# Article information:

Reduction of surface leakage current in InAs/GaSb strained layer long wavelength superlattice detectors using SU-8 passivation: Applied Physics Letters: Vol 97, No 14
<https://aipscitation.53yu.com/doi/abs/10.1063/1.3499290>

# Article summary:

1. SU-8 passivation was used to reduce surface leakage current in InAs/GaSb strained layer superlattice detectors.

2. Dark current was reduced by more than one order of magnitude for the small area (50 μm×50 μm) passivated diode at 77 K.

3. The surface resistivity, responsivity and specific detectivity were measured for SU-8 passivated devices and were equal to 204 Ω cm, 0.58 A/W and 3.49×109 Jones, respectively (77 K).

# Article rating:

May be slightly imbalanced: The article presents the information in a generally reliable way, but there are minor points of consideration that could be explored further or claims that are not fully backed by appropriate evidence. Some perspectives may also be omitted, and you are encouraged to use the research topics section to explore the topic further.

# Article analysis:

The article is generally reliable and trustworthy as it provides evidence for its claims in the form of measurements taken from the experiment conducted. The article also provides a detailed description of the experiment setup and results which makes it easier to understand the findings presented in the article. However, there are some potential biases that should be noted such as the fact that only one type of device was tested with SU-8 passivation which may not be representative of all types of devices that could benefit from this technique. Additionally, there is no discussion about possible risks associated with using SU-8 passivation or any other alternative methods that could be used instead. Furthermore, there is no mention of any counterarguments or unexplored points of consideration which could have been included to provide a more balanced view on the topic discussed in the article.

# Topics for further research:

* Alternative passivation techniques
* Potential risks of SU-8 passivation
* Advantages of SU-8 passivation
* Counterarguments to SU-8 passivation
* Comparison of SU-8 passivation to other methods
* Impact of SU-8 passivation on device performance

# Report location:

<https://www.fullpicture.app/item/af62e72f18d6c31c1e8cfa291846103a>