Entwicklung der Temperatur des Universums im Urknall Modell

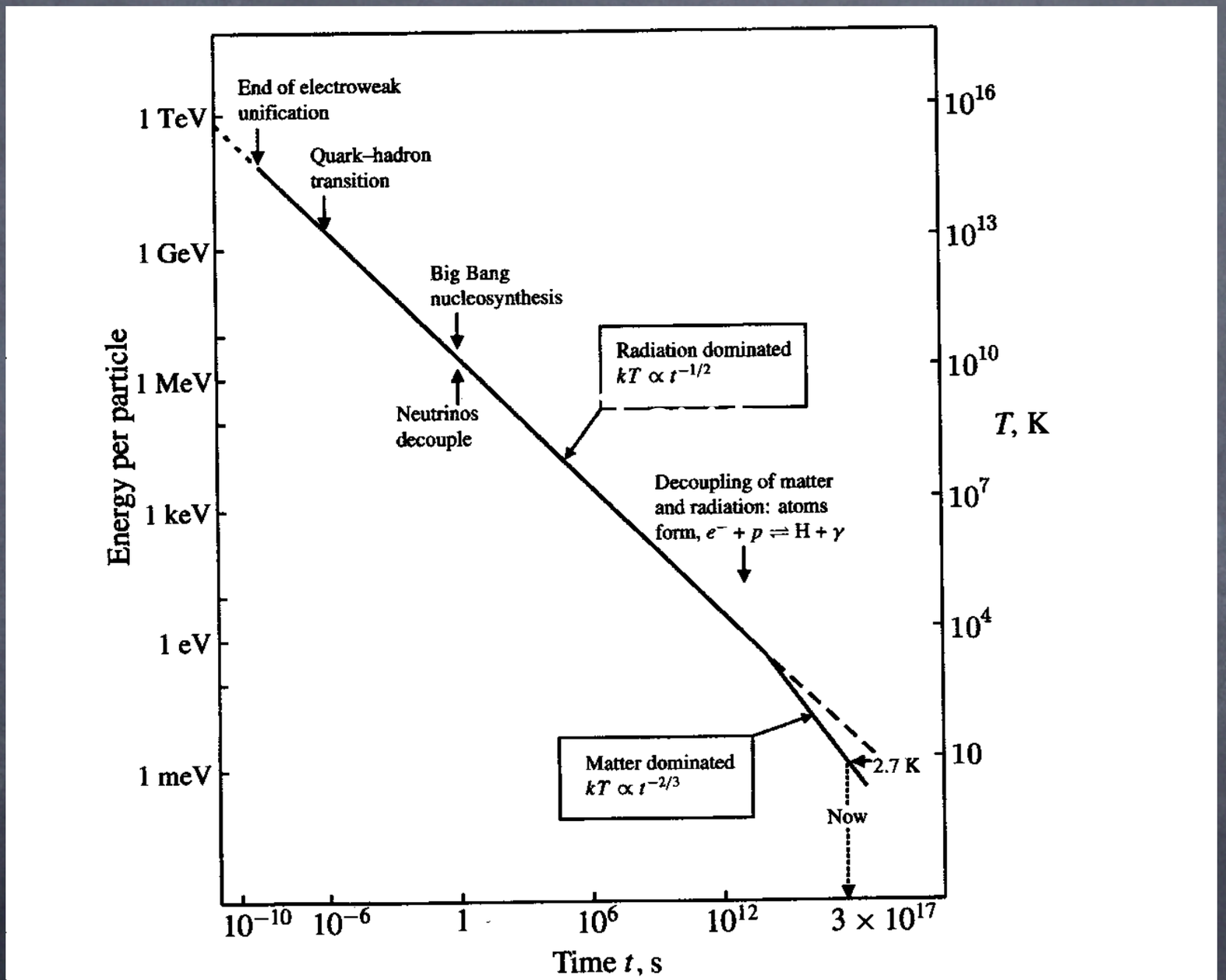
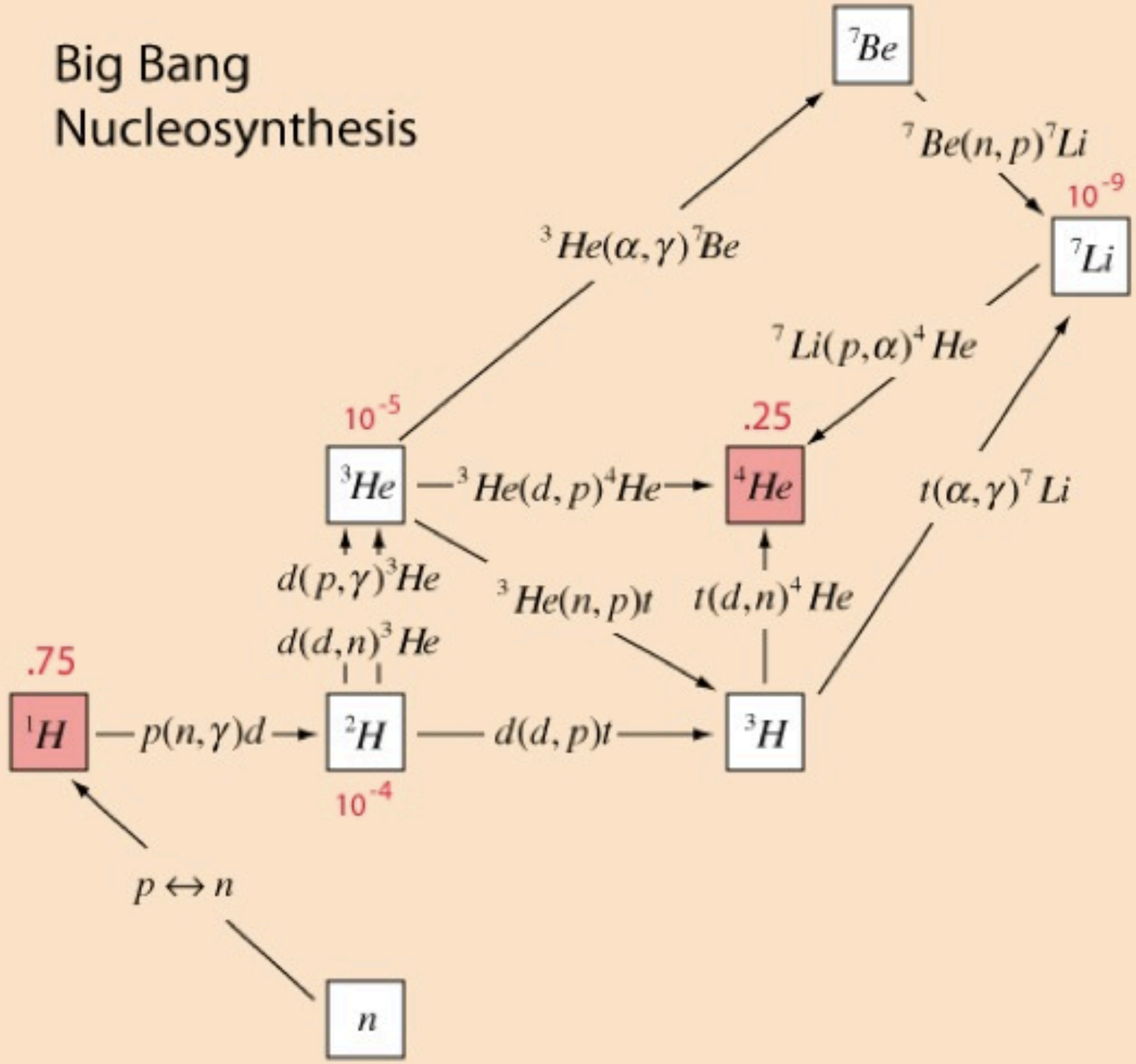


