

**No. M15-ii SnTe, Tin telluride** $(M = 246.31)$ 

1a	On the basis of the crystal structure and of the lattice vibration, Pawley et al. suggested that SnTe is “nearly ferroelectric” at low temperatures.		66Paw
b	phase	II	I
	state	(F) <sup>a)</sup>	(P) <sup>a)</sup>
	crystal system	rhombohedral <sup>c)</sup>	cubic <sup>b)</sup>
	$\Theta$ [K]	24...160	
	The transition temperature depends on carrier concentration.		61Kre, 63Bie, 71Mul, 75Iiz 74Bri, 74Fan, 75Mul, 75Iiz, 75Val, 76Kob, 77Sug1 75Iiz 58Han
	Polar axis $\parallel$ [111]. $T_{\text{melt}} \approx 790$ °C.		
2	Crystal growth: see		69Bau
3a	Unit cell parameter: $a = 6.319$ Å (cubic) at 300 K; for phase II: see		63Bie 71Mul, 75Val, 85Bas
b	$Z = 4$ (NaCl type).  Phase II: rhombohedral modification of the same type as GeTe. High pressure phases: see		61Kre, 63Bie 75Iiz 64Kaf, 79Ser, 86Ono
4	Thermal expansion: see  Lattice distortion due to $p$ : see		70Bel, 85Bas 68Kab
5a	Dielectric constant: see		66Paw, 65Rie
6a	Heat capacity: see		76Bev, 77Hat
8a	Elastic constant: see		69Bea, 87Wal

## M15 SnTe group

9a	Refractive index: see	69Bur
	Optical absorption edge: see	65Byl, 69Bur
	Reflectivity: see	64Bis, 65Rie, 67Tsu, 70Bis, 71Sob
10a	Raman scattering: Fig. M15-ii-001; see also	71Bri, 74Bri, 77Sug2
11	Electrical resistivity: see	75Kob, 75Val, 76Kob
	Hydrostatic pressure effect on resistivity: see	64Kaf, 68Kab
	Piezoresistance: see	70Sag
	Charge carrier mobility (p-type): see	72All
	Band structure: see	65Bur, 72Sav, 72All, 91Eno
	Superconductivity: see	66Hei, 69Hei, 69All
13c	Mössbauer effect: see	68Buk, 71Ser, 74Keu, 77Fan
14b	Phonon frequency: Fig. M15-ii-002, Fig. M15-ii-003.	