

A large, white, serif capital letter 'V' is centered within a series of concentric, semi-transparent circular rings. The background features abstract, flowing lines and a pattern of small dots in the lower half.

Workshops

The first international workshop on Momentum Microscopy & Spectroscopy for Materials Science

Date: October 22-23, 2019

Place: Okazaki Conference Center

February 22nd (Fri.)

9:00 – 9:20 Registration

9:20 – 9:30 Opening: **Satoshi KERA** (IMS, Director of UVSOR)

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

9:30 – 10:15 KEYNOTE LECTURE: **Shigemasa SUGA** (Osaka Univ.)

Frontier of Spin- & Angle-Resolved Photoelectron Spectroscopy by Momentum Microscopy

10:15 – 10:50 **Fumihiko MATSUI** (IMS)

The Momentum Microscope Project at UVSOR

10:50 – 11:05 — Coffee —

11:05 – 11:40 INVITED: **Yoshihiro KUBOZONO** (Okayama Univ.)

Pressure-induced superconductivity in metal doped topological materials and two-dimensional materials

11:40 – 12:25 INVITED: **Lada YASHINA** (Lomonosov Moscow State Univ.)

Gap opening and spin dynamics in topological insulators

12:25 – 13:40 — Lunch —

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

13:40 – 14:15 INVITED: **Koji HORIBA** (KEK PF)

Synchrotron-based ARPES study at VUV-SX combination beamline KEK-PF BL-2 MUSASHI

14:15 – 14:50 INVITED: **Taichi OKUDA** (Hiroshima Univ.)

Recent activities and future prospects of spin- and angle-resolved photoemission spectroscopy at HiSOR

14:50 – 15:25 INVITED: **Kazuyuki SAKAMOTO** (Chiba Univ.)

Spin-polarized bands at solid surfaces

15:25 – 15:45 — Coffee —

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

15:45 – 16:30 INVITED: **Sergey SUBACH** (Forschungszentrum Julich PGI-3)

Dependence of the adsorption height of graphenelike adsorbates on their dimensionality

16:30 – 17:05 INVITED: **Yoichi YAMADA** (Tsukuba Univ.)

STM and photoelectron spectroscopy of well-ordered organic systems: Doping and interfaces

17:05 – 17:40 **Satoshi Kera** (IMS, Director of UVSOR)

Imaging of electron delocalization upon assembling the molecules

17:40 – 17:50 Workshop Photo

17:50 – 20:00 Poster session with Buffet-style dinner

February 23rd (Sat.)

8:30 – 9:00 — BF —

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

- 9:00 – 9:35 INVITED: **Peter KRÜGER** (Chiba Univ.)
Theoretical advances in angle-resolved photoelectron and resonant Auger electron spectroscopy
- 9:35 – 10:10 INVITED: **Yoshitada MORIKAWA** (Osaka Univ.)
First-principles Theoretical Study on Atomic Geometries, Electronic Properties, and Chemical Reactivity of Active Sites at Graphene
- 10:10 – 11:45 INVITED: **Yukiaki ISHIDA** (The Univ. Tokyo, ISSP)
“Slit-less” ARPES analyzers: Some utilities and prospects in surface photo-electronics
- 10:45 – 11:05 — Coffee —
- 11:05 – 11:40 INVITED: **Tomohiro MATSUSHITA** (SPring-8, Riken)
Determination of dopant structure by photoelectron holography
- 11:40 – 12:15 INVITED: **Masato KOTSUGI** (Tokyo Univ. Sci.)
Topological data analysis of labyrinth magnetic domain
- 12:15 – 12:30 Closing
Optional 12:30-14:00: Lunch & 14:00-16:00 tour & discussion at UVSOR

POSTERS:

