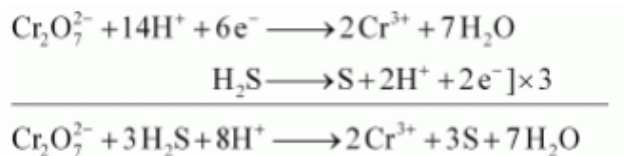


(iii) $\text{K}_2\text{Cr}_2\text{O}_7$ oxidizes H_2S to sulphur.



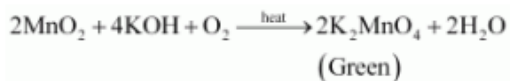
Q16 :

Describe the preparation of potassium permanganate. How does the acidified permanganate solution react with (i) iron(II) ions (ii) SO_2 and (iii) oxalic acid?

Write the ionic equations for the reactions.

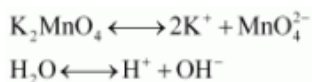
Answer :

Potassium permanganate can be prepared from pyrolusite (MnO_2). The ore is fused with KOH in the presence of either atmospheric oxygen or an oxidising agent, such as KNO_3 or KClO_4 , to give K_2MnO_4 .

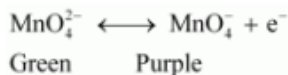


The green mass can be extracted with water and then oxidized either electrolytically or by passing chlorine/ozone into the solution.

Electrolytic oxidation



At anode, manganate ions are oxidized to permanganate ions.



Oxidation by chlorine

