

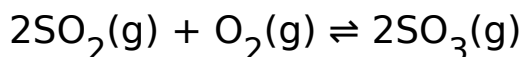
2024 Higher Chemistry Paper 1 - Q20

Section: Chemistry in Society

Topic: Equilibria

Question summary (Q20):

For the equilibrium:



The question asks: after a further two hours under the same conditions, what happens to the forward and reverse reaction rates?

Worked Solution:

- At equilibrium, the rates of the forward and reverse reactions are equal.
- If the conditions (concentration, temperature, pressure) are unchanged, the system remains at equilibrium.
- Therefore:
 - Rate of forward reaction = unchanged.
 - Rate of reverse reaction = unchanged.

Final Answer: D — unchanged / unchanged

Revision Tips:

- At equilibrium: forward rate = backward rate.
- Concentrations stay constant, but reactions are still happening at the same rate (dynamic equilibrium).
- Only a change in conditions (temperature, pressure, concentration) disturbs equilibrium (Le Chatelier's principle).