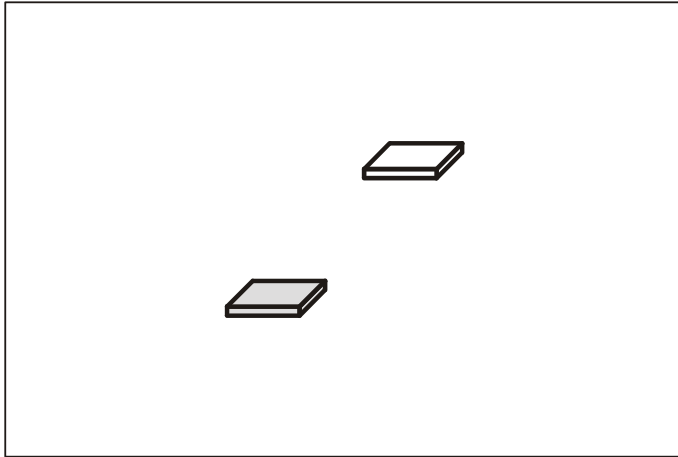


06/05-W97-Sel



## 1 Description

The crystals have been matched to the dimensions of the pinhole 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.

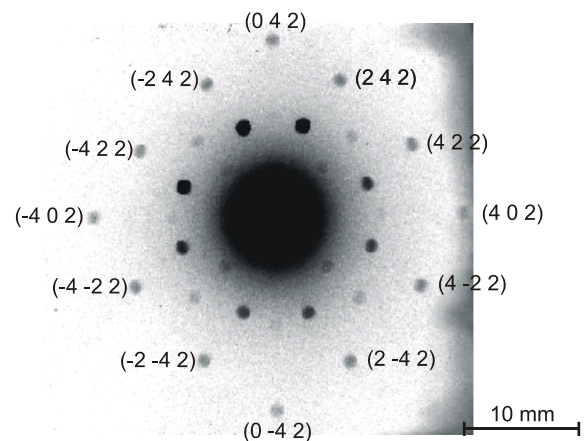
Usually, the crystal is delivered on a glass plate sized 25 x 25 x 1 mm and wrapped in metal foil. Please unwrap carefully.

## Instruction sheet 554 87

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

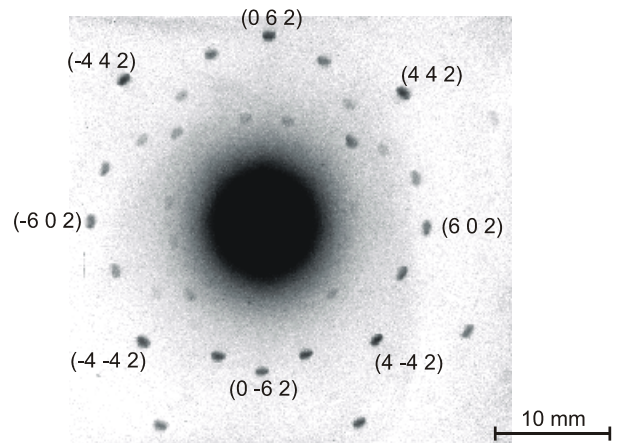
## 3 Laue diagram

### 3.1 Laue diagram at LiF:



$U = 35 \text{ kV}$ ,  $I = 1 \text{ mA}$ ,  $L = 11 \text{ mm}$ ,  $\Delta t = 1200 \text{ s}$

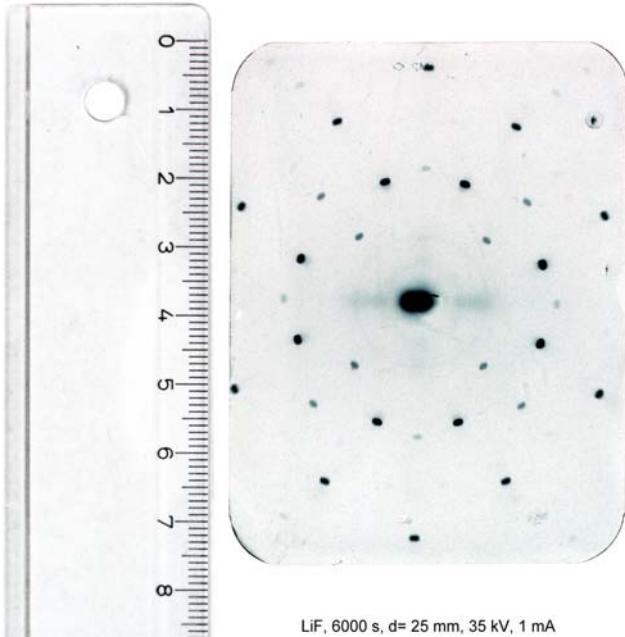
### 3.2 Laue diagram at NaCl:



$U = 35 \text{ kV}$ ,  $I = 1 \text{ mA}$ ,  $L = 15 \text{ mm}$ ,  $\Delta t = 1800 \text{ s}$

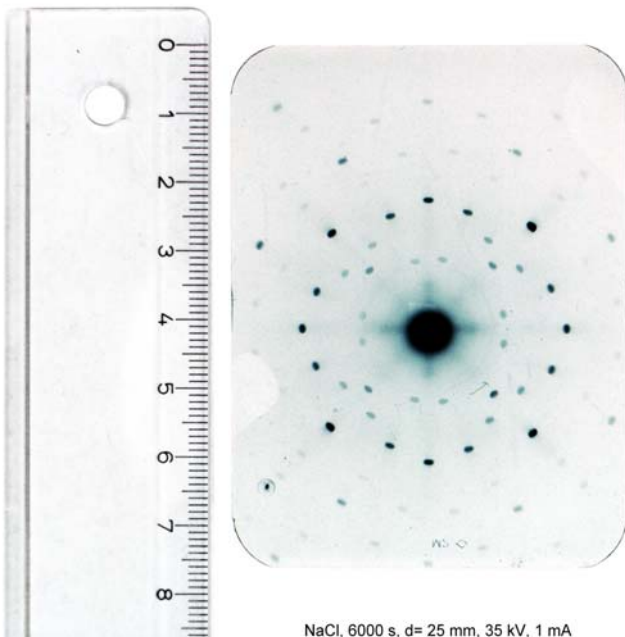
## Laue-Diagram with film 554 896

### 4.1 Laue-diagram at LiF



LiF, 6000 s,  $d = 25$  mm, 35 kV, 1 mA

### 4.2 Laue-Diagram at NaCl



NaCl, 6000 s,  $d = 25$  mm, 35 kV, 1 mA

Note: The ruler is in centimeter, not inches.