Reaction kinetics

A-Level Chemistry · Vocabulary in context

Word	Example
rate of reaction /reɪt ɒv rɪ'ækʃn/	The **rate of reaction** is faster at higher temperature.
collide /kə'laɪd/	Particles must **collide** to react.
collision frequency /kə'lɪʒn 'fri:kwənsi/	A higher concentration gives a higher **collision frequency**.
effective collision /ɪ'fektɪv kə'lɪʒn/	An **effective collision** has enough energy to react.
non-effective collision /nɒn ɪ'fektɪv kə'lɪʒn/	In a **non-effective collision**, the particles bounce apart without reacting.
gradient /'greɪdɪənt/	The **gradient** of a distance-time graph gives the speed.
tangent /'tændʒənt/	Draw a **tangent** to the curve to find the gradient at one point.
colorimeter /ˌkʌlə'rɪmɪtə/	A **colorimeter** measures how much light a coloured solution absorbs.
activation energy /ˌæktɪ'veɪʃn 'enədʒi/	A match gives the **activation energy** to start the fire.
Boltzmann distribution /'bɒltsmən ˌdɪstrɪ'bju:ʃn/	The **Boltzmann distribution** shows how many molecules have each energy.
catalyst /'kætəlɪst/	A **catalyst** speeds up a reaction without being used up.
catalysis /kæ'tæləsɪs/	Enzymes work by **catalysis**.

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reaction mechanism /rɪˈækʃn ˈmekənɪzəm/	The **reaction mechanism** shows each step of the reaction.
reaction pathway diagram /rɪˈækʃn ˈpæθweɪ ˈdaɪəgræm/	A **reaction pathway diagram** shows the energy of the reactants and products.
homogeneous catalyst /həˈmɒdʒnɪəs ˈkætəlɪst/	A **homogeneous catalyst** is in the same phase as the reactants.
heterogeneous catalyst /ˌhetrəˈdʒiːnɪəs ˈkætəlɪst/	Iron is a **heterogeneous catalyst** in the Haber process.
adsorbed	The gas molecules are **adsorbed** onto the surface of the catalyst.
desorbed	The products are **desorbed** and leave the surface.
intermediate /ˌɪntəˈmiːdiət/	An **intermediate** forms in one step and is used up in the next.

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