- P1 Electronic structure of the half-metallic ferrimagnet Mn_2VAl probed by resonant inelastic soft X-ray scattering under magnetic field
Hidenori FUJIWARA, (Osaka Univ.)
- P2 Circular dichroism in ARPES mapping of Bi thin films
Kazutoshi TAKAHASHI, (Saga Univ.)
- P3 Energy level alignment at molecule/metal and molecule/insulator/metal interfaces using k-space imaging orbital tomography
Anja HAAGS, (Forschungszentrum Jülich PGI-3)
- P4 Dependence of the adsorption height of graphenelike adsorbates on their dimensionality
Sergey SOUBATCH, (Forschungszentrum Jülich PGI-3)
- P5 Mn 2p core-level electronic structure of a new material for a spacecraft radiator $La_{0.775}Sr_{0.225-x}Ca_xMn_{1-y}Ga_yO_3$ studied by hard x-ray photoemission spectroscopy
H. IIO, (Tokyo Univ. of Science)
- P6 Multiple scattering calculation of photoelectron angle distribution of ARPES
Misa NOSAKI, (Chiba University)
- P7 Orbital tomography of a strong hole-vibration coupling molecule
Matthias MEISSNER, (IMS)
- P8 Electronic structure of $Pr_{1-x}Y_xCoO_3$ showing a unique magnetic state
Daisuke KANAI, (Tokyo Univ. of Science)
- P9 Unsubstituted and Fluorinated Cu-phthalocyanine Overlayers on $Si(111)-(\sqrt{7}\times\sqrt{3})$ -In Surface: Adsorption Geometry, Charge Polarization, and Effects on Superconductivity
Naoya SUMI, (Tsukuba Univ.)

- P10 Germanene epitaxial growth by segregation method on Ag(111) thin films
Junji YUHARA, (Nagoya Univ.)
- P11 Pressure dependence of superconductivity in a new type of superconductor
Xiaofan YANG, (Okayama Univ.)
- P12 Ultrafast carrier dynamics at well-ordered organic P-N interfaces
Masato IWASAWA, (Tsukuba Univ.)
- P13 Core levels and frontier orbitals of K-doped sumanene monolayer
Chunyang ZHANG, (Tsukuba Univ.)
- P14 Development of simple two-dimensional electron analyzer using variable-deceleration-ratio wide-acceptance-angle
Hiroyuki MATSUDA, (Nara Institute of Science and Technology)
- P15 Screening at the metal/organic interface
Takumi AIHARA, (Chiba Univ.)
- P16 Developing angle resolved low energy inverse photoelectron spectroscopy apparatus
Haruki Sato, (Chiba Univ.)
- P17 Study on effect of impurity doping on transport properties in topological insulator Bi_2Se_3
Takaki UCHIYAMA, (Okayama Univ.)
- P18 Enhancement of signal intensity for inverse photoelectron spectroscopy by grating-coupled surface plasmon resonance
Koki SHIBATA, (Chiba Univ.)
- P19 Thin-film structure and electronic state of anthradithiophene monolayer on graphite
Keishi TAKAHASHI, (Chiba Univ.)
- P20 Epitaxial growth of pn heterointerface on organic single crystal
Ryohei TSURUTA, (Tokyo Univ. of Science)
- P21 Measurement for the dispersion of the excited states in the transition metal dichalcogenide by the use of photon-energy-dependent ARPES
Shinichiro TANAKA, (Osaka Univ.)
- P22 Current Status of BL6U at UVSOR
Seiji MAKITA, (IMS)
- P23 Current Status of Beamline 5U at UVSOR
Kiyohisa TANAKA, (IMS)
- P24 Current Status of Beamline 7U at UVSOR
Shinichiro IDETA, (IMS)

NINS Joint Research Program

Workshop on next generation nondestructive analytical method utilizing a quantum beam physics: Applications to Earth and Planetary sciences

Date: October 12, 2018

Place: Uji Obaku Plaza, Kyoto University

10:00 – 10:30 Opening Remark
 M. Ito (JAMSTEC)

<Session 1, Chair: **H. Zen** (Kyoto Univ.)>

10:30 – 11:10 Non-destructive isotope CT imaging by using LCS gamma-ray
 H. Ohgaki (Kyoto Univ.)

