

38th Symposium on
Chemical Kinetics and Dynamics
Book of Abstracts

第 38 回化学反応討論会
講演要旨集

June 7 (Wed) – 9 (Fri), 2023

Kyushu University Nishijin Plaza

Hosted by
Local Organizing Committee of SCKD38

Co-hosted by
KYUSHU UNIVERSITY Faculty of Science
The Kyushu Branch of the Chemical Society of Japan

Cooperated by
Japan Society for Molecular Science
The Atomic Collision Society of Japan
The Society of Nano Science and Technology
The Spectroscopical Society of Japan

Venue

Kyushu University Nishijin Plaza

2-16-23 Nishijin, Sawara-ku,

Fukuoka 814-0002, Japan

Tel: 092-831-8104

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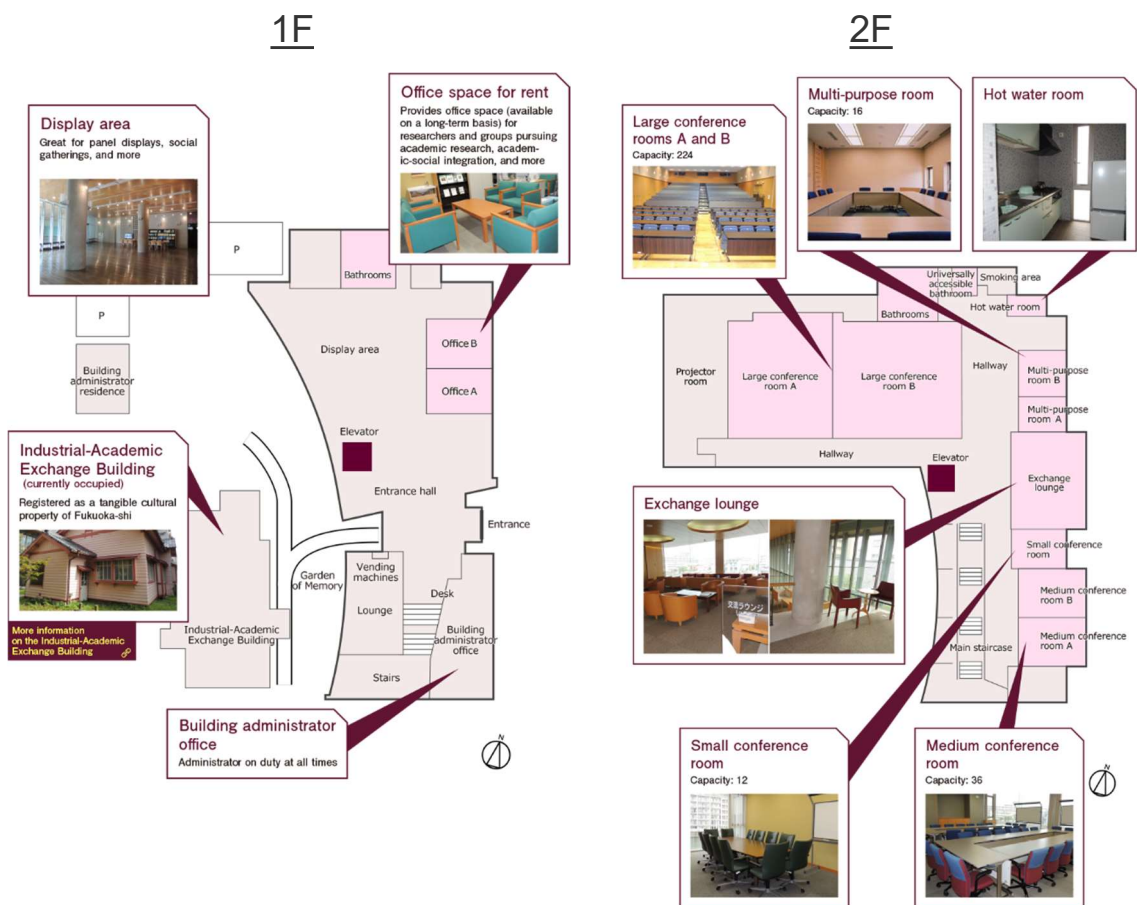


Oral presentations: Large conference room AB (2F)

Poster presentations: Display area (1F)

Exhibitions: Hallway (2F)

Registration: Entrance Hall (1F)



38th Symposium on Chemical Kinetics and Dynamics

Special Lecture: (50 min, including discussion)

SL "Molecular design of nanomembrane for direct air capture"

FUJIKAWA, Shigenori (Kyushu University)

June 8, 14:00 - 14:50

Invited Lectures: (40 min, including discussion)

IL1 "Exploring complex reaction dynamics using multidimensional vibrational spectroscopy"

YONEDA, Yusuke (Institute for Molecular Science)

June 7, 10:50 - 11:30

IL2 "Atomic-scale visualization of single-molecule photocurrent generation"

IMAI-IMADA, Miyabi (RIKEN)

June 7, 13:45 - 14:25

IL3 "Physics and chemistry of interstellar ice: A laboratory perspective"

HAMA, Tetsuya (The University of Tokyo)

June 8, 10:45 - 11:25

IL4 "Structural and electronic-state dynamics revealed in ultrafast electron microscopy"

