

WJEC (Wales) Chemistry GCSE

2.4 - Chemical Reactions and Energy Flashcards

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What is an exothermic reaction?



What is an exothermic reaction?

- One that transfers energy to the surroundings so the temperature of the surroundings increases
- E.g. combustion, many oxidation reactions and neutralisation



What is an endothermic reaction?



What is an endothermic reaction?

- One that takes in energy from the surroundings so the temperature of the surroundings decreases
- E.g. thermal decomposition and the reaction of citric acid and sodium hydrogencarbonate



What are reaction profiles used for?



What are reaction profiles used for?

- Used to show the relative energies of reactants and products, the activation energy and the overall energy change of a reaction



What is the activation energy?



What is the activation energy?

- The minimum amount of energy that particles must have to react



What is the reaction profile for an endothermic reaction?



What is the reaction profile for an endothermic reaction?

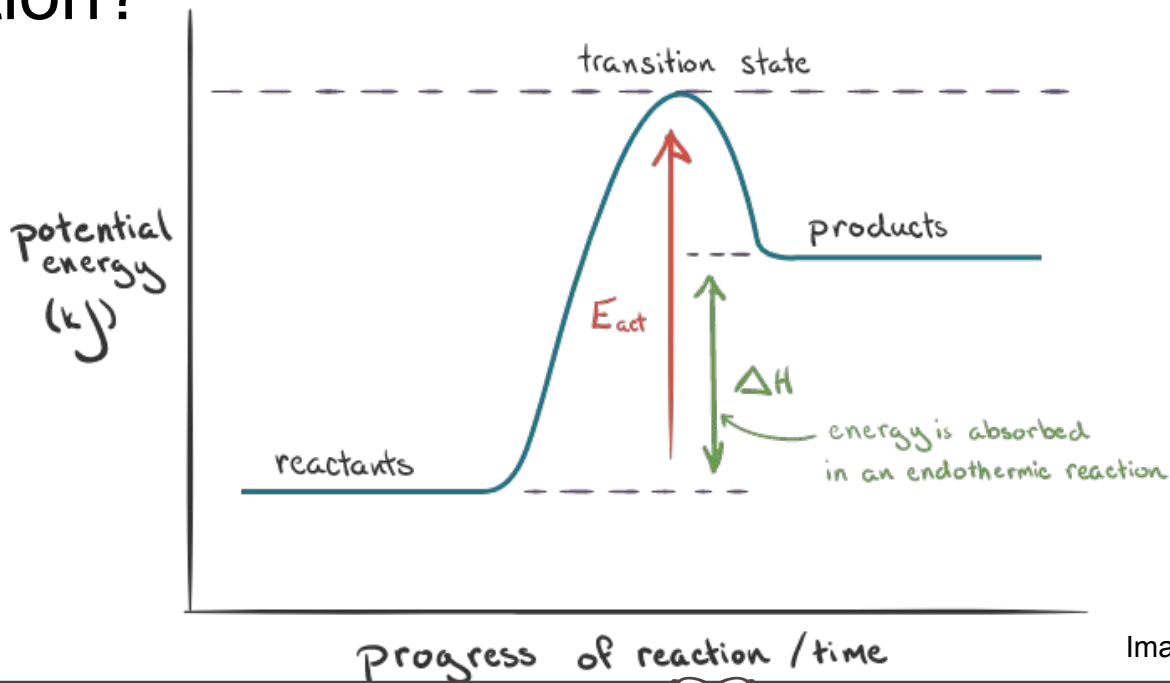


Image taken from Khan Academy

What is the reaction profile for an exothermic reaction?



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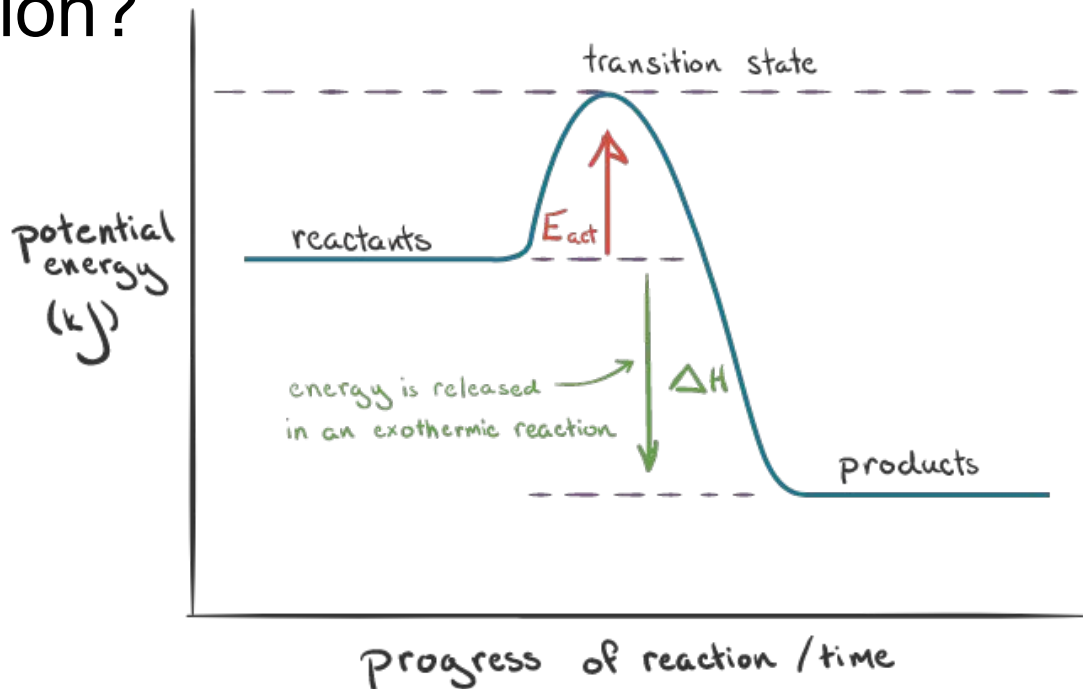


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How is bond energy used to identify exothermic or endothermic reactions?



How is bond energy used to identify exothermic or endothermic reactions?

- Sum of energy to break bonds - sum of energy released when bonds form = overall energy change
- If the overall energy change is positive the reaction is endothermic
- If the overall energy change is negative the reaction is exothermic

