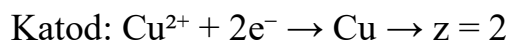


MUSTAQIL ISHLASH UCHUN MASALALAR YECHIMLARI

1-masala yechimi



$$m = (M \cdot Q) / (z \cdot F)$$

$$m = (63.5 \cdot 9650) / (2 \cdot 96500)$$

$$m = 3.18 \text{ g}$$

2-masala yechimi

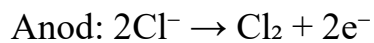
$$V(\text{H}_2) = 2.24 \text{ L} \rightarrow n = 2.24 / 22.4 = 0.10 \text{ mol}$$

$$\text{H}_2 \text{ uchun } z = 2$$

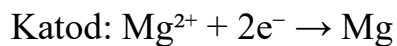
$$Q = n \cdot z \cdot F = 0.10 \cdot 2 \cdot 96500 = 19300 \text{ C}$$

3-masala yechimi

$$V(\text{Cl}_2) = 11.2 \text{ L} \rightarrow n = 0.50 \text{ mol}$$



$$n(\text{e}^{-}) = 0.50 \cdot 2 = 1.0 \text{ mol}$$



$$n(\text{Mg}) = 1.0 / 2 = 0.50 \text{ mol}$$

$$m(\text{Mg}) = 0.50 \cdot 24 = 12 \text{ g}$$

4-masala yechimi

$$n(\text{Cu}) = 6.35 / 63.5 = 0.10 \text{ mol}$$

$$\text{Elektronlar: } 0.10 \cdot 2 = 0.20 \text{ mol e}^{-}$$



$$n(\text{O}_2) = 0.20 / 4 = 0.05 \text{ mol}$$

5-masala yechimi

$$I = 3.0 \text{ A}$$

$$t = 40 \text{ min} = 2400 \text{ s}$$

$$Q = I \cdot t = 3.0 \cdot 2400 = 7200 \text{ C}$$

H₂ uchun $z = 2$

$$n(\text{H}_2) = Q / (z \cdot F) = 7200 / (2 \cdot 96500) \approx 0.037 \text{ mol}$$

$$V = 0.037 \cdot 22.4 \approx 0.83 \text{ L}$$

6-masala yechimi

$$E(\text{Ag}) = 108 / 1 = 108$$

$$E(\text{Cu}) = 63.5 / 2 = 31.75$$

$$m(\text{Cu}) / 2.16 = 31.75 / 108$$

$$m(\text{Cu}) = 0.64 \text{ g}$$

7-masala yechimi

$$n(\text{Al}) = 54 / 27 = 2.0 \text{ mol}$$



$$n(\text{e}^-) = 2.0 \cdot 3 = 6.0 \text{ mol}$$

$$Q = n \cdot F = 6.0 \cdot 96500 = 579000 \text{ C}$$

8-masala yechimi



$$n(\text{e}^-) = 0.10 \cdot 4 = 0.40 \text{ mol}$$

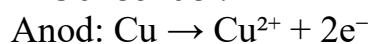


$$n(\text{H}_2) = 0.40 / 2 = 0.20 \text{ mol}$$

$$V = 0.20 \cdot 22.4 = 4.48 \text{ L}$$

9-masala yechimi

Mis anod faol:



Katodda 3.18 g Cu ajralgan bo'lsa,
anodda xuddi shu miqdorda mis eriydi.

$$m(\text{anod}) = 3.18 \text{ g kamayadi}$$

10-masala yechimi

$$n(e^-) = 0.30 \text{ mol}$$

$$z = 3$$

$$n(\text{metall}) = n(e^-) / z = 0.30 / 3 = 0.10 \text{ mol}$$