gan

nstructing difference tables,
ce as a power series function
fficients A, B, C may be ob-
ficients are needed to express

. RESISTIVITY OF POTASSIUM

(3)	(4)
$2\cdot360_1$	1·000
2·061	1·035
1·872	1·058
1·793	1·070
1·791	1·064
1·780	1·031
1·721	1·031
1·689	1·075
1·685	1·067
1·538	1·073
1·532	1·085
0·565	1·122
0·556	{1·150, 1·113}
0·471	1·144
0·414	1·138
0·379	1·141
0·288	1·168

at 273·15 °K.

nes (1924).

pendix A. The results of the
illustrated in figures 1 and 2.
ertainties in the equation of
are based on the supposition
pressure required to increase
ro pressure, is 3 %.

those for potassium. Below
f the martensitic transforma-
cimens studied are given in

Table 4. The effect of pressure on the ideal resistivity of potassium

T (°K)	$-\partial \ln \rho_i/\partial p$ (10^{-5} atm^{-1})	$-A$ (10^{-5} atm^{-1})	B (10^{-9} atm^{-2})	$-C$ (10^{-13} atm^{-3})	$\partial \ln \rho_i'/\partial \ln V$
		Specimen K (2)			
$15\cdot4_0$	$24\cdot1 \pm 0\cdot4$	$23\cdot2 \pm 0\cdot3$	37 ± 5	60 ± 100	$8\cdot5_5 \pm 0\cdot15$
$20\cdot3_5$	$22\cdot8 \pm 0\cdot3$	$21\cdot9 \pm 0\cdot2$	29 ± 5	12 ± 100	$8\cdot1_5 \pm 0\cdot1$
29·8	$20\cdot6 \pm 0\cdot2$	$19\cdot6_5 \pm 0\cdot2$	23 ± 2	11 ± 38	$7\cdot3_2 \pm 0\cdot1$
61·1	$17\cdot0 \pm 0\cdot2$	$16\cdot0 \pm 0\cdot2$	17 ± 1	12 ± 29	$6\cdot0_2 \pm 0\cdot1$
78·0	$16\cdot7 \pm 0\cdot2$	$15\cdot7 \pm 0\cdot2$	19 ± 2	15 ± 20	$5\cdot7_4 \pm 0\cdot1$
116·7	$16\cdot9_5 \pm 0\cdot2$	$15\cdot9_5 \pm 0\cdot2$	17 ± 1	5 ± 18	$5\cdot7_9 \pm 0\cdot1$
196·6	$18\cdot1 \pm 0\cdot1$	$17\cdot0 \pm 0\cdot1$	23 ± 2	17 ± 38	$5\cdot6_4 \pm 0\cdot1$
273·7	$19\cdot0 \pm 0\cdot1$	$17\cdot9 \pm 0\cdot1$	22 ± 1	11 ± 41	$5\cdot7_5 \pm 0\cdot15$
308·8	$20\cdot1 \pm 0\cdot2$	$18\cdot9 \pm 0\cdot2$	27 ± 1	18 ± 20	$5\cdot6_0 \pm 0\cdot15$
308·8*	—	—	—	—	$5\cdot7_2{}^* \pm 0\cdot05$
		Specimen K (5)			
$4\cdot2_0$†	30 ± 3	—	—	—	$10\cdot7 \pm 1$
$20\cdot4_0$	$22\cdot8_5 \pm 0\cdot2$	$21\cdot9 \pm 0\cdot2$	28 ± 5	-9 ± 100	$8\cdot1_6 \pm 0\cdot1$
36·5	$19\cdot7 \pm 0\cdot2$	$18\cdot8 \pm 0\cdot2$	25 ± 2	23 ± 40	$7\cdot0_3 \pm 0\cdot1$
79·2	$16\cdot8 \pm 0\cdot2$	$15\cdot8 \pm 0\cdot2$	19 ± 2	13 ± 50	$5\cdot8_0 \pm 0\cdot1$
$273\cdot1_5$	$19\cdot2 \pm 0\cdot1$	$18\cdot1 \pm 0\cdot1$	26 ± 1	21 ± 41	$5\cdot5_9 \pm 0\cdot15$
		Bridgman (1921, 1925)			
$273\cdot1_5$	$20\cdot4 \pm 0\cdot5$‡	—	—	—	—
298·0	$19\cdot6 \pm 0\cdot5$	—	—	—	—
333·0	$21\cdot1 \pm 0\cdot5$	—	—	—	—

* This point corresponds to the density at 308·8 °K.
† A large correction was necessary for the effect of pressure on residual resistivity.
‡ Estimated error.

Table 5. Details of the sodium specimens

specimen	$R_{4\cdot2\,°K}/R_{273\,°K}$	comments	source of material
Na (1)	$6\cdot9 \times 10^{-4}$	—	laboratory stock
Na (2)	$7\cdot1 \times 10^{-4}$	—	laboratory stock
Na (3)	$4\cdot0 \times 10^{-4}$	—	N. V. Phillips, Eindhoven
Na (4)	$2\cdot0 \times 10^{-4}$	specimen in glass capillary*	N. V. Phillips, Eindhoven
Na (5)	$2\cdot9 \times 10^{-4}$	—	N. V. Phillips, Eindhoven
Na (6)†	$3\cdot0 \times 10^{-4}$	—	Messrs A. D. Mackay & Co., New York
Na (7)	$3\cdot8 \times 10^{-4}$	—	Messrs A. D. Mackay & Co., New York
Na (9)	$7\cdot3 \times 10^{-4}$	—	laboratory stock

* We are grateful to Dr S. B. Woods for the loan of this specimen.
† The absolute resistivity of a specimen from this stock was $4\cdot7_5 \times 10^{-6}\ \Omega$ cm at 22·0 °C (corrected for residual resistivity). The precision of this result is about 1 %. Previous values at this temperature are $4\cdot7_0 \times 10^{-6}\ \Omega$ cm (Hackspill 1910) and $4\cdot8_4 \pm 0\cdot1 \times 10^{-6}\ \Omega$ cm (Bradshaw & Pearson 1956).