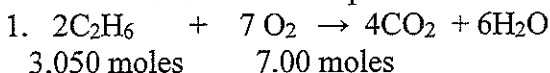


(#7-2)
Chemistry
Stoichiometry
Moles, Limiting, and excess #2

- For each of the following problems complete:
 - Complete and balance if needed.
 - Determine Limiting and excess reactant.
 - Determine the amount of excess
 - Determine the amount of product produced for each reaction. Convert at least one of the products to number of actual particles.



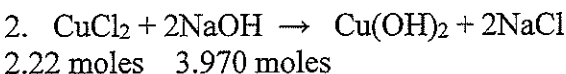
I. 3.05 7.00
S. 2 -7 +4.0 +6.0
E. +1.05 0

$$6.0 \times \frac{6.022 \times 10^{23}}{1 \text{ mol}} = 3.6 \text{ E}24$$

$$7. \cdot \frac{2 \text{ C}_2\text{H}_6}{7 \text{ O}_2} = 2.$$

$$7. \cdot \frac{4}{7} = 4.0 \text{ mol}$$

$$7. \cdot \frac{6}{7} = 6.0 \text{ mol}$$

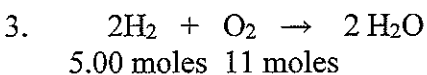


I. 2.22 3.97
S. -1.985 -3.97 +1.985 +3.97
E. .235 0

$$2.22 \text{ mol CuCl}_2 \cdot \frac{2}{1} = 4.44 \text{ mol}$$

$$3.970 \text{ mol} \cdot \frac{1}{2} = 1.985 \text{ mol NaOH}$$

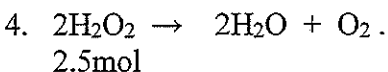
$$3.97 \text{ mol} \cdot \frac{6.022 \times 10^{23}}{1} = 2.39 \text{ E}24 \text{ NaCl}$$



I. 5.0 11 0
S. -5.0 -2.5 +5.0
E. 0 +8.5 ↑

$$5.0 \cdot \frac{1}{2} = 2.5 \text{ mol O}_2$$

$$5.0 \times \frac{6.022 \times 10^{23}}{1} = 3.011 \text{ E}24$$



I. 2.5 0 0
S. -2.5 +5.0 +2.5
E. 0

$$2.5 \cdot \frac{2}{1} = 5.0$$

$$2.5 \cdot \frac{6.022 \times 10^{23}}{1 \text{ mol}} = 1.5 \text{ E}24$$