

Exercise 6.26 – Catalysts

Q626-01 Which statement(s) is(are) correct about the effect of adding a catalyst to a system at equilibrium?

- I the rate of the forward reaction increases
- II the rate of the reverse reaction increases
- III the yield of the products increases

- A. I only
- B. II only
- C. I and II only
- D. neither I nor II

Q626-02 The rate of a reaction between two gases increases when the temperature is increased and a catalyst is added. Which statements are both correct for the effect of these changes on the reaction?

- | | Increasing the temperature | Adding a catalyst |
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| A. | Collision frequency increases | Activation energy does not change |
| B. | Activation energy increases | Activation energy does not change |
| C. | Activation energy does not change | Activation energy decreases |
| D. | Activation energy increases | Collision frequency increases |

Q626-03 What is the effect of adding a catalyst to a reaction mixture at equilibrium?

- A. It decreases the activation energy of the forward reaction and increases the activation energy of the reverse reaction
 - B. It decreases both the activation and the enthalpy change of the forward reaction
 - C. It decreases the activation energy of both the forward and reverse reactions
 - D. It decreases the activation energies and enthalpy changes of both the forward and reverse reactions.
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