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**Title:** Chemistry-Bonus Assignment

**Q1:**

**[A]**

from the equaton:

a) From the current and time we can calculate the coulombs of charge, then moles of electrons used, finally moles and grams of silver. 1 C 1 mol e' 1 mol Ag 107.87 g Ag 1. 5 A x 3.0 min x 60 s x--x x x----0.30 g Ag 1 min 1 A. s 96,500 C 1 mol e' 1 mol Ag l mol Ag 6.022 x 1023 atoms 1 7 10 21 A (b) O.30 g Ag x x = . x atoms g 107.87 g Ag 1 mol Ag (c) To lind this we first calculate the surface area of the &quot;button&quot;. From the mass and density of the silver, we calculate the volume. Dividing volume by surface area gives the thickness. Finally, dividing the thickness by the diameter per silver atom will yield the number of atoms thick that the coating is....

**[B]**

**Q2:**

**Q3:** The concentration of a solution is the (number of moles) per (liters), thus we will need the mass, molar mass of the solute, and the volume of the bottle of the acid to calculate the concentration. Using the formula:

Concentration=(mass)/(molarmass\*volume)