

If 0.278g of argon dissolves in 1.5 l of water at 62 bar, what quantity of argon will dissolve at 78 bar

0.35 grams of Argon gas will dissolve at 78 bar pressure in 1.5 liters of water.

What is ideal gas equation?

Ideal gas equation for any gas at standard condition will written as:

$PV = nRT$, where

P = pressure

V = volume

n = no. of moles

R = universal gas constant

T = temperature

For this equation volume and temperature is constant, so the required equation will be:

$\frac{P_1}{P_2} = \frac{n_1}{n_2}$, where

P_1 = given pressure = 62 bar

n_1 = given mass of argon = 0.278g

P_2 = resultant pressure of argon = 78 bar

n_2 = to find?

On putting all these value on the above equation, we get

$$n = 0.278\text{g} \times (78 \text{ bar} / 62 \text{ bar}) = 0.35 \text{ g}$$

Hence, required mass of argon is 0.35g.

To know more about ideal gas equation, visit the below link:

brainly.com/question/12873752

When $P_1/P_2 = C_1/C_2$

and C is the molarity which = moles/volume

so, $P_1/P_2 = [(mass1/mw)/volume] / [(mass2/mw)/volume]$

$$P_1/P_2 = (mass1/mw)/1.5L / (mass2/mw)/1.5L$$

so, Mw and 1.5 L will cancel out:

$$P_1/P_2 = mass1 / mass2$$

$$mass2 = mass1 * (P_2 / P_1)$$

$$= 0.278\text{g} * (78 \text{ bar} / 62 \text{ bar})$$

$$= 0.35 \text{ g}$$

∴ the quantity of argon that will dissolve at 78 bar = 0.35 g

The straightening movement of muscles at a joint referred to as

A. Flexion

B. Endurance

C. Extension

D. Stretching

Which of the following are considered communication barriers? A. Eye contact, observation, and body language

B. Ordering, moralizing, diagnosing, and threatening

C. Paraphrasing, regression, and speaking slowly

D. Denial, sublimation, and projection

Where was mirabeau lamar born

In an urban environment, you are more likely to _____. A. be able to drive faster legally

B. encounter multiple hazards in a row from any direction

C. encounter wildlife like deer or mountain lions

D. need a better vehicle for the poorly maintained roads

The areas of two similar triangles are 16 cm² and 25 cm². One of the sides of the first triangles is 2 cm. What is the length of the corresponding side of the other triangle?

A flask contains a mixture of neon Ne, krypton Kr, and radon Rn gases. (Hint: The molar mass of the Ne is 20.180 g/mol, of the Kr is 83.80g/mol, and of the Rn 222 g/mol)Compare the average kinetic energies of the Ne and Kr.

How does water deposit to erode soil, sediment, and rock?

If a 30 °C air parcel rises from sea level to 3000 meters altitude and cools at the dry adiabatic rate, what will be its temperature at 3000 meters? O 10 °C O-10 °C 20 °C

6 degrees below 0 what does 0 represent in this situation

Which subatomic particles have a mass of approximately 1 atomic mass unit each?

Which is determined by the census that is taken every 10 years?

Consider the function $f(x) = x^2 + 3x - 7$ find the value of $f(x)$ when $x = 3$

David is making his own strawberry yogurt. In his mixture, the number of strawberries is proportional to the amount of milk in cups david uses 2 1/2 cups of milk for every 14 strawberries. If david uses 203 strawberries, how much milk will he need?

One potential problem you should keep in mind when researching information on the Internet is that

What a plaintiff must prove is largely determined by:?

Plants that get nutrients from rocks give off chemicals that cause blank weathering

How many 1/4 cup servings are there in 2/3 of a cup of dip

Cardiac and muscles are types of involuntary muscles.

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2. [More Solution](#)