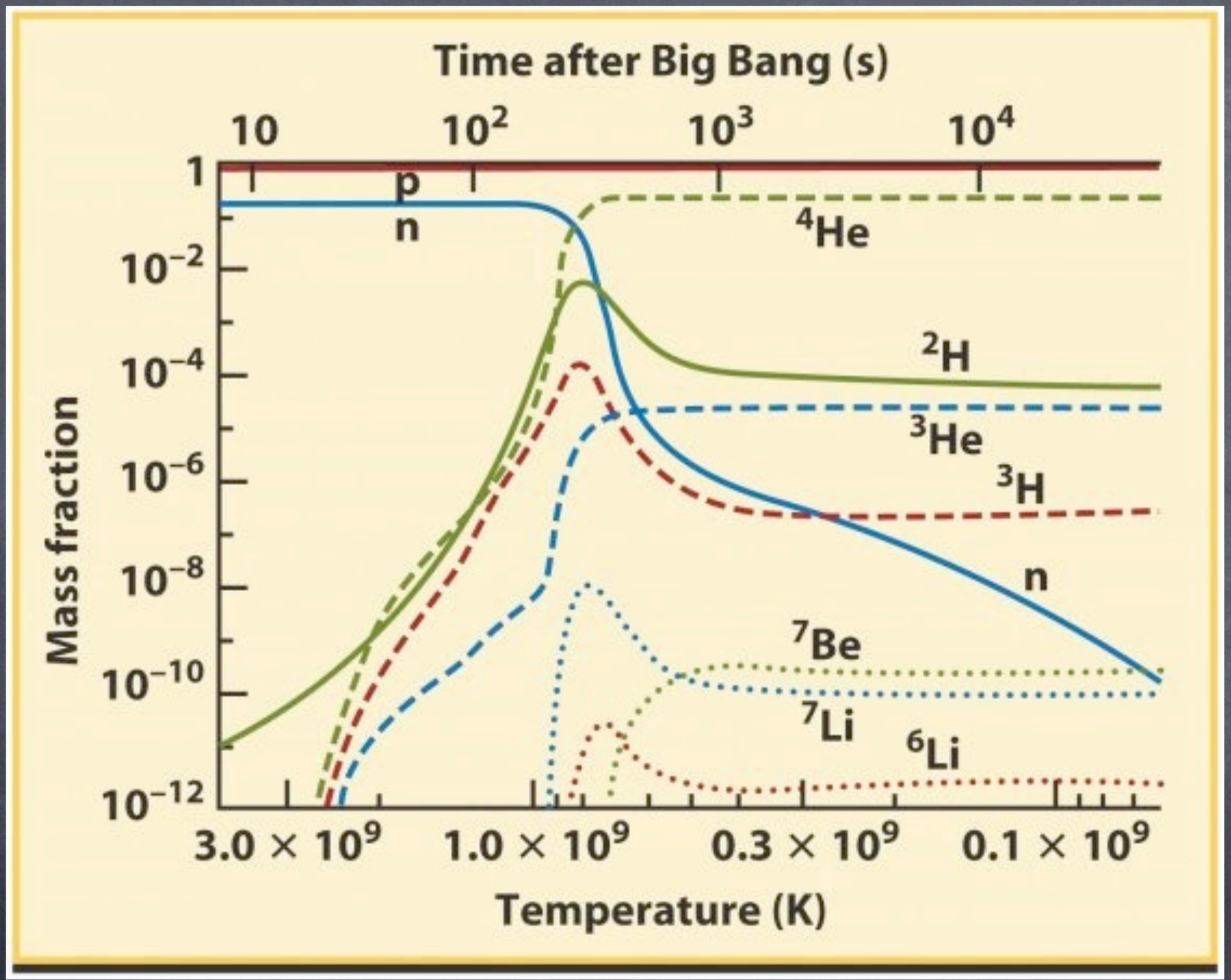
Fig. 10.3. Evolution of the temperature of the universe with time in the Big Bang model, with the various eras indicated.

