

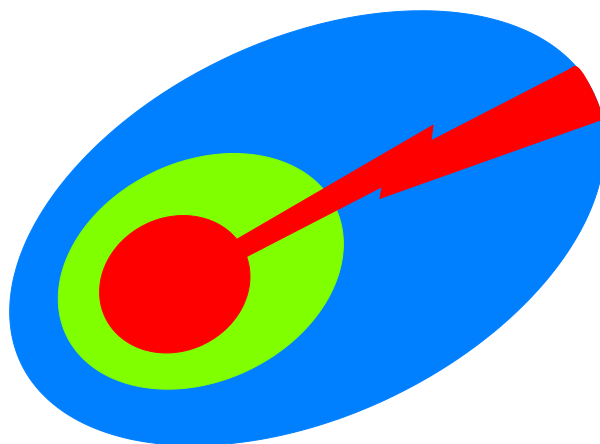
The 14th International Symposium
on
Applied Plasma Science

at

Lake Biwa Otsu Prince Hotel
Shiga, JAPAN

September 24 - 28, 2024

Shiga



ISAPS 2024

Sponsored by

Organizing Committee of ISAPS 2024
Institute of Applied Plasma Science

In cooperation with

Gifu University
Chulalongkorn University
Dalian University of Technology
IRS, University of Stuttgart, Warsaw University of Technology

ISAPS 2024

Dear Participant

It is our pleasure to invite you to participate in the 14th International Symposium on Applied Plasma Science: **ISAPS '24 (ISAPS 2024)**, held at the Lake Biwa Otsu Prince Hotel, Shiga, Japan, from September 24 through 28, 2024.

This symposium is organized by the Organizing Committee of **ISAPS '24**, which is co-sponsored by the Institute of Applied Plasma Science (**IAPS**) in cooperation with Gifu University, Chulalongkorn University, IRS at University of Stuttgart, Warsaw University of Technology, and Dalian University of Technology, etc. This will be held to promote international collaboration in Applied Plasma Sciences. And 80 researchers from all over the world will be expected to participate in this conference and to share their thoughts to establish strong connections with each other.

The 1st ISAPS was held in Los Angeles, USA, 1997, on the occasion of the 5th anniversary of the Institute of Applied Plasma Science, and the following ISAPS conferences are listed below:

- The 2nd ISAPS, in Osaka, Japan, 1999
- The 3rd ISAPS, in Alaska, USA, 2001
- The 4th ISAPS, in Kyoto, Japan, 2003
- The 5th ISAPS in Hawaii, USA, 2005
- The 6th ISAPS, in Nikko, Japan, 2007
- The 7th ISAPS, in Hamburg, Germany, 2009
- The 8th ISAPS, in Hakone, Japan, 2011
- The 9th ISAPS, in Istanbul, Turkey, 2013
- The 10th ISAPS, in Nara, Japan, 2015
- The 11th ISAPS, in Warsaw, Poland, 2017
- The 12th ISAPS, in Yamanashi, Japan, 2019
- The 13th ISAPS, in Stuttgart, Germany, 2022

The topics of **ISAPS 2024** focus mainly on plasma applications, including applications in microelectronics and application to environmental problems, as well as applications of other high-energy sources, such as electron, ion and laser beams. And 50 presentations are planned at the ISAPS '24. Those papers are compiled in the conference proceedings, entitled **ADVANCES IN APPLIED PLASMA SCIENCE, Vol. 14, 2024**.

Participants in this symposium cover a wide range of interdisciplinary scientific activities in the fields of energy, mechanical, electrical, material, and chemical sciences. Therefore, attendance of this symposium is expected to enhance future scientific collaborations. Strong international collaboration on Applied Plasma Science is demanded to solve many problems in plasma applications to the processing of functional materials, microelectronics, environmental problems, as well as many other industrial applications.

We strongly recommend that you attend this symposium and present your research results in this interdisciplinary research field. We are looking forward to seeing you at the **ISAPS '24**.

March 15, 2024

Symposium chair: A. Kobayashi,
Chulalongkorn Univ.
Bangkok 600300, Thailand

ORGANIZATION

Organizing Committee of ISAPS 2024

Akira Kobayashi; Chair	<i>Chulalongkorn University</i>
Kimiya Komurasaki	<i>University of Tokyo</i>
Takeshi Miyasaka; Co-Chair	<i>Gifu University</i>
Hirokazu Tahara	<i>Osaka Sangyo University</i>
Takaomi Matsutani	<i>Kindai University</i>
Nobuya Hayashi	<i>Kyushu University</i>
Nasr M. Ghoniem	<i>University of California, Los Angeles</i>
Georg Herdrich	<i>University of Stuttgart</i>
Yue Liu	<i>Dalian University of Technology</i>
Ryszard Sitek	<i>Warsaw University of Technology</i>
Rattachat Mongkolnavin	<i>Chulalongkorn University</i>

Advisory Committee:

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T. Meek (Tennessee Univ.),	P. V. A. Padmanabhan (BARC),
C-S. Wong (Univ. Malaya),	G. Van Oost (Ghent Univ.)

