No. M21 KSCN, Potassium thiocyanate

(M = 97.18)

1a Small dielectric anomaly associated with a phase transition was observed by Fuith et al. in 1990. Blinc et al. claimed in 1991 that the phase transition was antiferroelectric. 90Fui 91Bli

b

phase	II	I
state	(A)	P
crystal system	orthorhombic [b])	tetragonal [a])
space group	Pbcm – D_{2h}^{11} [b])	I4/mcm – D_{4h}^{18} [a])
Θ [K]	413	

[a]) 63Yam
[b]) 33Klu

2a Crystal growth: evaporation method from acetone solution in vessels to prohibit water to enter into the solution. 88Sch1

3a Unit cell parameters: Table M21-001; see also 92Coo

b Z = 4 in phase I and phase II. 63Yam, 33Klu

Crystal structure: Table M21-002, Table M21-003, Table M21-004, Table M21-005; Fig. M21-001, Fig. M21-002, Fig. M21-003.
See also 87Coo

5a Dielectric constant: Fig. M21-004.
Dielectric loss in far-infrared region: see Fig. M21-007 in 9a.

6a Specific heat: Fig. M21-005.
Transition heat ΔQ_m and transition entropy ΔS_m at $\Theta_{II–I}$: 79Kin
ΔQ_m = 2.53 kJ mol^{-1}, ΔS_m = 6.26 J K^{-1} mol^{-1}.

8a Elastic stiffness [$\cdot 10^9$ N m^{-2}]: 92Coo

c_{11}	c_{22}	c_{33}	c_{44}	c_{55}	c_{66}	c_{12}	c_{13}	c_{23}
26.7	27.4	21.1	8.1	6.1	17.4	12.8	8.6	4.3

9a Birefringence: Fig. M21-006.
Dielectric loss obtained from IR reflectivity: Fig. M21-007.

10a Raman scattering: Fig. M21-008; see also 86Kar, 91Has

13a NMR of ^{39}K: Fig. M21-009, Fig. M21-010.

14b X-ray diffuse scattering: Fig. M21-011; see also 87Yam1
Neutron diffuse scattering: see 91Bla
Phonon dispersion relations: see 87Coo, 92Coo

16 Twin structure was observed by etching method. 88Sch2