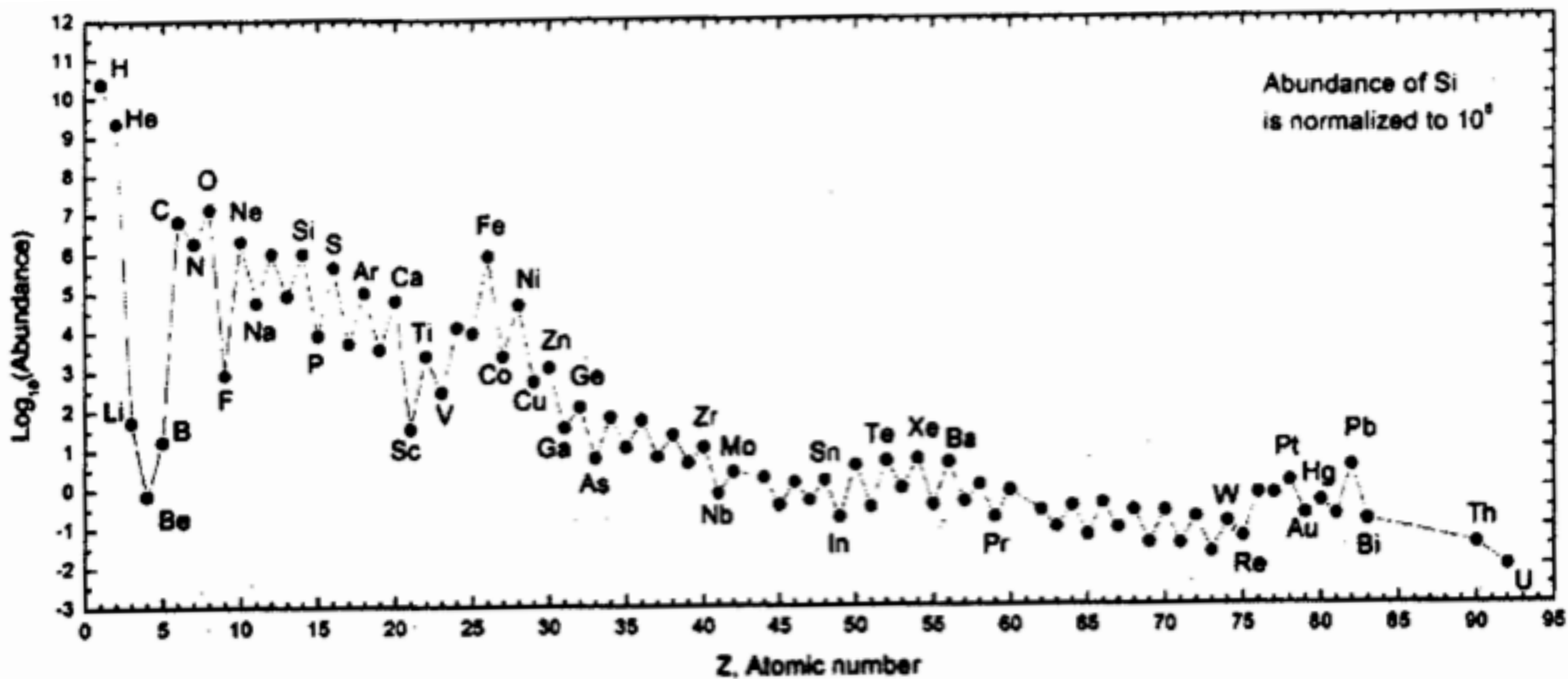


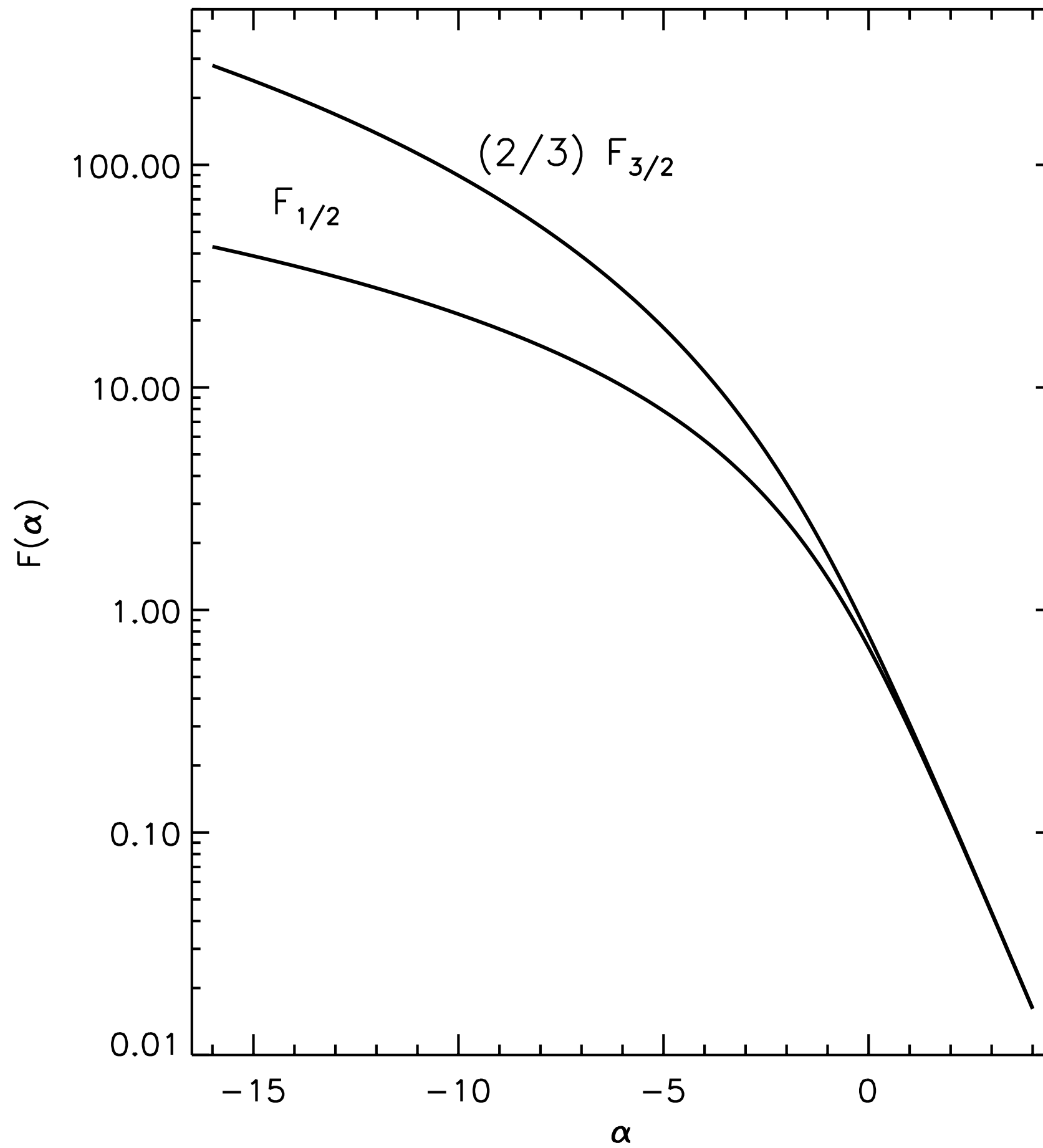
Isotope	A	mass	number
		fraction	fraction
		in parts per million	in parts per million
Hydrogen-1	1	705,700	909,964
Hydrogen-2	2	23	15
Helium-3	3	35	15
Helium-4	4	275,200	88,714
Carbon-12	12	3,032	326
