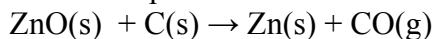


| | | |
|------------|----------------------------|-----------|
| CHAPTER 8 | Limiting Reactant Problems | BLM 8.1.2 |
| ASSESSMENT | | |
| | | |

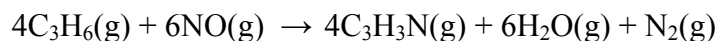
1. Extraction of zinc from zinc oxide takes place as follows:



In an industrial setting, 17.2 mol of zinc oxide are reacted with 43.2 mol of carbon in the form of charcoal. Identify the limiting reactant.

2. If 1.00 kg of glucose (5.55 mol) is reacted with 34.0 mol oxygen during the process of cellular respiration, which reactant is limiting? Why does your answer seem logical?

3. Acrylic, a common synthetic fibre, is formed from acrylonitrile. Acrylonitrile is formed in the following reaction:



What is the limiting reactant when 126 g of $\text{C}_3\text{H}_6(\text{g})$ reacts with 175 g of NO ?

4. Calcium fluoride reacts with concentrated sulfuric acid to produce calcium sulfate and the highly toxic gas hydrogen fluoride. Determine the limiting reactant when 10.0 g of calcium fluoride reacts with 15.5 g of sulfuric acid.

