

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

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 14 mentions in open access literature.

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

Gumpert N, et al. (2026) Recurrent Immunogenic Neoantigens and Their Cognate T-cell Receptors in Treatment-Resistant Metastatic Prostate Cancer. *Cancer discovery*, 16(2), 250.

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*.

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

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

Lin J, et al. (2025) Ligand Screening and Discovery using Cocktail Soaking and Automated MicroED. *bioRxiv : the preprint server for biology*.

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

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 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 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) Protocol for the use of focused ion-beam milling to prepare crystalline lamellae for microcrystal electron diffraction (MicroED). *STAR protocols*, 2(3), 100686.

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).