

Answer on the Question 77568 Chemistry / General Chemistry

According to the ideal gas law:

$$PV = \frac{m}{M}RT,$$

where P – is the pressure of the gas (atm), V – is the volume of the gas (litre), m – is the mass of substance (g), M – is the molar mass (g/mole), R – is the universal gas constant (0.082 atm·l/K/mole), T – is the absolute temperature of the gas (K).

$$M = \frac{mRT}{PV}$$

$$M = \frac{0.950 \times 0.082 \times 368}{0.232 \times 0.985} = 125.44 \text{ g/mole}$$

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