Answer on question #57969 - Chemistry - General Chemistry

Question:

In the lab if you find a bottle labeled 0.05 M AgNO3. How many milligrams of silver Nitrate are there in 1.0 mL of this solution?

Solution:

The amount of substance of $AgNO_3$ is:

$n(AgNO_3)=V*C_M(AgNO_3) = 0.001\ L*0.05\ M= 0.00005\ mol$

The mass of $AgNO_3$ is:

$m(AgNO_3) = M(AgNO_3)* n(AgNO_3) = 170\ g/mol* 0.00005\ mol = 0.085\ g$

Answer:

In 1.0 mL of 0.05 M $AgNO_3$ solution there are 0.085 g of silver Nitrate.