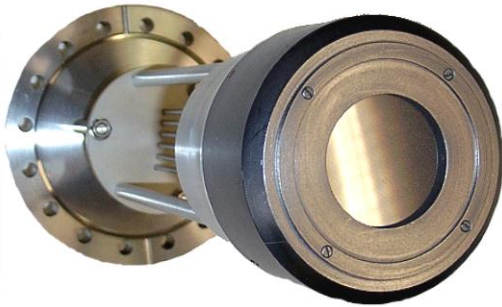


# Small Imaging Detectors with Time Resolution



DLD – 3030

DLD – 3636

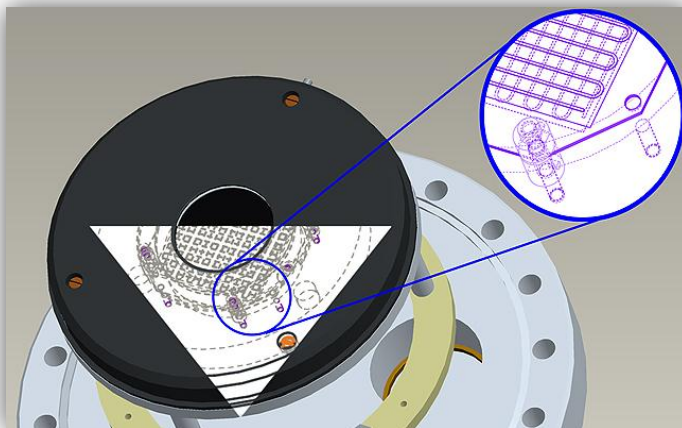
DLD – 4040



(customized up to DLD – 4545)

## Features

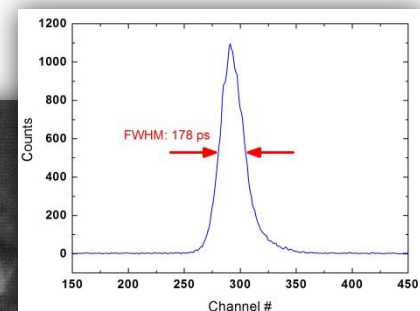
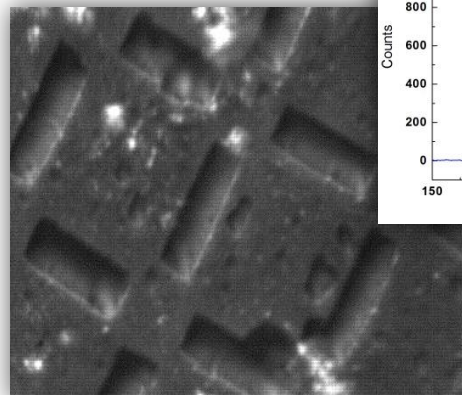
- Serpentine Anode Technology with Improved High Voltage Decoupling



- 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

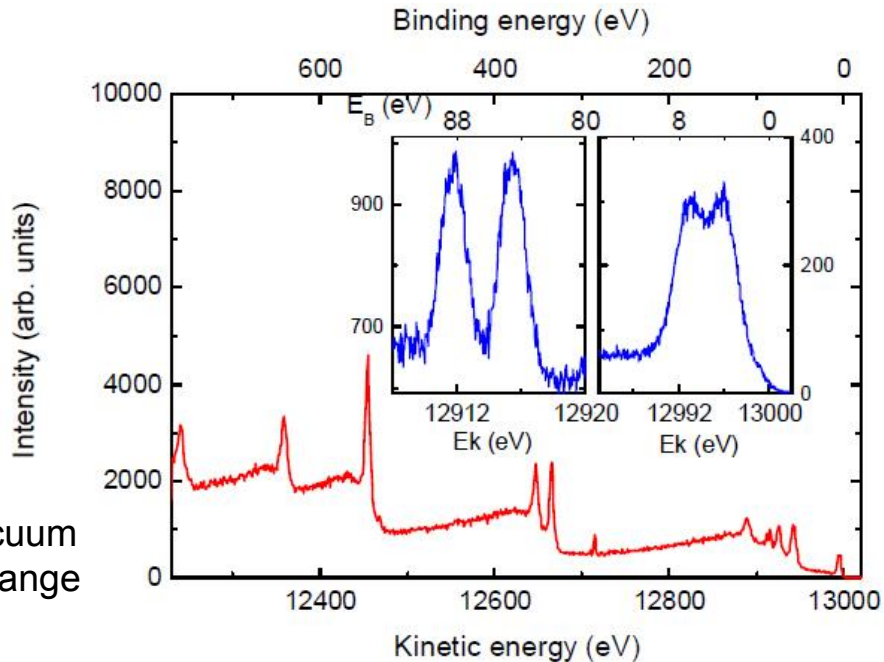
- Time Peak Reproducibility better than 27.4 ps

- 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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