

FIG. 8.1. Structure of Chlorophyll *a*.

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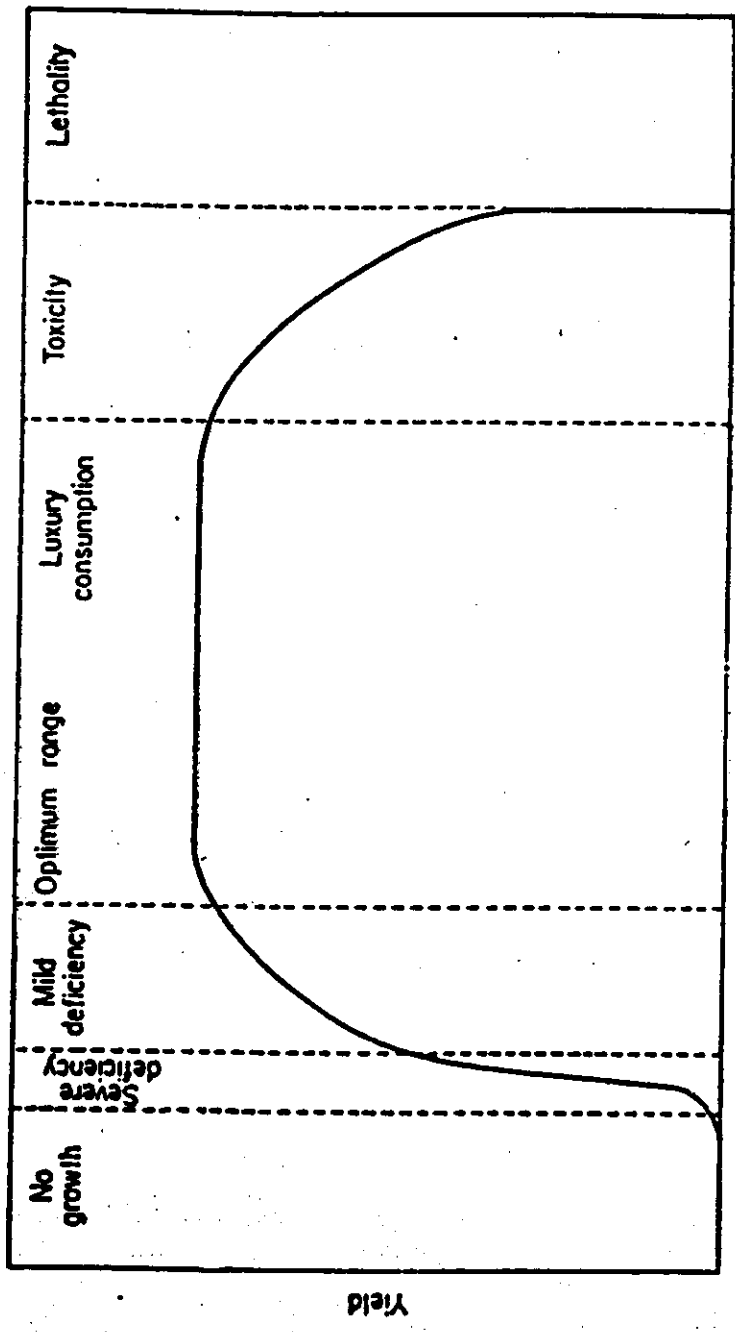
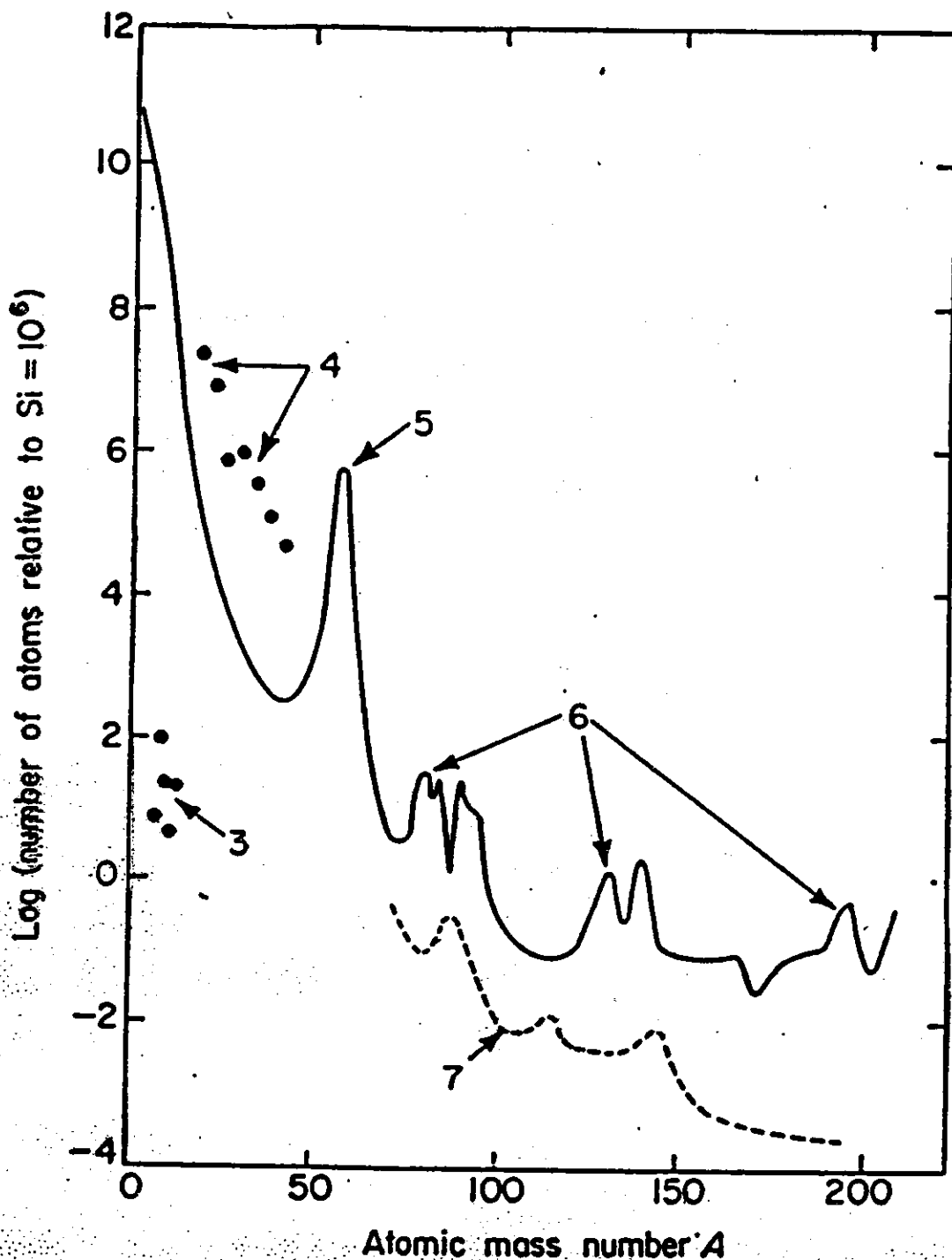


