

CLE 3221.3.3 Explore the mathematics of chemical formulas and equations.

SPI 3221.3.5 Convert among the following quantities of a substance: mass, number of moles, number of particles, molar volume at STP

Chemistry Molar Volume at STP Practice Problems

Assume all of the following problems are at standard conditions.

1. What volume will 0.750 moles of nitrogen gas occupy?
2. What volume will 100. grams of oxygen gas occupy?
3. How many moles are contained in 2.500 liters of methane (CH_4)?
4. Calculate the mass of 300. liters of dinitrogen monoxide.
5. What volume will 10. grams of ammonia occupy?

Molar Volume at STP Practice Problems Answer Key

1. 16.8 L N₂
2. 70.0 L O₂
3. 0.112 mol CH₄
4. 589 g N₂O
5. 13 L NH₃