

Conductor (Cu) / Electrolyte (CuSO<sub>4</sub>)  
 Free e<sup>-</sup> / ions  
 Solid State / molten/Aq. State  
 P.C. / C.C.

1) Cations → Cathode C → C  
 +ve / -ve  
 Anions → Anode A → A.  
 -ve / +ve

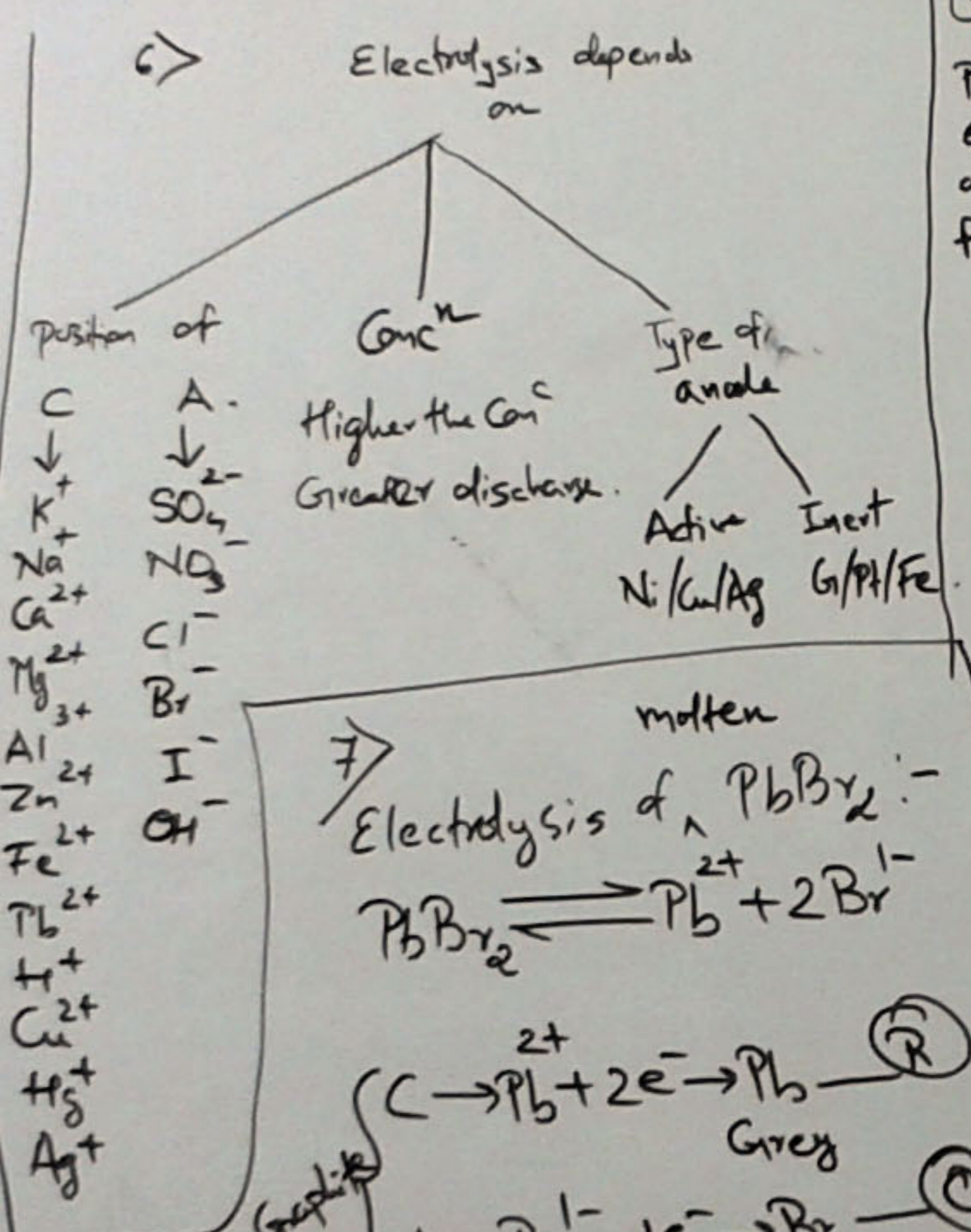
2) CR →  
 AO →

3) Metal & H<sub>2</sub> → Cathode  
 Non-metals → Anode.

