TABLE 8. THE EFFECT OF PRESSURE ON THE IDEAL RESISTIVITY OF B.C.C. SODIUM

specimen	T (°K)	$\frac{-\partial \ln \rho_i}{\partial p}$ (10^{-5} atm^{-1})	$-B/A$ (10^{-5} atm^{-1})	$\frac{\partial \ln \rho_i'}{\partial \ln V}$
Na (1)	34·77	9·7 ± 0·2	8 ± 2	6·93 ± 0·15
	48·03	9·1 ± 0·2	7 ± 3	6·50 ± 0·15
	58·10	8·0 ± 0·2	7 ± 2	5·64 ± 0·15
	78·3	7·6 ± 0·2	10 ± 2	5·35 ± 0·15
	84·9	7·4 ± 0·2	6 ± 2	5·15 ± 0·15
	155·1	7·1 ± 0·2	6 ± 2	4·79 ± 0·15
	272·0	7·5 ± 0·2	6 ± 2	4·50 ± 0·15
Na (2)	55·57	8·5 ± 0·2	7 ± 1	6·00 ± 0·15
	78·0*	7·6 ± 0·1	6·5 ± 0·5	5·35 ± 0·07
	273·4	7·4 ± 0·1	6·0 ± 0·5	4·43 ± 0·07
Na (3)	77·0*	7·6 ± 0·1	6·5 ± 0·5	5·35 ± 0·07
	273·4	$7·2_5$ ± 0·1	6·0 ± 0·5	4·32 ± 0·07
	(273·4)†	—	—	(4·60 ± 0·07)
Na (9)	63·07	7·9 ± 0·1	6·5 ± 1·5	5·57 ± 0·07
	78·7	7·4 ± 0·1	6·3 ± 0·5	5·21 ± 0·07
Bridgman‡	273·2	7·4 ± 0·2	9 ± 5	—
	303·2	7·9 ± 0·2	10 ± 5	—
	313·2	7·9 ± 0·2	10 ± 5	—
	353·2	8·8 ± 0·2	11 ± 5	—

* Average values from three different runs.
† This point corresponds to the density at 273·4 °K under zero pressure.
‡ Results from experiment on bare wires (Bridgman 1921).

TABLE 9. THE EFFECT OF PRESSURE ON THE IDEAL RESISTIVITY OF SODIUM IN THE TWO-PHASE REGION

specimen	f, fraction of h.c.p sodium in specimen at zero pressure	T (°K)	$\frac{-\partial \ln \rho_i}{\partial p}$ (10^{-5} atm^{-1})	$-B/A$ (10^{-5} atm^{-1})	$\frac{\partial \ln \rho_i}{\partial \ln V}$
Na (2)	0·5 ± 0·1	20·35	10·1 ± 0·4	9 ± 2	7·2 ± 0·3
	0·0 ± 0·05	20·35	11·4 ± 0·4	—	$8·1_5$ ± 0·3
Na (3)	0·1	20·35	11·3 ± 0·3	13 ± 2	8·1 ± 0·2
Na (9)	$0·3_5$	20·35	9·9 ± 0·2	8 ± 2	7·1 ± 0·2
Na (1)	$(0·3_5)$*	20·35	10·3 ± 0·4	10 ± 3	$7·3_5$ ± 0·3
	—	24·70	10·6 ± 0·3	10 ± 2	$7·5_5$ ± 0·2
Na (b.c.c.)†	0	20·35	11·5 ± 0·4	—	8·2 ± 0·3
	0	24·70	11·6 ± 0·6	—	8·2 ± 0·4
Na (hex)†	1·0	20·35	7·8 ± 0·8	—	5·6 ± 0·6

* Estimated by interpolation of $\partial \ln \rho_i/\partial p$ at 20·35 °K.
† N.B. These values have been calculated on the assumption that there is no change of phase composition of the specimens with pressure (see text).