Carbon-13	13	37	4
Nitrogen-14	14	1,105	102
Oxygen-16	16	5,920	477
Neon-20	20	1,548	100
Neon-22	22	208	12
Sodium-23	23	33	2
Magnesium-24	24	513	28
Magnesium-25	25	69	4
Magnesium-26	26	79	4
Aluminum-27	27	58	3
Silicon-28	28	653	30
Silicon-29	29	34	2
Silicon-30	30	23	1
Sulfur-32	32	396	16
Argon-36	36	77	3
Calcium-40	40	60	2
Iron-54	54	72	2
Iron-56	56	1,169	27
Iron-57	57	28	1
Nickel-58	58	49	1
Other elements:		3,879	149

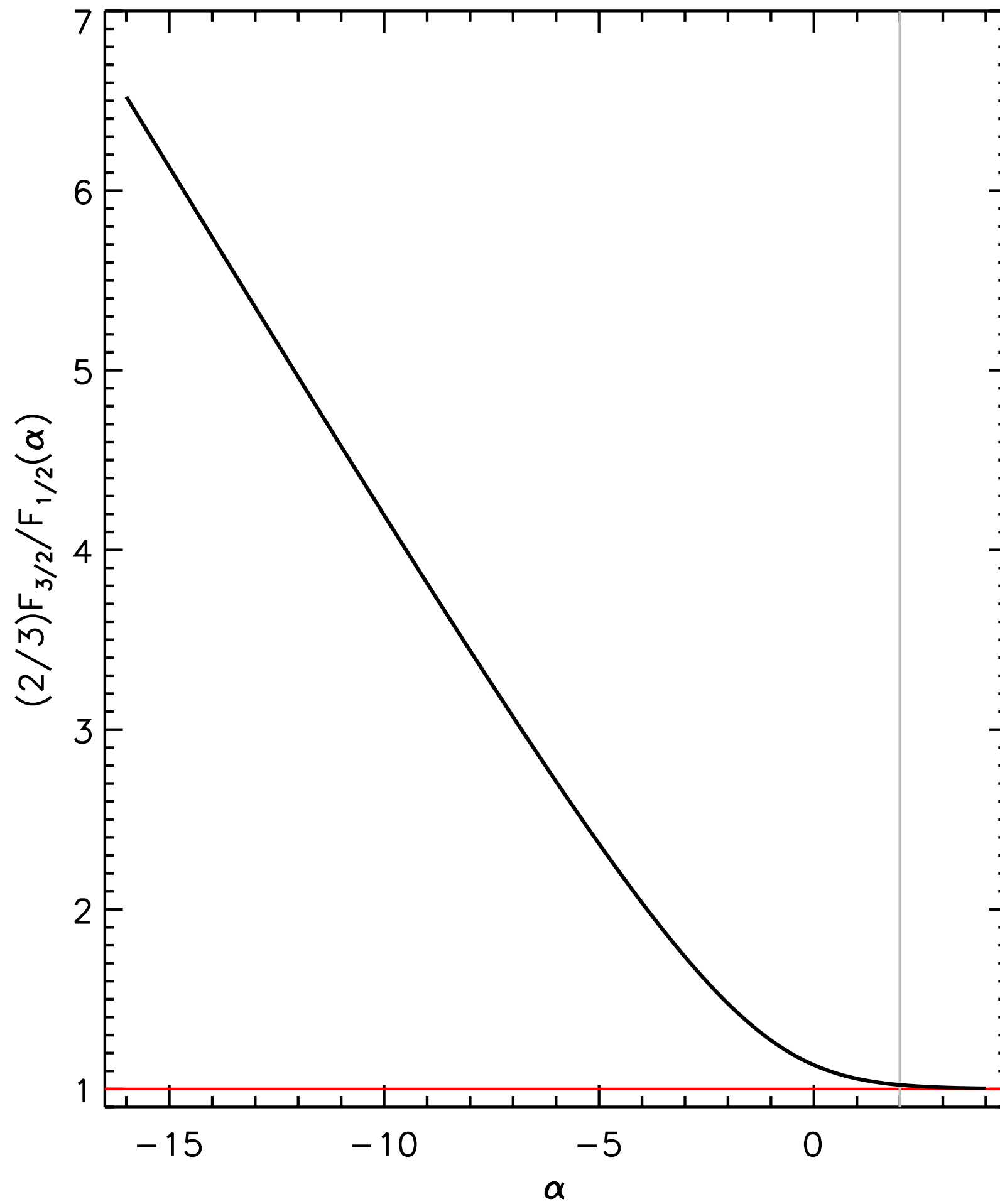
$$\text{H-1: } 705700/1000000 = 0.7057 = 70.6\%$$

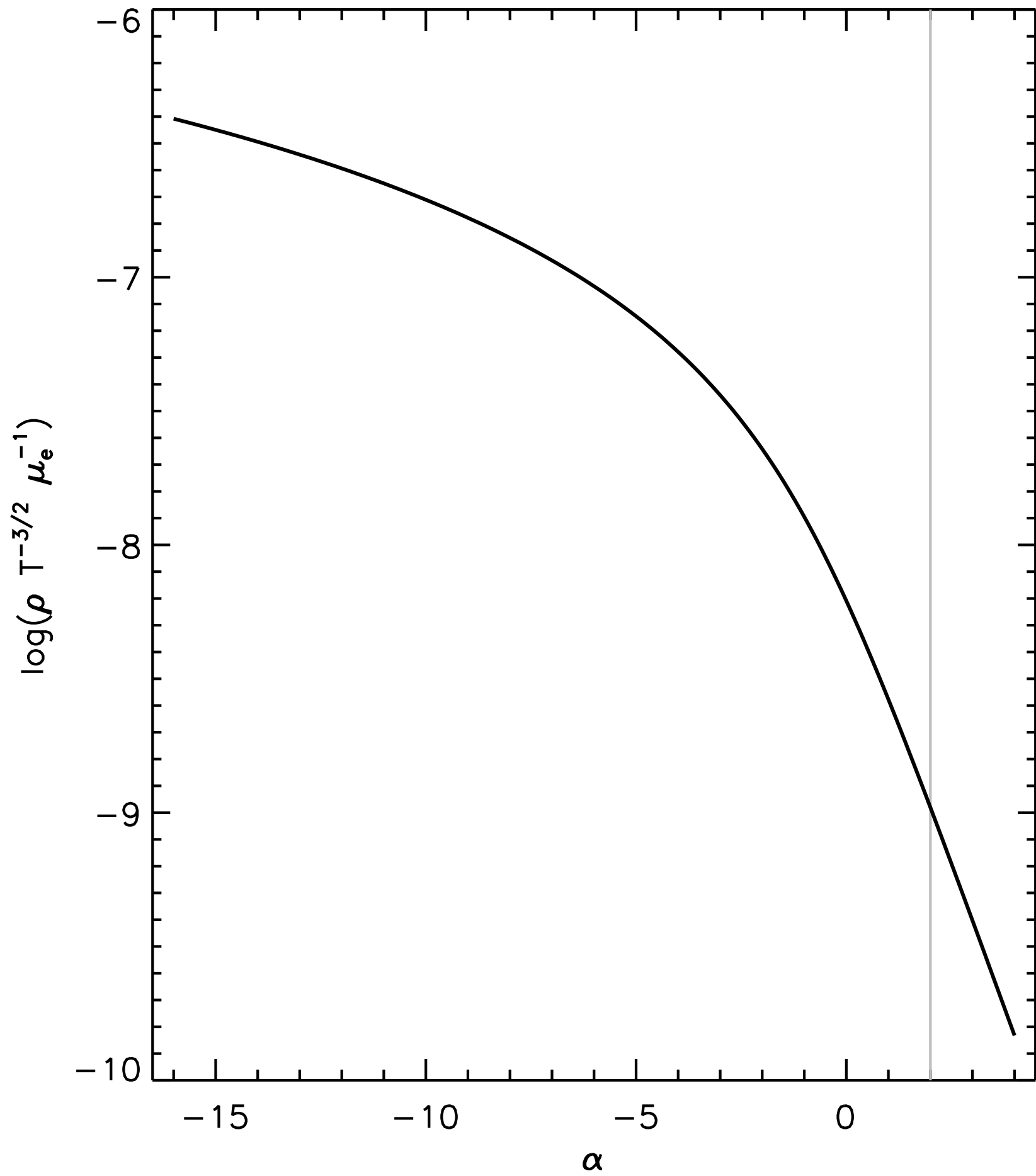
