

**No. 39A-20 K<sub>2</sub>ZnI<sub>4</sub>, Potassium tetraiodozincate***(M* = 651.20)

1a	Ferroelectricity in K <sub>2</sub> ZnI <sub>4</sub> was first reported by Shimizu et al. in 1994.			94Shi	
b	phase	(III) *)	II	I	94Shi
	state	F	F	P	
	crystal system		monoclinic	monoclinic	
	space group		P2 <sub>1</sub> –C <sub>2</sub> <sup>2 a)</sup>	P2 <sub>1</sub> /m– C <sub>2h</sub> <sup>2 a)</sup>	a) 95Kas
	Θ [K]	190	270		
	*) The lowest-temperature phase III was suggested by a step-like anomaly of dielectric constant. However, existence of phase III has not been confirmed by other measurements.			94Shi	
2a	Crystal growth: Bridgman method from melt.			94Shi	
3a	Unit cell parameters in phase I: <i>a</i> = 9.681(2) Å, <i>b</i> = 8.127(1) Å, <i>c</i> = 7.760(1) Å, β = 108.39(1)° at <i>T</i> = 296 K.			95Kas	
b	<i>Z</i> = 2 in phases I and II. Crystal structure of phase I: Table 39A-20-001, Table 39A-20-002; Fig. 39A-20-001. Crystal structure of phase II: Table 39A-20-003, Table 39A-20-004; Fig. 39A-20-002, Fig. 39A-20-003.			95Kas	
5a	Dielectric constant: Fig. 39A-20-004.				
c	Spontaneous polarization: <i>P</i> <sub>s</sub> = 1.7 · 10 <sup>–4</sup> C m <sup>–2</sup> , <i>E</i> <sub>c</sub> = 5.0 · 10 <sup>5</sup> V m <sup>–1</sup> at <i>T</i> = 268 K. Fig. 39A-20-005.			94Shi	