



Oxford Cambridge and RSA

GCSE Chemistry B (Twenty First Century Science)
J258/02 Depth in chemistry (Foundation Tier)

Question Set 29

1

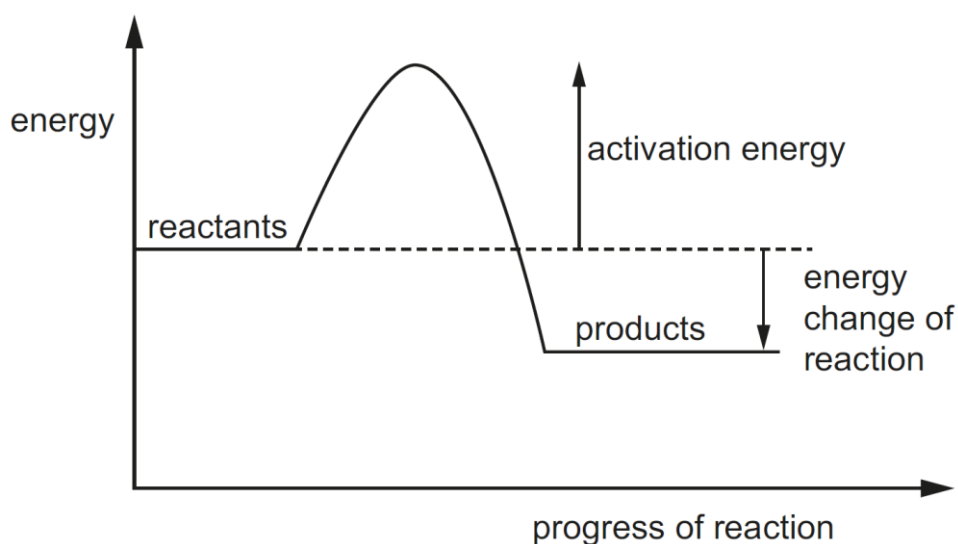
Drain cleaner removes blockages in shower drains.

Drain cleaner contains solid sodium hydroxide.

An exothermic reaction happens when the solid sodium hydroxide dissolves in water in the drain.

This helps to clear the blockage.

The diagram shows the energy change of the reaction when solid sodium hydroxide dissolves in water.



(a) How does the diagram show that this reaction is **exothermic**?

Tick (✓) **two** boxes.

Energy is taken in at the start of the reaction.

The activation energy is very large.

The energy change of the reaction is negative.

The energy change of the reaction is small.

The reactants have more energy than the products.

[2]

- (b) (i) Kai does an experiment to prove that when solid sodium hydroxide dissolves in water, an **exothermic** reaction happens.

Write an outline plan for Kai's experiment.

The plan should include:

- what Kai should **do**
- what **measurements** he should make
- what **results** he should expect.

[3]

- (ii) This is the hazard warning symbol for solid sodium hydroxide.



Kai wears gloves and goggles when he does his experiment.

Explain why these are necessary.

[1]

Total Marks for Question Set 29: 6

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