11:10 – 11:50 Generation of Quantum Beams from Electron Storage Rings
 M. Katoh (UVSOR)

11:50 – 12:30 Precise isotope analysis of Pb for cosmo- and geochemistry
 Y. Fukami (JAMSTEC)

12:30 – 13:30 Lunch

13:30 – 14:30 Poster Session

<Session 2, Chair: **T. Ohigashi** (UVSOR)>

14:30 – 15:10 Non-destructive inspection by neutron beam
 T. Shinohara (JAEA/J-PARC)

15:10 – 15:50 Current status and future development of synchrotron radiation imaging technique for Earth and Planetary materials at SPring-8
 M. Uesugi (JASRI/SPring-8)

15:50 – 16:00 Coffee break

<Session 3, Chair: **R. Nakata** (JAMSTEC)>

16:00 – 16:40 The contribution of X-ray microscopic analysis in the planetary material science, and its future possibilities
 H. Suga (Univ. Tokyo)

16:40 – 17:20 What does future solar system exploration request from next-generation analytical tools?
 T. Usui (JAXA/ISIS)

17:20 – 17:50 Panel Discussion
 M. Ito (JAMSTEC)

17:50 – 18:00 Closing Remark
 T. Ohigashi (UVSOR)

18:00 – 20:00 Banquet

<Poster Presentation>

- P1 Secondary mass-dependent isotopic fractionation in the ion source of TIMS: Application for high-precision Nd isotopic analysis
R. Fukai (Tokyo Tech Univ.)
- P2 Reconstruction by simultaneous algebraic reconstruction technique (SART) for cosmic dust samples.
J. Matsuno (Kyoto Univ.)
- P3 Dissolved species controlling isotope effect for cerium during adsorption and precipitation
R. Nakada (JAMSTEC)
- P4 Non-destructive elemental analysis method for interior of a material by muonic X-ray measurement
K. Ninomiya (Osaka Univ)
- P5 Current status of STXM beamline BL4U in UVSOR Synchrotron
T. Ohigashi (UVSOR)
- P6 The occurrence of perchlorate salt in and round the Taklimakan Desert, China
H.B. Qin (Univ. Tokyo)
- P7 Elucidation of aqueous alteration of Martian meteorite, Yamato 000749, using multi-probe microscopic observation
N. Shiraishi (Hiroshima Univ.)
- P8 Martian water environment of iddingsite formation in Yamato 000593 studied by the detail analysis of secondary minerals
K. Suzuki (Univ. Tokyo)
- P9 Mineralogical and H isotope study of jarosites in Yamato 000593 nakhlite
A. Takano (Hiroshima Univ.)
- P10 Molecular geochemistry of rubidium: a possibility of its stable isotope to estimate water-rock ratio
H. Tsuboi (Univ. Tokyo)
- P11 High energy CT system detecting 10um order size defects which is unable by Linac or SLS
H. Yamada (MIRRORCLE Analysis Center)
- P12 Measurement of 2D Isotope Distribution by LCS Gamma-ray
H. Zen (Kyoto Univ.)
- P13 Source of dissolved methane in the western Arctic Ocean
K. Kudo (Tokyo Inst. Tech.)
- P14 Analytical of structure of water in poly(vinyl alcohol) hydrogel
K. Kudo (Kobe Univ.)
- P15 Investigation of the organic matter in the Martian meteorite Northwest Africa 7034 (Black beauty)
H. Suga (Univ. Tokyo)
- P16 Computational study of the isotopic fractionation in pressure using the ab initio path integral molecular dynamics
T. Kawatsu (Riken)
- P17 Study of the effect of space exposure on the carbonaceous dust based on XANES/STXM analysis
I. Sakon (Univ. Tokyo)

UVSOR Symposium 2018

Date: November 10-11, 2018

Place : Okazaki Conference Center

November 10th (Sat.)