KWON, Oh-Hoon (Ulsan National Institute of Science and Technology)

June 9, 9:40 - 10:20

IL5 "Antihydrogen laser cooling and spectroscopy"

MOMOSE, Takamasa (The University of British Columbia)

June 9, 14:10 - 14:50

Oral Presentations: (June 7 - 9)

1A1 - 3A2 (15 min talk with 10 min discussion)

Poster Presentations:

1P01 - 1P29 (June 7, 15:05 - 16:35)

2P01 - 2P29 (June 8, 14:55 - 16:25)

3P01 - 3P19 (June 9, 10:35 - 12:05)

Day 1 (6/7)	Day 2 (6/8)	Day 3 (6/9)
Opening Remarks 9:15 - 9:20		
1A1 KARASHIMA 9:20 - 9:45 1A2 MURAKAMI 9:45 - 10:10 1A3 LÖTSTEDT 10:10 - 10:35 Chair YAMAZAKI (RIKEN)	2A1 ONITSUKA 9:15 - 9:40 2A2 MATSUBARA 9:40 - 10:05 2A3 HISHIKAWA 10:05 - 10:30 Chair YAMAZAKI (Tokyo Tech.)	3A1 YAMAZAKI 9:15 - 9:40 IL4 KWON 9:40 - 10:20 Chair ONITSUKA (Tohoku Univ.)
		Coffee/Tea Break 10:20 - 10:35
Coffee/Tea Break 10:35 - 10:50	Coffee/Tea Break 10:30 - 10:45	
IL1 YONEDA 10:50 - 11:30 1A4 IWASA 11:30 - 11:55 Chair ITAKURA (QST)	IL3 HAMA 10:45 - 11:25 2A4 ISHIBASHI 11:25 - 11:50 2A5 MIZUNO 11:50 - 12:15 Chair KOHGUCHI (Hiroshima Univ.)	Poster Presentations 3P01 - 3P19 10:35 - 12:05
Lunch Break 11:55 - 13:45	Lunch Break 12:15 - 14:00	Lunch Break 12:05 - 13:45
IL2 IMAI-IMADA 13:45 - 14:25 1A5 ZHANG 14:25 - 14:50 Chair YAMAGUCHI (Kyushu Univ.)	SL FUJIKAWA 14:00 - 14:50 Chair ONDA (Kyushu Univ.)	3A2 HINO 13:45 - 14:10 IL5 MOMOSE 14:10 - 14:50 Chair OHSHIMA (Tokyo Tech.)
Coffee/Tea Break 14:50 - 15:05	Short Break 14:50 - 14:55	Poster Award Ceremony 14:50 - 15:10
		Closing Remarks 15:10 - 15:15
Poster Presentations 1P01 - 1P29 15:05 - 16:35	Poster Presentations 2P01 - 2P29 14:55 - 16:25	
	Coffee/Tea Break 16:25 - 16:40	
Short Break 16:35 - 16:40		
1A6 YOSHIDA 16:40 - 17:05 1A7 IMADA 17:05 - 17:30 Chair KARASHIMA (Kyoto Univ.)	2A6 WATANABE 16:40 - 17:05 2A7 SUZUKI 17:05 - 17:30 Chair MATSUMOTO (Shizuoka Univ.)	

Day 1: June 7 (Wed.)

9:20 - 10:35 Oral Presentations (Chair: YAMAZAKI, Kaoru)

- 1A1** Ultrafast ring closure reaction of gaseous cis-stilbene
KARASHIMA, Shutaro¹; MIAO, Xincheng²; KANAYAMA, Akio¹;
YAMAMOTO, Yo-ichi¹; NISHITANI, Junichi¹; KAVKA, Nikita²; MITRIC,
Roland²; SUZUKI, Toshinori¹
(¹Kyoto University, ²Universität Würzburg)
- 1A2** The branching dynamics simulations using QCT, classical MD and RPMD of
post-transition-state bifurcation
MURAKAMI, Tatsuhiko^{1,2}; MATSUMOTO, Naoki¹; KIKUMA, Yuya¹;
IBUKI, Shunichi¹; OGINO, Kanon¹; HASHIMOTO, Yu¹; TAKAYANAGI,
Toshiyuki¹
(¹Saitama University, ²Sophia University)
- 1A3** Quantum computing of time-dependent spin chain dynamics
LÖTSTEDT, Erik; WANG, Lidong; YOSHIDA, Ryuhei; ZHANG, Youyuan;
YAMANOUCHI, Kaoru
(The University of Tokyo)

10:35 - 10:50 Coffee/Tea Break

10:50 - 11:55 Oral Presentations (Chair: ITAKURA, Ryuji)

- IL1** Exploring complex reaction dynamics using multidimensional vibrational
spectroscopy
YONEDA, Yusuke
(Institute for Molecular Science)
- 1A4** Investigating the photo-relaxation mechanism of 6-azauracil through *ab*
initio molecular dynamics simulations
IWASA, Nana¹; NANBU, Shinkoh²
(¹Graduate School of Science and Technology, Sophia University; ²Faculty of
Science and Technology, Sophia University)

11:55 - 13:45 Lunch Break

13:45 - 14:50 Oral Presentations (Chair: YAMAGUCHI, Masato)