Executive Committee:

Chair:	A. Kobayashi (Osaka Univ)	Y. Hashimoto (Kobe City Coll. Tech.)
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Members:	K. Takaki (Iwate Univ.),	K. Komurasaki (Univ. of Tokyo),
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	S. Yokota (Univ. Tsukuba),	A. Kakami (Tokyo Metro. Univ.),
	H. Watanabe (JAXA),	T. Iwao (Tokyo City Univ.),
	R. Kawashima (Shibaura IT)	H. Horisawa (Tokai Univ.),
	A. Momozawa (Tokyo City Univ.)	H. Takikawa (Toyohashi Univ. Tech.)
	M. Matsui (Shizuoka Univ.),	Y. Yokomizu (Nagoya Univ.),
	H. Shiraishi (Daido Univ.),	H. Tahara (Osaka Sangyo Univ.),
	S. Tashiro (Osaka Univ.),	Y. Oka (Univ. Hyogo)
	T. Matsutani (Kindai Univ.),	H. Katsurayama (Tottori Univ.)
	H. Akamatsu (Kobe City Coll. Tech.),	N. Yamamoto (Kyushu Univ.),
	Y. Takao (Nishinippon Inst. of Tech.),	R. Mongkolnavin (Chula. Univ.),
	N. Hayashi (Kyushu Univ.),	A. Hassanein (Purdue Univ.),
	H. Huang (Univ. of North Texas),	C. P. Lungu (INFLPR),
	R. Sitek (Warsaw Univ. Tech.)	J. Krasa (Inst. of Phys, ASCR),
	G. Herdrich (Univ. of Stuttgart),	C-J. Li (Xi'an Jiaotong University),
	Y. Liu (Dalian Univ. of Tech.),	G. Shanmuga (Barathier Univ.),
	S. Yugeswaran (Pondcherry Univ.)	M-W. Park (Kyung Sung Univ.),
	K. Ostrikov (QUT),	
	R. El-Sheikhy (King Saud Univ.)	

Guide to ISAPS 2024

[Language]

The official language for the conference will be English.

[Registration]

To attend the ISAPS 2024 Conference, please fill out the Intention Form or Registration Form and return it to Prof. A. Kobayashi. Each delegate must fill in a separate form.

All participants should pay the following Registration Fee at the registration desk. Registration will be open at the Otsu Prince Hotel, during September 24-28.

	Member of IAPS	Non-Member of IAPS	Student	Member of Advisory Co.
Regular Reg. Fee	50,000 JPY (450 USD)	60,000 JPY (550 USD)	30,000 JPY (250 USD)	15,000 JPY (120 USD)
Pre-registration Fee (Until June 20, 2024)	45000 Yen	55000 Yen	25000 Yen	15000 Yen

**Note:* Registration Fee for accompanying person is 15,000 JPY (120 USD).

Registration fee does not cover the meals (lunch, banquet, etc.).

Each registration can only submit one paper.

Student who is not accompanied by regular participant should register as a regular participant.

For student, the registration fee does not include the proceedings. (5,000 yen for a copy)

The payment for **registration** should be made in **JAPANESE YEN or USD**.

Pre-Registration Fee should be remitted to the following Bank Account by June 20, 2024:

Bank name:	Sumitomo-Mitsui Banking Corporation Ibaraki Branch (169)
SWIFT CODE:	SMBC JP JT
Address:	7-6 Eidai-cho, Ibaraki, Osaka 567-0816, Japan
Phone:	+81-72-624-4951
Account Name:	ISAPS2015
Account No.:	169-4195528

Research Fields for ISAPS 2024

Applications of Plasma Science and other high-energy sources (electron beam, ion beam, laser beam, etc.); Plasma applications in microelectronics; Plasma applications to environmental problems; Advanced materials & Characterization; and Related applied sciences

[Research Topics]

Plasma production, diagnostics, Propulsion, modeling & simulations

Plasma processing (surface modification, deposition, thermal spray, etc.)

Plasma processing for hybrid functionally materials

Plasma applications to environmental problems

Advanced plasma processing technologies

Advanced materials (hybrid functionally materials, ceramics, composite materials, etc.)

Characterization and evaluation of materials

Industrial applications of directed energy sources (e-beams, ion beams, lasers)

[Proceedings]

All papers (4page maximum) in the proceedings must be refereed in advance. And the proper number of the refereed papers will be published in the conference book “**ADVANCES IN APPLIED PLASMA SCIENCE, Vol.14, 2024**” by the IAPS at the time of the symposium.

The format of the manuscript will be sent to the prospective authors at a later date.

