

Poster

Ultraviolet, Optical, and Near-IR Lumped Element Microwave Kinetic Inductance Detectors

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Microwave Kinetic Inductance Detectors (MKIDs) have been proven for the first time in the ultraviolet/optical/near-IR (UVOIR) regime with the successful commissioning of ARCONS, the ARray Camera for Optical to Near-IR Spectrophotometry. ARCONS houses a 2024 pixel Optical Lumped Element (OLE) MKID array, fabricated out of TiN film on a solid silicon substrate. These devices are fully functional, demonstrating the photometry, timing, and energy resolving capabilities of the technology over the course of 24 nights of observations. Over the past 4 years, OLE MKIDs have undergone several complete overhauls in design and processing technique. I will discuss the current performance of TiN on Si OLE MKIDs, while highlighting several key issues we had to overcome to achieve the science-quality detectors we have today.