

December, 12, 2025

To whom it may concern

FY 2026 Joint Use/Research Program

We invite applications for the FY 2026 Joint Use/Research Program at the Institute for Planetary Materials (IPM), Okayama University, Misasa, Japan.

1. Application types

- 1) International joint research
- 2) General joint research
- 3) Joint Use of facility
- 4) Workshop

2. Period of research: April 1, 2026 – March 31, 2027

3. Application eligibility: International and domestic researchers belonging to a research institute or other equivalent organizations, including 4th-year undergraduate students and graduate students

4. Application procedure: Fill out the application form for Joint Use/Research (see attached form) and submit by e-mail.

5. Application deadline: Must be received no later than January 30 (Fri.), 2026

6. Notification: Written notification by the end of March, 2026

7. Other: See the attached “Guideline for the FY 2026 Joint Use/Research Program at the Institute for Planetary Materials, Okayama University”

Takashi Yoshino

The director of Institute for Planetary Materials, Okayama University, Misasa, Japan

Guideline for Application of the FY 2026 Joint Use/Research Program at the Institute for Planetary Materials, Okayama University

1. Guideline

The mission of the Institute for Planetary Materials (IPM) is to study the origin, evolution and dynamics of the Earth and other planets and the origin of life. As a Joint Usage/Research Center for planetary materials science designated by the Ministry of Education, Culture, Sports, Science and Technology (MEXT), we offer Joint Use/Research opportunities to both domestic and overseas researchers in research fields related to Earth and planetary materials science.

We accept five research categories of Joint Use/Research at IPM (hereafter called the Joint Research), i.e., international joint research, general joint research, joint use of facility, workshop, and internship-type joint research, in order to promote collaborative research in research fields related to Earth and planetary materials science. We welcome not only proposals that further promote research conducted at IPM, but also research in areas that are complementary, as well as those that accelerate the research activity of IPM as a research center for earth and planetary materials science and innovative applications for joint research. Priority will be given to projects that are recognized as being of particular academic importance and that are expected to produce outstanding results.

Research categories

1) International joint research

Joint research conducted by a researcher belonging to an international research organization in collaboration with faculty of IPM by using the facilities, equipment, samples and data of IPM. Researches conducted outside IPM may be considered. Domestic researchers outside IPM can join the research as a collaborator.

2) General joint research

Joint research conducted by a researcher belonging to a domestic research organization other than IPM in collaboration with faculty of IPM by using the facilities, equipment, samples and data of IPM. Researches conducted outside IPM may be considered.

3) Joint use of facility

Research conducted by a researcher belonging to a domestic/international research organization other than IPM by paying the fee to use the facilities of IPM.

4) Workshop

Domestic/international workshop on a specific research theme sponsored by IPM for promoting joint research. In principle, the workshop should be held at Okayama University.

5) Internship-type joint research

Long-term joint research conducted by a student belonging to a domestic/international research

and educational organization, in collaboration with the faculty of IPM, on a research project proposed by the faculty of IPM, by using the facilities, equipment, samples and data of IPM.

*Remote collaborative research (either asking IPM staff to conduct measurement and analysis, or remote access to IPM facilities, without visiting the institute) might be offered for Joint research 1) • 2) and Joint use of Facility 3) depending on the facilities. Please inquire your host faculty member of IPM for details.

*Recruitment of Internship-type joint research (category 5) is separately once a year. The eligibility and period of the program will be specified separately.

*We also accept applications for joint use/research from the industry in order to promote industry-university collaboration. Please consult with a faculty member you are interested in collaborating or see “16. Address for Submission and Contact Information.

*Please refer to the separately provided list titled “Research Divisions and Faculty Members of the Institute for Planetary Materials, Okayama University” for information on the research area and faculty members and research overview of IPM.

2. Eligibilities

- The application is open to international and domestic researchers belonging to a research organization or others equivalent, including 4th-year undergraduate students and graduate students. If a 4th-year undergraduate/graduate student applies as a principal researcher, their supervisor must agree and participate in the project as a collaborator.
- A principal investigator can apply for up to one joint research project and one workshop.
- For Workshop, a faculty member of IPM is also eligible to apply.

