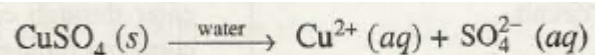


Answer on Question #48134 - Chemistry – Other

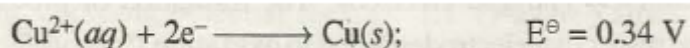
In the process of electrolysis copper II tetraoxosulphate IV solution (aq) using copper electrode, Explain thoroughly with appropriate equation what happens at both the anode and the cathode.

Answer

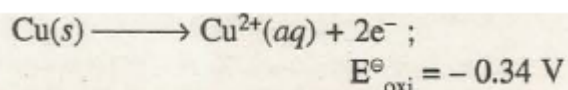
CuSO₄ ionises in aqueous solution as:



Cathode reaction: Cu²⁺ ions undergo reduction



Anode reaction: Cu atoms from the copper electrode get oxidised because Cu lies below H in activity series



Thus, copper dissolves from anode and get deposited at cathode. Mass of cathode increases and that of anode decreases. Blue colour of the solution does not fade because concentration of Cu²⁺ ions in solution remains unaltered. The pH of the solution also does not change as the electrolysis proceeds.