# Article information:

Efficient Monolithic Perovskite/Silicon Tandem Photovoltaics - Wang - ENERGY &amp; ENVIRONMENTAL MATERIALS - Wiley Online Library
<https://onlinelibrary.wiley.com/doi/full/10.1002/eem2.12639>

# Article summary:

1. Perovskite solar cells (PSCs) have shown significant progress in power conversion efficiency and are emerging as competitive photovoltaic technologies.

2. Tandem solar cells (TSCs), which combine different parts of the solar spectrum, offer a promising approach to further improve efficiency beyond the limits of single-junction PSCs.

3. Perovskite/c-Si TSCs, based on perovskite and crystalline silicon, are particularly promising due to their solution processability, bandgap matching, and potential for commercialization without major manufacturing changes. However, there are challenges such as unideal bandgaps and losses in voltage and optics that need to be addressed for further efficiency improvements.

# Article rating:

Appears moderately imbalanced: The article provides some useful information, but is missing several important points or pieces of evidence that would be required to present the discussed topics in a balanced and reliable way. You are encouraged to seek a more balanced perspective on the presented issues by exploring the provided research topics and looking at different information sources.

# Article analysis:

这篇文章主要介绍了单晶钙钛矿/硅串联光伏技术的高效性。然而，文章存在一些潜在的偏见和片面报道。

首先，文章过于强调了单晶钙钛矿/硅串联光伏技术的优势，但没有提及其他竞争性光伏技术的进展。这可能导致读者对该技术的实际竞争力和可行性产生误解。

其次，文章没有提供足够的证据来支持其所提出的观点。例如，在讨论减少开路电压损失的策略时，文章只是简单地介绍了一些方法，并没有提供实验证据来证明它们的有效性。

此外，文章没有探讨可能存在的风险和挑战。例如，钙钛矿材料在稳定性方面仍然存在问题，并且有可能受到湿度、温度等环境因素的影响。这些问题可能会限制该技术在实际应用中的可行性。

最后，文章缺乏对其他观点和反驳观点的探索。它只呈现了作者自己对该技术的看法，并没有平等地考虑其他人可能持有不同意见或提出不同观点的可能性。

综上所述，这篇文章存在一些潜在的偏见和片面报道。虽然它提供了有关单晶钙钛矿/硅串联光伏技术的一些信息，但读者应该对其内容保持审慎，并进一步研究其他相关文献以获取更全面和客观的信息。

# Topics for further research:

* 其他竞争性光伏技术的进展
* 减少开路电压损失的实验证据
* 钙钛矿材料的稳定性问题
* 环境因素对钙钛矿材料的影响
* 其他观点和反驳观点
* 其他相关文献的研究

# Report location:

<https://www.fullpicture.app/item/6569617f2f180000646ad4cd80fb5574>