$$\text{He-4: } 275200/1000000 = 0.2752 = 27.5\%$$

$$\text{Metals: } 198100/1000000 = 0.0191 = 1.9\%$$









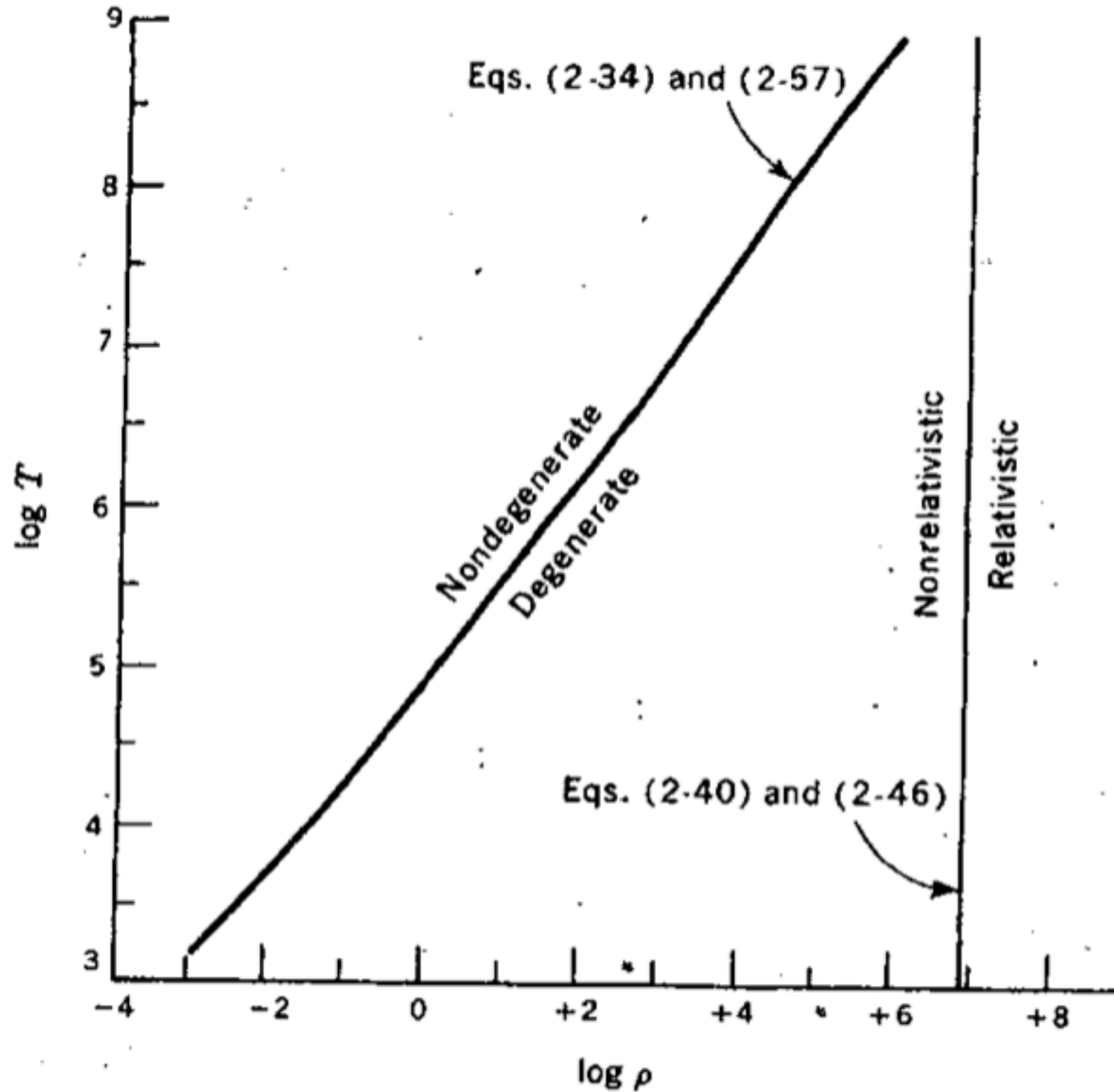


Fig. 2-7 Zones of the equation of state of an electron gas. The non-relativistic transition region between nondegeneracy and extreme degeneracy is located according to Eq. (2-34), and the pressure is given by Eq. (2-57) in this region. As ρ approaches 10^7 g/cm^3 , many of the electrons become relativistic, and the distribution becomes highly degenerate, in which case Eq. (2-46) adequately represents the pressure.

