

8. Exercise General Chemistry

15.12.2022

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8.1

A current flows through two electrolysis cells connected in series. In one, 107.87 mg of silver from a silver nitrate solution and in the other 31.8 mg of copper from a copper sulfate solution are deposited. The molar mass of silver is 107.87 g/mol. Calculate that of the copper. Which charge has flowed through the electrolysis cells?

8.2

Calculate the cell voltage of the following setup at 25 °C:

Cu | 0,002 mol/L CuSO₄ || 0,02 mol/L ZnSO₄ | Zn

8.3

Calculate the cell voltage of the following setup at 25 °C

Ag | 0,001 M AgNO₃ || 0,001 M KCl, AgCl | Ag

The solubility product of AgCl is $1 \cdot 10^{-10} \text{ mol}^2/\text{dm}^6$.