

Name: _____

Period: _____ Subject: _____

Date: _____

Faraday's Law/Electrolysis

Be sure to use the appropriate significant figures, and make sure you include units!

$$\mathcal{F} = 86,500 \text{ C per mol of e}^-$$

1. How many amps of current would be required for 7.5 minutes to plate out 350 mg of silver from an aqueous silver solution?
2. How long would it take to produce 750 mmol of I_2 from an aqueous solution of potassium iodide using 12 amps of current?
3. How many grams of copper would be plated out from an aqueous copper (II) nitrate solution using 3.00 amps of current for 12.5 hours?
4. How many grams of aluminum could be plated out from an aqueous solution of aluminum chloride solution using 12.0 amps of current for 55 minutes?
5. 471 mg of an alkaline earth metal is deposited on the cathode when a certain alkaline earth metal chloride undergoes electrolysis at 5.0 amps for 748 seconds. What is the identity of the alkaline earth metal?