4) Electrolyte (HX)  
 S.E. W.E. N.E.

bulb glows brightly  
 H<sup>+</sup>, X<sup>-</sup> ions

dimly does not glow  
 H<sup>+</sup>, X<sup>-</sup>, HX  
 Long & molecules molecules.

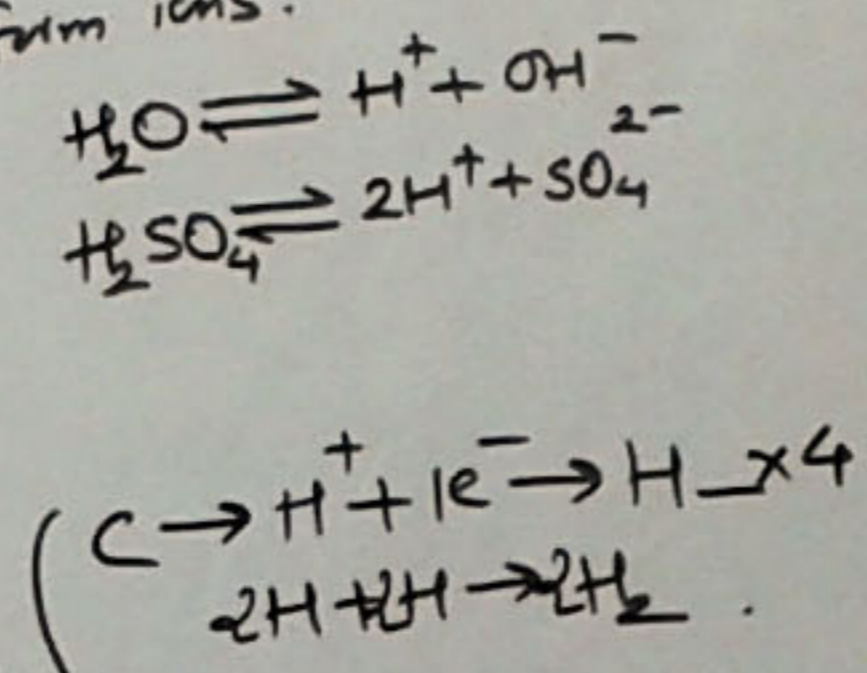


7) Electrolysis of molten PbBr<sub>2</sub> :-  
 $PbBr_2 \rightleftharpoons Pb^{2+} + 2Br^{-}$

