

1. General Information

Dataset title:	Data repository for the research paper titled as: Dual-wavelength control of charge accumulation in rubrene microcrystals with anisotropic conductivities
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Language:	English
Rights:	CC-BY
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1. Data Format

This document serves as a guideline for the data repository of the cited publication [1].

2. Data Format

PEEM (photoemission electron microscopy) data:

- CCD data are simple TIF files, could be opened in any image editing software.
- DLD data are 1020 TIF files, each act as a frame equal to 27.4 ps. In each frame, the gray pixels represent the number of detected electrons. Using energy calibration methods, these could be calibrated to binding and kinetic energies.

AFM/KPFM data:

Simple tiff images, best to analyse with Gwyddion [2] or Park AFM software.

3. Archive Structure

The data from each figure in the main paper and supplementary information are in a separated folder. To handle the data, there is a "Readme!.txt" file.

4. System Requirements

To analyse the AFM/KPFM data, the Gwyddion software is recommended. For the PEEM data Igor[3] pro7 is recommended.

References/Bibliography

- [1] Moha Naeimi, Ingo Barke and Sylvia Speller, “Dual-wavelength control of charge accumulation in rubrene microcrystals with anisotropic conductivity” **Adv. Sci.** **2026**, 10.1002/advs.76246.
- [2] P. Klapetek, D. Neřcas, C. Anderson, Gwyddion user guide, <http://gwyddion.net/>, 2004–2009.
- [3] <https://www.wavemetrics.com/>