International Conference on Advancing Molecular Spectroscopy

30 June~1 July 2018
Kwansei Gakuin Kaikan
TABLE OF CONTENTS

Welcome.............................................................................................................2
Sponsors and Exhibitors.........................................................................................3
General Information

  Conference Location..........................................................................................5
  Floor Plans............................................................................................................6
  Speaker/Poster Information...................................................................................8
  Poster Award.........................................................................................................8
  Banquet................................................................................................................8
Organizing Committee..............................................................................................9
Program..................................................................................................................10
Abstract

  Plenary Session....................................................................................................13
  Keynote Session...................................................................................................21
  Oral Session..........................................................................................................38
  Poster Session......................................................................................................60
Welcome to the International Conference on Advancing Molecular Spectroscopy (ICAMS)

On behalf of the ICAMS organizing committee, I would like to express sincere appreciation to each of the conference attendees. I also feel deeply grateful to the sponsoring companies and organizations.

The purpose of ICAMS is to review the last 30 years of molecular spectroscopy’s history and its prospect for the future. Researchers in various fields, including the fields of biomedicine, materials science, industry, engineering, and computation—all of which relate to molecular spectroscopy—get together at this conference. I hope that you feel relaxed and enjoy the lectures and discussions during the 2 days of this conference, and that you can polish your ideas for advancing your own research.

The field of molecular spectroscopy has expanded drastically in the last couple of decades. Since the Fourier-transform infrared (FT-IR) spectrometer became commercially available, this high performance instrument has been transferred from academic researchers to engineers and industrial researchers for studies with practical applications. Along with the distribution of low-cost personal computers, chemometrics has been introduced, and this has helped near infrared (NIR) spectroscopy become a useful nondestructive analytical tool. Raman spectroscopy, which has been used for a long time for chemical analyses, was more recently applied to biomedical studies. Development of the NIR excited FT-Raman spectrometer and NIR dispersion spectrometer equipped with a CCD detector pushed biomedical applications further. At present, the horizon of molecular spectroscopy has expanded into industrial applications, in addition to scientific research, and its front line continues to advance with no boundary in site.

This conference is dedicated to exploring new frontiers and to advancing into a new era by learning how molecular spectroscopy has developed and where it is going. We invited Professor Yukihiro OZAKI to give a plenary lecture. His footprints can be seen in various fields of research. Although he has always been at the top of the tops in his research, he has not stayed in one field, and his research history represents the evolution of molecular spectroscopy in the last 3 decades. We also invited eminent researchers in various fields of molecular spectroscopy research to give keynote lectures. They will provide insight into current topics. We expect young attendees to learn of the passion and dedication of world famous researchers and to draw inspiration for their own futures in science and the application of molecular spectroscopy.

Chairperson,
ICAMS Organizing Committee

Hidetoshi SATO
School of Science and Technology
Kwansei Gakuin University
Sponsors and Exhibitors

ICAMS Supporting Companies

Sponsor A
- KURABO Industries Ltd.
- Shimadzu Corporation
- YOKOGAWA Electric Corporation

Sponsor B
- Agilent Technologies
- HORIBA, Ltd.
- JASCO Corporation
- Metrohm Japan Ltd.
- Nanophoton Corporation
- Nihon Thermal Consulting Co.
- Shiseido Japan Co., LTD.
- Springer
- S.T. JAPAN Inc.
- Toray Research Center, Inc.
- UNISOKU Co., Ltd.

ICAMS Supporting Organization
- Tsutomu Nakauchi Foundation
- Kwansei Gakuin University
Conference Location

**Venue: Kwansei Gakuin Kaikan**
1-1-155, Uegahara, Nishinomiya, Hyogo 662-8501 JAPAN
Phone: 0798-54-6013

Kwansei Gakuin Kaikan is at the southeast end of Uegahara Nishinomiya Campus of Kwansei Gakuin University.

---

Organizing Committee
Chairperson: Hidetoshi Sato, Prof.
Secretariat: Ms. Kimiko UEHIGASHI
2-1, Gakuen, Sanda, Hyogo 669-1337 JAPAN
Phone & FAX: +81-79-565-7228; E-mail:
Floor Plans
Kwansei Gakuin Kaikan

2F

“Main Lobby”
Company Exhibition

“Reception Hall”
Conference & Banquet

1F Entrance

1F

“Tsubasa No Ma”

Poster Room
(July 1)

Cloakroom (Guest Room)

2F Main Lobby

B1 Toilet

Registration Counter

Restaurant “Poplar”

*Smoking Area is outside
Company Exhibitions

**Company Exhibition A**
1. KURABO Industries Ltd.
2. Shimadzu Corporation
3. YOKOGAWA Electric Corporation

**Company Exhibition B**
4. Agilent Technologies
5. HORIBA Ltd.
6. JASCO Corporation
7. Metrohm Japan Ltd.
8. Nanophoton Corporation
10. Springer
11. S.T. JAPAN Inc.
12. Toray Research Center, Inc.
13. UNISOKU Co., Ltd.
Speaker/Poster Information

Speakers
You can use your PC for presentation. Arrive at your session room prior to the session and check up on the connection with the projector during coffee break or lunch time. If you like to use the conference PC, please save your slides to a USB stick and check up before your session.

Poster Session
The poster session is held from 13:20 to 15:30 on 1 July at "TSUBASA NO MA" room. The poster space is 83 cm wide and 163 cm tall panel. Please prepare your presentation poster to fit in the space. Set up your poster after 13:00 on 1 July. The sticker and adhesive tape are available at the registration desk.

