Chemical energetics

IGCSE Chemistry · Vocabulary in context

Word	Example
exothermic reaction /egzəˈθɜːmɪk rɪˈækʃn/	Burning fuel is an **exothermic reaction**: it gives out heat.
thermal energy /ˈθɜːml ˈenədʒi/	Rubbing your hands turns work into **thermal energy**.
surroundings /səˈraʊndɪŋz/	The heat goes into the **surroundings**, so the beaker feels warm.
endothermic reaction /ˌendəʊˈθɜːmɪk rɪˈækʃn/	Dissolving ammonium nitrate is an **endothermic reaction**: the beaker gets cold.
combustion /kəmˈbʌstʃn/	**Combustion** of petrol powers a car.
neutralisation /ˌnjuːtrəlaɪˈzeɪʃn/	**Neutralisation** of an acid with a base gives a salt and water.
decomposition /ˌdiːkɒmpəˈzɪʃn/	**Decomposition** breaks a big problem into small parts.
enthalpy change /enˈθælpi tʃeɪndʒ/	The **enthalpy change** of this reaction is −50 kJ/mol. −50 kJ/mol
activation energy /ˌæktɪˈveɪʃn ˈenədʒi/	A match gives the **activation energy** to start the fire.
colliding /kəˈlaɪdɪŋ/	Particles react only when they are **colliding** with enough energy.
particles /ˈpɑːtɪklz/	The **particles** in a gas move all the time.
reaction pathway diagram /rɪˈækʃn ˈpæθweɪ ˈdaɪəgræm/	A **reaction pathway diagram** shows the energy of reactants and products.

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reactants /rɪˈæktənts/	Hydrogen and oxygen are the **reactants** that make water.
products /ˈprɒdʌkts/	Burning carbon gives one of the **products**: carbon dioxide.
bond breaking /bɒnd ˈbreɪkɪŋ/	**Bond breaking** takes in energy.
bond making /bɒnd ˈmeɪkɪŋ/	**Bond making** gives out energy.
bond energy /bɒnd ˈenədʒi/	The C–H **bond energy** is about 413 kJ/mol. C–H 413 kJ/mol