from Perkins, introduction to high-energy physics

Big Bang Nucleosynthesis



http://hyperphysics.phy-astr.gsu.edu/hbase/astro/bbnuc.html



http://universe-review.ca/I02-09-nucleosynthesis2.jpg

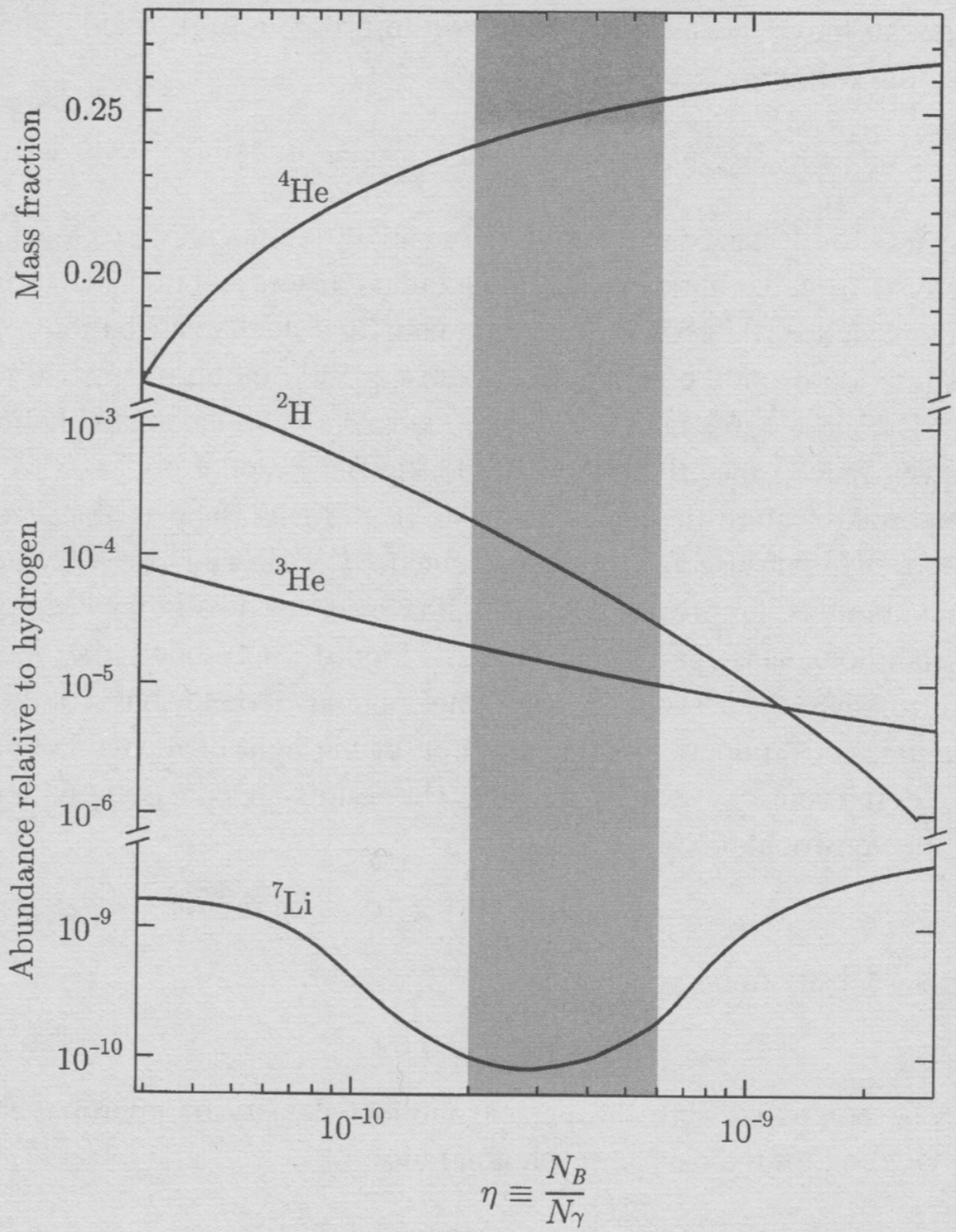
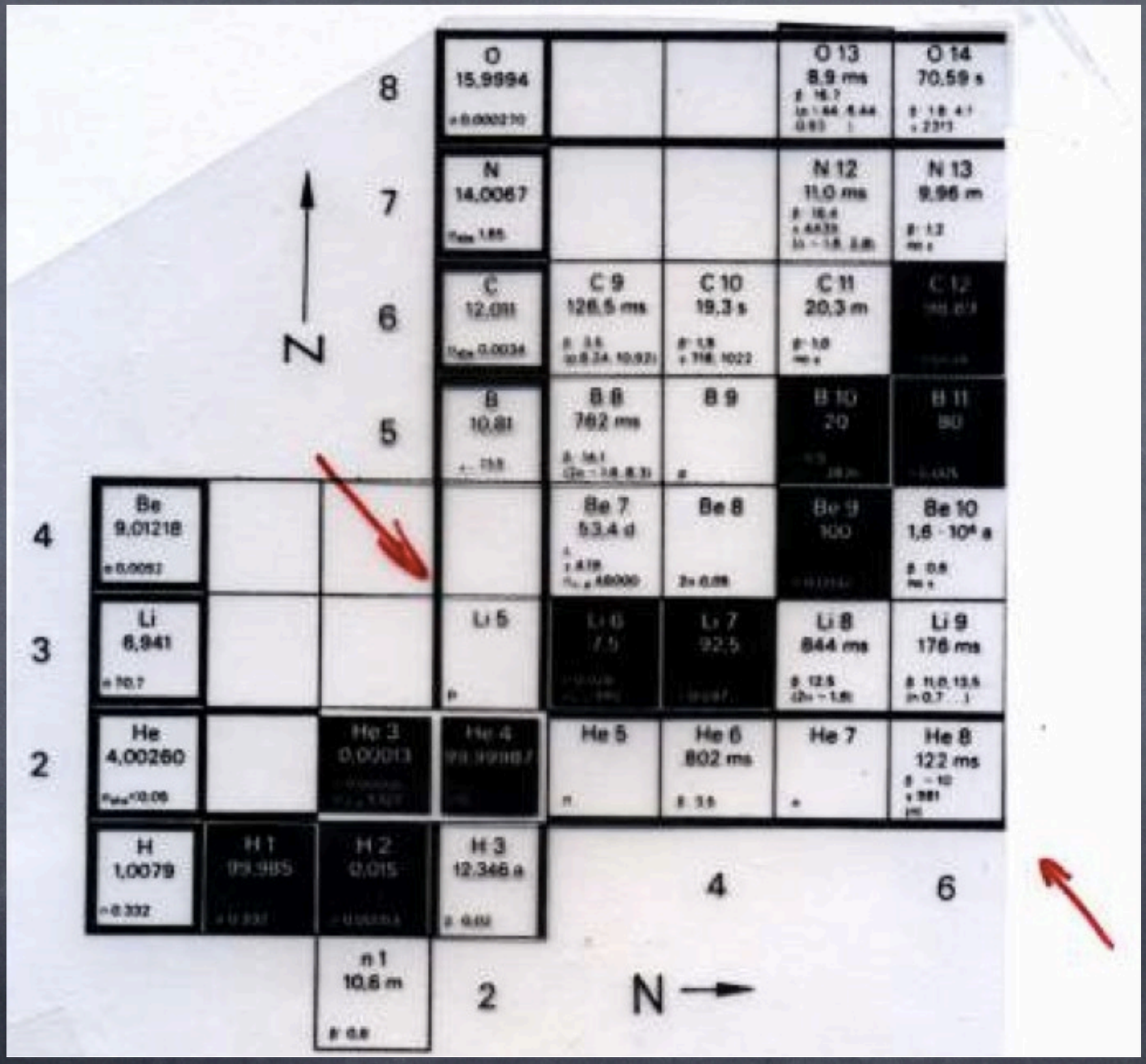


