

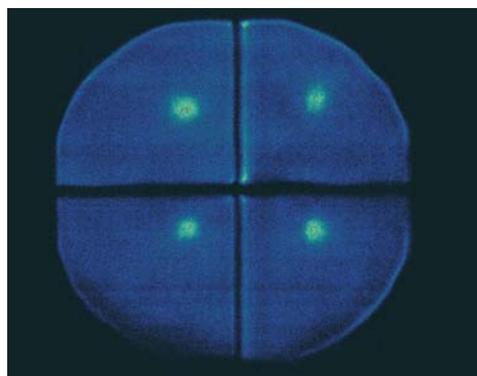
Femto-LEED

**NANO-SCALE MEASUREMENTS OF SURFACE PERIODIC STRUCTURES
WITH FEMTO-AMPERE ELECTRON PROBE**

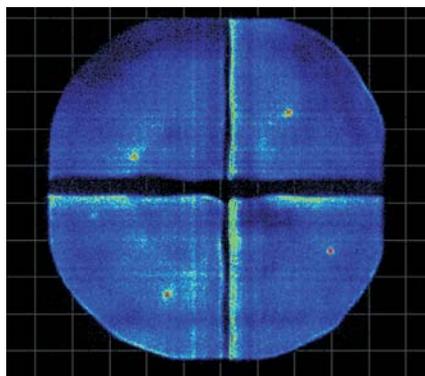
**MODEL DLD-L800-ISH
WITH INTEGRAL SHUTTER**

**Low Energy Electron Diffraction with Delay Line Detector
and Microchannel Plates**

FULLY DIGITAL !
no fluorescent screen



**Femto-LEED makes possible
electron diffraction
on insulating single crystal**



LARGE COHERENCE WIDTH

PRIMARY ELECTRON BEAM IN THE
RANGE OF FEMTO-AMPERS

POWERFUL OPERATION
WITH DIGITAL LEED CONTROLLER

OCI Vacuum Microengineering

Surface - Vacuum Analytical Instruments & Technology

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SPECIFICATIONS

LEED OPTICS (Model DLD-L800)

Detector	Delay Line Detector with dynamic range 32 bit per channel, 75 microns spacial resolution and active area 145x145 mm
DLD-L800.....	77° angle of acceptance from sample
Microchannel Plates.....	Electron gain: 10^7 , operating in pulsed mode
Retarding Field Analyzer	Concentric assembly of hemispherical grids
DLD-L800.....	Working distance from sample 15 mm
Grid Material.....	Gold coated tungsten wire mesh (100 mesh, 81% transparency)
Energy Resolution.....	0.2%
Linear Motion	External nipple with below up to 150 mm retraction
Integral Shutter	Open and close at any position of the linear motion
Magnetic Shielding	Mu-metal cylinder with front cover for maximum attenuation
Assembly	Extreme-high-vacuum compatibility with stainless steel, high alumina and Au-plated copper alloy materials
Mounting	8" (CF150) conflat flange with sample distance 145 mm - 580 mm
Bakeability	Under vacuum, 250° C maximum

INTEGRAL MINIATURE ELECTRON GUN

Beam Energy	LEED - 5 eV to 750 eV
Beam Current	Range from nA to fA
Beam Size	From 250 μ m to 50 μ m - adjusted by Wehnelt voltage
Electron Source	Tungsten-2%Thoriated filament standard
Energy Spread	0.45 eV (tungsten filament)
Overall Size	10 mm lens diameter and 80 mm length

ORDERING GUIDE

DLD-L800	LEED optics with 2 microchannel plates delay line detector and axial electron on 8" CF (CF150) flange
ISH	Integral shutter
LPS075-D	Power supply with voltage range 0 - 750V and digital control
MCPS2	Controller for microchannel plates with overvoltage and overcurrent protection
DLA-TR8	Controller for delay line detector and computer interface PCI card card
DLD-LIM32	Deley line detector acquisition software and LEED analysis software for Windows 2000/XP

MODEL DLD-L800-ISH

