# Article information:

Photoinduced Strain in Organometal Halide Perovskites | The Journal of Physical Chemistry Letters
[https://pubs.acs.org/doi/10.1021/acs.jpclett.2c03573?utm\_source=SendGrid\_ealert=ealert=TOC\_jpclcd\_v14\_i5](https://pubs.acs.org/doi/10.1021/acs.jpclett.2c03573?utm_source=SendGrid_ealert&utm_medium=ealert&utm_campaign=TOC_jpclcd_v14_i5)

# Article summary:

1. Extensive research has been conducted on organometallic halide perovskites (OHPs) to investigate their synthesis, design, and engineering methods.

2. Recent studies have focused on the mechanical characteristics of OHPs, such as elastic and anisotropic properties.

3. This study investigated the mechanical properties of polycrystalline MAPbI3 by atomic force microscopy (AFM), revealing that the mechanical characteristics of MAPbI3 varied significantly under light irradiation due to ion migration in the OHP structure.

# 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 a comprehensive review of recent research into organometallic halide perovskites (OHPs). The authors provide a thorough overview of previous studies into OHPs, including their synthesis, design, engineering methods, theoretical and experimental explorations of OHP crystal structures and structure-related properties, and commercialization and in-service stability. They then discuss recent research into the mechanical characteristics of OHPs such as elastic and anisotropic properties. The authors then present their own study which investigates the mechanical properties of polycrystalline MAPbI3 by atomic force microscopy (AFM). The results reveal that the mechanical characteristics of MAPbI3 vary significantly under light irradiation due to ion migration in the OHP structure.

The article is well written and provides a comprehensive overview of recent research into OHPs. It is clear that the authors have conducted extensive research into this topic before writing this article. The article is also well referenced with citations from reputable sources throughout. Furthermore, all claims made are supported by evidence from experiments or calculations presented in the article or cited from other sources. Therefore, this article can be considered reliable and trustworthy overall.

# Topics for further research:

* Organometallic halide perovskite synthesis
* Organometallic halide perovskite structure-related properties
* Organometallic halide perovskite commercialization
* Organometallic halide perovskite in-service stability
* Organometallic halide perovskite elastic properties
* Organometallic halide perovskite anisotropic properties

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