A student performed the experiment of the specific charge of copper ions and found that k = 3.03 x 10<sup>6</sup> C/Kg In order to accumulate I 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:

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

Clear my choice

If the specific charge (K) of copper ions in this experiment was 1.50×10<sup>6</sup> 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<sup>3</sup>
2.61×10<sup>6</sup>
1.6×10<sup>-19</sup>
3.03×10<sup>3</sup>
1.50×10<sup>3</sup>
Clear my choice

## 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

O.C

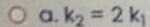
The Specific Charge of Copper Ions Experiment If the specific charge (K) of copper ions in this experiment was  $1.5 \times 10^6$  C/kg and the current was 0.50 A, then the time needed (in seconds) to change the cathode mass by 0.50 gram is:

- a)  $1.0 \times 10^3$
- b)  $3.03 \times 10^3$
- c)  $1.50 \times 10^3$
- d) 1.6 × 10-19
- e)  $2.61 \times 10^6$

Select one:

- a.a
- 6 b.b
- · c. c

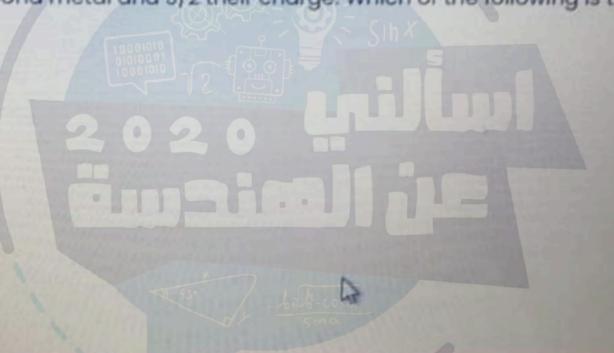
Consider two metals with specific charges k<sub>1</sub> and k<sub>2</sub>, respectively. The ions of the first metal have 4/3 the mass of the ions of the second metal and 3/2 their charge. Which of the following is true?



$$0 b. k_2 = 4/3 k_1$$

$$c. k_2 = (9/8) k_1$$

Clear my choice



## Question 2

Not yet answered

Marked out of 2.5

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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?

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

Clear my choice