Dectris Ltd.

DECTRIS is focused on developing and producing high-quality, high-performance electron counting detectors based on DECTRIS hybrid pixel counting (HPC) technology. We are one of the global leaders in HPC X-ray detectors for science and industry, and develop our technology to advance new markets such as electron microscopy.

Our electron detectors use single-electron detection based on hybrid pixel technology where the best readout chip is matched with the most suitable sensor material to provide the optimized sensitivity (DQE) for every EM application. Dedicated in-pixel electronics allow for single electron counting even at very high count-rates, up to 10 million electrons/pixel/second. The sensor material can be adapted to the energy range of any EM application, SEM and TEM included.

- DECTRIS QUADRO
 - Direct electron detection
 - Up to 18'000 frames/sec
 - No dead time
 - Noise-free electron counting
 - 10⁷ counts/pixel/sec
 - No beam stopper required
 - Ideal DQE also at low energies
- DECTRIS ELA
 - 2,250 full frames/sec and faster for sub-areas
 - PSF @ 100 keV ~ 1.3 pixels, better at lower keV
 - DQE ~ 0.8 (without super-resolution)
 - Dynamic range > 10⁶:1
 - Can use >100 pA while counting single electrons
 - Optimized for 30-200 keV operation

DECTRIS provides reliable, easy-to-integrate detectors that enable customers to focus on their unique competitive advantages. With our comprehensive technological knowledge and industrial-scale manufacturing, customers enjoy consistent product quality and on-time delivery. Our noise-free, spectral, and fast detectors provide better data that keeps customers ahead of the competition.

DECTRIS is working together with various EM manufacturers to develop the next generation of electron counting detectors because our OEM partners desire premier performance, plus the confidence of working with a stable, trusted technology supplier.





How to find us

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