

TABLE 1

CALCULATED ACTIVATION ENERGIES, ACTIVATION VOLUMES
AND RELATED QUANTITIES

Pressure in kilobars	0	12.0	17.5	22.5	28.5	38.0
Activation energy $\sim$ kcal/mole, determined graphically	15.83	18.45	19.10	19.30	19.60	21.04
Activation energy $\sim$ kcal/mole, determined by least squares	15.20*	17.18	18.66	19.44	17.54	20.59
$D_o \sim \text{cm}^2/\text{second}$, determined graphically	0.160	0.165	0.135	0.081	0.048	0.051
$D_o \sim \text{cm}^2/\text{second}$, determined by least square	0.075*	0.087	0.103	0.086	0.009	0.039
Diffusion constant at the melting point $\sim 10^{-6} \text{cm}^2/\text{sec}$.	2.70	2.50	2.48	2.45	2.42	2.50
Diffusion constant 10^9 at $352^\circ\text{C} \sim \text{cm}^2/\text{second}$	460.	66.0	28.0	13.5	6.7	2.2
Melting temperature of Pb, $^\circ\text{K}$	600	689	728	765	803	865
Geometrical constant (d) in Dushman Langmuir equation determined from experimental values of the activation energy $\bar{A}$	3.08	3.10	2.64	1.98	1.56	1.55
Activation energy $\sim$ kcal/mole, self diffusion **	24.8	26.0			26.0	27.0

* Seith and Keil⁴** Hudson and Hoffman⁶