

2.3 AVOGADRO'S LAW AND SOME DEDUCTIONS

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1. The term 'molecule' was coined by
a. Berzelius b. Bohr c. Avogadro d. Dalton
2. The term 'molecule' was coined by
b. *Jacob Berzelius* c. *Niels Bohr* b. *Amadeo Avogadro* d. *John Dalton*
3. According to Avogadro's hypothesis, an equal volume of all gases under similar conditions contains an equal number of
a. Atoms b. moles c. molecules d. masses
4. Equal volumes of O₂ and CO₂ at the same temperature and pressure contain:
A. Equal masses B. Equal number of atoms
C. Equal number of molecules D. Equal densitie
5. Avogadro's law is
a. $V \propto n$ b. $V \propto T$ c. $V \propto 1/P$ d. $PV = nRT$
6. The ratio of the mass of a certain volume of gas to the mass of the same volume of hydrogen gas is
a. molecular mass b. vapour density c. relative density d. atomic mass
7. The vapour density of SO₂ is
a. 22.4 c. 64 b. 32 d. 48
8. The vapour density of a gas is half that of Sulphur dioxide. The molecular mass of the gas is
a. 16 b. 32 c. 48 d. 64
9. Which of the following is not a deduction of Avogadro's law?
a. Molecular mass = 2 x vapour density
b. The molar volume of gas is 22.4 L at NTP.
c. Particles in molar mass are 6.023×10^{23} .
d. The same volume of all gases contains the same number of atoms.
10. The vapour density of a gas is 22.4 at NTP. The volume occupied by 22.4 g of gas is
a. 1 litre b. 22.4 liter c. 11.2 liter d. 44.8 L
11. The mass of 22.4 litres of oxygen gas at NTP is nearly
a. 4 g b. 16g c. 32 g d. 8 g
12. The volume occupied by 4.4 g of Carbon dioxide is
a. 22.4 l b. 4.48 l c. 1.12 l d. 2.24 l
13. The volume of 1 mole of gas at 273 K and 1 atmospheric pressure is
a. 22400 ml b. 24 l c. 1.008 l d. 11.2 l
14. One gram mole of a gas at NTP occupies 22.4 litres. This fact was derived from:
a) Law of gaseous volumes b) Avogadro's hypothesis
c) Berzelius hypothesis d) Dalton's atomic theory
15. No. of atoms/molecule is 1 molar mass is known as
a. Avogadro's number b. Dalton number c. mole d. Normality

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