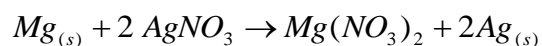**Answer on Question #63130, Chemistry / General Chemistry**

If 1.00g of AgNO3 is reacted with 0.100g of Mg, how many grams of Ag can be produced?

Calculation:

$$Mg_{(s)} + 2\ AgNO_3 \rightarrow Mg(NO_3)_2 + 2Ag_{(s)}$$

$$v(Mg) = \frac{m}{Mr(Mg)} = \frac{0.1g}{24} = 0.0042\ mol - \text{excess}$$

$$v(AgNO_3) = \frac{m}{2 \cdot Mr(AgNO_3)} = \frac{1g}{2 \bullet 170} = 0.0029\ mol - \text{deficiency}$$

by the use of the deficiency, we calculated the mass of Ag

so $m(Ag) = \dfrac{1 \cdot 216}{340} = 0.635\ g$

Answer: 0.635 g Ag is produced