<Session 1, Chair: **T. Ohigashi** (UVSOR)>

- 13:00 – 13:05 Opening Remark
 T. Ohigashi (UVSOR)
- 13:05 – 13:25 UVSOR of past 35 years and future 20 years
 S. Kera (UVSOR)
- 13:25 – 13:45 Quantitative Mapping of Biomolecules in Biological Specimens using STXM
 A. Ito (Tokai Univ.)
- 13:45 – 14:05 Development of Analytical Method of Extraterrestrial Organic Matter for Analysis of Hayabusa2 Returned Samples –an Application to Cosmic Dust Showing High Density of Organic Globules-
 M. Uesugi (JASRI/SPring-8)
- 14:05 – 14:25 Coffee Break
- 14:25 – 15:30 Short Presentation for Poster Session

<Session 2, Chair: **S. Kera** (UVSOR)>

- 15:30 – 15:50 Achievements and Outlook of the Solid Photoelectron Spectroscopy Station at BL6U
 F. Matsui (UVSOR)
- 15:50 – 16:35 [Invited Talk] Detailed Study of the Formation of Organic-Inorganic Interfaces and of the Growth of Organic Layers
 E. Umbach (Univ. of Wuerzburg)
- 16:40 – 18:30 Poster Session
- 18:30 – 20:00 Banquet

November 11th (Sun.)

<Session 3, Chair: **S. Kimura**(Osaka Univ.)>

- 9:00 – 9:20 Surface Electronic Structure Analysis of Fe₂P by Photoelectron Spectroscopy
 N. Maejima (Rikkyo Univ.)
- 9:20 – 9:40 Surface Electronic Structure of Topological Kondo Insulators
 Y. Ohtsubo (Osaka Univ.)
- 9:40 – 10:00 Soft X-ray Absorption Spectroscopy of Liquid-crystal Materials in Transmission Mode
 H. Iwayama (UVSOR)
- 10:00 – 10:20 Coffee Break

<Session 4, Chair: **J. Okabayashi** (Univ. Tokyo)>

- 10:20 – 10:40 FOXSI-3 Succeeded in Focusing Imaging Spectroscopic Observation in Soft X-rays from the Sun for the First Time in the World!
 N. Narukage (National Astronomical Observatory of Japan)

- 10:40 – 11:00 Measurement of 2D Isotope Distribution by LCS Gamma-ray 3
H. Zen (Kyoto Univ.)
- 11:00 – 12:00 Discussion and Closing Remark

