into the surroundings?

……
……
……

- Is ΔH for this reaction positive or negative?

……



b) Endothermic Reaction

- Is energy absorbed from, or released into the surroundings?

……
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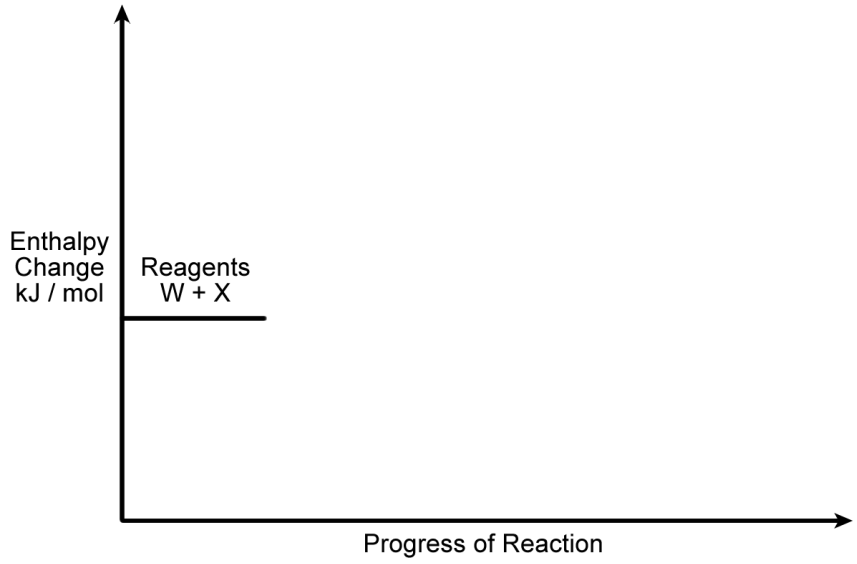
- Is ΔH for this reaction positive or negative?

……



- Scan the QR Code below for the answers to this assignment.

http://www.chemist.sg/energy_changes/energy_profile_diagram_ans.pdf