

Phase classification

Formula	LiSCIN
I/Ic	3.530000

Refined crystal structure

Crystallographic data

Space group	F m -3 m (225)
Crystal system	cubic
Cell parameters	a= 5.5590 Å

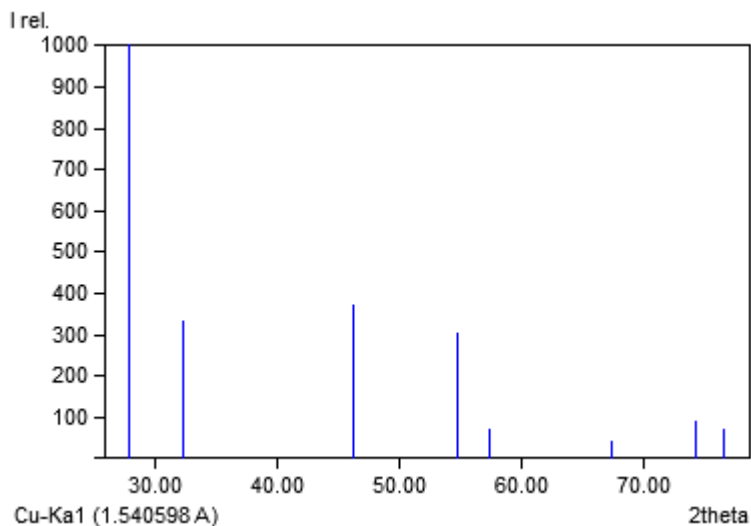
Atom coordinates	Element	Oxid.	x	y	z	Bi	Focc
	Li		0.250	0.250	0.250	10.000000	1.000000
	Li		0.500	0.500	0.500	1.000000	0.030000
	S		0.000	0.000	0.000	0.570333	0.137500
	N		0.000	0.000	0.000	0.570333	0.450000
	Cl		0.000	0.000	0.000	0.570333	0.000000
	Br		0.000	0.000	0.000	0.570333	0.410000

Refined diffraction data

Diffraction lines

d [Å]	Int.	h	k	l	Mult.
3.2095	1000.0	1	1	1	8
3.2095	497.4	1	1	1	8
2.7795	334.3	2	0	0	6
2.7795	166.3	2	0	0	6
1.9654	371.3	2	2	0	12
1.9654	184.6	2	2	0	12
1.6761	302.3	3	1	1	24
1.6761	150.3	3	1	1	24
1.6048	69.1	2	2	2	8
1.6048	34.4	2	2	2	8
1.3898	38.9	4	0	0	6
1.3898	19.3	4	0	0	6
1.2753	88.8	3	3	1	24
1.2753	44.1	3	3	1	24
1.2430	70.5	4	2	0	24
1.2430	35.0	4	2	0	24

Diffraction pattern graphics



Rietveld refinement using FullProf

Refinement results

Automatic refinement	Yes
Final weighted average Bragg R-factor	4.1
Final reduced χ^2	1.8
FullProf comment	Your refinement seems to be very good! => Your refinement seems to be very good!

Refined parameters

Parameter	Final value
Bck_0_pat1	1.00023
Scale_ph1_pat1	0.0126805
Bover_ph1_pat1	1.71238
U-Cagl_ph1_pat1	1.86952
Cell_A_ph1_pat1	5.55903

Fixed parameters

Parameter	Final value
Zero_pat1	0.423623
SyCos_pat1	0.294853
SySin_pat1	0
Lambda_pat1	1.54187
P0_mabs_pat1	0
Cp_mabs_pat1	0
Tau_mabs_pat1	0.1
Bck_1_pat1	0
Bck_2_pat1	0
Bck_3_pat1	0
Strain1_ph1_pat1	0
Strain2_ph1_pat1	0
Strain3_ph1_pat1	0
G-Size_ph1_pat1	0
L-Size_ph1_pat1	0
Y-cos_ph1_pat1	0
EtaRght0_ph1_pat1	0
X-tan_ph1_pat1	0
V-Cagl_ph1_pat1	0
W-Cagl_ph1_pat1	0.516903
EtaPV_ph1_pat1	0.801882
Cell_B_ph1_pat1	5.55905
Cell_C_ph1_pat1	5.55905
Cell_D_ph1_pat1	90
Cell_E_ph1_pat1	90
Cell_F_ph1_pat1	90
Or1_ph1_pat1	0
Or2_ph1_pat1	0
Asym1_ph1_pat1	0
Asym2_ph1_pat1	0
Asym3_ph1_pat1	0
Asym4_ph1_pat1	0
X_Li1_ph1	0.25
Y_Li1_ph1	0.25
Z_Li1_ph1	0.25
Biso_Li1_ph1	10
Occ_Li1_ph1	1
X_Li2_ph1	0.5
Y_Li2_ph1	0.5
Z_Li2_ph1	0.5
Biso_Li2_ph1	1
Occ_Li2_ph1	0.03
X_S3_ph1	0
Y_S3_ph1	0
Z_S3_ph1	0
Biso_S3_ph1	0.570333
Occ_S3_ph1	0.1375
X_N4_ph1	0
Y_N4_ph1	0
Z_N4_ph1	0
Biso_N4_ph1	0.570333
Occ_N4_ph1	0.45
X_CI5_ph1	0
Y_CI5_ph1	0
Z_CI5_ph1	0
Biso_CI5_ph1	0.570333
Occ_CI5_ph1	0
X_Br6_ph1	0
Y_Br6_ph1	0
Z_Br6_ph1	0
Biso_Br6_ph1	0.570333
Occ_Br6_ph1	0.41