



Press Release - For Immediate Worldwide Release

New High Resolution, Back Illuminated Deep Depletion CCD Camera Targets Low Light NIR (<1 μ m) Imaging

Trenton, NJ – January 18, 2006 - Princeton Instruments/Acton (PI/Acton) is pleased to announce the addition of a new 1024 x 1024 back illuminated deep depletion camera to its acclaimed PIXIS line of CCD cameras. For the first time in the industry, a combination of enhanced NIR sensitivity (> 70% QE at 900nm) and mega pixel resolution are available in the new **PIXIS: 1024BR**.

“Since its introduction in 2004, the PIXIS has quickly become the gold standard for low light level CCD cameras with such features as, all-metal, hermetic vacuum seals with lifetime guarantee, better than -80°C cooling for low dark current, low read noise and plug-n-play USB 2.0 connectivity,” comments Ravi Guntupalli, Senior Product Manager, Imaging.

With the addition of the new 1024BR, the PIXIS is poised to satisfy the demanding NIR imaging needs of semiconductor and material research communities working in <1 μ m region. Previously, the back illuminated CCDs suffered from significant etaloning, an unwanted interference pattern produced in the CCD when it is illuminated with coherent, monochromatic NIR source. Therefore researchers had to contend with much lower sensitivity in front illuminated CCDs.

The new PIXIS: 1024BR alleviates the etaloning issue by utilizing a back illuminated CCD with larger depletion region. This will also allow the camera to achieve much higher quantum efficiency in the NIR region compared to the standard back illuminated (as much as two times at 900nm).

Every feature of the camera is optimized to provide the best signal-to-noise (SNR) ratio required for challenging NIR applications such as photoluminescence. For example, the only (vacuum) window in front of the CCD is coated with NIR-AR coating to minimize reflections and the electronics are designed to minimize the read noise to below 4e- rms.

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For vibration sensitive measurements, CoolCUBE, an elegant water circulation unit, is provided to optimize performance. It also boasts other salient features of the PIXIS line including 2MHz pixel readout rate for high frame rate, flexible binning and ROI capabilities and renowned WinView software package. For integration into complex experiments, a toolkit with LabView examples or PI/Acton's PVCAM library of function calls are available.

[Note: For researchers interested in 1 μ m-1.7 μ m region, please refer to the PI/Acton's previously announced 2D OMA InGaAs camera with liquid nitrogen cooling]

PI/Acton is the world's leading provider of high-performance solutions to the imaging, x-ray, spectroscopy and security markets. We cater to the scientific community and Original Equipment Manufacturers. Our commitment to continuous innovation in R&D and manufacturing process ensures our customers are always at the forefront of technology and reliability while pushing the boundaries of discovery. We believe, by putting our customers first, we will exceed our stakeholders' value expectations.

For more information contact Jennifer Singleton, jsingleton@piacton.com, 609.631.4035

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