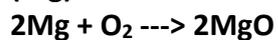


Answer on Question #50324, Chemistry, Other

**Task:**

How many grams of magnesium oxide (MgO) are produced when 1200 grams of magnesium (Mg) burn in an excess of oxygen, as shown below?



**Answer:**

$$v = \frac{m}{M}$$

$$M(\text{Mg}) = 24.3 \text{ g/mol}$$

$$M(\text{MgO}) = 40.3 \text{ g/mol}$$

$$v(\text{Mg}) = \frac{1200}{24.3} = 49.4 \text{ mol}$$

$$v(\text{Mg}) = v(\text{MgO}) = 49.4 \text{ mol}$$

$$m(\text{MgO}) = v(\text{MgO}) \cdot M(\text{MgO})$$

$$m(\text{MgO}) = 49.4 \cdot 40.3 = 1990.1 \text{ g}$$