# V

# Workshops

# UVSOR Symposium 2020

Date: October 26 - 27, 2020
Place: Zoom & Remo Conference

**October 26th (Mon.)**

9:00 – 9:05 Opening Remark **S. Ideta** (UVSOR)

<Session 1, Chair: **H. Iwayama** (UVSOR)>

9:05 – 9:25 Present status and prospects of UVSOR Synchrotron Facility
**S. Kera** (UVSOR)

9:25 – 9:45 Operando XAS observation of all elements for the active structure induced by carbonate anion for water splitting
**M. Yoshida** (Yamaguchi Univ.)

9:45 – 10:05 Development of novel scintillation materials with high light-outputs using UVSOR beams
**S. Kurosawa** (Tohoku Univ.)

10:05 – 10:25 Coffee Break

<Session 2, Chair: **K. Tanaka** (UVSOR)>

10:25 – 11:10 [Invited talk]
Quasi-1D surface electronic states fabricated on III-V semiconductor surfaces
**Y. Otubo** (Osaka Univ.)

11:10 – 11:30 Coupling between Electron and Charge Density Wave Excitation Mode
**Y. K. Kim** (KAIST)

14:00 – 17:00 Poster flush for Poster Session (On-demand broadcasting via WEB)*
*Your Poster flush for Poster Session is recorded by using Zoom. Please see the following instruction ("How to Record Your Short Presentation by using Zoom").

17:00 – 19:00 Poster Presentation

19:00 – Free Discussion

**October 27th (Tue.)**

<Session 3, Chair: **S. Ideta** (UVSOR)>

9:00 – 9:45 [Invited talk]
Exploring the band structure of black phosphorus with microARPES and nanoARPES
**K. S. Kim** (Yonsei Univ.)

9:45 – 10:05 Photoelectron momentum microscope 1.0: adding UVSOR specialties to the basic specification
**F. Matsui** (UVSOR)

10:05 – 10:25 Photoemission spectroscopy of oriented molecular thin film using photoelectron momentum microscope
**Y. Hasegawa** (IMS)

10:25 – 10:45 Coffee Break

<Session 4, Chir: **T. Ohigashi** (IMS)>

10:45 – 11:05 Title: Phase 2 “Team Kochi” for deciphering Hayabusa2 returned sample: in-depth analysis utilizing multi-instruments
**M. Ito** (JAMSTEC)

11:05 – 11:25 Development of key technologies for complete photoelectron measurement
**H. Matsuda** (UVSOR)

11:25 – 12:25 Discussion and Closing Remark
**S. Kimura** (Osaka Univ.)

**Poster Session**

P01 Measurement of femtosecond time delay using frequency- and time-domain interferometry
**T. Kaneyasu** (SAGA Light Source)

P02 Electron Wave Packet Interference in Xe 4d Inner-shell Excitation
**T. Kaneyasu** (SAGA Light Source)

P03 Lattice Design for a Future Plan of UVSOR
**E. Salehi** (IMS)

P04 Measurement of interferogram of undulator radiation at UVSOR-BL1U
**S. Kimura** (Nagoya Univ.)

P05 Energy-Dependence of Photoelectron Circular Dichroism of Chiral Molecules
**H. Kohguchi** (Hiroshima Univ.)

P06 Analysis of optical vortex UV light irradiation to Zn(II) complex-PMMA films
**M. Yoshida** (Tokyo Univ. of Science)

P07 Gamma-induced Positron Annihilation Lifetime Spectroscopy for Cation Vacancies in Long Persistent Phosphors $Sr_2MgSi_2O_7$,Eu,Dy
**H. Taniguchi** (Yamagata Univ.)

P08 3-D Isotope-Selective CT Imaging Based on Nuclear Resonance Fluorescence Transmission Method
**K. Ali** (kyoto Univ.)

P09 Optical Activity Emergence of Amino Acids by Irradiation with Circularly-Polarized Ultraviolet Light and Spin-Polarized Muon Beams
**T. Sakamoto** (Yokohama National Univ.)

P10 Vacancy Defects in Ce:$Gd_3Al_2Ga_3O_{12}$ Crystals Revealed by Gamma-ray Induced Positron Annihilation Lifetime Spectroscopy
**K. Fujimori** (Yamagata Univ.)

P11 Intrinsic Nature of Photoluminescence Bands in β-$Ga_2O_3$ Crystals Revealed by Luminescence Spectroscopy
**R. Tarukawa** (Yamagata Univ.)

P12 Prospect of Liquid Measurements Using the Soft X-ray Transmission Argon Gas Window
**M. Nagasaka** (IMS)

P13 Observation of cobalt-carbonate catalyst for oxygen evolution using operando XAFS
**Y. Araki** (Yamaguchi Univ.)

P14 Investigation of the adsorbing anion on the Ni water splitting electrocatalyst by operando XAFS observation
**E. Ihara** (Yamaguchi Univ.)

P15 Resonant Soft X-ray Scattering method
**H. Iwayama** (IMS)

P16 Glycine betaine-salt complex formation revealed by the liquid-phase inner-shell absorption spectroscopy
**S. Ohsawa** (Hiroshima Univ.)

P17 Xe 4s Auger Decay Studied by Multielectron-Ion Coincidence Spectroscopy
**Y. Hikosaka** (Toyama Univ.)

P18 Impurity emission of aluminum nitride by visible-soft X-ray excitation
**T. Banno** (Fukui Univ.)

P19 Investigation of Photon Energy Drift at BL5B (2)
**H. Zen** (Kyoto Univ.)

