

- 15** The reversible reaction between methanol and ethanoic acid liquids is catalysed by adding a small volume of concentrated sulfuric acid.

Two statements about this reaction are listed.

- 1 The sulfuric acid is a homogeneous catalyst.
- 2 The sulfuric acid lowers the activation energy of the reverse reaction.

Which statements are correct?

- A** both 1 and 2
- B** 1 only
- C** 2 only
- D** neither 1 nor 2

- 14** When two aqueous solutions are mixed, the reaction between them is very slow.

An effective catalyst is added to the mixture without any change in temperature.

Which statement about this catalyst is correct?

- A** It increases the average energy of the reactant particles.
- B** It changes the distribution of energies of the reactant particles.
- C** It allows a greater number of reactant particles to react per unit time.
- D** It increases the number of reactant particles with the most probable energy.