3. Method of application

- Before applying, obtain formal consent from the organization you belong, and confirm the following.
 1. Please consult with your host faculty member of IPM about your research project, expected visiting period, and required expenses.
 2. When the project includes an undergraduate/graduate student as a collaborator who is not supervised by the principal researcher, permission from the student’s supervisor must be

obtained.

3. Your host faculty member of IPM must be included as a collaborator. (*1)

*1: If you apply for Joint use of facility, you don't have to include host faculty member of IPM as a collaborator.

- The application must be completed using the designated form and submitted it by e-mail to “16. Address for Submission and Contact Information”.
- Application forms are available for download on the website below.

[Application page for Joint Use/Research]

<https://www.misasa.okayama-u.ac.jp/en/joint/joint-use/>

4. Application deadline

Must arrive no later than January 30(Fri.), 2026

(Application for joint research in urgency may be accepted any time, but must be received no later than January 22 (Fri.), 2027)

5. Selection and Notification of Results

The decision will be made immediately by the director after evaluation by the Steering Committee of Joint Usage/Research Center of IPM. The proposals will be evaluated comprehensively on the basis of conformity of project with the aim of the program, academic importance, feasibility of research proposal, and expenses required. Applications deemed academically significant and expected to produce outstanding results will be given priority in selection. Special considerations will be given to researchers of smaller universities or research organizations and to early career researchers. The result will be informed in writing to the principal researcher by the end of March 2026.

6. Research period

- International joint research, General joint research, and Joint Use of facility:
From April 1, 2026 to March 31, 2027 or from the date of adoption to March 31, 2027.
The application must be submitted each fiscal year even if the project continues from the previous year.
- Workshop
From April 1, 2026 to March 31, 2027 or from the date of adoption to March 31, 2027.

7. Necessary expenses

- International joint research and General joint research:

1. Usage fee

A usage fee will be charged for selected research facilities. Please confirm the Facilities of the Institute for Planetary Materials, Okayama University (table of charge) or consult with your host faculty member of IPM.

2. The cost of expendables

Users may be requested to bear part of the cost of expendables depending on the facilities and the usage situation. Please consult with your host faculty member of IPM in advance.

3. Travel expense Support

As a rule, travel expenses are in principle not provided. Nevertheless, if you need support for travel expenses due to insufficient external funds, etc., we will review the support of travel expenses and provide it as necessary within the available budget (※1). Priority for support of travel expenses will be given to undergraduate students, graduate students, and early career researchers who are less than 8 years after obtaining a doctoral degree as of April 1, 2026.

※1: Travel expenses are generally not provided for joint research outside IPM, and joint research submitted after the deadline.

- Joint Use of facility:

1. Usage fee and the cost of expendables

Usage fees and the cost of expendables will be charged for all research facilities. Please confirm the Facilities of the Institute for Planetary Materials, Okayama University (table of charge) or consult with your host faculty member of IPM.

- Workshop:

1. Expenses Support

Related expenses will be supported up to a maximum of 300000 yen per workshop, within the available budget. Please consult with a host faculty to confirm availability.

8. Submission Method about report for Joint Use/Research

A report must be submitted using the designated form of “Report for Joint Use/Research” to the e-mail address below after the research period. Due date of the research report of FY 2026 joint use/research will be May 31, 2027.

The copyright of the submitted report belongs to IPM. Therefore, please be sure to conform with

the following:

1. The report must be original. A copy of an article already published in journals or proceedings cannot be accepted.
2. The author must take the responsibility if any problems related to copyright law occur.

9. Disclosure of results

The report submitted to IPM will be made open at IPM's website. If you do not wish to disclose it to the public due to a patent application, please let us know at the time of the submission.

10. Publication of research results and others

When the research results are published, please properly describe in the acknowledgement, that it is a joint use or joint research with IPM. Some examples are shown below.

1) This paper presents results of a joint research program carried out at the Institute for Planetary Materials, Okayama University, supported by "Joint Usage / Research Center" program by MEXT, Japan.

2) This study was performed using joint-use facilities of the Institute for Planetary Materials, Okayama University.

3) _____ was supported from IPM for Joint-Use Research.