- IL2** Atomic-scale visualization of single-molecule photocurrent generation
IMAI-IMADA, Miyabi
(RIKEN)
- 1A5** Hydrogen desorption process in gas phase single Nb-doped Al clusters
ZHANG, Yufei; NAGATA, Toshiaki; KUDOH, Satoshi; MIYAJIMA, Ken;
MAFUNÉ, Fumitaka
(Graduate School of Arts and Sciences, The University of Tokyo)

14:50 - 15:05 Coffee/Tea Break

15:05 - 16:35 Poster Presentations

16:35 - 16:40 Short Break

16:40 - 17:30 Oral Presentations (Chair: KARASHIMA, Shutaro)

- 1A6** Danger of using minimum energy pathway for spin crossover reaction: A case study for Ni + CO and Ni + N₂ reactions
YOSHIDA, Daisuke¹; TAKAHASHI, Kaito²
(¹Nishina Center, RIKEN; ²Institute of Atomic and Molecular Sciences, Academia Sinica)
- 1A7** Precise laser nanospectroscopy of single phthalocyanine molecules using a scanning tunneling microscope
IMADA, Hiroshi¹; IMAI-IMADA, Miyabi^{1,2}; KIM, Yousoo^{1,3}
(¹RIKEN; ²JST, PRESTO; ³The University of Tokyo)

Day 2: June 8 (Thu.)

9:15 - 10:30 Oral Presentations (Chair: YAMAZAKI, Masakazu)

- 2A1** Development of an imaging method of intramolecular atomic motion
ONITSUKA, Yuuki¹; TACHIBANA, Yuichi¹; KANAYA, Satoru¹; KONO, Hirohiko²; TAKAHASHI, Masahiko¹
(¹IMRAM, Tohoku University; ²Graduate School of Science, Tohoku University)
- 2A2** Ultrafast pump-probe measurement of CO₂ by few-cycle NIR pulses and the XUV high-order harmonics
MATSUBARA, Takuya; MASHIKO, Hiroki; YAMAUCHI, Tomoya; YAMADA, Kana; ANDO, Toshiaki; IWASAKI, Atsushi; YAMANOUCHI, Kaoru
(The University of Tokyo)
- 2A3** Orbital effects in laser tunneling ionization of Ar and H₂ studied by electron-ion coincidence momentum imaging
IKEYA, Daimu¹; FUJISE, Hikaru¹; INABA, Shinnosuke¹; TAKAHASHI, Minami¹; YAMAMOTO, Masateru¹; NAKAMURA, Takeru¹; NAGAO, Yu¹; MATSUDA, Akitaka¹; FUSHITANI, Mizuho¹; HISHIKAWA, Akiyoshi^{1,2}
(¹Dep. Chem., Nagoya Univ.; ²RCMS, Nagoya Univ.)

10:30 - 10:45 Coffee/Tea Break

10:45 - 12:15 Oral Presentations (Chair: KOHGUCHI, Hiroshi)

- IL3** Physics and chemistry of interstellar ice: A laboratory perspective
HAMA, Tetsuya
(The University of Tokyo)
- 2A4** High-sensitivity analysis of photoproducts from methanol adsorbed on water ice surface: Elucidation of efficient formation process of methyl formate
ISHIBASHI, Atsuki; HIDAKA, Hiroshi; OBA, Yasuhiro; KOUCHI, Akira; WATANABE, Naoki
(Hokkaido University)

2A5 Simulating fast and slow chemical kinetics with dynamic mode decomposition
MIZUNO, Yuta¹; SUMIYA, Yosuke²; HIMEOKA, Yusuke³
(¹Hokkaido University, ²Kyushu University, ³The University of Tokyo)

12:15 - 14:00 Lunch Break

14:00 - 14:50 Oral Presentations (Chair: ONDA, Ken)

SL Molecular design of nanomembrane for direct air capture
FUJIKAWA, Shigenori
(Kyushu University)

14:50 - 14:55 Short Break

14:55 - 16:25 Poster Presentations

16:25 - 16:40 Coffee/Tea Break

16:40 - 17:30 Oral Presentations (Chair: MATSUMOTO, Yoshiteru)

2A6 Determination of the activation energy for diffusion of OH radicals on water ice
MIYAZAKI, Ayane¹; TSUGE, Masashi¹; HIDAKA, Hiroshi¹; NAKAI, Yoichi²; WATANABE, Naoki¹
(¹Hokkaido University, ²RIKEN Nishina Center)

2A7 Formation of dark states during electronic relaxation of pyrimidine bases studied using EUV time-resolved photoelectron spectroscopy
ORIMO, Natsumi; YAMAMOTO, Yo-ichi; KARASHIMA, Shutaro; BOYER, Alexie; SUZUKI, Toshinori
(Kyoto University)

Day 3: June 9 (Fri.)

