

Properties of moisture tolerant solar cells by encapsulating 3D perovskite with long-chain alkylammonium cation-based 2D perovskites

SND-ID: 2021-124-1. **Version:** 1. **DOI:** <https://doi.org/10.5878/wa8r-cq65>

Download data

Data_properties.zip (815.78 KB)

Description of the data.txt (3.35 KB)

Download all files

2021-124-1-1.zip (~819.13 KB)

Citation

Gardner, J. (2021) Properties of moisture tolerant solar cells by encapsulating 3D perovskite with long-chain alkylammonium cation-based 2D perovskites (Version 1) [Data set]. Royal Institute of Technology. Available at: <https://doi.org/10.5878/wa8r-cq65>

Creator/Principal investigator(s)

[James Gardner](#) - Royal Institute of Technology, Department of Chemistry

Research principal

[Royal Institute of Technology](#) - Department of Chemistry

Description

The data are associated with the open access article "Moisture tolerant solar cells by encapsulating 3D perovskite with long-chain alkylammonium cation-based 2D perovskite" published in "Communications Materials" in 2021. The data are X-ray diffraction patterns, UV-Visible absorption spectra, time-resolved photoluminescence, solar cell performance parameters, electrical parameters, and chemical stability of hybrid organic lead(II) iodide perovskite materials with long alkyl chains (C14-C18). The DOI for the original scientific article is: 10.1038/s43246-021-00200-8.

Data contains personal data

No

Language

[English](#)

Data format / data structure

[Numeric](#)

Responsible department/unit

Department of Chemistry

Funding 1

- Funding agency: SSF
- Funding agency's reference number: RMA15-0130

Funding 2

- Funding agency: Stiftelsen Olle Engkvist Byggmästare
- Funding agency's reference number: 2017/192

Funding 3

- Funding agency: Formas
- Funding agency's reference number: 2017-01134

Research area

[Materials chemistry](#) (Standard för svensk indelning av forskningsämnen 2011)

[Inorganic chemistry](#) (Standard för svensk indelning av forskningsämnen 2011)

[Physical chemistry](#) (Standard för svensk indelning av forskningsämnen 2011)

Keywords

[Solar energy](#), [Perovskite](#)

Publications

Kore, B.P., Zhang, W., Hoogendoorn, B.W. et al. Moisture tolerant solar cells by encapsulating 3D perovskite with long-chain alkylammonium cation-based 2D perovskite. *Commun Mater* 2, 100 (2021).

<https://doi.org/10.1038/s43246-021-00200-8>

DOI: <https://doi.org/10.1038/s43246-021-00200-8>

If you have published anything based on these data, [please notify us](#) with a reference to your publication(s). If you are responsible for the catalogue entry, you can update the metadata/data description in DORIS.

Accessibility level

Access to data through SND

Data are freely accessible

Use of data

[Things to consider when using data shared through SND](#)

License

[CC BY-NC 4.0](#)

Versions

Version 1. 2021-09-09

Contact for questions about the data

James Gardner

jgardner@kth.se

Download metadata

[DataCite](#)

[DDI 2.5](#)

[DDI 3.3](#)

[DCAT-AP-SE 2.0](#)

[JSON-LD](#)

[PDF](#)

[Citation \(CLS\)](#)

[File overview \(CSV\)](#)

Published: 2021-09-09

Last updated: 2021-09-24