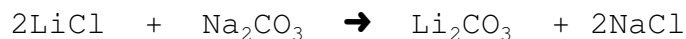


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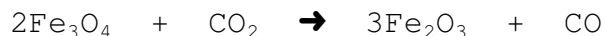
Stoichiometry Quiz #2

1. What mass of lithium carbonate can be formed from 22.9 g of lithium chloride when reacted with adequate sodium carbonate.



$$22.9 \text{ g LiCl} \times \frac{1 \text{ mol LiCl}}{42.39 \text{ g LiCl}} \times \frac{1 \text{ mol Li}_2\text{CO}_3}{2 \text{ mol LiCl}} \times \frac{73.89 \text{ g Li}_2\text{CO}_3}{1 \text{ mol Li}_2\text{CO}_3} = 19.96 \text{ g Li}_2\text{CO}_3$$

2. For the following reaction, determine the mass of Fe_2O_3 that can form from 250 g of Fe_3O_4 . What mass of carbon dioxide would form along with Fe_2O_3



$$250 \text{ g Fe}_3\text{O}_4 \times \frac{1 \text{ mol Fe}_3\text{O}_4}{231.55 \text{ g Fe}_3\text{O}_4} \times \frac{3 \text{ mol Fe}_2\text{O}_3}{2 \text{ mol Fe}_3\text{O}_4} \times \frac{159.70 \text{ g Fe}_2\text{O}_3}{1 \text{ mol Fe}_2\text{O}_3} = 258.64 \text{ g Fe}_2\text{O}_3$$

$$250 \text{ g Fe}_3\text{O}_4 \times \frac{1 \text{ mol Fe}_3\text{O}_4}{231.55 \text{ g Fe}_3\text{O}_4} \times \frac{1 \text{ mol CO}}{2 \text{ mol Fe}_3\text{O}_4} \times \frac{28.01 \text{ g CO}}{1 \text{ mol CO}} = 15.1 \text{ g CO}$$