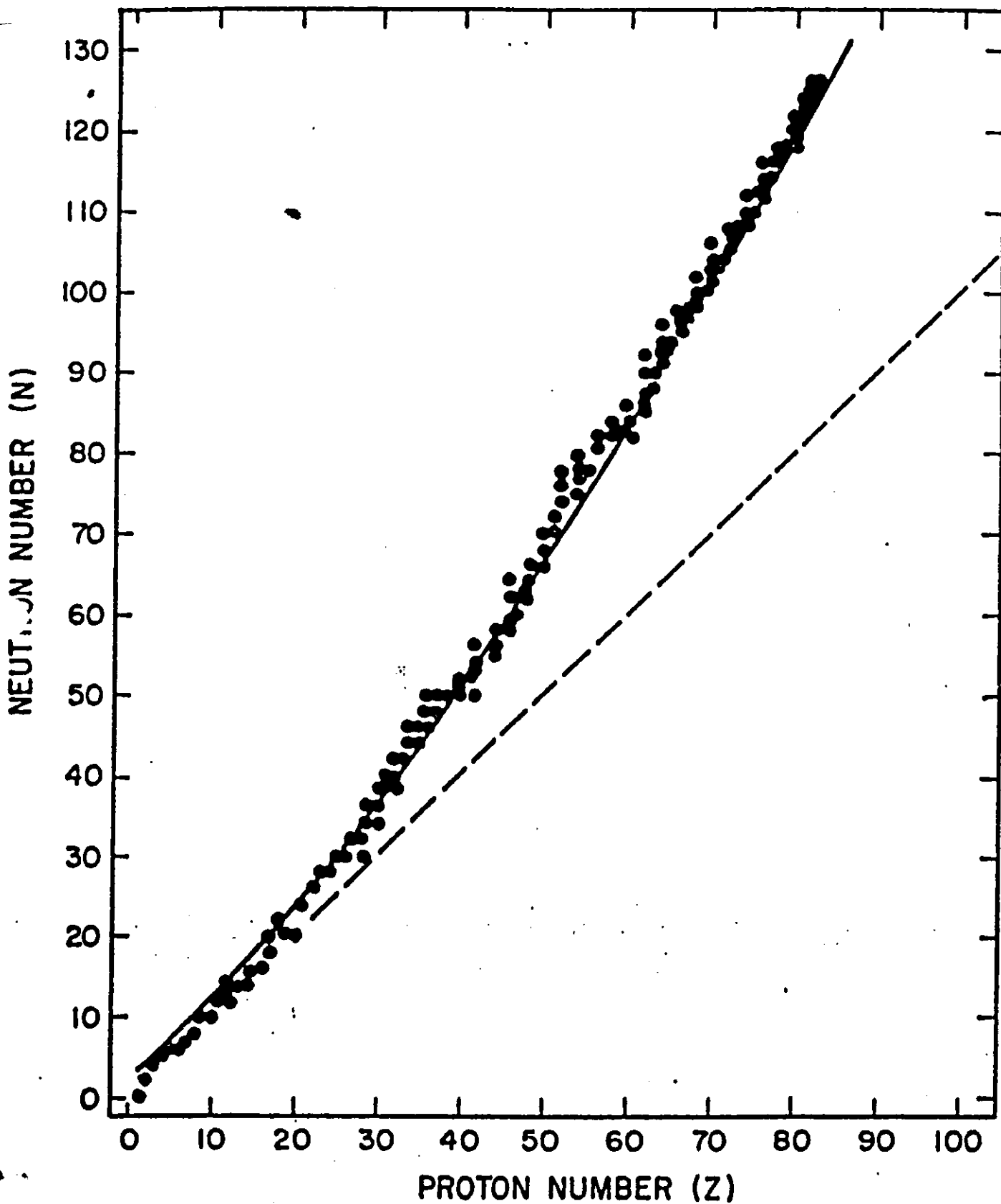
Fig. 7.1. Idealized diagram of growth of an organism as a function of the concentration of an essential nutrient. After P. F. Smith, 1962, *Annu. Rev. Plant. Physiol.* 13, 81.

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**FIG. 1.1.** Abundances of nuclides in the solar system as a function of atomic mass number  $A$ . Note the following features, explained in the text: (1) The approximately exponential decrease in abundances for  $1 < A < 100$ . (2) The approximately constant abundances for  $100 < A < 208$ . (3) The anomalously low abundances of D, Li, Be and B. (4) The anomalously high abundances of "α nuclides",  $^{16}\text{O}$ ,  $^{24}\text{Mg}$ ,  $^{28}\text{Si}$ ,  $^{40}\text{Ca}$ , etc. (5) The abundance peak centred on  $^{56}\text{Fe}$ . (6) The smaller abundance peaks at  $A = 80, 90, 130, 135, 154$  and  $208$ . (7) The rarity of proton-rich nuclides (dotted curve). After Burbidge, Burbidge, Fowler and Hoyle (1957).

# Stable and Radioactive Nuclides



**Figure 1.3** The  $N/Z$  ratio for the stable nuclides with isotopic abundance greater than 10%. The solid line is