Fig. 10.4. The primordial abundances expected in Big Bang nucleosynthesis of the light elements ^{2}H, ^{3}He and ^{7}Li, and the mass abundance of ^{4}He, in all cases relative to hydrogen, plotted as a function of the baryon density. The observed values of the number abundances are: $^2\mathrm{H/H} \simeq 3 \times 10^{-5}$; $^3\mathrm{He/H} \simeq 2 \times 10^{-5}$; $^7\mathrm{Li/H} \simeq 10^{-10}$. The weight abundance of $^4\mathrm{He} = 0.24 \pm 0.01$. All point to a unique value of the baryon density as given in (10.33) and (10.34) (after Turner 1996).

from Perkins, introduction to high-energy physics


O 15,9994
O 13 8,9 ms
O 14 70,59 s
N 14,0067
N 12 11,0 ms
N 13 9,96 m
C 12,011
C 9 126,5 ms
C 10 19,3 s
C 11 20,3 m
B 10,81
B 8 762 ms
B 9
B 10 20
B 11 80
Be 9,01218
Be 7 53,4 d
Be 8
Be 9 100
Be 10 1,6 · 10⁶ a
Li 6,941
Li 5
Li 6 7,5
Li 7 92,5
Li 8 844 ms
Li 9 176 ms
He 4,00260
He 3 0,0013
He 4
He 5
He 6 802 ms
He 7
He 8 122 ms
H 1,0079
H 1
H 2 0,015
H 3 12,346 a
n 1 10,6 m
8
7
6
5
4
3
2
N
4
6
2
N