Poster Award
Poster Awards will be presented to the best student poster presenters. Students stay at their own posters until 14:30 for reviewers. The Award ceremony will be held in the banquet. When the student is absent, the result will be sent by postal mail after the conference.

Banquet
Banquet will be held at Main hall from 15:30 to 18:30 on 1 July. Main hall will be totally closed for preparation of the banquet from 13:30 to 15:30. Your luggage will be kept at cloakroom during the poster session and banquet.

Cloakroom
Please keep valuables with you. The cloakroom service may be closed during the conference and banquet. Service time will be announced at the cloakroom. If you like to take your luggage out during the closed time, please tell the staff when you deposit your luggage.
Organizing Committee

Chairperson
Hidetoshi SATO, Professor
School of Science and Technology, Kwansei Gakuin University
E-mail: hidesato@kwansei.ac.jp

Vise-Chairperson
Harumi SATO, Professor
Kobe University
E-mail: hsato@tiger.kobe-u.ac.jp

Committee
Shinko ENOMOTO
Shimadzu Co.
E-mail: enoshin@shimadzu.co.jp

Mika ISHIGAKI, Assistant Professor
School of Science and Technology, Kwansei Gakuin University
E-mail: ishigaki-mika@kwansei.ac.jp

Akinori TAKETANI, Assistant Professor
School of Science and Technology, Kwansei Gakuin University
E-mail: ataketani@kwansei.ac.jp

Shin-ichi MORITA, Associate Professor
Tohoku University
E-mail: shinmorita@m.tohoku.ac.jp

Secretariat
Kimiko UEHIGASHI
School of Science and Technology, Kwansei Gakuin University
E-mail: k-uehigashi@kwansei.ac.jp
Phone & FAX: 079-565-7228
International Conference on Advancing Molecular Spectroscopy (ICAMS)

Date: 30 June-1 July 2018
Place: Kwansei Gakuin Kaikan
in Nishinomiya Campus of Kwansei Gakuin University

PROGRAM

June 30 (Sat)  

【Main Room (Reception Hall)】

8:10 Registration open

9:00 Opening Remarks
Hidetoshi SATO (Kwansei Gakuin University)

9:00 - 9:30 Plenary Lecture
Yukihiro OZAKI (Kwansei Gakuin University)

9:30 - 10:00* Hiro-o HAMAGUCHI (National Chiao Tung University)
10:00 - 10:30* Janina KNEIPP (Humboldt-Universitat zu Berlin)

10:30 - 10:50 Coffee Break

10:50 - 11:20* Malgorzata BARANSKA (Jagiellonian University)
11:20 - 11:50* Bernhard LENDL (Vienna University of Technology)
11:50 - 12:20* Bayden WOOD (Monash University)

12:20 - 13:20 Lunch (Coffee & Sandwich)

13:20 - 13:50* Satoshi KAWATA (Osaka University)
13:50 - 14:20* Volker DECKERT (Jena University)
14:20 - 14:50* Bin REN (Xiamen University)

14:50 - 15:10 Coffee Break
15:10 - 15:40* Heinz SIESLER (University of Duisburg-Essen)
15:40 - 16:10* Isao NODA (University of Delaware)
16:10 - 16:40* Young Mee JUNG (Kangwon National University)

16:40 - 17:00 Coffee Break

17:00 - 17:30* Takeshi HASEGAWA (Kyoto University)
17:30 - 18:00* Boris MIZAIKOFF (Ulm University)
18:00 - 18:30* Siva UMAPATHY (Indian Institute of Science)
18:30 - 19:00* Christian HUCK (University of Innsbruck)

**JULY 1 (Sun)** ..............................................................

【Room 1】
9:00 - 9:20 Roumiana TSENKOVA (Kobe University)
9:20 - 9:40 Sanong EKGASIT (Chulalongkorn University)
9:40 - 10:00 Yuqing WU (Jilin University)
10:00 - 10:20 Jianming ZHANG
(Qindao University of Science & Technology)
10:20 - 10:40 Yizhuang XU (Peking University)
10:40 - 11:00 Hoeil CHUNG (Hanyang University)

11:00 - 11:20 Coffee Break

11:20 - 11:40 Hai-Long WU (Hunan University)
11:40 - 12:00 Kamilla MALEK (Jagiellonian University)
12:00 - 12:20 Tatsuyuki YAMAMOTO (Shimane University)
12:20 - 12:40 Yiping DU (East China University of Science and Technology)
12:40 - 13:10* Katsumasa FUJITA (Osaka University)

【Room 2】
9:00 - 9:20 Tamitake ITO (AIST)
9:20 - 9:40 Jian-Hui JIANG (Hunan University)
9:40 - 10:00 Zhijun ZHANG (Chinese Academy of Sciences)
10:00 - 10:20 In-Sang YANG (Ewha Womans University)
10:20 - 10:40 Lehui LU (Chinese Academy of Sciences)
10:40 - 11:00 Jianlin YAO (Soochow University)
11:00 - 11:10  Coffee Break

11:10 - 11:30  Xiaoxia HAN (Jilin University)
11:30 - 11:50  Wei SONG (Jilin University)
11:50 - 12:10  Jyisy YANG (National Chung Hsing University)
12:10 - 12:30  Marek WOJCIK (Jagiellonian University)
12:30 - 13:00*  Masahiro EHARA (Institute for Molecular Science)
13:00 - 13:30*  Lei GENG (The University of Iowa)

【Tsubasa-No-Ma Room】
13:30 - 15:30  Poster Session (with Coffee & Sandwich)

【Main Room (Reception Hall)】
15:30 - 18:30  Banquet