

DECTRIS Ltd.

At DECTRIS, we develop and manufacture cutting-edge high-performance hybrid-pixel electron detectors for Materials Science and Life Science applications. 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). Dedicated in-pixel electronics allow for single-electron counting even at very high count rate, 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.

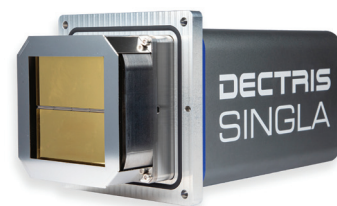
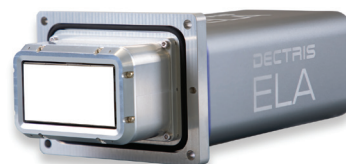
- **QUADRO** – designed to deliver outstanding performances to Materials Science Transmission Electron Microscopy (TEM) without any compromise on accuracy, speed, or sensitivity. It delivers 32-bit high dynamic range, up to 18,000 frames per second readout, and does not require a beam stopper.
- **ELA** – a hybrid-pixel electron detector dedicated to Electron Energy Loss Spectroscopy (EELS), that is capable of recording the intense zero-loss peak (ZLP) while counting single electrons in all regions of the spectrum. The detector has an ideal DQE, it provides a very high dynamic range and count rate for over 1,000 channels, and it runs at 4,500 full frames per second in continuous acquisition mode. Last year, Gatan's integrated solution based on DECTRIS ELA was named as one of 10 Microscopy Innovations 2021.
- **SINGLA** – with its roughly 1,000 x 1,000 pixels, it is suitable for Cryo-Electron Microscopy (CryoEM) and Micro-Electron Diffraction (MicroED) applications. Single-particle analysis and cryo-electron tomography also benefit greatly from the detector's speed. In addition, the SINGLA's fast readout speed (exceeding 2,000 frames per second), combined with its superior dynamic range, makes it the ideal detector for small-molecule and 3D micro-crystallography.

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 several EM manufacturers to develop the next generation of electron-counting detectors, providing our OEM partners with premier performance, plus the confidence of working with a stable and trusted technology supplier.

DECTRIS

detecting the future



How to find us

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