When publishing the joint research results, please in principle include host faculty as a co-author. Also, please send a reprint of the published paper to the administration office of IPM (PDF file or two hard copies)

11. Intellectual properties

In the event that inventions are made as a result of joint research, its attribution etc. shall be decided after negotiation with consideration given to the contribution to the invention by each researcher and the institution concerned.

12. Handling of the personal information

Personal information provided in the application process will be handled strictly in accordance with the related laws of Japan and the regulations of Okayama University, and will be used only for the purposes of the application, reporting of the results of joint use/research, and providing related information. Regardless of adoption or rejection, applications and submitted documents will not be returned.

13. Security Export Control

When providing research instruments, samples, technology etc. to overseas (non-residents in

Japan) or domestic residents those who are under the strong influence of foreign governments or corporations, and conducting joint research with overseas researchers, it is necessary to take measures according to the Okayama University Regulations on University Security Export Management.

14. Accident insurance

Accepted joint use researchers from overseas must purchase travel insurance before leaving your country to cover medical expenses for unexpected accidents or sickness during the period of joint use/research at IPM. For students enroll at universities in Japan, please join the Personal Accident Insurance for Students Pursuing Education and Research(“Gakkensai”) before starting joint use/research.

15. Accommodation

The “Misasa guest house” located close to IPM may be used. Please contact with the faculty of IPM and notify the administration office about for the visit period at least two weeks before your visit.

The accommodation fee for joint-use researchers is:

Western-style room: 1,600 yen (per night)

Japanese-style room: 1,200 yen (per night)

16. Address for submission and Contact Information

The Department of General Affairs

Institute for Planetary Materials, Okayama University

827 Yamada, Misasa, Tottori, 682-0193, Japan

Phone: +81-858-43-1215 E-mail: eee0502@adm.okayama-u.ac.jp

**Research Divisions and Faculty Members of the Institute for Planetary Materials,
Okayama University**

(As of December, 1, 2025)

Division for Planetary Materials Experimental Physics

Takashi Yoshino (Professor)	tyoshino@misasa.okayama-u.ac.jp
Xianyu Xue (Professor)	xianyu@okayama-u.ac.jp
Daisuke Yamazaki (Professor)	dy@misasa.okayama-u.ac.jp
Shigeru Yamashita (Associate Professor)	shigeru@misasa.okayama-u.ac.jp
Takayuki Ishii (Associate Professor)	takayuki.ishii@okayama-u.ac.jp
Izumi Mashino (Assistant Professor)	izumi.mashino@okayama-u.ac.jp

To understand the internal structure and evolution of the Earth and planets via determination of the structure and physical properties of Earth and planetary materials using experimental and computational approaches. Toward that goal, researchers are being conducted in the development of ultra-high pressure generation technique, large-volume high pressure generation technique, high-temperature high-pressure in-situ physical properties measurement, understanding the basic physical processes via structural analysis of materials at the atomic level and first-principles calculation, and unravelling the inner structure of the planets and the evolutionary process of the solar system by understanding meteorites and ice physiochemically.

Division for Planetary Materials Analytical Chemistry

Katsura Kobayashi (Professor)	katsura@pheasant.misasa.okayama-u.ac.jp
Ryoji Tanaka (Professor)	ryoji@misasa.okayama-u.ac.jp
Takuya Kunihiro (Associate Professor)	tkk@misasa.okayama-u.ac.jp
Christian Potiszil (Associate Professor)	cpotiszil@okayama-u.ac.jp
Hiroshi Kitagawa (Assistant Professor)	kitaga-h@cc.okayama-u.ac.jp

To understand the origin, evolution and dynamics of the Earth and planets by highly accurate/precise quantitative analysis, mass spectroscopic analysis and spectroscopic analysis of Earth and extraterrestrial materials. Toward that goal, development of state-of-the-art analytical methods and the construction of a “Comprehensive Analytical System for Terrestrial and Extraterrestrial Materials (CASTEM)” that link various apparatuses in a coordinated fashion have been made.

Division for Planetary Surface Environment

Jun Kameda(Professor)	jkameda@okayama-u.ac.jp
Akio Makishima (Professor)	max@misasa.okayama-u.ac.jp

Makiko Ohtake(Professor)	mohtake@okayama-u.ac.jp
Takuya Moriguti (Associate Professor)	moriguti@misasa.okayama-u.ac.jp
Trishit Ruj (Associate Professor)	trishitruj@okayama-u.ac.jp
Matthew Izawa (Associate Professor)	matthew_izawa@okayama-u.ac.jp
Keisuke Onodera (Associate Professor)	konodera@okayama-u.ac.jp

To understand the evolution of the surface environment from the past to the future which can influence to the surface environment from remote sensing techniques, environmental simulations, space chamber and so on.

