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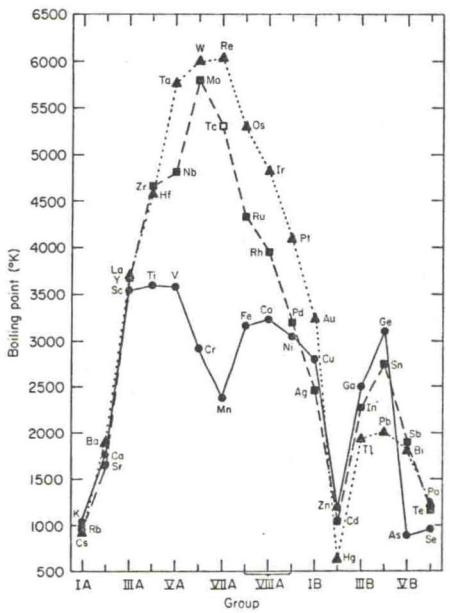

FIG. 15. Boiling point of the elements of the fourth, fifth, and sixth periods of the Periodic Table. Open points are estimated values.

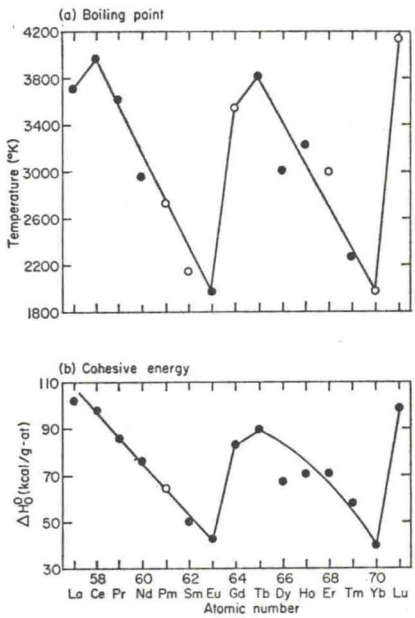

FIG. 16. (a) Boiling point of the rare-earth metals. (b) Cohesive energy of the rare-earth metals. Open points are estimated values.

where

$$A = \Delta H_v/2.30258R = \Delta H_v/4.5758, \qquad (10.2)$$

where ΔH_v is the heat of vaporization (or sublimation, ΔH_s) and R is the gas constant. Since the boiling point at 1 atm pressure may be as much as a 1000° higher than the temperature at which the vapor pressure data were obtained, it was necessary to take account of the variation of ΔH_v with temperature. Furthermore, if the experimental data yielded the heat of sublimation, the heat of fusion also had to be considered. These corrections were made by making extensive use of Stull's and Sinke's compilation of high-temperature specific heat data[53] and the heats of fusion listed in Table X. Values which were calculated by the reviewer according to the above procedure are so identified in Table XI.

Perhaps as many as one-fourth of the boiling points listed in Table XI are the result of direct observations. These values were assumed to be