Answer on Question #51580, Chemistry, Organic Chemistry

Question: What are the half equations for the electrolysis of aqueous solution of a)sodium nitrate and b)potassium iodide.

What is the balanced equation to show the reaction between CuSO4 and H2O?

Answer:

a) for sodium nitrate:

Cathode:
$$Na(+) + e^- \rightarrow Na$$

Anode: NO3(-)
$$\rightarrow$$
 NO + O2 + e

$$2NO3(-) \rightarrow NO2 + O2 + 2e$$

b) For potassium iodide:

Cathode:
$$K+ (aq) + e \rightarrow K(s)$$

Anode:
$$2I-(aq) \rightarrow I2(s) + 2e-$$

$$CuSO4 + 2H2O \rightarrow Cu(OH)2 + H2SO4$$