9:15 - 10:20 Oral Presentations (Chair: ONITSUKA, Yuuki)

3A1 X-ray induced proton transfer in O(1s) core-ionized trimethylamine aqueous solution

YAMAZAKI, Kaoru^{1,2}; MIDORIKAWA, Katsumi¹
(¹RAP, RIKEN; ²JST-PRESTO)

IL4 Structural and electronic-state dynamics revealed in ultrafast electron microscopy

KWON, Oh-Hoon
(Ulsan National Institute of Science and Technology)

10:20 - 10:35 Coffee/Tea Break

10:35 - 12:05 Poster Presentations

12:05 - 13:45 Lunch Break

13:45 - 14:50 Oral Presentations (Chair: OHSHIMA, Yasuhiro)

3A2 Tensor network theory for high-dimensional wave packet dynamics

HINO, Kentaro; KURASHIGE, Yuki
(Kyoto University)

IL5 Antihydrogen laser cooling and spectroscopy

MOMOSE, Takamasa
(The University of British Columbia)

14:50 - 15:10 Poster Award Ceremony

15:10 - 15:15 Closing Remarks

Poster Presentations

***Candidates for the Best Poster Prize**

Day 1: June 7 (Wed.) 15:05 – 16:35

- 1P01** Surface reactions of hydrogen atoms with CH₃OH and CH₃SH on water ice at very low temperatures
NGUYEN, Thanh¹; OBA, Yasuhiro¹; SAMEERA, W.M.C.^{1,2}; WATANABE, Naoki¹
(¹Hokkaido University, ²University of Colombo)
- 1P02** Intramolecular proton transfer in protonated aminobenzoic acid studied by ion mobility-mass spectrometry and ab initio molecular dynamics simulation
OHSHIMO, Keijiro; TAKASAKI, Yuya; TSUNODA, Kengo; ITO, Ryosuke; KANNO, Manabu; MISAIZU, Fuminori
(Graduate School of Science, Tohoku University)
- 1P03** Experimental determination of CH₃OH + OH reaction branching ratio on water ice surface at 10 K
ISHIBASHI, Atsuki¹; HIDAKA, Hiroshi¹; SAMEERA, W. M. C.²; OBA, Yasuhiro¹; WATANABE, Naoki¹
(¹Hokkaido University, ²University of Colombo)
- 1P04*** Observation of spontaneous alignment of fibrous J-aggregates inducing macroscopic anisotropy in solutions
HARADA, Mio¹; YAMAMOTO, Syunsuke¹; YATSUHASHI, Tomoyuki²; SAKOTA, Kenji²
(¹Osaka City University, ²Osaka Metropolitan University)
- 1P05*** Isomerization pathways in four isomer reaction system of azobenzene derivative SR7B with multi-color excitation
YAMAMOTO, Akimasa; WADA, Akihide
(Kobe University)
- 1P06*** CH₃ and H atom product pathways in the photodissociation of dimethylamine
WANGCHINGCHAI, Peerapat; KARINO, Momiji; YAMASAKI, Katsuyoshi; KOHGUCHI, Hiroshi
(Hiroshima University)

- 1P07*** Determination of the ν_6 -mode vibrational energy of $ZnCH_3$ based on the precise assignment of the dispersed vibronic spectra
KOIDE, Naoki; HAZE, Misato; OKUDA, Yuuka; YAMASAKI, Katsuyoshi;
KOHGUCHI, Hiroshi
(Hiroshima Univ.)
- 1P08*** Shock tube pyrolysis of C_5 - C_6 branched alkanes at atmospheric and high pressures
MORIYAMA, Hiroto; YAMANAKA, Nobutaka; YAMADA, Hiroshi;
YASUNAGA, Kenji
(National Defense Academy)
- 1P09*** Theoretical study on nonadiabatic dissociation processes of OCS^{2+} induced by direct photo-ionization
KAMBARA, Ryuto¹; TSUTSUMI, Takuro¹; FURUYA, Kenji²; TAKETSUGU, Tetsuya¹
(¹Hokkaido University, ²Kyushu University)
- 1P10*** Infrared measurement for the column density of dangling-OH bonds in amorphous ice at 20 K
HASEGAWA, Takeshi; YANAGISAWA, Hiroto; NAGASAWA, Takumi;
NUMADATE, Naoki; HAMA, Tetsuya
(The University of Tokyo)
- 1P11*** Extension of atomic momentum spectroscopy from diatomic molecules to polyatomic molecules
KANAYA, Satoru¹; ONITSUKA, Yuuki¹; WATANABE, Noboru¹; KONO, Hirohiko²; TAKAHASHI, Masahiko¹
(¹IMRAM, Tohoku University; ²Department of Chem., Grad. Sch. of Science, Tohoku Univ)
- 1P12*** State-resolved observation of NO^+ reaction with organic compounds by guided ion beam apparatus
NAKAYAMA, Keigo; SAKUDA, Taro; YAMASAKI, Katsuyoshi; KOHGUCHI, Hiroshi
(Hiroshima University)

