Avogadro constant in combat with atomic mass unit

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Abstract- In May 2019 a new value for the Avogadro constant will be introduced. However its proposed value is in contradiction with the value of the atomic mass unit, whichever amu is taken: the one based on normal mass values, or the one based on mass values influenced by binding energies in atomic nuclei, via E(nergy) = mc^2. This article presents an alternative approach.

Introduction

In reference [1] it is shown how the value of the amu is influenced by the binding energy in the nuclei of atoms.
Reference [2] shows the history of the Avogadro constant. It concludes with:
"Pending revisions in the base set of SI units necessitated redefinitions of the concepts of chemical quantity. Avogadro's number, and its definition, was deprecated in favor of the Avogadro constant and its definition. Based on measurements made through the middle of 2017 which calculated a value for the Avogadro constant of NA = $6.022140758(62)\times10^{23}$ mol^{-1}, the redefinition of SI units is planned to take effect on 20 May 2019. The value of the constant will be fixed to exactly 6.02214076×10^{23} mol^{-1}."

Presentation of contradictions

Reference [2] shows:
"A much simpler definition is that Avogadro's constant is the conversion factor for converting grams to atomic mass units."
Reference [3] shows the history of the atomic mass unit (amu) and starts as follows:
"It (amu) is defined as one twelfth of the mass of an unbound neutral atom of carbon-12 in its nuclear and electronic ground state and at rest, and has a value of $1.660539040*10^{-27}$ kg."
The consequence of this value of the amu is that the atomic weight of $^{12}_{6}C$ is not 12 amu, but 12.011 amu. See reference [3] under Examples:
"A conventional value for standard atomic weight of carbon is 12.011 u (12.011 Da)."

Applying these values to the reference element $^{12}_{6}C$ results in the following table:

atomic weight C	12.011	amu
amu	$1.660539040*10^{-27}$	kg
atomic weight C	$1.994473441*10^{-26}$	kg
12 gram C has	$6.016256184*10^{+23}$	atoms

Remarks:
The atomic weight of C in kg is the product of the first two values in the table above.
12 gram C has 0.012 (kg) / atomic weight of C (kg) = $6.016256184*10^{23}$ atoms.

The deviation from the value that will be introduced in May 2019 (6.02214076×10^{23}) is significant: -0,09%.

One of the reasons of such a contradiction is described in reference [1].
This reference, shortly summarized, shows that the value of amu has been changed from $1.674......*10^{-27}$ kg to the already mentioned value $1.660.......*10^{-27}$ kg, based on the alleged influence of the so-called binding energy in a nucleus.

The previous value of the amu (1. 674.........*10^{-27}) was $(m_N+m_P+m_e)/2$ with:
m_N = 1.674927471*10^{-27} m_P = 1.672621898*10^{-27} m_e = 9.10938356*10^{-31} kg,
being masses not influenced by binding energies.
If the same table is made with this amu, the result is:

atomic weight C	12	amu
amu	1.674230154*10^{-27}	kg
atomic weight C	2.009076184*10^{-26}	kg
12 gram C has	5.972894454*10^{+23}	atoms

Again the deviation from the value that will be introduced in May 2019 is significant: -0.8 %

Alternative amu and Avogadro constant based on alternative model of neutron

Reference [4] proposes an alternative model of the atomic *nucleus*, based on the model of the neutron as a proton around which an electron orbits at a much smaller distance from the proton than is modelled in the hydrogen *atom* ^1_1H.
In this model the mass of a neutron equals the mass of a proton plus an electron, while presently this mass is presented as the mass of a proton plus 2.531 times the mass of an electron.
Neglecting the influence of binding energy the amu would change from $(m_N+m_P+m_e)/2$ to m_P+m_e
The related value for the amu is 1.6735328364*10^{-27} kg. The tables presented above now become as follows:

atomic weight C	12	amu
amu	1.6735328364*10^{-27}	kg
atomic weight C	2.0082394036*10^{-26}	kg
12 gram C has	5.9753832030*10^{+23}	atoms

Reference [2] writes:
"For instance, *to the first order approximation*, 1 gram of hydrogen element (H), having the atomic (mass) number 1, has 6.022×10^{23} hydrogen atoms. Similarly, 12 grams of 12C, with the mass number 12 (atomic number 6), has the same number of carbon atoms, 6.022×10^{23}"

Mind the words: "*to the first order approximation"* !

Applying the alternative model for the neutron and for the atomic nucleus results in the table shown below:

atomic weight ^1_1H	1	amu
amu	1.6735328364*10^{-27}	kg
atomic weight ^1_1H	1.6735328364*10^{-27}	kg
1 gram ^1_1H has	5.9753832030*10^{+23}	atoms

Summarized results of the alternative approach

The alternative amu is 1.6735328364*10^{-27} kg.
The atoms of element $^{2Z+\Delta N}{}_ZE$ have a mass number of (2Z+ΔN), except for Z=1.
The alternative Avogadro constant is 5.9753832030*10^{+23}
(2Z+ΔN) gram of $^{2Z+\Delta N}{}_ZE$ contains 5.9753832030*10^{+23} atoms, except for Z=1.

References

[1] http://vixra.org/abs/1802.0314 What Went Wrong with the Atomic Mass Unit
[2] https://en.wikipedia.org/wiki/Avogadro_constant
[3] https://en.wikipedia.org/wiki/Unified_atomic_mass_unit
[4] http://vixra.org/abs/1803.0036 Atomic Nuclei Modelled Without Exotic Particles and Magic Forces