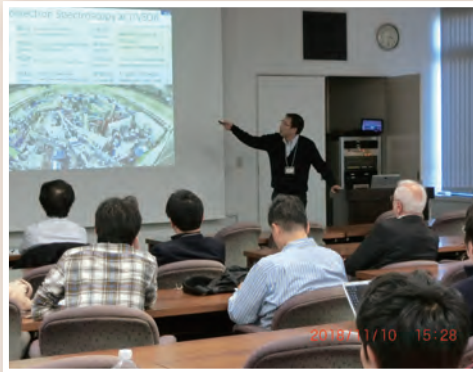
Poster Session

- P1 Zeeman Quantum Beat of Helium Atoms by XUV Vector Beam
T. Kaneyasu (SAGA-LS)
- P2 Visualizing Vacancy-Type Defects in Solids by Measurement of Positron Annihilation Lifetime Spectra with Laser-Compton-Scattering Gamma-Rays
K. Fujimori (Yamagata Univ.)*
- P3 Optical Vortex UV Light Irradiation to Dinuclear Zn(II) Complex-PVA Hybrid Materials
S. Yamazaki (Tokyo Univ. Science)*
- P4 Generation of 1-MeV Gamma-ray by Laser Compton Scattering for Precise Measurement of Delbrück Scattering
H. Zen (Kyoto Univ.)
- P5 Optical Properties of Mercury Lamp Irradiated Amorphous Carbon Nitride
K. Imamura (Univ. Fukui)*
- P6 CEES Measurements of the 3d-transition Metal Doped AlN Films II
W. Kamihigoshi (Univ. Fukui)*
- P7 Temperature Dependence of Dielectric Function in Widegap Oxide Epilayers
T. Makino (Univ. Fukui)
- P8 Emission Properties and Electronic States of Ce Doped $\text{Ba}_3\text{Y}_2\text{B}_6\text{O}_{15}$
M. Yoshino (Nagoya Univ.)
- P9 Optical Properties of Ag- centers Doped in NaI Crystals
S. Watanabe (Osaka Prefecture Univ.)*
- P10 VUV Excitation Processes of Rare-Earth Ions in $\text{Lu}_3\text{Al}_5\text{O}_{12}$ Crystals
R. Tarukawa (Yamagata Univ.)*
- P11 Energy Transfer Phenomena from I^- Centers to Tl^+ Centers in Codoped NaCl: I^- , Tl^+ Crystals
T. Kawai (Osaka Prefecture Univ.)
- P12 Optical Properties of Tl^+ -doped CsCaCl_3 Single Crystals
K. Kubota (Osaka Prefecture Univ.)*
- P13 Report on Scintillation Properties for Scintillators with UVSOR beam (FY2018)
S. Kurosawa (Tohoku Univ.)
- P14 Soft X-ray Absorption Spectroscopy of Liquid Mixtures in Microfluidics
M. Nagasaka (IMS)
- P15 Effect of Salt Addition to Glycine Betaine Aqueous solutions on the electronic structure of water studied by soft X-ray absorption spectroscopy
S. Ohsawa (Hiroshima Univ.)*
- P16 Observation of Cobalt-carbonate Electrocatalyst for Oxygen Evolution Using Operando C K-edge XAFS
T. Hiue (Keio Univ.)*
- P17 Electron-Ion Coincidence Spectroscopy Using a Magnetic Bottle Electron Analyzer
Y. Hikosaka (Univ. Toyama)

- P18 Sulfur speciation high-spatial resolution map in extraterrestrial organics utilizing STXM-XANES
M. Ito (JAMSTEC)
- P19 Vacuum Ultra-Violet Absorption Spectra of Amorphous Chalcogenide Thin Films
K. Hayashi (Gifu Univ.)
- P20 Band dispersion of Bi₂Te₃ with Mn and Te deposition and its temperature dependence
K. Yokoyama (Tokyo Inst. Tech.)*
- P21 Polarization-dependent Angle-resolved Photoemission Study of MAX Phase Compound V₂AlC
M. Ikemoto (Nagoya Univ.)*
- P22 Electronic Structure of NEA Surface of a Photo-cathode Material
H. Matsumoto (Osaka Univ.)*
- P23 High-resolution ARPES studies of transition-metal dichalcogenides NbSe₂ and NbS₂
K. Sugawara (Tohoku Univ.)
- P24 Magnetic and Electronic Structures in Co/Au Interfaces
J. Okabayashi (Univ. Tokyo)
- P25 Change of Electron Trap Levels in Ce:GAGG Mixed Crystals
T. Yagihashi (Yamagata Univ.)*
- P26 Derivation of Complex Refractive Index by Spectroscopic Ellipsometry for VIS-VUV and Kramers-Kronig Analysis
S. Takashima (Univ. Fukui)*
- P27 Development of Measurement Device of Complex Refractive Index for VIS-VUV
D. Imai (Univ. Fukui)*
- P28 Evaluation of Electric Property of CaF₂-metal interface and Development of Vacuum Ultraviolet Detector
K. Suzuki (Nagoya Inst. Tech.)*
- P29 Electronic Structure of Iron-based Superconductor Ba_{1-x}K_xFe₂As₂ Using Angle-Resolved Photoemission Spectroscopy
S. Ideta (UVSOR)
- P30 Spin-polarized Quasi-one-dimensional Electronic Structure on Bi/GaSb(110)-(2×1)
T. Nakamura (Osaka Univ.)*
- P31 Electronic Structures of Methyl Ammonium Lead Triiodide Single Crystals Probed by Low Energy Photoemission
S. Yamanaka (Tokyo Univ. Sci.)*
- P32 Effects of Film Structure on Electronic Structure for Pentacene Monolayer on Graphite
T. Yamaguchi (IMS)*
- P33 Fabrication of Bi₁Te₁ Ultrathin Films and the Surface Electronic Structure
S. Kusaka (Tokyo Inst. Tech.)*

(*: student)

UVSOR Symposium 2018



MM Workshop







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