



Micro Photonics Inc.

Instruments for Non-Destructive Evaluation
www.microphotonics.com

Photonic Science
Scientific Detector Systems

Digital X-ray Laue camera solution replaces POLAROID films

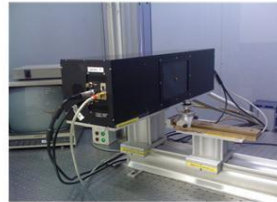
Turnkey system with microfocus source / X-ray digital Laue detector and motorised goniometer allows real time crystal characterisation.

The system allows unique back scattered geometry collection and ultimate alignment accuracy down to 0.3 degree. Exposure time will be reduced by at least up to 2 orders of magnitude compared to that of high sensitivity polaroid films. This enables near real time diffraction pattern recording.

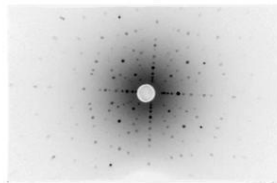
Combined with motorised sample rotation, the system brings simpler and more flexible crystal orientation routines.

The acquisition software delivers ready to be indexed digital images from PC, to Linux remote controlled machines.

Images are analysed using Orient Express software in order to derive orientation / indexing of existing crystals with known structure.



Si sample, 10 sec exposure



Integrated beam collimation into Digital X-ray Laue detector allows >10x faster collection than film.

The camera system can be installed on Cu, Mo or W X-ray sources (Long fine focus, Fine focus or point focus).

The beam is collimated inside the camera directly onto the sample with a net flux gain of one order of magnitude compared to high sensitivity Polaroid films.

Laue patterns are recorded within 20 to 120 sec exposure depending on crystals and type of source used.



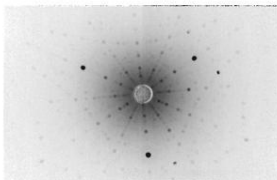
Integrated collimators

Digital X-ray Laue detector replaces Polaroid films within an hour from installation.

The upgrade of film cassette detectors can be performed by technicians / engineers thanks to a comprehensive alignment kit delivered with the digital Laue camera.

A choice of collimators allows you to choose the right flux / resolution trade off according to the kind of crystals used.

The digital Laue camera requires exposures better than that of high sensitivity Polaroid films.



Sapphire sample, 480 sec exp.

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Digital X-ray Laue solutions