The deadline for the manuscript for paper of the proceedings is **June 20, 2024**. **If you want to submit your paper to the special issue**, submit **Extended Abstract until June 30, 2024**.

#Late manuscripts may not be accepted for publication in the symposium proceedings.

*Categories in **ADVANCES IN APPLIED PLASMA SCIENCE, Vol.14, 2024**:

This book mainly focuses on the applications of *Plasma Science* and other high energy sources. The categories in this book are as follows:

Plasma production, diagnostics, modeling & simulations, propulsions

Plasma processing (surface modification, deposition, thermal spray, etc.)

Plasma processing for hybrid functionally materials

Plasma applications to environmental problems

Advanced plasma processing technologies and Advanced materials

Characterization and evaluation of materials

Industrial applications of directed energy sources (e-beams, ion beams, lasers)

Special Issues:

Authors of selected papers presented at the Symposium will be invited to submit full length (6 pages), peer-refereed manuscripts for publication in a special issue of **Vacuum** or the IAPS journal **Frontier of Applied Plasma Technology**. We are now planning to collect the following 2 type of contribution. In these cases, only the **Extended Abstract** will be appeared in the proceedings for avoiding its duplication.

1. **Journal: “Vacuum”** published by Elsevier (Aug. 2020). About **10** papers
2. **Journal: “Frontier of Applied Plasma Technology”** published by IAPS
5 papers for Volume 18, No.1 or 2 (2025)

[Deadline]	Abstracts submission (200words)	May 31, 2024
	Manuscript submission (4p or 2p)	June 20, 2024.
	Pre-registration	June 20, 2024
	Extended Abstract (1p)	June 30, 2024
	Payment of the Publication Fee	November 30, 2024
	Manuscript for Special Issue:	November 30, 2024

[Program]

The program of the ISAPS 2024 will be prepared at the end of May 2024, after the **Registration form** and/or **Abstract form** are accepted by the **Organized Committee of ISAPS 2024**. This program is subject to change without notice to the participants. And the final program will be prepared before symposium.

[Excursions]

City tour in Otsu, Shiga prefecture will be planned in the afternoon on September 25. There are a lot of interesting places for sightseeing surrounding Lake Biwa. Participants will obtain additional personal or group tours prior to the symposium.

A post conference tour to a unique site will be organized for Friday, September 30.

[Accommodation]

Several types of the **Lake Biwa Otsu Prince Hotel** would be reserved for the participants. Room rates are reasonably priced. The discount room rate will be available if the participants order to the Organizing Committee by **June 30, 2024**. **There are also some cheaper hotels in Otsu near the Lake Biwa Otsu Prince Hotel.** (Example: Double room of some Hotel may be 16000 yen/room/night, including tax.)

[Location & Transportation]

Otsu city in Shiga prefecture is next to Kyoto city, Japan. It takes 10 minutes from Kyoto station to Otsu station by JR train. Shiga prefecture is famous as Lake Biwa surrounded by plane and mountains. Hikone Castle is the heritage place in Japan and one of famous castle in Japan, it was registered as a national Heritage site. Mt. Hiei where is around Biwa-lakes, is famous tourist destination, where many kinds of ski attractions are.

It takes 90 minutes from Kansai Airport to Kyoto Station by limousine bus. and another 10 minutes to Otsu station by train.



LAKE BIWA OTSU PRINCE HOTEL:
4-7-7, Nionohama, Otsu City Shiga,
520-8520 Japan, Tel: +81-(0)77-521-1111

Official website:

<https://www.princehotels.co.jp/otsu/>

◇ ISAPS 2024 SCHEDULE ◇

DATE	EVENT	LOCATION	AFFILIATION
Sep. 23 (M), 2024	PM: Registration		Executive Committee
Sep. 24 (Tu), 2024	AM: Registration PM: Opening Session Plenary Session Oral Session A Eve: Reception	Lake Biwa Otsu Prince Hotel	Executive Committee
Sep. 25 (W), 2024	AM: Session B Session C PM: City Tour in Shiga	Lake Biwa Otsu Prince Hotel	EXCURSION
Sep. 26 (Th), 2024	AM: Session D Session E PM: Session F Poster Session 1 Eve: Banquet	Lake Biwa Otsu Prince Hotel	EXHIBITION
Sep. 27 (F), 2024	AM: Session G Session H PM: Poster Session 2 Eve: Campus visit	Lake Biwa Otsu Prince Hotel	
Sep. 28 (Sa), 2024	AM: Panel Discussion on Applied Plasma Science PM: Post Conference Tour		EXCURSION

Coming Deadline

Intention:
Abstracts submission (200words)

April 30, 2024
May 31, 2024

* All questions related to this symposium should be directed to the symposium chairman.

Prof. Akira Kobayashi, Chair: Chulalongkorn University, Univ. Tokyo
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Email: iaps-kobayashi@outlook.jp