

Avogadro constant

Avogadro constant or **Avogadro number** indicates the number of particles corresponding to one mole. Before the redefinition of SI units in 2019, it was defined as the number of atoms in 12 g of the pure carbon isotope ^{12}C .

Carbon ^{12}C contains 6 protons and 6 neutrons in the nucleus. If we assume that the mass of the proton and neutron is practically the same, and the mass of the electron is almost negligible compared to the them, we can say that Avogadro constant (approximately) tells how many nucleons weigh one gram.

The magnitude of Avogadro constant is fixed: **$6,022\ 140\ 76 \cdot 10^{23}\ \text{mol}^{-1}$** ^[1] exactly.

Links

External links

- Avogadrova konstanta (Czech Wikipedia)
- Avogadro constant (English Wikipedia)

Source

1. National Institute for Standards and Technology. *The NIST reference on constants, units, and uncertainty. Fundamental physical constants*. [online]. [cit. 2019-12-04]. <<https://physics.nist.gov/cgi-bin/cuu/Value?na>>.