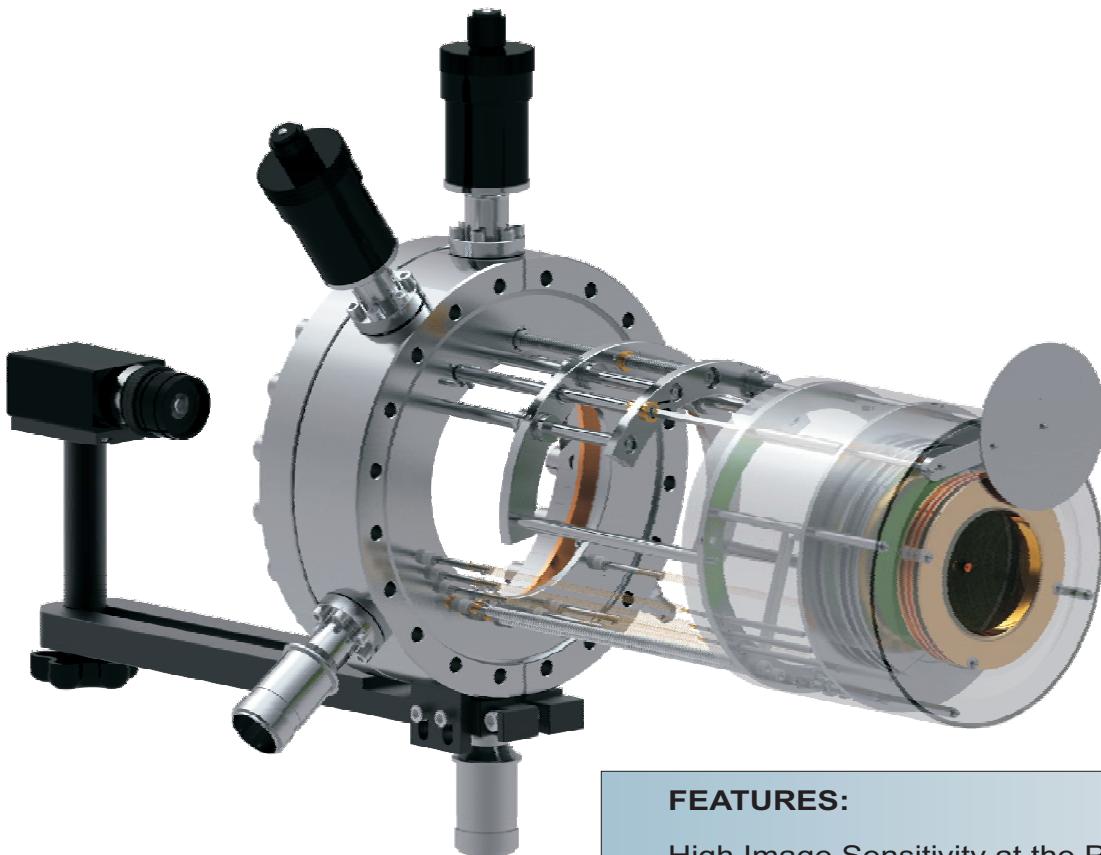


# LEED - AES WITH GAIN POWER OF MICROCHANNEL PLATES

MODEL BDL800IR-MCP AND BDL600IR-MCP



## FEATURES:

High Image Sensitivity at the Primary Beam Current - 50pA

Single/Dual 75 mm Microchannel Plates

Miniature Electron Gun with Double Focusing

AES at Beam Current 50  $\mu$ A - 10 $\mu$ A

Integral Motion & Shutter

Suitable for ESDIAD



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## HIGH RESOLUTION AND SENSITIVITY LEED - AES SPECTROMETER

Model BDL800IR-MCP-LMX-ISH and Model BDL600IR-MCP-LMX

### SPECIFICATIONS:

#### Imaging & Energy Analyzer Section

Retarding Field Energy Analyzer.....	4 or 3 hemispherical grid configuration with energy resolution down to 0.2% and Moire pattern reduction
Grid Material.....	Tungsten with 82% transmission and coating reducing background
Microchannel Plate.....	80 mm working area, 25 microns pore
- single plate.....	electron gain - $10^3$ - $10^4$ , spatial resolution - 32 microns
- chevron.....	electron gain - $10^6$ - $10^7$ , spatial resolution - 70 microns
Glass-Display.....	Fused silica flat plate coated with indium-tin oxide and P31 phosphor, 77° solid angle of view
Working Distance .....	15 mm
Magnetic Shielding.....	Mu-metal tube with front plate (142 mm O.D.)
Integral Linear Motion.....	up to 100 mm retraction with rotary motion drive
Integral Linear Shutter .....	Front mounted disk with rotary motion drive
Mounting.....	8" (CF150) or 6" (CF100) double sided conflat flange
Monitoring.....	Standard viewport
Bake ability.....	Under vacuum - 250 °C max.

#### Miniature Electron Gun

Beam Energy.....	5eV - 3000 eV
Beam Current.....	from 20 pA to 200 nA
Beam Size.....	100 - 250 microns, double focusing mode
Electron Source.....	Thoriated Tungsten/ Single crystal LaB <sub>6</sub>
Energy Spread.....	0.45 eV / 0.25 eV
Lenses.....	Einzel lens configuration with double focusing
Lens Material.....	Gold plated Cu base alloy
Overall Sizes.....	10 mm lens diameter and 80 mm length

#### Precision Power Supplies

Model LPS300 /075 - MCP .....	Controller with energy range for electron gun : 0 - 3kV and 0 - 750V and USB computer control interface
Model MCPS2 .....	Controller for channelplates with overvoltage and overcurrent protection
Model LOA10-AES.....	Digital AES controller with lock-in amplifier with RS232 and USB computer interface