

TABLE IV. ISOTHERMAL COMPRESSIBILITY—Continued

Element	$\Delta V/V_0 = aP + bP^2 + cP^3$				Pressure range $P \times 10^2$ (kg/cm ²)	Ref.
	$-a \times 10^7$	$b \times 10^{12}$	$-c \times 10^{18}$	$\sigma \times 10^4$		
67 Ho	24.72	12.35	—	4.30	0-40	22
68 Er	23.88	11.37	—	2.62	0-40	22
69 Tm	24.71	13.03	—	3.88	0-40	22
70 Yb	73.93	60.66	—	12.44	0-40	22
71 Lu	23.85	12.03	—	1.62	0-40	22
72 Hf	8.98 ^b	0.81 ^b	—	—	0-12	26
73 Ta	4.89 ^a	0.235 ^a	—	0.06	0-30	8
74 W	3.034	-0.0897	—	0.17	0-30	8
Os ^c 75 Re	2.64	—	—	—	0-30	5
77 Ir	2.76 ^d	0.4 ^d	—	0	0-10	8
78 Pt	3.523	0.0893	—	0.09	0-30	8
79 Au	5.664	0.805	—	0.07	0-30	8
80 Hg ^m	34.7 ^m	—	—	—	—	27
81 Tl	27.30	16.20	—	0.79	0-25	4, 20
82 Pb	22.82	9.319	—	0.18	0-30	5
83 Bi	31.16	25.55	—	2.44	0-20	12, 20
84 Po	18.07	9.906	—	3.12	0-30	8
92 U	9.926	4.626	—	0.73	0-40	2
94 Pu	18.3	12.2	—	—	0-40	28

^a The remaining terms of this fit are: $d = 1.12 \times 10^{-20}$, $e = 1.00 \times 10^{-24}$, and $f = -1.48 \times 10^{-29}$; see Gilvarry¹ and Ref. 29.

^b The original data as given in the reference cited was corrected as suggested by Bridgman.^{19,20}

^c The remaining terms of this fit are: $d = 1.21 \times 10^{-21}$, $e = 5.56 \times 10^{-24}$, $f = -1.54 \times 10^{-28}$, and $g = 1.38 \times 10^{-32}$; see Gilvarry¹ and Ref. 29.

^d Swenson (private communication, 1963) noted an error in the press calibration and thus the values given in Beecroft and Swenson⁴ are incorrect. The correct values are listed here.

^e See text for further discussion.

^f Single-crystal data.

^g The remaining terms of this fit are: $d = 2.34 \times 10^{-20}$, $e = 7.99 \times 10^{-23}$, $f = -2.02 \times 10^{-28}$, $g = -1.24 \times 10^{-31}$, $h = 3.55 \times 10^{-34}$, and $i = -3.03 \times 10^{-41}$; see Gilvarry¹ and Ref. 29.

^h Value obtained at 273°K.

ⁱ The remaining terms of this fit are: $d = 7.57 \times 10^{-21}$, $e = -2.81 \times 10^{-24}$, $f = 1.64 \times 10^{-27}$, $g = -5.42 \times 10^{-32}$, and $h = 5.20 \times 10^{-37}$; see Gilvarry¹ and Ref. 29.

^j The remaining term of this fit is: $d = 4.38 \times 10^{-14}$; see Gilvarry¹ and Ref. 29.

^k The analytical expression for α -Ce is $\Delta V/V = -0.1706 - 37.4 \times 10^{-7} (P - P_0) + 22.8 \times 10^{-13} (P - P_0)^2$, where $P_0 = 7720$ kg/cm², over the range 7720 to 100,000 kg/cm².

^l At higher pressures compressibility increases with increasing pressure, for the range 0 to 30,000 kg/cm², $a = -2.721 \times 10^{-7}$, $b = -0.0259 \times 10^{-12}$ and $\sigma = 0.07$.

^m Solid mercury.