

Answer on Question #43996, Chemistry, Physical Chemistry

Question:

what is molarity

Answer:

Molarity (molar concentration), c_i is defined as the amount of a constituent n_i (usually measured in moles – hence the name) divided by the volume of the mixture V :

$$c_i = \frac{n_i}{V}$$

It is also called molarity, amount-of-substance concentration, amount concentration, substance concentration, or simply concentration. The volume V in the definition $c_i = n_i/V$ refers to the volume of the solution, not the volume of the solvent. One litre of a solution usually contains either slightly more or slightly less than 1 liter of solvent because the process of dissolution causes volume of liquid to increase or decrease.

The SI unit is mol/m³. However, more commonly the unit mol/L is used. A solution of concentration 1 mol/L is also denoted as "1 molar" (1 M).

1 mol/L = 1 mol/dm³ = 1 mol dm⁻³ = 1 M = 1000 mol/m³.