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)
$2{\cdot}360_1$	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 re 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)			
$15{\cdot}4_0$	$24{\cdot}1 \pm 0{\cdot}4$	$23{\cdot}2 \pm 0{\cdot}3$	37 ± 5	60 ± 100	$8{\cdot}5_5 \pm 0{\cdot}15$
$20{\cdot}3_5$	$22{\cdot}8 \pm 0{\cdot}3$	$21{\cdot}9 \pm 0{\cdot}2$	29 ± 5	12 ± 100	$8{\cdot}1_5 \pm 0{\cdot}1$
29·8	$20{\cdot}6 \pm 0{\cdot}2$	$19{\cdot}6_3 \pm 0{\cdot}2$	23 ± 2	11 ± 38	$7{\cdot}3_2 \pm 0{\cdot}1$
61·1	$17{\cdot}0 \pm 0{\cdot}2$	$16{\cdot}0 \pm 0{\cdot}2$	17 ± 1	12 ± 29	$6{\cdot}0_2 \pm 0{\cdot}1$
78·0	$16{\cdot}7 \pm 0{\cdot}2$	$15{\cdot}7 \pm 0{\cdot}2$	19 ± 2	15 ± 20	$5{\cdot}7_4 \pm 0{\cdot}1$
116·7	$16{\cdot}9_5 \pm 0{\cdot}2$	$15{\cdot}9_5 \pm 0{\cdot}2$	17 ± 1	5 ± 18	$5{\cdot}7_9 \pm 0{\cdot}1$
196·6	$18{\cdot}1 \pm 0{\cdot}1$	$17{\cdot}0 \pm 0{\cdot}1$	23 ± 2	17 ± 38	$5{\cdot}6_4 \pm 0{\cdot}1$
273·7	$19{\cdot}0 \pm 0{\cdot}1$	$17{\cdot}9 \pm 0{\cdot}1$	22 ± 1	11 ± 41	$5{\cdot}7_5 \pm 0{\cdot}15$
308·8	$20{\cdot}1 \pm 0{\cdot}2$	$18{\cdot}9 \pm 0{\cdot}2$	27 ± 1	18 ± 20	$5{\cdot}6_0 \pm 0{\cdot}15$
308·8*	—	—	—	—	$5{\cdot}7_2{}^* \pm 0{\cdot}05$
		Specimen K (5)			
$4{\cdot}2_0$†	30 ± 3	—	—	—	$10{\cdot}7 \pm 1$
$20{\cdot}4_0$	$22{\cdot}8_5 \pm 0{\cdot}2$	$21{\cdot}9 \pm 0{\cdot}2$	28 ± 5	-9 ± 100	$8{\cdot}1_6 \pm 0{\cdot}1$
36·5	$19{\cdot}7 \pm 0{\cdot}2$	$18{\cdot}8 \pm 0{\cdot}2$	25 ± 2	23 ± 40	$7{\cdot}0_3 \pm 0{\cdot}1$
79·2	$16{\cdot}8 \pm 0{\cdot}2$	$15{\cdot}8 \pm 0{\cdot}2$	19 ± 2	13 ± 50	$5{\cdot}8_0 \pm 0{\cdot}1$
$273{\cdot}1_5$	$19{\cdot}2 \pm 0{\cdot}1$	$18{\cdot}1 \pm 0{\cdot}1$	26 ± 1	21 ± 41	$5{\cdot}5_9 \pm 0{\cdot}15$
		Bridgman (1921, 1925)			
$273{\cdot}1_5$	$20{\cdot}4 \pm 0{\cdot}5$‡	—	—	—	—
298·0	$19{\cdot}6 \pm 0{\cdot}5$	—	—	—	—
333·0	$21{\cdot}1 \pm 0{\cdot}5$	—	—	—	—

* 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	$R_{4\cdot 2\,^\circ\mathrm{K}}/R_{273\,^\circ\mathrm{K}}$	comments	source of material
Na (1)	$6{\cdot}9 \times 10^{-4}$	—	laboratory stock
Na (2)	$7{\cdot}1 \times 10^{-4}$	—	laboratory stock
Na (3)	$4{\cdot}0 \times 10^{-4}$	—	N. V. Phillips, Eindhoven
Na (4)	$2{\cdot}0 \times 10^{-4}$	specimen in glass capillary*	N. V. Phillips, Eindhoven
Na (5)	$2{\cdot}9 \times 10^{-4}$	—	N. V. Phillips, Eindhoven
Na (6)†	$3{\cdot}0 \times 10^{-4}$	—	Messrs A. D. Mackay & Co., New York
Na (7)	$3{\cdot}8 \times 10^{-4}$	—	Messrs A. D. Mackay & Co., New York
Na (9)	$7{\cdot}3 \times 10^{-4}$	—	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 $4{\cdot}7_5 \times 10^{-6}\ \Omega$ cm at 22·0 °C (corrected for residual resistivity). The precision of this result is about 1 %. Previous values at this temperature are $4{\cdot}7_0 \times 10^{-6}\ \Omega$ cm (Hackspill 1910) and $4{\cdot}8_4 \pm 0{\cdot}1 \times 10^{-6}\ \Omega$ cm (Bradshaw & Pearson 1956).