

Answer on Question #74170, Physics / Electromagnetism |

Question

How many electrons should be removed from an electrically neutral silver coin to give it a charge of 200 MC?

Solution

$$Q = 200MC = 2 \cdot 10^8 C.$$

Charge of electron is $e = 1.6 \cdot 10^{-19} C$.

Number of electrons is

$$N = \frac{Q}{e} = \frac{2 \cdot 10^8 C}{1.6 \cdot 10^{-19} C} = 1.25 \cdot 10^{27}.$$

Answer: $N = 1.25 \cdot 10^{27}$.

Answer provided by <https://www.AssignmentExpert.com>