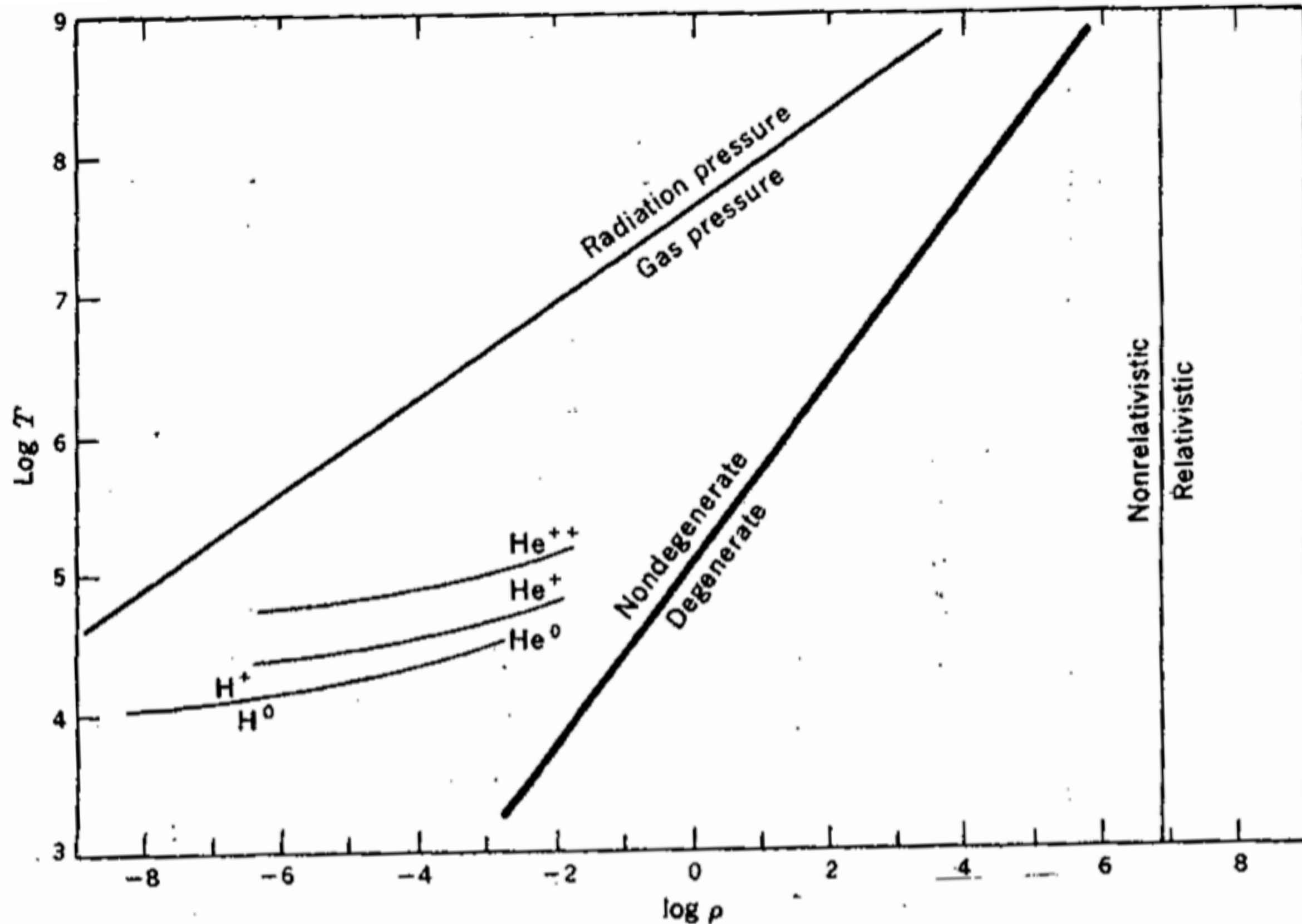


Fig. 2-11 Zones of the equation of state of a gas in thermodynamic equilibrium. Radiation pressure dominates the gas pressure in the upper left-hand corner. The remaining boundaries are similar to those in Fig. 2-7. Also included for comparison are the transition strips in a hydrogen-dominated gas between H^0 and H^{+} , between He^0 and He^{+} , and between He^{+} and He^{++} .