P20 Evaluation of Polarization Characteristic of Synchrotron Radiation by Observing Zeeman Quantum Beat
**Y. Hikosaka** (Toyama Univ.)

P21 Angle-Resolved Photoemission Study of Antiferromagnetic i-MAX phase compound $(Mo_{2/3}Ho_{1/3})_2AlC$
**K.Furuta** (Nagoya Univ.)

P22 Angle-resolved Photoemission Study of Graphene on Hex-Au(100) superlattice
**K. Matsunaga** (Nagoya Univ.)

P23 The temperature dependence of carrier density and relaxation time for n-type $Mg_2Si$ single crystals investigating by IR spectroscopy
**T. Tanimoto** (Yamagata Univ.)

P24 Measurement of the electronic state of $\eta$-$Mo_4O_{11}$ using a momentum microscope
**T. Kobayashi** (Osaka Univ.)

P25 Photon-Energy dependence of the photoelectron angular distribution from $MoS_2$
**S. Tanaka** (Osaka Univ.)

P26 Research of deriving complex reflective index by analysis optical interference
**M. Horiba** (Fukui Univ.)

P27 Transition from a monolayer to a bilayer in graphene/SiC(0001) by Li-intercalation and occupation of a flat band
**M. Hashizume** (Tokyo Inst. Tech.)

P28 Photoemission Study of Solid Electrolytes $Li_xLa_{(1-x)/3}NbO_3$ Bulk Single Crystal
**R. Yamamoto** (Nagoya Univ.)

P29 Band control by Pd substitution in typeII Dirac material $NiTe_2$
**K. Yoshino** (Osaka Univ.)

P30 The topological electric structure of interface between α-Sn and InSb
**T. Nakaya** (Osaka Univ.)

# Next Generation Spectro-Microscopy and Micro-Spectroscopy Workshop

Date: October 28 - 29, 2020
Place: ZOOM (online)

**October 28th (Wed.)**

14:00 – 14:15 Opening Remark

Chair: **T. Ohigashi** (UVSOR)

14:15 – 14:50 Soft-X-ray Photoelectron Momentum Microscopy for Selective Atomic/molecular Orbital Excitation
**F. Matsui** (UVSOR)

14:50 – 15:25 Operando Electrochemical Scanning X-ray Transmission Microscopy for Lithium-ion Batteries
**J. Lim** (Seoul National Univ.)

15:25 – 16:00 In Situ Observation of Meta-stable Magnetization State in Fe/W(110) Nanostructures
**W-X. Tang** (Chongqing Univ.)

16:00 – 16:15 Coffee break

Chair: **F. Matsui** (UVSOR)

16:15 – 16:50 Current Status of the Scanning Transmission X-ray Microscopy Beamline in UVSOR
**T. Ohigashi** (UVSOR)

16:50 – 17:25 Nano-ARPES Study of Novel Topological Materials
**T. Sato** (Tohoku Univ.)

17:25 – 18:00 Development of a Laboratory-based In Situ XPS Apparatus for Liquid Samples and Electrochemical Interfaces
**T. Masuda** (NIMS)

18:00 – 18:30 Discussion and Workshop photo

**October 29th (Thu.)**

14:00 – 14:05 Second Day Opening

Chair: **S. Kera** (UVSOR)

14:05 – 14:40 STXM at TPS 27A1: Capabilities and Opportunities
**H-W. Shiu** (NSRRC)

14:40 – 15:15 Photoelectron Related Image and Nanospectroscopy Endstation at TPS 27A2: Capabilities and Opportunities
**T-H. Chuang** (NSRRC)

15:15 – 15:50 Strain and Permeability of Graphene studied by Cathode Lens Microscopy, Diffraction and Spectroscopy
**M. S. Altman** (Hong Kong Sci. Tech. Univ.)

15:50 – 16:05 Coffee break

Chair: **K. Tanaka** (UVSOR)

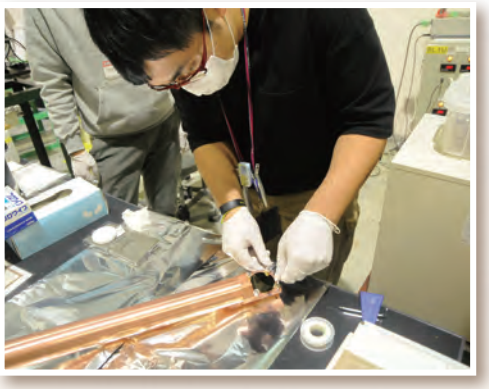
16:05 – 16:40 Visualization of Excitons in 2D Semiconductor by Time-resolved ARPES
**M. Man** (OIST)

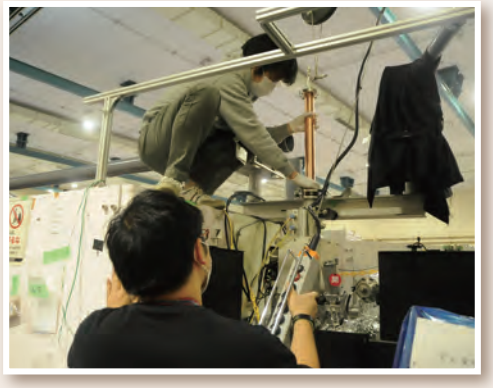
16:40 – 17:15 Stability and Inner Structure of Nanobubbles investigated by STXM
**L. Zhang** (Shanghai Synchrotron Radiation Facility)

17:15 – 17:50 Nano-scale Chemical State Visualization using Ptychography-XAFS
**N. Ishiguro** (Tohoku Univ.)

17:50 – 18:30 Discussion and Closing

# UVSOR Staff Works





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