- 1P13*** Research of *trans*-stilbene by high-resolution laser spectroscopy of the $S_1 \leftarrow S_0$ transition
SHIMIZU, Akira¹; KASAHARA, Shunji^{1,2}; BABA, Masaaki²; NAKAYAMA, Naofumi³
 (¹Graduate School of Science, Kobe-Univ, Japan; ²Molecular PhotoScience Research Center, Kobe-Univ, Japan; ³CONFLEX CO., Japan)
- 1P14*** Solvation dependence of the excited-state dynamics of triphenyltriazine-based molecules exhibiting thermally activated delayed fluorescence
RYU, Tomohiro¹; SAIGO, Masaki¹; SHIMODA, Yuushi¹; MIYATA, Kiyoshi¹; TSUCHIYA, Youichi²; NAKANOTANI, Hajime²; RUSECKAS, Arvydas³; SAMUEL, Ifor³; ADACHI, Chihaya²; ONDA, Ken¹
 (¹Department of Chemistry, Kyushu University; ²OPERA, Kyushu University; ³School of Physics & Astronomy, University of St Andrews)
- 1P15*** Systematic search for oxidation pathways of methane on the PdO (101) surface
NABATA, Hitoshi¹; MAEDA, Satoshi^{2,3,4,5}
 (¹Graduate School of Chem. Sci. and Eng., Hokkaido Univ.; ²Faculty of Science, Hokkaido Univ.; ³WPI-ICReDD, Hokkaido Univ.; ⁴NIMS; ⁵JST-ERATO)
- 1P16*** Photoelectron-photoion coincidence imaging studies on photoionization dynamics of CF₄ by intense femtosecond laser
KIMURA, Taiki; OHSHIMA, Yasuhiro; YAMAZAKI, Masakazu
 (Tokyo Institute of Technology)
- 1P17*** Efficient Exploration of Highly Enantioselective Reactions by Bayesian Optimization
HASHIBA, Shunichi¹; TABATA, Koji¹; MATSUMURA, Yoshihiro¹; TERAYAMA, Kei²; KOMATSUZAKI, Tamiki¹
 (¹Hokkaido University, ²Yokohama City University)
- 1P18*** Effect of Cu doping on optical properties in carbon dots
WATANABE, Touya¹; FUKI, Masaaki²; KOBORI, Yasuhiro²; HAMADA, Morihiko¹
 (¹Kobe City College of Technology, ²Kobe University)
- 1P19*** Congruent evaporation of forsterite (Mg₂SiO₄) in low-pressure hydrogen gas
INADA, Shiori; TACHIBANA, Shogo
 (Dept. Earth Planet. Sci., University of Tokyo)

- 1P20*** Nascent vibrational energy distribution of CS($X^1\Sigma^+$) generated in the S(1D) + CS₂ reaction
KUROKO, Yuri; KOHGUCHI, Hiroshi; YAMASAKI, Katsuyoshi
 (Hiroshima Univ.)
- 1P21*** Development of transient absorption spectrometer using broad-band deep ultraviolet probe pulses
SHIOMOTO, Rin; ADACHI, Shunsuke; OBARA, Yuki; SUZUKI, Toshinori
 (Kyoto University)
- 1P22*** Precise assignment of the vibronic spectra of NS($A^2\Delta-X^2\Pi$) overlapping with the H² $\Pi-X^2\Pi$ and B² $\Pi-X^2\Pi$ transitions
YAMADA, Rintaro; KOHGUCHI, Hiroshi; YAMASAKI, Katsuyoshi
 (Hiroshima Univ.)
- 1P23*** Excited-state dynamics of D₃-symmetric dinuclear triple-stranded helicates using Al(III) ions studied by transient absorption spectroscopy
EHARA, Takumi¹; MIYATA, Kiyoshi¹; ONO, Toshikazu¹; MURANAKA, Atsuya²; YONEDA, Yusuke³; KURAMOCHI, Hikaru³; ONDA, Ken¹
 (¹Kyushu University, ²RIKEN CSRS, ³Institute for Molecular Science)
- 1P24*** Purification of liquid carboxylic acids by recrystallization method and measurement of absorption spectra in near UV wavelength
SAITO, Shota; TERAOKA, Hidemasa; NUMADATE, Naoki; HAMA, Tetsuya
 (Komaba Institute for Science, The University of Tokyo)
- 1P25*** The formation of water-cage structure relevant to methane hydrate in cryogenic and ultrahigh vacuum conditions
SATO, Reo; TANIGUCHI, So; NUMADATE, Naoki; HAMA, Tetsuya
 (Komaba Institute for Science, UTokyo)
- 1P26*** Ultrafast intramolecular charge transfer dynamics of 9-arylcarbazole in organic solvents by using empirical stochastic model
TAKAMOTO, Kazuya¹; UENO, Yoshifumi¹; OHTA, Kaoru^{1,2}; HAYASHI, Michitoshi³; AKIMOTO, Seiji¹; MATSUBARA, Ryosuke¹; TOMINAGA, Keisuke^{1,2}
 (¹Graduate School of Science, Kobe Univ.; ²Molecular Photoscience Research Center, Kobe Univ.; ³Center for Condensed Matter Sciences, National Taiwan Univ.)

