



A mixture of oxygen, nitrogen and argon, and had a total pressure of 1200 mm Hg at 298 K. The mixture was found to contain 1.50 mol O₂, 2.60 mol N₂, and 1.2 mol Ar. What is the partial pressure of O₂?

- A) 339.6 mm Hg
- B) $2.94 \cdot 10^{-3}$ mm Hg
- C) 396.3 mm Hg
- D) 271.7 mm Hg

In real gases deviations from the ideal gas behavior are smaller at:

- A) high temperatures and high pressures.
- B) high temperatures and low pressures.
- C) low temperatures and low pressures.
- D) low temperatures and high pressures.

Calculate the density of oxygen gas, in grams per liter, at STP.

- A) 0.714 g/L
- B) 0.914 g/L
- C) 1.428 g/L
- D) 2.857 g/L

In the fermentation process of alcohol, a gas evolved during the fermentation had a volume of 22.4 L at 290 K and 0.981 atm. Calculate how many moles of gas were collected.

- A) 0.924 mol
- B) 1.44 mol
- C) 12.12 mol
- D) 15.7 mol