# Article information:

Pure Tin Halide Perovskite Solar Cells: Focusing on Preparation and Strategies - Liu - 2023 - Advanced Energy Materials - Wiley Online Library
<https://onlinelibrary.wiley.com/doi/full/10.1002/aenm.202202209>

# Article summary:

1. Metal halide perovskite solar cells (PSCs) have emerged as an important direction for photovoltaic research, with a world record of 25.7% power conversion efficiency (PCE).

2. Lead-based PSCs are toxic, so Pb-free perovskites have been proposed, with tin-based perovskites emerging as promising candidates.

3. This work introduces strategies to improve the stability and efficiency of pure Sn-based PSCs by optimizing the crystal structure, processing and interfaces, and implementing low-dimension structures.

# 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 is generally reliable and trustworthy in its presentation of information regarding tin halide perovskite solar cells. The author provides a comprehensive overview of the current state of research in this field, including the potential toxicity issues associated with lead-based PSCs and the advantages of tin-based alternatives. The article also outlines various strategies for improving the stability and efficiency of pure Sn-based PSCs, such as optimization of the crystal structure, processing and interfaces, as well as implementation of low-dimension structures.

The article does not appear to be biased or one-sided in its reporting; it presents both sides equally by discussing both lead-based PSCs and tin-based alternatives. Furthermore, it provides evidence for its claims by citing relevant studies throughout the text. There are no unsupported claims or missing points of consideration that could affect the reliability or trustworthiness of the article.

The only potential issue is that there may be unexplored counterarguments that could be presented in order to provide a more balanced view on this topic; however, this does not significantly detract from the overall reliability or trustworthiness of the article. In conclusion, this article is reliable and trustworthy in its presentation of information regarding tin halide perovskite solar cells.

# Topics for further research:

* Tin halide perovskite solar cell stability
* Tin halide perovskite solar cell efficiency
* Lead-free perovskite solar cells
* Low-dimension tin halide perovskite solar cells
* Tin halide perovskite solar cell toxicity
* Tin halide perovskite solar cell interface optimization

# Report location:

<https://www.fullpicture.app/item/97ec323d2597634495cf23a860603b71>