- 1P27*** Photoelectron imaging of icosahedral silver cluster anions doped with a group 5 metal atom: Ag_{12}M (M = V, Nb, and Ta)
SUZUKI, Yuta; NISHIZATO, Tasuku; HASHIMOTO, Haruki; MATSUMOTO, Kazuaki; NOMI, Rin; ARAKAWA, Masashi; HORIO, Takuya; TERASAKI, Akira
 (Department of Chemistry, Kyushu University)
- 1P28*** Conformation analyses of alkylbenzenes by Penning ionization electron spectroscopy and DFT calculations
SHIMIZU, Shigeyuki; TAKAHASHI, Ryo; YAMAKITA, Yoshihiro
 (University of Electro-Communications)
- 1P29*** Orientation distribution of alkylbenzenes in a supersonic molecular beam: Penning ionization electron spectroscopy study
TAKAHASHI, Ryo; SHIMIZU, Shigeyuki; YAMAKITA, Yoshihiro
 (University of Electro-Communications)

Day 2: June 8 (Thu.) 14:55 – 16:25

- 2P01*** Asymmetric dissociative ionization of vibrationally excited NO_2 in phase-locked two-color intense laser fields
ONO, Yuki; KATO, Mizuki; HASEGAWA, Hiroka; MATSUDA, Akitaka; HISHIKAWA, Akiyoshi
 (Nagoya University)
- 2P02*** Chemical kinetic study on the reactions of OH with 1- and isobutene.
FUSHIMI, Ryota; HERMAN, Hurin Romadona; OGUCHI, Tatsuo
 (Toyohashi University of Technology)
- 2P03*** Overtone Spectroscopy of Micro-Solvated Protonated Methanol Clusters
YANG, Yaodi¹; FUJII, Asuka¹; HUANG, Qian-Rui²; KUO, Jer-Lai²
 (¹Tohoku University; ²Institute of Atomic and Molecular Science, Academic Sinica)
- 2P04** Optimal control of nonresonant laser-induced vibrational dynamics of I_2
 ISHII, Reon¹; NAMBA, Tomotaro¹; KATSUKI, Hiroyuki²; OHMORI, Kenji^{3,4}; OHTSUKI, Yukiyoshi¹
 (¹Tohoku University, ²Nara Institute of Science and Technology, ³IMS, ⁴The Graduate University of Advanced Studies (SOKENDAI))

- 2P05** Energy dissipation upon the ortho-to-para conversion of H₂ on low temperature interstellar grain surfaces: Amorphous silicate, diamond-like carbon, and amorphous solid water
TSUGE, Masashi; KOUCHI, Akira; WATANABE, Naoki
(Hokkaido University)
- 2P06** Photodesorption of OH radicals adsorbed on ice surface in a visible region
SIE, Nien¹; TSUGE, Masashi¹; NAKAI, Yoichi²; SAMEERA, W.M.C.^{1,3}; WATANABE, Naoki¹
(¹Hokkaido University; ²Nishina Center, RIKEN; ³University of Colombo)
- 2P07*** Difference in solvation of dye molecules in a single levitated microdroplet and bulk solutions
NISHIKAWA, Kaname¹; SANO, Motoya²; YATSUHASHI, Tomoyuki¹; SAKOTA, Kenji¹
(¹Osaka Metropolitan University, ²Osaka City University)
- 2P08*** In situ surface analysis of plant cuticle using microscopic attenuated-total-reflection infrared spectroscopy
TERAOKA, Hidemasa¹; SAITO, Shota¹; NUMADATE, Naoki¹; OSHIMA, Yoshimi²; HAMA, Tetsuya¹
(¹The University of Tokyo, ²AIST)
- 2P09*** Investigation of the effect of non-planarization on the photodissociation of *N,N*-dimethylformamide by the state distribution measurements
KARINO, Momiji; SHINOHARA, Ryo; INOUE, Kosuke; YAMASAKI, Katsuyoshi; KOHGUCHI, Hiroshi
(Hiroshima University)
- 2P10*** Transferability of vibrational spectroscopic map from TIP4P to TIP4P-like water models
TAKAYAMA, Tetsuyuki; OTOSU, Takuhiro; YAMAGUCHI, Shoichi
(Saitama University)
- 2P11*** Photodissociation spectroscopy and CASSCF calculation of cryogenically cooled [(CX₂)₂]⁺⁺ ions (X = O, S)
KOYAMA, Masahiro; MURAMATSU, Satoru; INOKUCHI, Yoshiya
(Hiroshima University)

- 2P12*** Machine-learning-assisted study of the dissociation mechanisms of protonated formic acid
IBUKI, Shunichi¹; MURAKAMI, Tatsuhiko^{1,2}; HASHIMOTO, Yu¹; KIKUMA, Yuya¹; TAKAYANAGI, Toshiyuki¹
(¹Saitama University, ²Sophia University)
- 2P13*** Reactions of carbon cluster anions with hydrocarbons studied by ion mobility-mass spectrometry
NAKAJIMA, Yuto; DAI, Fangwen; SAKAKURA, Hiroya; OHSHIMO, Keijiro; MISAIZU, Fuminori
(Tohoku University)
- 2P14*** Nonadiabatic ab initio dynamics for the photodissociation process of nitric acid via the S₃ electronic state
KIMURA, Mizuki¹; NANBU, Shinkoh²
(¹Graduate School of Science and Technology, Sophia University; ²Faculty of Science and Technology, Sophia University)
- 2P15*** Theoretical study on excited state dynamics and stimulated emission spectra of 1122C
MINEGISHI, Yusuke; SAITA, Kenichiro; TSUTSUMI, Takuro; TAKETSUGU, Tetsuya
(Hokkaido University)
- 2P16*** Spectroscopic analysis of the correlation between surface and hydrogen bond network in vapor-deposited amorphous water
NAGASAWA, Takumi; HASEGAWA, Takeshi; YANAGISAWA, Hiroto; NUMADATE, Naoki; HAMA, Tetsuya
(The University of Tokyo)
- 2P17*** Real-space quantum dynamics simulation for NISQ devices
TSUOKA, Kazuki; LÖTSTEDT, Erik; YAMANOUCHI, Kaoru
(The University of Tokyo)
- 2P18*** Dynamics study on ultraviolet photodissociation of liquid oleic acid using laser-induced fluorescence
KOIZUMI, Kensei; SAITO, Shota; NUMADATE, Naoki; HAMA, Tetsuya
(The University of Tokyo)

