Gases Quiz

1.

A container holds 2.9 L of propane (C3H8) at STP. How many grams of propane are in the tank?

2.

Gas is confined in a metal tank. At 20.0°C, the gas exerts a pressure of 10.532 atm. After heating the tank, the pressure of the gas increases to 20.406 atm. What is the temperature (°C) in of the heated gas?

3.

Find the pressure of the confined gas in atm.

4.

The volume of a 24.0-g sample of methane gas (CH4) is 32.8 L at 40.0°C and 1.00 atm. What will its volume be at 98.0°C and 5.00 atm?

5.

What is the density of NO2 at STP?

6.

Hydrogen gas diffuses at a rate of 34 meters per second. What is the rate of diffusion of oxygen gas at the same temperature?