

II Data

Inorganic substances other than oxides

20 SbSI family

20A Pure compounds

No. 20A-1 BiSCI, Bismuth sulfide chloride

($M = 276.50$)

1a	No ferroelectric transition was found between $-180\text{ }^{\circ}\text{C}$ and $-100\text{ }^{\circ}\text{C}$.		64Nit
b	crystal system	orthorhombic	50Don
	space group	$\text{Pnam}-D_{2h}^{16}$	
	$\rho = 6.0(0) \cdot 10^3 \text{ kg m}^{-3}$, ($\rho_X = 5.95 \cdot 10^3 \text{ kg m}^{-3}$).		80Vou, 50Don
	Color: red (needles).		60Nit
2a	Synthesis of BiSCI and preparation of single crystalline needles.		50Don, 60Nit, 64Nit
b	Crystal form and axes: Fig. 20A-1-001.		
3a	Unit cell parameters: $a = 7.7508(16) \text{ \AA}$, $b = 9.9920(5) \text{ \AA}$, $c = 3.9955(5) \text{ \AA}$ at RT. See also		80Vou 50Don
b	$Z = 4$. All atoms are at 4c positions of $\text{Pnam}-D_{2h}^{16}$. Crystal structure: Table 20A-1-001, Table 20A-1-002, Table 20A-1-003, Table 20A-1-004; Fig. 20A-1-002.		50Don
10a	Raman scattering: Fig. 20A-1-003.		
11	Electrical conduction and photoconduction: see		60Nit, 64Nit
12	Magnetic susceptibility: Fig. 20A-1-004.		