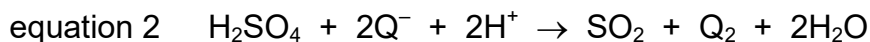


21 Equation 1 and equation 2 show two different reactions of halide ion Q^- with concentrated sulfuric acid.



What is Q?

- A** Cl^- or Br^- **B** Br^- or I^- **C** Cl^- only **D** I^- only

22 X and Y are sodium salts of Group 17 elements.

When X reacts with concentrated sulfuric acid, hydrogen sulfide, H_2S , is produced.

When Y reacts with concentrated sulfuric acid, there is no change in the oxidation number of the sulfur.

Which statement is correct?

- A** Aqueous X reduces aqueous bromine.
- B** Aqueous Y reacts with aqueous silver nitrate to give a precipitate which is insoluble in concentrated aqueous ammonia.
- C** X and Y react separately with concentrated sulfuric acid to produce halogens.
- D** When X reacts with concentrated sulfuric acid, six halide ions are needed to reduce one sulfur atom to H_2S .