Facilities of the Institute for Planetary Materials, Okayama University

() is in charge of facilities

High-temperature, high-pressure apparatus

- 6-axis high-pressure apparatus, 6UHP-70 (Yamazaki)
- KAWAI-type multi-anvil high-pressure apparatus, USSA-5000 (Yoshino)
- KAWAI-type multi-anvil high-pressure apparatus, USSA-1000 (Yamazaki)
- Boyd-England-type Piston-cylinder apparatuses (Yamashita)
- MS800-type Piston-cylinder apparatuses (Yoshino)
- Depth of the Earth Quick Press-type Piston-cylinder apparatuses (Xue)
- Internally heated pressure vessel (Yamashita)
- The high-pressure apparatus with DIA-type guide blocks (UHP-2000/20, AMAGAE) (Yoshino)
- DII-type multi-anvil press with deformation facility (Yamazaki)
- Basset-type, symmetrical-type Externally heated diamond anvil cells (Yamashita, Mashino)
- HDAC-V-type Externally heated diamond anvil cells (Xue)
- Diamond anvil cells (Mashino)
- Cold-seal hydrothermal apparatuses (Xue)

X-ray analytical equipment and Electron Microscope

- Powder X-ray diffractometer Rigaku SmartLab (Yoshino)
- Micro-focused X-ray diffractometer Rigaku RintRapid II (Yoshino)
- Electron probe micro analyzer JXA-8800 (Yamashita, Yoshino)
- Field-emission Electron probe microanalyzer with Soft X-ray Spectrum Detector JXA-8530F (Yoshino)
- Field-emission Electron probe microanalyzer JXA-8530F (Kunihiro)
- SEM JSM-7001F with EBSD and EDS (Yamazaki)
- Low Vacuum Field-emission SEM JSM-7001F with EDS (Kunihiro)
- High Vacuum Field-emission SEM JSM-7001F with EDS (Kunihiro)
- Transmission Electron Microscope JEM-7001F (Kobayashi)
- X-ray fluorescence spectrometer PANalytical Axios Advanced (Kitagawa)

Mass spectrometers

- Multi-collector ICP-MS: Thermo Fisher Scientific Neptune plus (Kobayashi)
- ICP-MS: Thermo Fisher Scientific iCAP TQ (Kitagawa)

- High-resolution inductively coupled plasma Mass Spectrometer: Thermo Fisher Scientific ELEMENT XR (Kobayashi)
- TIMS: Thermo Fisher Scientific Triton plus Bundle 2 SEM/RPQ (Tanaka)
- TIMS: Thermo Fisher Scientific Triton (Tanaka)
- TIMS: Thermo Fisher Scientific Triton plus (Tanaka)
- HR-SIMS: Cameca IMS-1280HR (Kunihiro)
- SIMS: Cameca IMS-5f (Kunihiro)
- Gas-IRMS: MAT 253 IRMS (Tanaka)
- Noble Gas-MS: Micromass VG 5400 (Kitagawa)
- Noble Gas-MS: Thermo Fisher Scientific Helix (Kitagawa)
- Orbitrap Mass Spectrometer: Thermo Fisher Scientific Orbitrap Fusion (Potiszil)
- GC-MS :Thermo Fisher Scientific TRACE 1310 & ISQ 7000 (Potiszil)

Spectrometers

- Micro-Raman spectrometers (Izawa,Mashino)
- Micro Raman spectrometer: Thermo Fisher Scientific Raman Spectroscopy (Kobayashi)
- Micro-FTIR spectrometer (Yamashita)
- Low-frequency micro-Raman spectrometer (Xue)
- Near infrared micro-Raman spectrometer (Xue)
- Vacuum FTIR spectrometer (Yoshino)
- Micro-FTIR spectrometer: Thermo Fisher Scientific Micro FT-IR (Kobayashi)
- High-resolution NMR spectrometer Bruker Avance NEO 400 MHz (Xue)
- Micro-Ruby fluorescence pressure measurement system (Xue)
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Planetary Surface Environment Simulator Equipment

