

Table Captions :

Table.1 : Refined structural parameters of K_2SnCl_6 compound at room temperature.

Table 2: Goldschmidt's tolerance factor (t), octahedral factor (μ) of K_2SnCl_6 .

Table 3: The deduced electrical parameters, using the Z-View software, at selected temperature values.

Table 4: Parameters obtained from the fitting of experimental data of total ac conductivity with CBH model for K_2SnCl_6 .

Table 5: Determination of Parameters a and b via Fitting Process Correlating M'' with Modified KWW Function.

Table 1:

Formula	K₂SnCl₆
Crystalline system	Cubic
Space group	F m 3 m
Lattice parameters	
a (Å)	10.00 ±0.04
V(Å ³)	1001.66 ±0.01
Refinement parameters	
R _B /R _f	1.952/1.453
R _p (%) / R _{wp} (%) / R _{exp} (%)	38.7/30.4/27.81
χ ²	1.20
D _{SC}	28.05 ± 0.06 nm
D _{WH}	78.23 ± 0.03 nm
D _{MEB}	10.03 ± 0.08 μm
Microstrain, ε	1.11 ×10 ⁻³ ±0.06

Table 2:

	Goldschmidt tolerance factor t	Octahedral factor μ
K₂SnCl₆	0.90 ± 0.02	0.38± 0.07

Table 3:

T (K)	R (10⁷.Ω)	C (10⁻¹¹.F)	CPE (10⁻¹⁰F)	α
313	28.18	3.372	1.208	0.62281
323	26.55	3.369	1.156	0.62940
333	24.30	3.369	1.265	0.62174
343	22.22	3.405	1.925	0.56185
353	18.867	3.3863	1.776	0.59116
363	16.23	3.371	1.840	0.59823
373	13.81	3.379	2.602	0.56834
383	11.49	3.369	2.861	0.56949
393	9.2445	3.356	2.512	0.59517
403	7.4951	3.364	3.252	0.57373
413	5.8541	3.340	3.116	0.59544
423	4.1244	3.329	3.419	0.60195

Table 4

	Frequency (KHz)	U_{eff} (eV)	ε'	N (eV⁻¹ cm⁻¹)	W_m (eV)	σ_{dc} (Ω⁻¹ cm⁻¹) (à 658 K)
K₂SnCl₆	0.39	0.59	80	5.1 10 ¹⁷	0.21	4.43 10 ⁻⁶
	10	0.50		7.3 10 ¹⁷		
	100	0.48		8.5 10 ¹⁷		
	251.18	0.39		7.2 10 ¹⁸		

Table 5:

T (K)	a	b
313	0.652	0.463
323	0.676	0.496
333	0.731	0.519
343	0.752	0.535
353	0.768	0.553
363	0.728	0.571
373	0.758	0.597
383	0.779	0.643
393	0.835	0.676
403	0.851	0.694
413	0.861	0.700
423	0.884	0.729