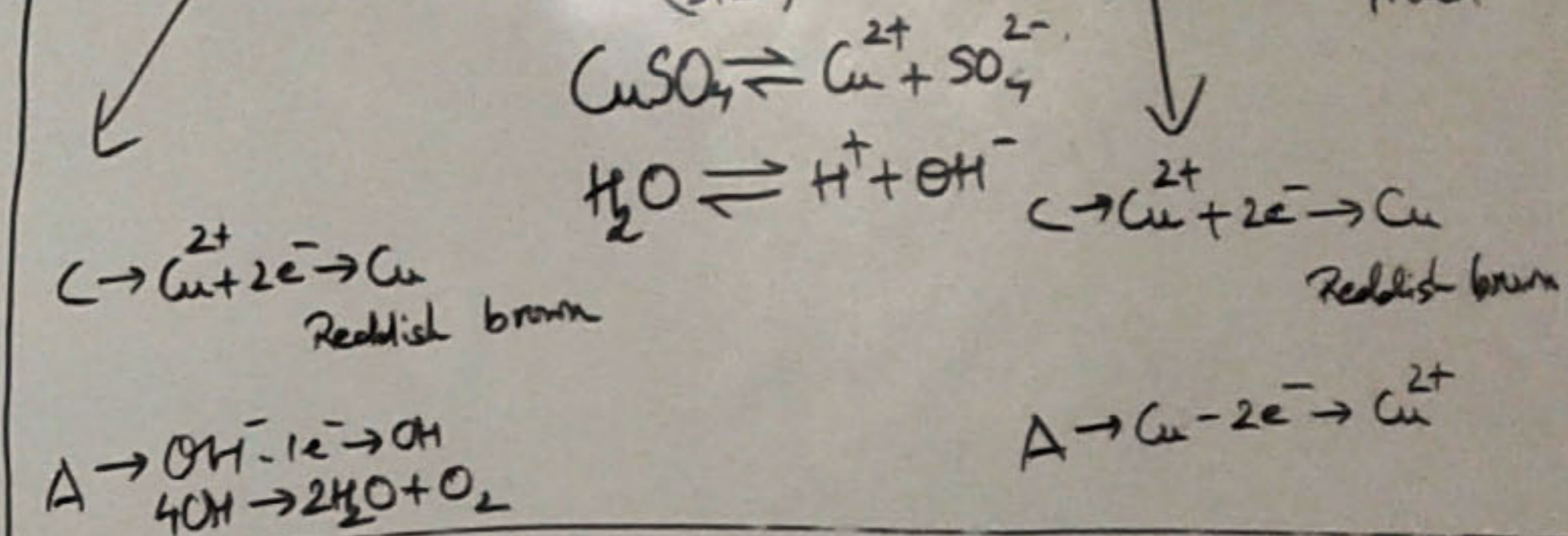
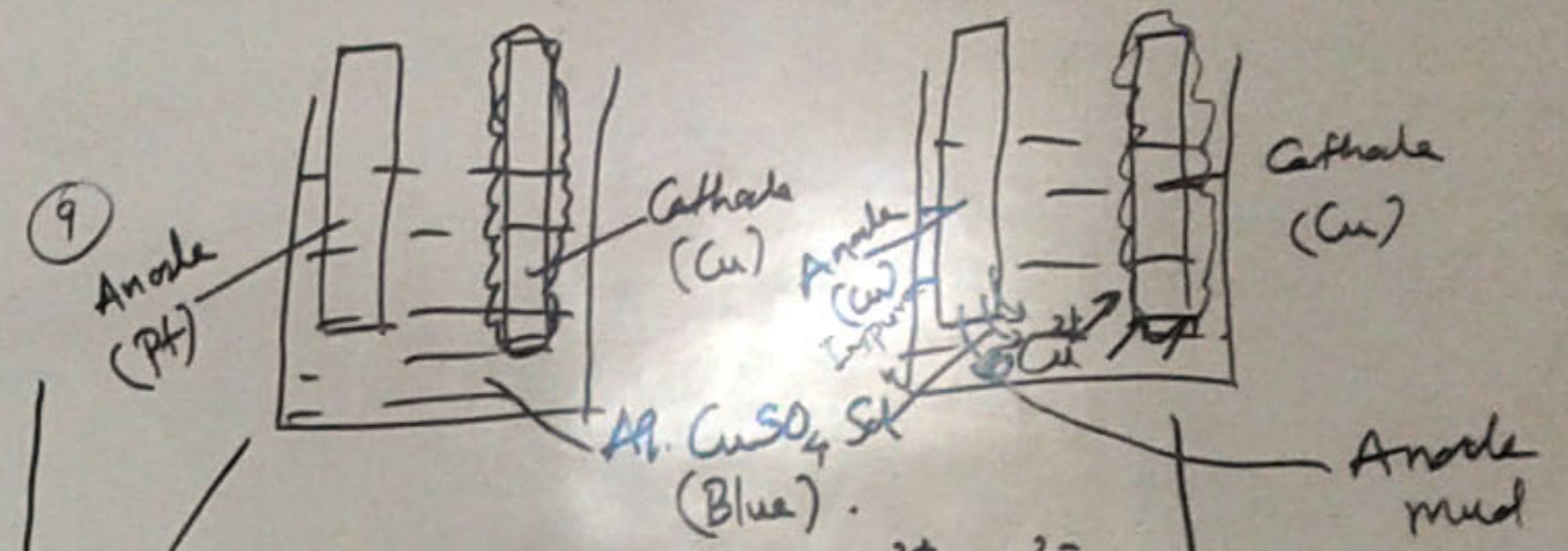
C → Pb<sup>2+</sup> + 2e<sup>-</sup> → Pb (R)  
 Grey

A → Br<sup>-</sup> - 1e<sup>-</sup> → Br (O)  
 Br + Br → Br<sub>2</sub>  
 Reddish brown vapours.

8) Electrolysis of acidified Water :-  
 pure water doesn't conduct electricity. Add dil. H<sub>2</sub>SO<sub>4</sub>.  
 dil. H<sub>2</sub>SO<sub>4</sub> helps water to form ions.



2:1 vol. H<sub>2</sub>:O<sub>2</sub>.  
 At the end Conc<sup>n</sup> H<sub>2</sub>SO<sub>4</sub> does not change.  
 Hence, it is catalysed reaction.



Size of Cathode ↑  
 Colour of CuSO<sub>4</sub> fades.

Size of Cathode ↑  
 Size of anode ↓  
 Colour of CuSO<sub>4</sub> remains blue.