- 2P19*** Tacticity dependence on polystyrene structure : A theoretical analysis based on phase transition path network
SATO, Ryota¹; NABATA, Hitoshi¹; MAEDA, Satoshi^{2,3,4,5}
 (¹Graduate School of Chem. Sci. and Eng., Hokkaido Univ.; ²Faculty of Science, Hokkaido Univ.; ³WPI-ICReDD, Hokkaido Univ.; ⁴NIMS; ⁵JST-ERATO)
- 2P20*** Quantum computing of π -conjugated and hetero- π -conjugated molecules with error mitigation methods
YOSHIDA, Ryuhei; LÖTSTEDT, Erik; YAMANOUCHI, Kaoru
 (The University of Tokyo)
- 2P21*** Theoretical study of molecular hydrogen adsorption on interstellar ice: Sticking probability of cluster-size dependency and nuclear quantum effects.
OGINO, Kanon¹; MURAKAMI, Tatsuhiko^{1,2}; HASHIMOTO, Yu¹; TAKAYANAGI, Toshiyuki¹
 (¹Saitama University, ²Sophia University)
- 2P22*** The rate constants for the photochemical reactions of anthracene with CCl₄ in many kinds of alcohols
NAKATANI, Takeomi; WATANABE, Akihiro
 (KOBE City College of Technology)
- 2P23*** Intramolecular electron dynamics in Zn(II) porphyrin-Re(I) dyad photocatalysts
HONDA, Teruyuki¹; EHARA, Takumi¹; SATO, Ren²; KURAMOCHI, Yusuke²; MIYATA, Kiyoshi¹; SATAKE, Akiharu²; ONDA, Ken¹
 (¹Kyushu University, ²Tokyo University of Science)
- 2P24*** Study on crystal growth in perovskite solar cells by FESEM and electrochemical analyses
UCHIDA, Miyuki; MITSUKE, Koichiro
 (Graduate School of Science, Josai University)
- 2P25*** Raman spectroscopic study on photostationary state of 4-aminoazobenzene under two color excitation
TAKAGI, Ryosuke; WADA, Akihide
 (Kobe University)
- 2P26*** Sub-nanosecond time-resolved fluorescence spectroscopy of photoexcited dye molecules in dye-sensitized solar cells
IE, Kanon; MITSUKE, Koichiro
 (Graduate School of Science, Josai University)

- 2P27*** Quantum computing of light-induced rotational wave-packet dynamics
TOBINAGA, Kotomi; LÖTSTEDT, Erik; YAMANOUCHI, Kaoru
 (The University of Tokyo)
- 2P28*** Development of a plasma shutter technique applicable to intense nanosecond two-color laser pulses
HARA, Naoki; MINEMOTO, Shinichirou; SAKAI, Hirofumi
 (Grad. Sch. Sci., The University of Tokyo)
- 2P29*** Hydration dynamics of temperature-responsive polymers measured by broadband spectroscopy
IOKA, Hikaru¹; FUJII, Yuki¹; LOZADA, Lou Serafin¹; HASHIMOTO, Chihiro²; OHTA, Kaoru¹; TOMINAGA, Keisuke¹
 (¹Kobe University, ²Niihama National College of Technology)

Day 3: June 9 (Fri.) 10:35 – 12:05

- 3P01** Nuclear quantum effect in the phase transition from Ice VII to ice X
KUWAHATA, Kazuaki; TACHIKAWA, Masanori
 (Yokohama City University)
- 3P02** New superfluid helium droplet machine for droplet/dopant imaging at an XFEL
HARRIES, James¹; IGUCHI, Arisa^{2,3}; KUMA, Susumu³
 (¹QST, ²Tokyo Metropolitan University, ³RIKEN)
- 3P03** Absolute cross section for OH radical desorption during the 213 nm photolysis of liquid nonanoic acid
NUMADATE, Naoki¹; SAITO, Shota¹; NOJIMA, Yuki²; ISHIBASHI, Taka-aki²; ENAMI, Shinichi³; HAMA, Tetsuya¹
 (¹The University of Tokyo, ²University of Tsukuba, ³National Institute for Environmental Studies)
- 3P04** The synchrotron radiation study on the electronic structure of gold-plate HONTA by VUV and soft X-ray irradiations
MIYAZAKI, Yasunori¹; HOSHINO, Masamitsu²; GEJO, Tatsuo³; ADACHI, Jun-ichi⁴; TAKAHASHI, Osamu⁵
 (¹Japan Atomic Energy Agency, ²Sophia University, ³University of Hyogo, ⁴High Energy Accelerator Research Organization, ⁵Hiroshima University)

