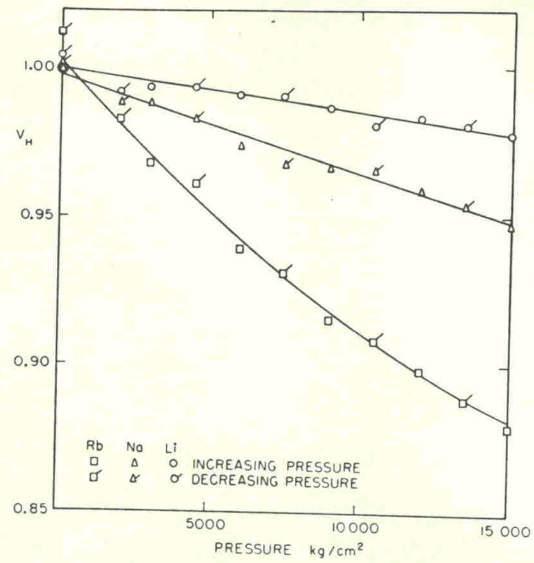

FIG. 2. Normalized Hall voltage vs pressure for lithium, sodium, and rubidium.

with Bridgman's value of 0.22. Because we suspected that our sample holder might be acting as a constraint we repeated Bridgman's experiment, which used a free wire of potassium. Although difficulties with the contacts caused sample current fluctuations and made it impossible to get accurate curves, the value of the normalized resistance at 15 000 kg/cm², 0.4, was confirmed.

Figure 4 shows a typical Hall voltage curve for cesium; this measurement was made at approximately 14°C. The reproducibility was good; the value of V_H at 15 000 kg/cm² was between 0.61 and 0.64 for six runs on two different samples.

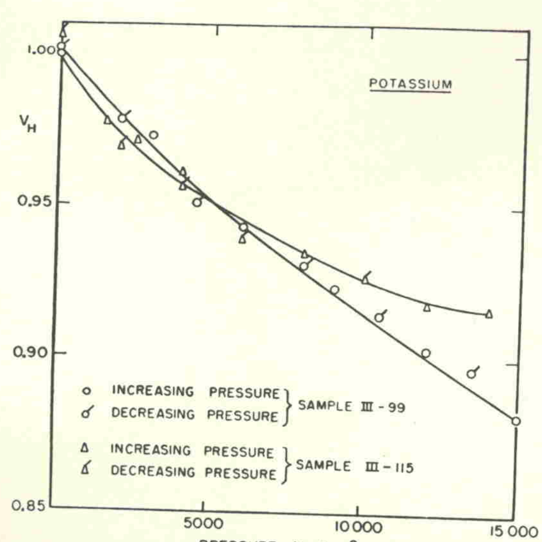

FIG. 3. Normalized Hall voltage vs pressure for two different potassium samples.

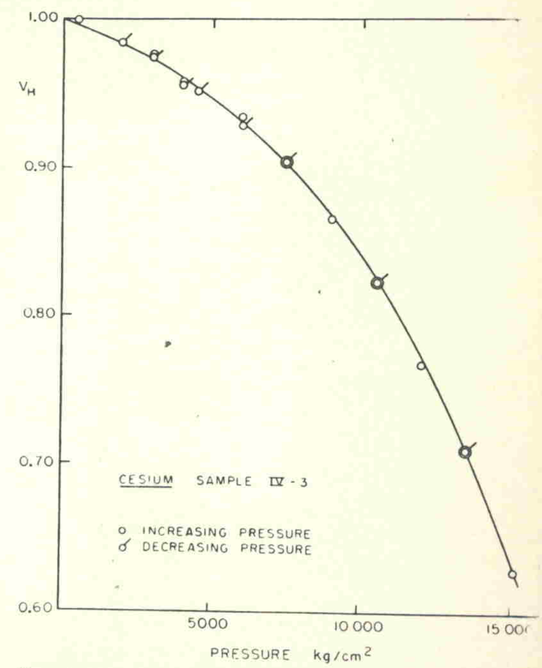

FIG. 4. Normalized Hall voltage vs pressure for cesium

Since the Hall voltage is

$$V_H = RHI/t = HI/Necn^*t,$$

where t is the thickness of the sample and I the sam[…] current two dimensional corrections must be app[…] to obtain n^*. These give

$$n^* = V(P)/V_H(P)t(P),$$

where $t(P)$ is the thickness as a function of press[…] and $V(P)$ the volume. $V(0)=t(0)=1$. The value[…] $V(P)$ and $t(P)$ are obtained from Bridgman's […]pressibility data.[4,15] n^* was arbitrarily normalize[…] unity at atmospheric pressure. The resulting curv[…] n^* vs pressure for the alkalis are shown in Figs. 5 an[…]

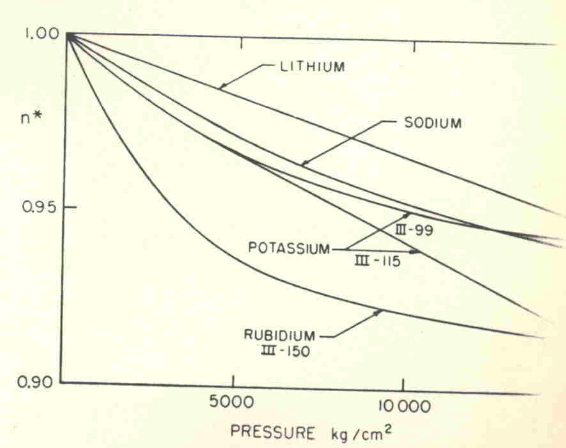

FIG. 5. n^*, normalized electrons/atom vs pressure for li[…] sodium, potassium, and rubidium.

[15] P. W. Bridgman, Proc. Am. Acad. Arts Sci. **70**, 93 […]