References to Table III

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an error of ±26.2% from the mean. The mean value for the 19 estimated values is 0.300, which indicates that if the estimated values were included, the over-all mean value for Poisson's ratio would not change. These data suggest that it might be more accurate to use $\frac{3}{10}$ for the mean value of Poisson's ratio for the metals rather than $\frac{1}{3}$.

Examination of Fig. 4 shows that the value of Poisson's ratio for a given element depends on the element's position in the Periodic Table.

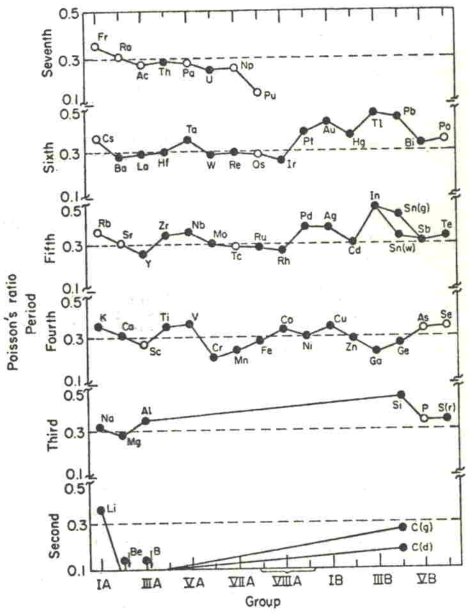

FIG. 4. Poisson's ratio of all of the elements considered in this review with the exception of the rare-earth metals. Open points are estimated values. The horizontal dashed line represents the mean value for these elements.

For example, the values of Poisson's ratio exceed the mean value for the alkali metals; for the group IVA, VA, VB, and VIB elements; for nickel, palladium, and platinum; and for the noble metals. For the group IIIA, VIA, and VIIA metals, and iron, ruthenium, and osmium, Poisson's ratio is less than the mean; and for the alkaline-earth metals and group IIB metals it is approximately equal to the mean.

The variation of Poisson's ratio for the rare earths is shown in Fig. 5a. The point for ytterbium was ignored in drawing the straight line through the solid points. The data show considerably more scatter here than the corresponding plots of Young's modulus or the shear modulus (Figs. 2a and 2b, respectively) for these metals. The scatter may be emphasized by the expanded scale in Fig. 5a. However, the ratio Y/μ (Fig. 2c), which is