- Planetary Surface Environment Simulation chamber HP2233-KIA (Kameda, Ruj)
- Hyperspectral camera Hyspex SWIR-640, VNIR-1800 (Kameda, Ohtake, Ruj, Izawa)
- Clinostat MO-2 (Kameda, Ruj, Izawa)

Other instruments

- UV laser micro-machining system (Mashino)
- Sputtering system (Yamazaki)
- Wire-cut electrical discharge machining (Yamazaki)
- Pulsed Laser Deposition System (Yamazaki)
- Focused Ion Beam Instrument JIB-4500 (CASTEM) (Kobayashi)
- Ion chromatographs Metrohm Compact IC 761 (Kitagawa)
- HPLC: Thermo Fisher Scientific Vanquish (Potiszil)

- Nanoflow High Performance Liquid Chromatograph Thermo Fisher Scientific Easy-nLC 1200 (Potiszil)
- High-temperature conversion elemental analyzer (Tanaka)
- Combustion elemental analyzer (Tanaka)
- GC-IsoLink system (Tanaka)
- Laser fluorination oxygen extraction system (Tanaka)
- Multifunctional organic sample preparation system: PAL RTC2000 (Potiszil)
- Rheometer (Kameda)
- Atomic force microscope (Kameda)
- Particle size and zeta potential analyzer (Kameda)
- Surface area and pore size distribution analyzer (Kameda)

Facilities of the Institute for Planetary Materials, Okayama University (table of charge)

