# Article information:

Uncooled Thermoelectric Infrared Sensor With Advanced Micromachining-所有数据库
[https://www.webofscience.com/wos/alldb/full-record/WOS:000209810700032](https://www.webofscience.com/wos/alldb/full-record/WOS%3A000209810700032)

# Article summary:

1. A mass producible uncooled thermoelectric infrared microsensor has been designed and fabricated using an advanced micromachining process.

2. The sensor with advanced micromachining exhibits a two times higher responsivity and detectivity than the sensor with only XeF2 front-side etching.

3. The effect of back-side etch window size on sensor performance is characterized by finite-element method simulation.

# 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:

The article “Uncooled Thermoelectric Infrared Sensor With Advanced Micromachining” provides a detailed description of the design and fabrication of a mass producible uncooled thermoelectric infrared microsensor, as well as its performance characteristics. The article is written in a clear and concise manner, making it easy to understand for readers from various backgrounds.

The article does not appear to be biased or one-sided, as it presents both sides of the argument equally and objectively. It also provides evidence for the claims made, such as experimental results that show that the sensor with advanced micromachining exhibits a two times higher responsivity and detectivity than the sensor with only XeF2 front-side etching, as well as finite-element method simulations that characterize the effect of back-side etch window size on sensor performance.

The article does not appear to contain any promotional content or partiality towards any particular product or company, nor does it present any risks associated with using this technology without noting them. Furthermore, all relevant points of consideration are discussed in detail in the article, making it comprehensive and reliable.

# Topics for further research:

* Uncooled thermoelectric infrared sensor
* Micromachining technology
* Responsivity and detectivity
* Finite-element method simulations
* XeF2 etching
* Back-side etch window size

# Report location:

<https://www.fullpicture.app/item/92b395cc89d63356b7d5b06a7f739082>