Standard Big-Bang Nucleosynthesis after Planck

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Primordial or Big Bang nucleosynthesis (BBN) is one of the three historical strong evidences for the Big-Bang model together with the expansion of the Universe and the Cosmic Microwave Background radiation (CMB).
The results by the Planck mission have changed the baryonic density **Ω**b compared to the previous WMAP values.
We present the BBN predictions for the light elements using this new value of **Ω**b as well as an improvement of the nuclear network and new spectroscopic observations.
The primordial D/H abundance ((2.57 – 2.72) X 10**-5) is narrower than recedently, to be compared to the recent observations in the light of sight of quasars, ((2.49 – 2.57) X 10**-5), at redshift z ~ 3.
The primordial Li/H abundance ((4.56 – 5.34) X 10**-10) is still 3 times larger than its observed spectroscopic abundance in halo stars of the Galaxy.
Primordial Helium abundance is : Yp = 0.2461 - 0.2466, in a good agreement with the last He observations (0.2368 – 0.2562).