category	Facility name () is in charge of facilities	Eligible for usage fee Facilities/Research Category ○ : Eligible × : In principle not eligible		charge *Depending on usage, payment on an hourly basis may be possible. Please consult with your IPM faculty member for details.				remarks
		International joint research General joint research	Joint Use of facility	charge to okayama university	charge to research center	charge to company		
High-temperature, high-pressure apparatus	6-axis high-pressure apparatus, 6UHP-70 (Yamazaki)	x	○	1,000 yen/time	2,000 yen/time	2,000 yen/time		
	KAWAI-type multi-anvil high-pressure apparatus, USSA-5000 (Yoshino)	x	○	1,000 yen/time	2,000 yen/time	2,000 yen/time		
	KAWAI-type multi-anvil high-pressure apparatus, USSA-1000 (Yamazaki)	x	○	1,000 yen/time	2,000 yen/time	2,000 yen/time		
	Boyd-England-type Piston-cylinder apparatuses (Yamashita)	x	○	—	—	—		As a rule, consumables such as high-pressure cells are to be brought in by the user.
	MS800-type Piston-cylinder apparatuses (Yoshino)	x	○	1,000 yen/time	2,000 yen/time	2,000 yen/time		
	Depth of the Earth Quick Press-type Piston-cylinder apparatuses (Xue)	x	○	2,000 yen/day	2,000 yen/day	4,000 yen/day		
	Internally heated pressure vessel (Yamashita)	x	○	0 yen/time	1,000 yen/time	1,000 yen/time		As the cost of pressure medium argon gas
	The high-pressure apparatus with DIA-type guide blocks (UHP-2000/20, AMAGAE) (Yoshino)	x	○	1,000 yen/time	2,000 yen/time	2,000 yen/time		
	DI-type multi-anvil press with deformation facility (Yamazaki)	x	○	1,000 yen/time	2,000 yen/time	2,000 yen/time		
	Basset-type, symmetrical-type Externally heated diamond anvil cells (Yamashita, Mashino)	x	○	0 yen/time	5,000 yen/day	5,000 yen/day		As the cost of argon-hydrogen mixed gas for purging
	HDAC-V-type Externally heated diamond anvil cells (Xue)	x	○	1,000 yen/day	1,000 yen/day	2,000 yen/day		
	Diamond anvil cells (Mashino)	x	○	—	2,000 yen/day	4,000 yen/day		
	Cold-seal hydrothermal apparatuses (Xue)	x	○	1,000 yen/day	1,000 yen/day	2,000 yen/day		
X-ray analytical equipment and Electron Microscope	Powder X-ray diffractometer Rigaku SmartLab (Yoshino)	x	○	800 yen/day	6,400 yen/day	19,200 yen/day		
	Micro-focused X-ray diffractometer Rigaku RintRapid II (Yoshino)	x	○	800 yen/day	6,400 yen/day	19,200 yen/day		
	Electron probe micro analyzer JXA-8800 (Yamashita, Yoshino)	x	○	0 yen/day	5,000 yen/day	5,000 yen/day		For consumable expenses such as filament, gas, etc.
	Field-emission Electron probe microanalyzer with Soft X-ray Spectrum Detector JXA-8530F (Yoshino)	x	○	2,000 yen/day	17,600 yen/day	52,000 yen/day		
	Field-emission Electron probe microanalyzer JXA-8530F (Kunihiro)	x	○	8,800 yen/day	1,760 yen/day	52,000 yen/day		
	SEM JSM-7001F with EBSD and EDS (Yamazaki)	x	○	2,000 yen/day	16,800 yen/day	50,400 yen/day		
	Low Vacuum Field-emission SEM JSM-7001F with EDS (Kunihiro)	x	○	8,000 yen/day	16,800 yen/day	50,400 yen/day		
	High Vacuum Field-emission SEM JSM-7001F with EDS (Kunihiro)	x	○	8,000 yen/day	16,800 yen/day	50,400 yen/day		
	Transmission Electron Microscope JEM-7001F (Kobayashi)	x	○	8,000 yen/day	16,800 yen/day	50,400 yen/day		
	X-ray fluorescence spectrometer PANalytical Axios Advanced (Kitagawa)	x	○	3,200 yen/day	6,400 yen/day	19,200 yen/day		
Mass spectrometers	Multi-collector ICP-MS: Thermo Fisher Scientific Neptune plus (Kobayashi)	x	○	16,000 yen/day	32,000 yen/day	80,000yen/day		
	ICP-MS: Thermo Fisher Scientific iCAP TQ (Kitagawa)	x	○	12,000 yen/day	24,000 yen/day	56,000yen/day		
	High-resolution inductively coupled plasma Mass Spectrometer: Thermo Fisher Scientific ELEMENT XR (Kobayashi)	x	○	12,000 yen/day	24,000 yen/day	136,000yen/day		
	TIMS: Thermo Fisher Scientific Triton plus Bundle 2 SEM/RPQ (Tanaka)	x	○	8,000 yen/day	16,000 yen/day	62,400yen/day		
	TIMS: Thermo Fisher Scientific Triton (Tanaka)	x	○	8,000 yen/day	16,000 yen/day	62,400yen/day		
	TIMS: Thermo Fisher Scientific Triton plus (Tanaka)	x	○	8,000 yen/day	16,000 yen/day	62,400yen/day		
	HR-SIMS: Cameca IMS-1280HR (Kunihiro)	x	○	16,000 yen/day	40,000 yen/day	216,000yen/day		
	SIMS: Cameca IMS-5f (Kunihiro)	x	○	16,000 yen/day	16,000 yen/day	88,000yen/day		
	Gas-IRMS: MAT 253 IRMS (Tanaka)	x	○	8,000 yen/day	16,000 yen/day	136,000yen/day		
	Noble Gas-MS: Micromass VG 5400 (Kitagawa)	x	○	8,000 yen/day	16,000 yen/day	80,000yen/day		
	Noble Gas-MS: Thermo Fisher Scientific Helix (Kitagawa)	x	○	8,000 yen/day	16,000 yen/day	136,000yen/day		
	Orbitrap Mass Spectrometer: Thermo Fisher Scientific Orbitrap Fusion (Potiszi)	x	○	11,200 yen/day	2,240 yen/day	88,000yen/day		
	GC-MS :Thermo Fisher Scientific TRACE 1310 & ISQ 7000 (Potiszi)	x	○	8,000 yen/day	16,000 yen/day	88,000yen/day		
Spectrometers	Micro-Raman spectrometers (Izawa,Mashino)	x	○	1,000 yen/day	8,000 yen/day	24,000 yen/day		
	Micro Raman spectrometer: Thermo Fisher Scientific Raman Spectroscopy (Kobayashi)	x	○	4,000yen/day	8,000yen/day	24,000yen/day		
	Micro-FTIR spectrometer (Yamashita)	x	○	0 yen/day	5,000 yen/day	5,000 yen/day		For the cost of nitrogen gas for purging
	Low-frequency micro-Raman spectrometer (Xue)	x	○	1,000 yen/day	8,000yen/day	24,000yen/day		
	Near infrared micro-Raman spectrometer (Xue)	x	○	1,000 yen/day	8,000yen/day	24,000yen/day		
	Vacuum FTIR spectrometer (Yoshino)	x	○	2,000 yen/day	16,800 yen/day	50,400 yen/day		
	Micro-FTIR spectrometer: Thermo Fisher Scientific Micro FT-IR (Kobayashi)	x	○	6,400yen/day	12,000yen/day	24,000yen/day		
	High-resolution NMR spectrometer Bruker Avance NEO 400MHz (Xue)	x	○	self-measurement 3,840yen/day requested-measurement 8,000yen/day	16,000yen/day	40,000yen/day		
	Micro-Ruby fluorescence pressure measurement system (Xue)	x	○	1,000 yen/day	1,000 yen/day	2,000 yen/day		
Planetary Surface Environment Simulator Equipment	Planetary Surface Environment Simulation chamber HP2233-KIA (Kameda, Ruj)	○	○	16,800yen/day	25,200yen/day	33,600yen/day		Depending on your usage, we offer the following benefits: For first-time users and short-term use within a week, the usage fee is waived. For long-term use of more than 10 days, we provide a special package fee. For more details, please contact the faculty member.
	Hyperspectral camera Hyspec SWIR-640, VNIR-1800 (Kameda, Ohtake, Ruj, Izawa)	○	○	48,000 yen/day	72,000 yen/day	96,000 yen/day		
	Clinostat MO-2 (Kameda, Ruj, Izawa)	○	○	1,840 yen/day	2,760 yen/day	3,680yen/day		

