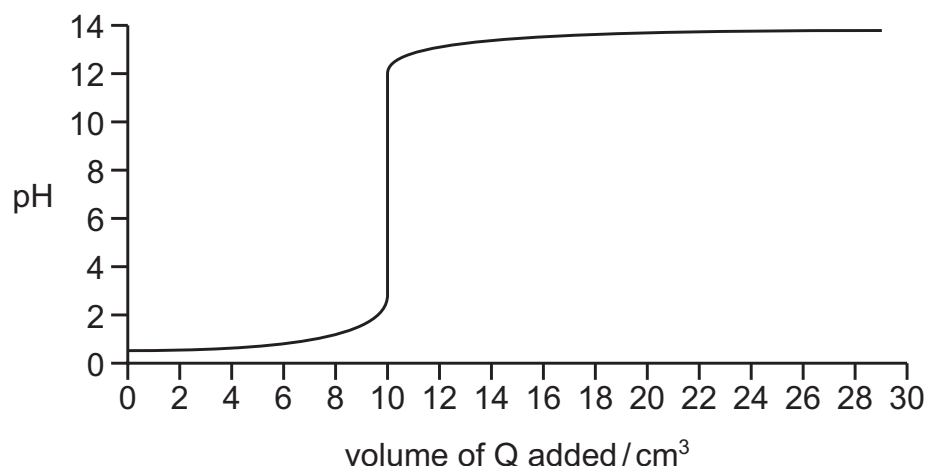


13 Aqueous acid P and aqueous alkali Q have the same concentration.

20 cm³ of P is added to a conical flask.

Q is slowly added to the flask and the volume of Q and the pH are recorded.

The pH titration curve is shown.

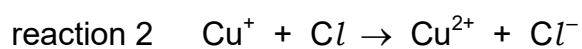
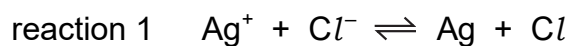


Which row gives the identity of P and Q?

	P	Q
A	HCl	NaOH
B	H ₂ SO ₄	NH ₃
C	HCl	Ba(OH) ₂
D	CH ₃ COOH	Sr(OH) ₂

14 Photochromic glass, used for sunglasses, darkens when exposed to bright light and becomes more transparent again when the light is less bright. The darkness of the glass is due to the presence of silver atoms.

The following reactions are involved.



Which statement about these reactions is correct?

- A** Cu^+ and Cu^{2+} ions act as catalysts.
- B** Cu^+ ions act as an oxidising agent in reaction 2.
- C** Reaction 3 increases the darkness of the glass.
- D** Silver atoms are reduced in reaction 3.