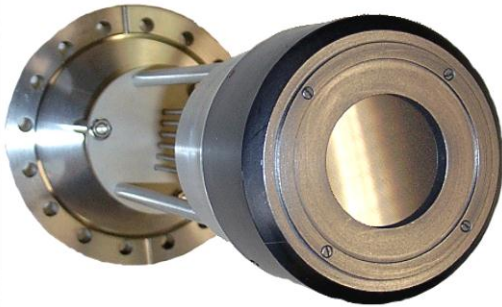


Small Imaging Detectors with Time Resolution



DLD – 3030

DLD – 3636

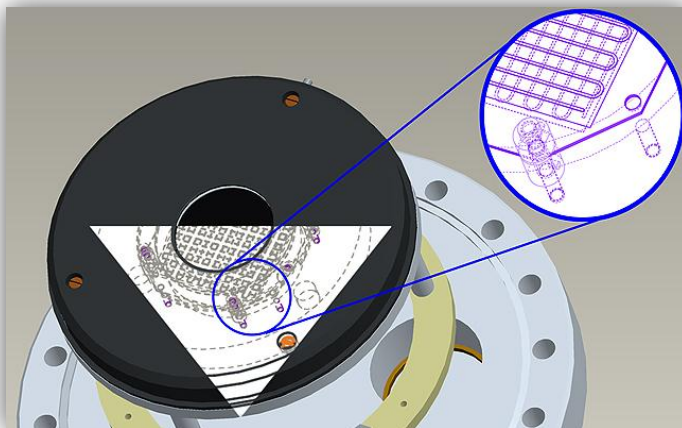
DLD – 4040



(customized up to DLD – 4545)

Features

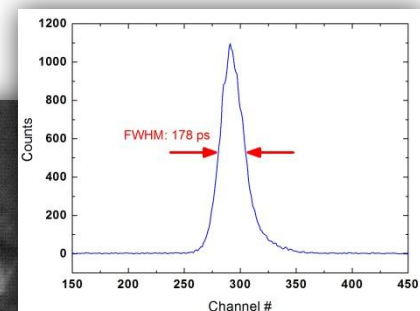
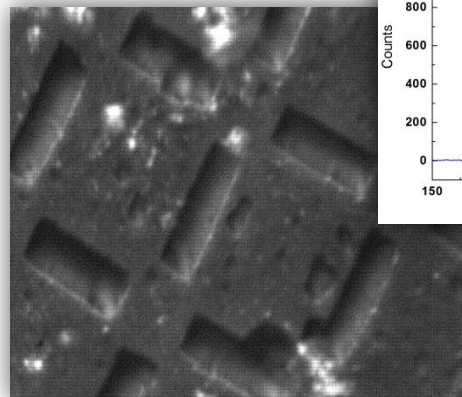
- Serpentine Anode Technology with Improved High Voltage Decoupling



- Active Detector Areas of \varnothing 30 mm to \varnothing 45 mm (Rectangular Shapes on Request)
- Guaranteed Time Peak Width of 240 ps (Optimization Possible, see High Resolution Option)
- Typical Time Peak Width of 180 ps in Production Series
- Highly Linear Counting Response
- Typ. 1024 Time Bins in 3D Histogram

- Delay Line Anodes Impedance Matched and always on Ground Potential

- Permanent Random Count Rates (Real Particle Count Rates of Statistically Distributed Events) of 5 MHz (Optimization Possible, see High Count Rate Option)



- Up to 2400 Pixel for 40mm Edge Length

Features

- Small Anode Deadtimes for small Detectors in the Range below 15 ns



- Electronics Deadtimes below 10 ns

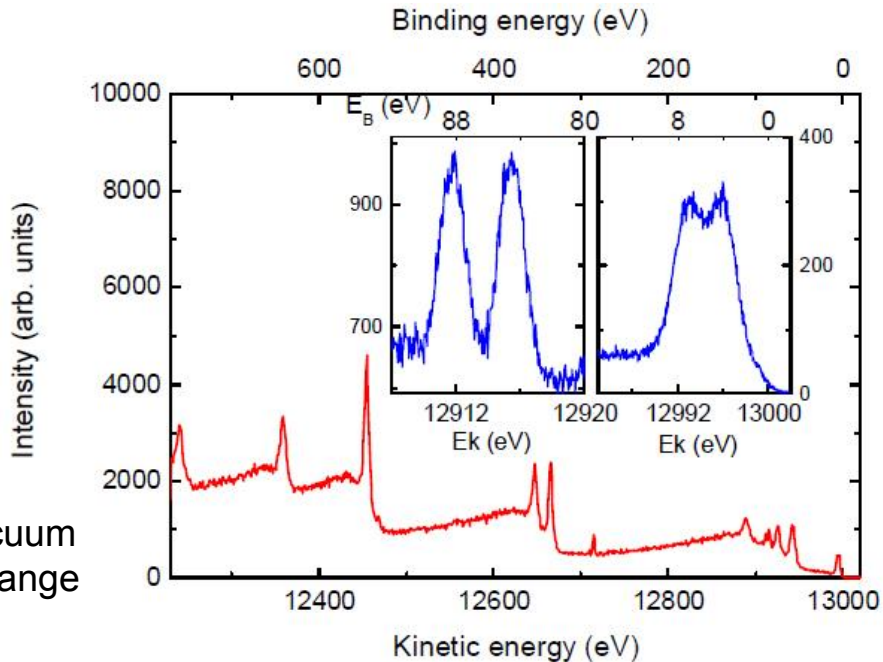
- Time Peak Reproducibility better than 27.4 ps

- Easy MCP-stack replacement by customer

- High Voltage Versions up to 20 kV Isolation Available



- Custom-Definable In-Vacuum Layouts and Mounting Flange Sizes



Options

High Countrate Option

Enhancement of Permanent Random Count Rate to 8 MHz (Availability may Depend on Spatial Resolution Demands)

Readout Gating Option

Very Low Dark Count Rates / Background Suppression by extremely fast Time Gating via Readout Electronics (Requires Application Dependent Definitions)

High Resolution Option

Individual Optimization of the Readout Electronics to Improve the Absolute Time Resolution to 150 ps and the Relative Time Resolution to 13.7 ps

Data Courtesy:

HAXPES (HArD X-ray PhotoEmission Spectroscopy) measurements up to 13 keV by Blanka Detfefs / ESRF

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