Other instruments	UV laser micro-machining system (Mashino)	x	○	1,000 yen/day	2,000 yen/day	4,000 yen/day	
	Sputtering system (Yamazaki)	x	○	2,000 yen/day	16,800 yen/day	50,400 yen/day	
	Wire-cut electrical discharge machining (Yamazaki)	x	○	1,000 yen/day	2,000 yen/day	4,000 yen/day	
	Pulsed Laser Deposition System (Yamazaki)	x	○	300 yen/day	400 yen/day	1,000 yen/day	
	Focused Ion Beam Instrument JIB-4500 (CASTEM) (Kobayashi)	x	○	8,000yen/day	16,800yen/day	50,400yen/day	
	Ion chromatographs Metrohm Compact IC 761 (Kitagawa)	x	○	12,000yen/day	24,000yen/day	64,000yen/day	
	HPLC: Thermo Fisher Scientific Vanquish (Potiszi)	x	○	8,000yen/day	16,000yen/day	88,000yen/day	
	Nanoflow High Performance Liquid Chromatograph Thermo Fisher Scientific Easy-nLC 1200 (Potiszi)	x	○	8,000yen/day	16,000yen/day	88,000yen/day	
	High-temperature conversion elemental analyzer (Tanaka)	x	○	8,000yen/day	16,000yen/day	88,000yen/day	
	Combustion elemental analyzer (Tanaka)	x	○	8,000yen/day	16,000yen/day	88,000yen/day	
	GC-Isolink system (Tanaka)	x	○	8,000yen/day	16,000yen/day	88,000yen/day	
	Laser fluorination oxygen extraction system (Tanaka)	x	○	4,000yen/day	8,000yen/day	88,000yen/day	
	Multifunctional organic sample preparation system: PAL RTC2000 (Potiszi)	x	○	4,000yen/day	8,000yen/day	88,000yen/day	
	Rheometer (Kameda)	x	○	1,000yen/day	10,400yen/day	31,200yen/day	
	Atomic force microscope (Kameda)	x	○	1,000 yen/day	10,400yen/day	31,200yen/day	
	Particle size and zeta potential analyzer (Kameda)	x	○	500yen/day	4,000yen/day	12,000yen/day	
	Surface area and pore size distribution analyzer(Kameda)	x	○	500yen/day	4,800yen/day	14,400yen/day	