Instruction sheet 554 87

LiF Crystal for Laue Diagrams (554 87),
NaCl Crystal for Laue Diagrams (554 88)

1 Description
The crystals have been matched to the dimensions of the pin-hole diaphragm of the film holder X-ray (554 838) and can be used as diffracting crystals for producing Laue diagrams.

2 Technical data
Dimensions: 8 mm × 8 mm × 0.3 mm
Surface: parallel [100]
LiF crystal for Laue diagrams (554 87):
Spacing of lattice planes: 201 pm
Crystal structure: face-centered cubic
Li: (0,0,0), F: (1/2, 1/2, 1/2)
NaCl crystal for Laue diagrams (554 88):
Spacing of lattice planes: 282 pm
Crystal structure: face-centered cubic
Na: (0,0,0), Cl: (1/2, 1/2, 1/2)

Notes
The crystals are hygroscopic and extremely fragile:
- Store the crystals in a dry place using desiccant if necessary.
- Avoid mechanical stresses on the crystal; handle the crystal by the short faces only.

3 Laue diagram
3.1 Laue diagram at LiF:

U = 35 kV, I = 1 mA, L = 11 mm, ∆t = 1200 s

3.2 Laue diagram at NaCl:

U = 35 kV, I = 1 mA, L = 15 mm, ∆t = 1800 s