

International Workshop on Microspectroscopy of Quantum, Magnetic and Biological Nanostructures

Sponsored by Nanotechnology Researchers Network Center of Japan

Co-sponsored by 21st Century COE Program "Core Research and Advanced Education Center for Materials Science and Nano-Engineering"

October 22-23, 2003

Bldg. no. 6, 2F, INTEX OSAKA, Nankou-Kita, Suminoe-ku, Osaka, Japan

PROGRAM

October 22, Wednesday

Opening 9:00-9:10 Conference Room

Shigemasa Suga 9:00-9:05

Session A 'Magnetic' I 9:10-10:45 Conference Room

A1 Matthias Bode 9:10-9:45

Imaging of Nanoscale Magnetic Structures with Spin-Resolved STM

A2 Franck Ernult 9:45-10:05

Spin-dependent single electron tunneling in self-assembled magnetic nano-dots

A3 Kanta Ono 10:05-10:25

Imaging of magnetic recording devices using PEEM

A4 Takuro Tomita 10:25-10:45

Micro-photoluminescence spectroscopy of $Zn_xCd_yMn_{1-x-y}Se/ZnSe$ quantum nanostructures under magnetic field

Coffee Break 10:45-11:05 Lobby

Session B 'Quantum' I 11:05-12:10 Conference Room

B1 Shuheng H. Pan 11:05-11:40

Reconcile information from real-space and k-space -- Work with STM and ARPES

B2 Toshiharu Saiki 11:40-12:10

Near-field optical mapping of exciton wavefunction confined in a quantum dot

Lunch Break 12:10-13:40

Poster Session 13:40-15:10 Lobby

Session C 'Quantum' II 15:15-16:25 Conference Room

C1 Naoki Yamamoto 15:15-15:45

High Resolution Cathodoluminescence for nano-scale characterization using TEM

C2 Satyaban Bhunia 15:45-16:05

Electron microscopic and optical spectroscopic characterization of InP nanowires

C3 Kenji Ikushima 16:05-16:25

Scanning THz microscope: cyclotron emission imaging of quantum Hall devices

Short Coffee Break 16:25-16:40 Lobby

Session D 'Biological' I 16:40-17:45 Conference Room

D1 Jörg Maser 16:40-17:15

Hard X-ray Microscopy and Microspectroscopy at the Advanced Photon Source

D2 Toru Ide 17:15-17:45

Simultaneous optical and electrical recording of single ion-channel proteins

Banquet 18:20-20:20 Hyatt Regency Osaka

October 23, Thursday

Session E 'Magnetic' II 9:10-10:35 Conference Room

- E1 Makoto Konoto** 9:10-9:40
Low-temperature spin-polarized scanning electron microscopy: Magnetic structures of perovskite manganites
- E2 Wulf Wulfhekel** 9:40-10:15
Spin polarized scanning tunneling microscopy and topologically induced domain walls in antiferromagnets
- E3 Akinobu Yamaguchi** 10:15-10:35
Real-space observation of current-driven domain wall displacement in submicron magnetic wires

Coffee Break 10:35-10:55 Lobby

Session F 'Biological' II 10:55-12:35 Conference Room

- F1 Yoichi Uehara** 10:55-11:25
STM light emission spectra of single molecules adsorbed on solid surfaces
- F2 Yasushi Inouye** 11:25-11:55
Near-field vibrational spectroscopy for molecular imaging
- F3 Yuji C.Sasaki** 11:55-12:15
Picometer-scale Dynamical Observations of Individual Protein Molecules Using X-rays
- F4 Shin-ya Koshihara** 12:15-12:35
Dynamical study of lattice structural changes in sub-nanometer scale accompanied with multi-electron transfer

Lunch Break 12:35-14:00

Session G 'Quantum' III 14:00-15:30 Conference Room

- G1 Markus Morgenstern** 14:00-14:35
Scanning Tunneling Spectroscopy: Interacting electron systems in different dimensions
- G2 Takeharu Sugiyama** 14:35-14:55
Microspot photoemission spectrometer based on coherent femto-second VUV radiation
- G3 Thomas Schmidt** 14:55-15:30
Spectroscopic PEEM with aberration correction: the SMART project

Coffee Break 15:30-15:50 Lobby

Session H 'Magnetic' III 15:50-17:35 Conference Room

- H1 Shin Imada** 15:50-16:10
Magnetic microspectroscopy (XMCD-PEEM) and proposal of photoemission microspectroscopy with <50 nm resolution
- H2 Tadashi Mizoguchi** 16:10-16:30
Sub-nm resolution scanning tunneling spectroscopy magnetic imaging of bct-Mn(001) films and Fe/Mn/Fe(001) multilayer
- H3 Takeshi Kawagoe** 16:30-17:00
Surface Magnetic Structure of Cr(001) film studied by Spin-Polarized Scanning Tunneling Spectroscopy
- H4 Wolfgang Kuch** 17:00-17:35
Photoelectron emission spectromicroscopy of multi-layered magnetic systems

Closing 17:35-17:45 Conference Room

Poster Session: Oct. 22 13:40-15:10

- P 1 Takahide Tohyama**
Application of PEEM to micro magnetic structures observation for ferro- and anti-ferromagnetic surfaces
- P 2 Takanori Okada**
Faraday microscopy with semimagnetic semiconductor quantum well sensor
- P 3 Takeshi Matsushima**
Development and Research of Synchrotron Radiation Light-illuminated Scanning Tunneling Microscope
- P 4 Tian Xie**
Scanning Tunneling Microscopy and Soft X-ray Spectroscopy of Mn and Co Nanoclusters on Si (111)-(7x7) Surface
- P 5 Atsushi Yamasaki**
Single-domain limit of Fe nano-magnets on W(001) studied by spin-polarized STM
- P 6 Masato Kotsugi**
The Photoelectron Emission Microscope (PEEM) Project for HiSOR
- P 7 Kanta Ono**
Control of vortex chirality in mesoscopic magnetic disks
- P 8 Jianmin Bai**
Dot-by-dot Analysis of Magnetization Reversal in Patterned Media by using AFM/MFM Measurement
- P 9 Shigenori Ueda**
Magnetic domain structures of Fe thin films on land-and-groove patterned substrates studied by spin-polarized secondary electron microscopy
- P 10 Takashi Tokizaki**
Microscopic Observation of Carrier Diffusion in Two-dimensional Electron Gas Systems under Magnetic Fields
- P 11 Ko Mibu**
Magnetic domain walls and shape-induced exchange biasing effect in NiFe nanocontact-structures
- P 12 Jörg Schuler**
NanoESCA: Imaging XPS with <200 nm Resolution
- P 13 Hiroshi Shimizu**
Development of aberration-corrected PEEM
- P 14 Hiroshi Daimon**
Project of stereo-PEEM to take stereo picture of atomic arrangement
- P 15 Kan Nakatsuji**
Electronic states and magnetism of Co nanodots on N/Cu(001) surfaces
- P 16 Motohiro Iwami**
Surface Structures of Metal/Substrate(SiC, Si) Systems: SXES and PEEM
- P 17 Kiyoshi Kanisawa**
Characterization of InAs Nanostructures using Low-Temperature Scanning Tunneling Microscopy
- P 18 Satoshi Kokado**
Theoretical Study on Spin Dependent Transport in Carbon Nanotube Encapsulating Magnetic Atoms
- P 19 Takaaki Aoki**
Non-contact surface force microscopy of protein molecules
- P 20 Zhen-Chao Dong**
Organic electroluminescence excited by STM