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 O_2, 2.60 mol N_2, and 1.2 mol Ar. What is the partial pressure of O_2?

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