TABLE 3.—κ, AT 0°K, IN 10^{-6} MEGABARS,$^{-1}$ OF SOLID NOBLE GASES

Pressure (kg/cm²)	Ne	Ar	Kr	Xe
0	83	28	24	21·5
3,000	24·9	19·4	16·6	15·8
6,000	15·8	12·2	13·4	11·1
12,000	8·7	8·1	7·7	7·2
18,000	5·7	5·4	5·1	4·6

In view of the excellent agreement generally between theory and experiment for the solid and also liquid and gaseous states and in view of the theoretical simplicity of this particular case (i.e., monatomic solid, van der Waals forces, Mie-Lennard-Jones potential, energy of solid and atomic distances well known) we have no hesitation in accepting his calculated values of v/v_0.

Thus, BERNARDES'[12] functions of v/v_0 vs. pressure were differentiated to obtain κ at various pressures and the values obtained are given in Table 3 and plotted, as shown, in Fig. 3.

It should be noted only that STEWART's experimental κ-value for neon at 4·2°K was corrected to 0°K, because the reduced temperature of neon is still significant at

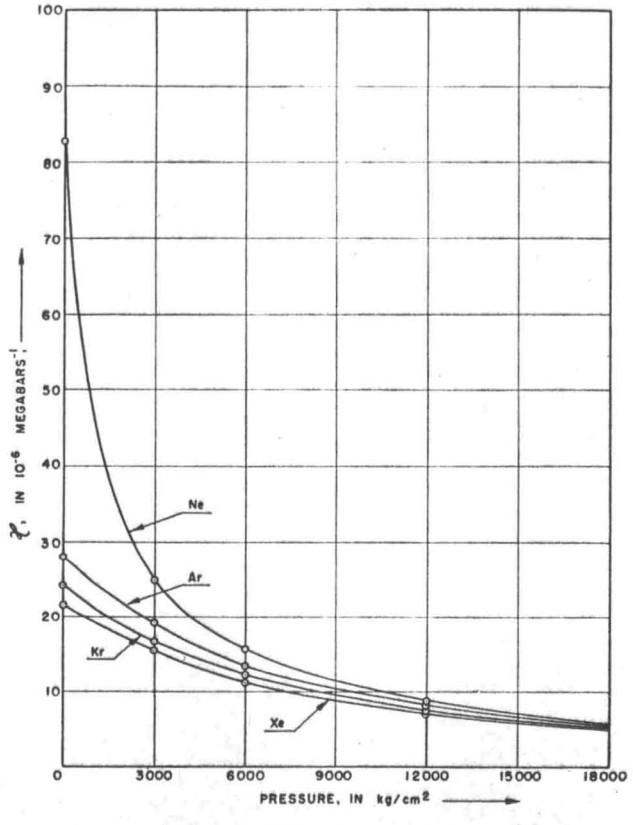

FIG. 3.—Compressibility, $\kappa = 1/V_0(dV/dP)$ of solid noble gases at 0°K.