# Article information:

Spectral Characterization of a Microbolometer Focal Plane Array at Terahertz Frequencies | IEEE Journals & Magazine | IEEE Xplore
<https://ieeexplore.ieee.org/document/8613916>

# Article summary:

1. This article presents a method to characterize the spectral response of an uncooled microbolometer focal plane array at a broad range of terahertz (THz) frequencies.

2. The method uses a spectrum-shaped blackbody radiator as a broadband THz source and measures its spectral power with a Fourier transform infrared interferometer.

3. This technique can provide the spectral response of the microbolometer relative to the pyroelectric reference with a signal-to-noise ratio of 100 over a >50-THz bandwidth.

# Article rating:

Appears well balanced: The article presents the information in a reliable and balanced way, without biases and prejudices. The claims made in the article are well supported and, where applicable, all sides of the argument are given opportunity to present their point of view. The article appears trustworthy and reliable.

# Article analysis:

This article is reliable and trustworthy, as it provides detailed information on the method used to characterize the spectral response of an uncooled microbolometer focal plane array at terahertz frequencies. The authors have provided evidence for their claims by citing relevant research papers and providing detailed descriptions of their experimental setup. Furthermore, they have discussed potential risks associated with their experiment, such as using blackbody radiation which can be hazardous if not handled properly. Additionally, they have presented both sides equally by discussing both standard IR and THz microbolometers, as well as different types of THz sources that can be used for characterization purposes. In conclusion, this article is reliable and trustworthy due to its detailed description of the experimental setup and its discussion of potential risks associated with it.

# Topics for further research:

* THz microbolometer characterization
* Uncooled microbolometer focal plane array
* Blackbody radiation hazards
* Standard IR microbolometer
* THz sources for characterization
* Experimental setup for THz microbolometer characterization

# Report location:

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