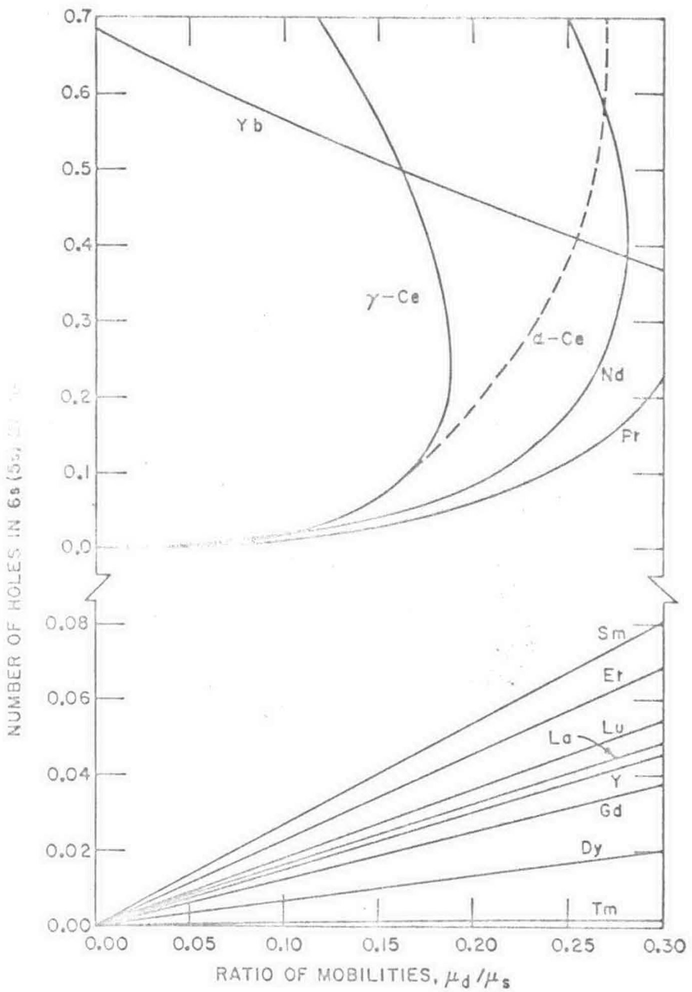

Fig. 2. Relationship between the ratio of the mobilities and the number of holes in the s band of some of the rare earth metals as determined from the measured Hall coefficients.

d electrons to the s electrons was 0. 1 or less, then the observed Hall coefficients, which differed both in magnitude

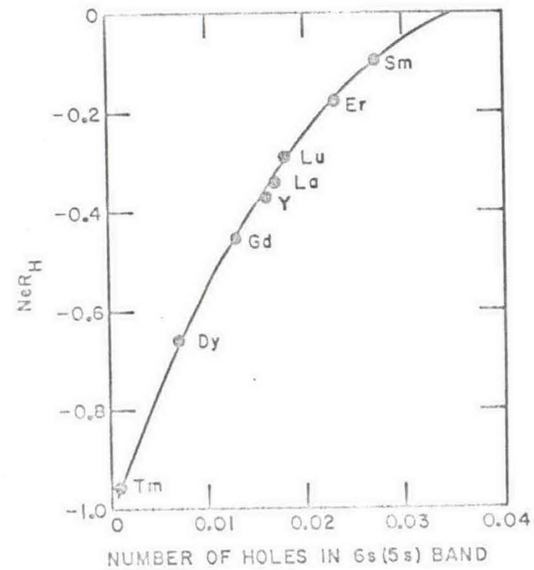

Fig. 3. The atomic Hall coefficient per unit volume, NeR_h, vs the number of holes in the s band for a mobility ratio of 0. 1.

and sign, could be accounted for by small changes in the number of holes in the s band for lanthanum, cerium, praseodymium, neodymium, gadolinium, dysprosium, erbium and yttrium. In all cases the 6s (5s for yttrium) band was nearly full and the 5d (4d for yttrium) band contained slightly more than one electron. Gschneidner and Smoluchowski [3] reexamined the Hall coefficient data for cerium using the same model and concluded that the number of holes in the 6s band and electrons in the 5d band is insensitive to the choice of valence between 3 and 4 for either γ or α-Ce. If the data of Anderson, *et al.* [26] for samarium, thulium, ytterbium and lutetium are analyzed in terms of the Sondheimer [27] model (noting that ytterbium has only 2 valence electrons) a conclusion similar to the drawn by Kevane *et al.* is made for