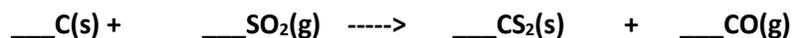


Stoichiometry Podcast #1; SC2 c,d



1. Carbon disulfide is an important industrial solvent. It is prepared by the reaction of carbon with sulfur dioxide:



- How many moles of CS₂ form when 6.3 mol of C reacts?
- How many moles of carbon are needed to react with 7.24 moles of SO₂

2. Silver can be made according to the following equation:



- If 35.3 moles of silver (I) nitrate are reacted, how many moles of silver are produced?

3. Barium oxide reacts with carbon dioxide to make Barium carbonate:



- If 23.4 moles of barium oxide react, how many liters of CO₂ are required at STP?

4. Car batteries are called lead storage batteries because of their use of large quantities of lead. These batteries utilize the following equation.



- If 34.3-g of PbO₂ react how many grams of water will be formed?
- Assuming the same mass of PbO₂, how many grams of PbSO₄ will be formed?

5. Ammonia, (NH₃) is produced by reacting its elements with each other according to the following equation:



a. If 34.3-L of nitrogen is reacted with hydrogen, how many liters at STP of ammonia will be formed?

6. 32.5-g of ZnSO₄ reacts to form how many grams of BaSO₄ according to the following equation. Don't forget to balance the equation.



7. When sodium metal is added to water the resulting gas, Hydrogen can often explode. How many Liters of hydrogen gas is produced when 41.2-g of sodium is dropped into water. Again, you must balance the equation in order to solve the problem.



8. Propane is a gas used often for backyard grills. How many Liters of CO₂ is produced when 54.9-L of propane (C₃H₈) is burned according to the following equation. Again, you must balance the equation in order to solve the problem.

