

# Call for MicroED Application Proposal 2024

Institute for Protein Research (IPR) is now accepting non-proprietary proposals for Microcrystal Electron Diffraction (MicroED).

## 1. Microcrystal Electron Diffraction (MicroED)

MicroED (Microcrystal Electron Diffraction: Rotational method for the electron diffraction) is the crystallographic technique to collect the diffraction images from thin ( $< 1\mu\text{m}$ ) 3D crystals in the powder sample. Even in the case that the X-ray experiment only showed the power diffraction pattern from the sample, the MicroED experiment may acquire the diffraction patterns from single crystal(s) and solve the structure of complicated natural compounds or synthetic organic materials. IPR implemented the automatic data acquisition system capable of analyzing samples with crystal polymorph or samples with a low rate of crystalline particles. Since the method is still under development, applicants must operate the electron microscopy with the responsible IPR member.

### Microscopes

JEM-2200 FS (JEOL)

200kV, TVIPS F416 camera, in-column  $\omega$ -filter

Talos Arctica (Thermo Fisher Scientific)

200kV, Ceta Camera

## 2. Requirements

- Researchers who belong to academic organizations.
- Proposals must be non-proprietary.

## 3. Valid Term of the Application

1 year. From April 1, 2024 to March 31, 2025.

## 4. How to Apply

Required documents: Application Form (Original)

\* Application Form and Guidelines for applicants (this document) can be downloaded from the website.  
(<http://www.protein.osaka-u.ac.jp/joint>)

Submission Deadline: December 1, 2023 (Fri.)

Send to: Project Team of Joint Usage / Research Center,  
Institute for Protein Research, Osaka University  
3-2 Yamadaoka, Suita, Osaka 565-0871  
Japan  
TEL:+81-6-6879-4323 / FAX+81-6-6879-8590

## 5. Contact

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## 6. Proposal Review

The proposal will be reviewed by the Panel on Joint Usage/Research, and the decision will be informed to the applicant in mid-March, 2024

## 7. Usage Reports

“Research Report” must be submitted within one month after completion of the experiment.

## 8. Publication

When the research results are published in journals, the researchers should describe that the research has been conducted under this program. For example, the following sentence should be added to an acknowledgment section:

“This work was (in part) performed under the Collaborative Research Program (MicroED) of Institute for Protein Research, Osaka University.

## 9. Others

- Researchers should be responsible for their own health insurance during their stay at IPR.
- Preliminary XRD experiments are not required at the time of application, but it is better to include the XRD data if available.