

Resource Summary Report

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MicroED tools

RRID:SCR_021179

Type: Tool

Proper Citation

MicroED tools (RRID:SCR_021179)

Resource Information

URL: <https://cryoem.ucla.edu/downloads>

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Description: Software Python suite to convert electron diffraction images to SMV format. Used in three dimensional electron crystallography. Developed to accomplish tasks of unit-cell determination, indexing, background subtraction, intensity measurement and merging, resulting in data that can be carried forward to molecular replacement and structure determination.

Synonyms: Microcrystal Electron Diffraction

Resource Type: software application, software resource, software toolkit, data processing software

Defining Citation: [DOI:10.1107/S2053273315010669](https://doi.org/10.1107/S2053273315010669)

Keywords: Three dimensional electron crystallography, electron diffraction, extremely small three dimensional crystals,

Availability: Free, Available for download, Freely available

Resource Name: MicroED tools

Resource ID: SCR_021179

License: GNU General Public License

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Ratings and Alerts

No rating or validation information has been found for MicroED tools.

No alerts have been found for MicroED tools.

Data and Source Information

Source: [SciCrunch Registry](#)

Usage and Citation Metrics

We found 12 mentions in open access literature.

Listed below are recent publications. The full list is available at [nidm-terms](#).

Lin J, et al. (2025) Ligand Screening and Discovery Using Cocktail Soaking and Automated Microcrystal Electron Diffraction. ChemMedChem, 20(12), e202500156.

Clabbers MTB, et al. (2025) Energy filtering enables macromolecular MicroED data at sub-atomic resolution. Nature communications, 16(1), 2247.

Clabbers MTB, et al. (2025) Recovering high-resolution information using energy filtering in MicroED. Structural dynamics (Melville, N.Y.), 12(3), 034702.

Clabbers MTB, et al. (2025) Characterization of energy filtering slit widths for MicroED data collection. bioRxiv : the preprint server for biology.

Clabbers MTB, et al. (2025) Recovering high-resolution information using energy filtering in MicroED. bioRxiv : the preprint server for biology.

Shiriaeva A, et al. (2023) MicroED structure of the human vasopressin 1B receptor. bioRxiv : the preprint server for biology.

Hattne J, et al. (2023) Electron-counting in MicroED. bioRxiv : the preprint server for biology.

Martynowycz MW, et al. (2023) A robust approach for MicroED sample preparation of lipidic cubic phase embedded membrane protein crystals. Nature communications, 14(1), 1086.

Hattne J, et al. (2023) Electron counting with direct electron detectors in MicroED. Structure (London, England : 1993), 31(12), 1504.

Martynowycz MW, et al. (2022) Ab initio phasing macromolecular structures using electron-counted MicroED data. Nature methods, 19(6), 724.

Martynowycz MW, et al. (2021) Benchmarking the ideal sample thickness in cryo-EM. Proceedings of the National Academy of Sciences of the United States of America, 118(49).

Martynowycz MW, et al. (2021) Protocol for the use of focused ion-beam milling to prepare crystalline lamellae for microcrystal electron diffraction (MicroED). STAR protocols, 2(3),

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