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# A 350GHz array of LEKIDs for balloon-borne CMB observations

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We present the design, optimization and laboratory characterization of an array of Lumped Element Kinetic Inductance Detectors sensitive in a frequency band centered at 350 GHz. The array consists of 313 feed-horn coupled pixels with resonant frequencies spread over 250 MHz. We present measured yield, quality factor, responsivity, quasiparticle lifetime, noise equivalent power and optical efficiency. The array is a prototype for one of the four frequency bands of OLIMPO, a balloon-borne instrument with a 2.6 meter primary mirror proposed for an Antarctic flight to measure the Sunyaev-Zel'dovich effect in clusters of galaxies. Similar arrays could also be used with instruments studying the polarization of the cosmic microwave background radiation.

## Collaboration

## Role of Submitter

I am the presenter

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