- 3P05** Absolute carrier-envelope-phase dependence of dissociative ionization of acetonitrile by few-cycle intense laser pulses
MATSUBARA, Takuya¹; YOSHII, Masaki¹; ANDO, Toshiaki¹; IWASAKI, Atsushi¹; RATHJE, Tim²; PAULUS, Gerhard G.²; YAMANOUCHI, Kaoru¹
 (¹The University of Tokyo, ²Friedrich-Schiller-Universität)
- 3P06** Size distribution of DNA fragmented by a femtosecond laser filament in water
 AKAMATSU, Ken¹; ENDO, Tomoyuki²; AKAGI, Hiroshi²; KONO, Hirohiko³; ITAKURA, Ryuji²
 (¹Institute for Quantum Life Science, QST; ²Kansai Photon Science Institute, QST; ³Tohoku Univ.)
- 3P07** Photofragment imaging of oriented χ -isohaloethane (CF₂ClCHF₁): the revealed secondary pathways and vector-correlated dipole moment
KAWAMATA, Hiroshi¹; CHE, Dock-Chil¹; NAKAMURA, Masaaki²; KASAI, Toshio³
 (¹Osaka University, ²Tokyo Institute of Technology, ³National Taiwan University)
- 3P08** Dynamics of dissociative ionization and molecular rotation of O₂ induced by an intense femtosecond laser field
FUKAHORI, Shinichi^{1,2}; KUBO, Ayumi¹; HASEGAWA, Hirokazu^{1,2}
 (¹Graduate School of Arts and Sciences, The Univ. of Tokyo; ²Komaba Institute for Science, The Univ. of Tokyo)
- 3P09** Construction of femtosecond time-resolved infrared spectrometer for aqueous solutions
OBARA, Yuki; KAWAMATA, Takao; ADACHI, Shunsuke; SUZUKI, Toshinori
 (Kyoto university)
- 3P10** Trajectory analysis of 30-keV electrons in magnetic fields for high-resolution energy spectrometry
TACHIBANA, Yuichi; MORITMOTO, Yuya
 (RIKEN)
- 3P11** Investigation of multi-ionization processes of Kr using short-pulse X-rays and time-of-flight apparatus
GEJO, Tatsuo^{1,2}; TANAKA, Yuka^{1,2}; SAKANO, Takuya^{1,2}; TAKEUCHI, Satoshi¹; TAKAHASHI, Osamu³; OSAWA, Hitoshi⁴; SUGIMOTO, Kunihisa⁵; TAMASAKU, Kenji²; OURA, Masaki²
 (¹University of Hyogo; ²RIKEN, SPring-8 center; ³Hiroshima University; ⁴JASRI; ⁵Kindai University)

- 3P12** Beat-frequency-resolved two-dimensional electronic spectroscopy with sub-10-fs visible laser pulses
TSUBOUCHI, Masaaki; ISHII, Nobuhisa; KAGOTANI, Yuji; SHIMIZU, Rumi; FUJITA, Takatoshi; ADACHI, Motoyasu; ITAKURA, Ryuji
(QST)
- 3P13** Charge transfer reactions from I⁻ to polar protic solvents studied using ultrafast extreme ultraviolet photoelectron spectroscopy
YAMAMOTO, Yo-ichi¹; SUZUKI, Yoshi-Ichi²; SUZUKI, Toshinori¹
(¹Kyoto University, ²Health Sciences University of Hokkaido)
- 3P14** Excited state dynamics of hydrogen-bonded acridine clusters with water and methanol
YAMADA, Yuji; NAKAMURA, Mai; KIMURA, Kenshin; NIBU, Yoshinori
(Fukuoka University)
- 3P15** Toward cold gas-phase spectroscopy of chemical intermediates formed in solution: development of electrospray-based isolation systems
MURAMATSU, Satoru; MACHIDA, Shiori; KANAZAWA, Saya; GODA, Ryosuke; KITAMURA, Yuma; INOKUCHI, Yoshiya
(Hiroshima University)
- 3P16** Theoretical simulation of strong-field excitation of N₂⁺ in 400 nm laser fields
LÖTSTEDT, Erik¹; XU, Huailiang²; YAMANOUCHI, Kaoru¹
(¹The University of Tokyo, ²Jilin University)
- 3P17** Many-body reactions in CH₄/O₂ binary system induced by femtosecond laser filament
MATSUDA, Akitaka; SAKAGAMI, Aoi; FUJIKAWA, Nana; HISHIKAWA, Akiyoshi
(Nagoya University)
- 3P18** Stochastic dynamics approach to highly correlated many-body wave functions
SAKO, Tokuei
(Nihon University)
- 3P19** Electronic and geometric structures of cobalt doped silver cluster cations studied by photodissociation spectroscopy
YAMAGUCHI, Masato; HIRAKAWA, Miho; AONUMA, Yuna; KAWAMURA, Shun; HANDA, Takefumi; KONO, Satoshi; ARAKAWA, Masashi; TERASAKI, Akira
(Kyushu University)