substance: NiO
property: elastic moduli, heat capacity, Debye temperature

(in 10^{12} dyn cm^{-2})

c_{11}	2.70(13)	T = 296 K		72U
	2.24			71P
c_{12}	1.25(28)	T = 296 K		72U
	0.97			71P
c_{44}	1.05(21)	T = 296 K		72U
	1.10			71P

heat capacity: Fig. 1

Debye temperature

Θ_D	595(20) K	T $\rightarrow$ 0 K	see Fig. 2	74W
	317.4 K	T = 298 K	from elastic constants	81F
	404 K	T = 298 K	from elastic constants	40S

References:

40S Seltz, H., de Witt, B. J., McDonald, H. J.: J. Amer. Chem. Soc. 62 (1940) 88.
71P du Plessis, P. de V., van Tonder, S. J., Alberts, L.: J. Phys. C4 (1971) 1983.
72U Uchiba, N., Saito, S.: J. Acoust. Soc. Am. 51 (1972) 1602.
74W White, H. W.: J. Chem. Phys. 61 (1974) 4907.
76C Coy, R. A., Thompson, C. W., Girman, E.: Solid State Commun. 18 (1976) 845.
81F Freer, R.: J. Mater. Sci. 16 (1981) 3225.

Fig. 1.

NiO. Heat capacity vs. temperature [76C]. Dots: [40S]. Insert shows low temperature range on an expanded scale.

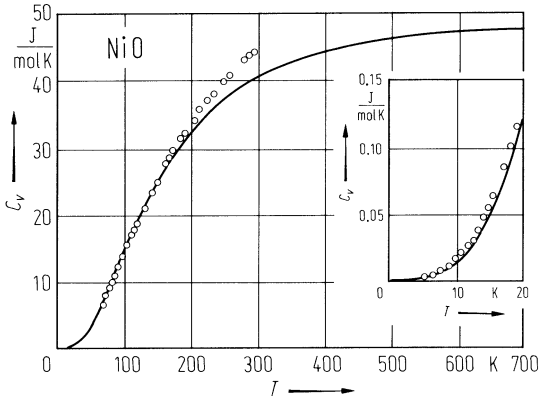

Fig. 2.

NiO. Debye temperature vs. temperature [76C].