

A student performed the experiment of the specific charge of copper ions and found that $k = 3.03 \times 10^6 \text{ C/Kg}$ In order to accumulate 1 gram of copper ions in the cathode, the student adjusted the rheostat to give a current of 5A. For how long did the current flow in the circuit (in minute)?

Select one:

- a. 5
- b. 10
- c. 50
- d. 20.5

[Clear my choice](#)

If the specific charge (k) of copper ions in this experiment was 1.50×10^6 C/kg and the current was 0.50 A, then the time needed (in seconds) to change the cathode mass by 0.50 gram is:

- 1.0×10^3
- 2.61×10^5
- 1.6×10^{-19}
- 3.03×10^3
- 1.50×10^3

[Clear my choice](#)

اسألني
2020
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$$\frac{a \sin \theta - b \cos \theta}{\sin \theta}$$

The Specific Charge of Copper Ions Experiment:

The rate of deposition of copper (mass deposited per unit time) on the cathode depends on:

- a) The surface area of the anode.
- b) The surface area of the cathode
- c) The current flowing in the cell.
- d) The spacing of the electrodes in the cell
- e) None of the above

Select one:

- a. a
- b. b
- c. c

The Specific Charge of Copper Ions Experiment

If the specific charge (K) of copper ions in this experiment was 1.5×10^6 C/kg and the current was 0.50 A, then the time needed (in seconds) to change the cathode mass by 0.50 gram is:

- a) 1.0×10^3
- b) 3.03×10^3
- c) 1.50×10^3
- d) 1.6×10^{-19}
- e) 2.61×10^6

Select one:

- a. a
- b. b
- c. c

Consider two metals with specific charges k_1 and k_2 , respectively. The ions of the first metal have $4/3$ the mass of the ions of the second metal and $3/2$ their charge. Which of the following is true?

- a. $k_2 = 2 k_1$
- b. $k_2 = 4/3 k_1$
- c. $k_2 = (9/8) k_1$
- d. $k_2 = (8/9) k_1$
- e. $k_2 = (1/2) k_1$

Clear my choice

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Question 2

Not yet answered

Marked out of 2.5

Flag question

One metal has a certain specific charge given by k_1 . The ions of a second metal have twice the charge of the ions of the first metal and $3/2$ the mass of the first metal. Which of the following is true, where k_2 is the specific charge of the second metal?

- a. $k_1 = (4/3) k_2$
- b. $k_2 = (4/3) k_1$
- c. $k_1 = 3 k_2$
- d. $k_2 = (3/4) k_1$
- e. $k_2 = 3 k_1$

[Clear my choice](#)