

"WRHI International Workshop on Advanced Laser Spectroscopy for Soft Molecular Systems"

Tokyo Tech World Research Hub Initiatives
&
MEXT Innovative Area "Soft Molecular Systems",
Network Joint research Center for Materials and Devices &
Dynamic Alliance for Open Innovation, G3 Group

6th October, 2017

Chairperson : Masaaki Fujii

10:00 - 10:10 Opening Remarks

Masaki Azuma (Chair of WRHI steering committee,
Professor, Tokyo Tech)

Chairperson : Masaaki Fujii

10:10 - 10:50 "BerlinTrap: First applications of a new cryogenic 22-pole ion trap spectrometer"

Otto Dopfer (TU Berlin)

Chairperson : Haruki Ishikawa

10:50 - 11:20 "Creation and observation of coherently rotating/vibrating molecular ensembles"

Yasuhiro Ohshima (School of Science, Tokyo Tech)

11:20 - 11:50 "Remarkable enhancement of fluorescence quantum yield of the closed-ring form of a diarylethene derivative due to the presence of phenyl rings"

Hiroshi Sekiya (Kyushu U)

11:50 - 13:00 Lunch

Chairperson : Takayuki Ebata

13:00 - 13:40 "Protonation sites and excited states of ions in a cold trap"

Christophe Juvet (U. Marseille)

- Chairperson : Kenta Mizuse
- 13:40 - 14:10 "Bottom-up approach to complexes of catecholamines and a partial peptide of adrenoceptor by gas phase spectroscopy"
Shun-ichi Ishiuchi (CLS, Tokyo Tech)
- 14:10 - 14:40 "Catalytic mechanism of DNA photolyase"
Akio Kitao (School of Life Sci & Tech, Tokyo Tech)
- 14:40 - 16:10 Poster Session
- Chairperson : Mitsuhiko Miyazaki
- 16:10 - 16:40 "Nonradiative decay and photoisomerization of cinnamate derivatives - Effect of substitution and H-bonding -"
Takayuki Ebata (Hiroshima U)
- 16:40 - 17:10 "Protonated methanol-water mixed clusters: Hydrogen bond structures and their temperature dependence"
Asuka Fujii (Tohoku U)
- 17:10 - 17:40 "Spectroscopic Investigation of Temperature Effects on the Hydrogen Bond Structures of the Hydrated Phenol cations"
Haruki Ishikawa (Kitasato U)
- 17:40 - 17:45 Closing Remarks (Masaaki Fujii, CLS, IIR, Tokyo Tech)
- 18:00 Banquet (MOTOTECA Coffee)

Poster Session

P01 "Real-time imaging of intermolecular vibration dynamics in nitrogen dimer"
(Tokyo Tech) Genki Ishibashi, Kenta Mizuse, Hikaru Sato, Haruki Ishikawa, Yasuhiro Ohshima

P02 "Control of molecular rotational wave packet by double-pulse excitation"
(Tokyo Tech) Shun Marusawa, Kenta Mizuse, Yasuhiro Ohshima

P03 Imaging of rotational eigenstates of nitric oxide in the electronic excited state
Dai Ikeda, Kenta Mizuse, Yasuhiro Ohshima

P04 "Dihydrogen-bond of the phenol-triethylsilane cluster in the electronic excited state"
(Kitasato Univ.¹, Shizuoka Univ.²) Takutoshi Shimizu¹, Masaaki Uchida¹, Yasutoshi Kasahara¹, Yoshiteru Matsumoto², Haruki Ishikawa¹

P05 "Observation of the isomerization of the hydrated phenol cations"
(Kitasato Univ.) Hikaru Sato, Ryota Kato, Yasutoshi Kasahara, Haruki Ishikawa

P06 "Behavior of the shared proton observed in the electronic transition of hydrogen-bonded phenol cluster cations"
(Kitasato Univ.) Ryota Kato, Yasutoshi Kasahara, Haruki Ishikawa

P07 "IR Dip spectroscopy on PhOH-Ar_n (n = 0-3) clusters —Relationship between the structure and OH stretching frequency—"
(Tokyo Tech) Megumi Ono, Mitsuhiko Miyazaki, Masaaki Fujii

P08 "Development of gas phase picosecond time resolved infrared spectroscopy beyond the Fourier limit — Application to water migration reaction in acetanilide-water cluster by photoionization —"
(Tokyo Tech¹, Kitasato U.²) Jumpei Ono¹, Mitsuhiko Miyazaki¹, Megumi Ono¹, Tairiku Kamiya², Haruki Ishikawa², Masaaki Fujii¹

P09 " Real time observation of solvent reorientation dynamics in (*p*-cyanophenyl) pentamethyldisilane-water₂ cluster by picosecond time-resolved spectroscopy"
(Tokyo Tech¹, Kitasato U.²) Yuki Konno¹, Mitsuhiko Miyazaki¹, Haruki Ishikawa², Masaaki Fujii¹

P10 "Conformational study of hydrated alkali metal complexes of partial peptide of selectivity filter in K⁺ channel by electrospray ionization / cold ion trap laser spectroscopy"
(Tokyo Tech) Yuta Sasaki, Mizuki Tabata, Shun-ichi Ishiuchi, Masaaki Fujii

P11 " Electronic spectra of catechol-(ammonia)_{*n*} clusters and their excited state hydrogen transfer"
(Tokyo Tech) Akira Oshita, Nozomi Washio, Mitsuhiko Miyazaki and Masaaki Fujii

P12 "Gas phase spectroscopy of protonated nicotine and nornicotine by using electrospray / cold ion trap technique"
(Tokyo Tech¹, Pacific Northwest National Laboratory²) Kazuya Tsuruta¹, Shun-ichi Ishiuchi¹, Sotiris Xantheas² and Masaaki Fujii¹

P13 "Excited state hydrogen transfer dynamics of phenol-ammonia clusters studied by femtosecond time-resolved near infrared spectroscopy"
(Tokyo Tech) Nozomi Washio, Mitsuhiko Miyazaki and Masaaki Fujii

P14 "Photoionization induced water rearrangement dynamics in the 5-hydroxyindole-water cluster studied by time resolved IR spectroscopy"
(Tokyo Tech¹, Kyushu U², Osaka City U³) Mitsuhiko Miyazaki¹, Ayumi Naito¹, Takamasa Ikeda², Kenji Sakota^{2,3}, Hiroshi Sekiya², Masaaki Fujii¹