

Use the following equation for questions 4-6. Make sure to balance the equation before attempting to solve the problems that follow.



4. What mass of iron (III) oxide will react with 50.0 L of carbon monoxide at STP?
5. What volume of carbon dioxide at STP is produced from 1.00×10^3 g of iron (III) oxide?
6. What mass of iron is produced when 0.300 L carbon dioxide is produced at STP?

Use the following equation for questions 7-9. Make sure to balance the equation before attempting to solve the problems that follow.



7. How many grams of sodium sulfate is produced from 2.40×10^{24} formula units of sodium bicarbonate, assuming there is plenty of sulfuric acid (H_2SO_4)?
8. How many liters of carbon dioxide at STP would be produced from 2.40×10^{24} formula units of sodium bicarbonate? Assume there is excess sulfuric acid (H_2SO_4).
9. How many formula units of sulfuric acid (H_2SO_4) would be used when 250.0 L CO_2 is produced at STP?