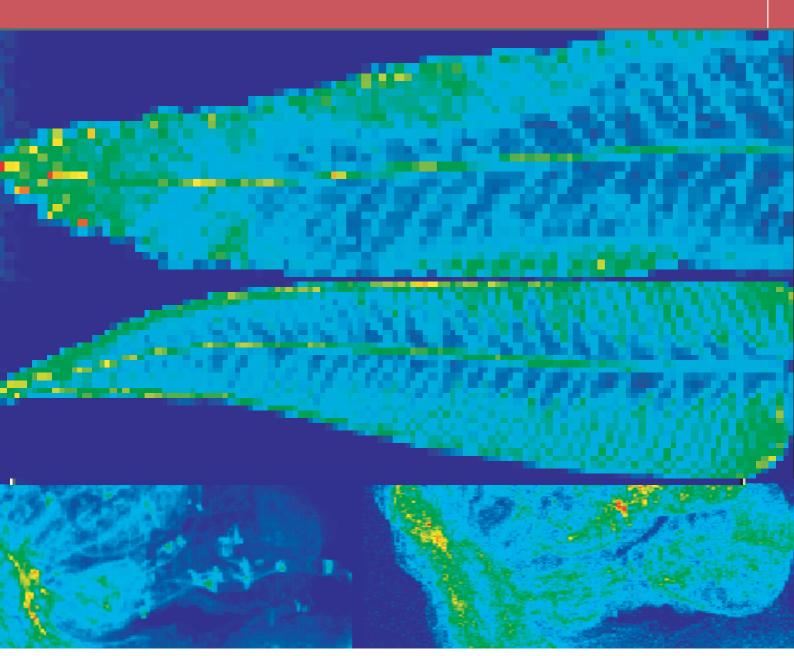
Highlights



HIGHLIGHTS

1.		c and Molecular Science
		Photon Pairs Produced from Multiply Excited Molecules in the Vacuum Ultraviolet Range
		Doubly and Triply Photoexcited Hollow Beryllium Resonances
		· · · · · · · · · · · · · · ·
2.	Chem	istry 11
	2-1	XAFS Study of HZSM-5-Supported N-Interstitial Re-Cluster Catalysts for Direct Phenol Synthesis with Benzene and Molecular Oxygen
	2-2	<i>In-Situ</i> XAFS Study of a Ni ₂ P Catalyst under Hydrodesulfurization Conditions – Development of a New XAFS Measurement Technique for High Pressure and High Temperature Gas-Liquid Phase Reactions –
	2-3	A Study of the Accumulation Mechanism in Arsenic Hyperaccumulator Fern, <i>Pteris vittata</i> L. Using XAFS and XRF Imaging Techniques
	2-4	XAFS Analyses of Ni Species Trapped in Carbon Nanofibers
		Reverse Conformational Changes of a Lever-Arm Drive Directional Motility of the Myosin V and Myosin VI Processive Motors
	2-6	Small-Angle X-Ray Scattering Study of the Pulley Effect of Slide-Ring Gels
	2-7	XAS Study of the Electronic Structure of Olivine-Type Phosphate for Li-Ion Batteries
3.		Adsorption Site and Three-Dimensional Structure of Ni Atoms on TiO ₂ (110) Determined by Polarization-Dependent Total-Reflection Fluorescence EXAFS
	3-2	Strain Distribution at Buried Interfaces due to Ion Implantation Revealed by Extremely Asymmetric X-Ray Diffraction
	3-3	Surface State Created by Strain in Ge Nanoislands on a Si(111) Surface
	3-4	Element-Selective Vertical Height Determination of an Organic Monolayer Using
		a Scanned-Photon-Energy Photoelectron-Yield Soft X-Ray Standing-Wave Technique
4	Electri	ania Structure of Candanaed Matter
4.		onic Structure of Condensed Matter
		Fermi Surface and Anisotropic Spin-Orbit Coupling of Sb(111) Studied by Angle-Resolved Photoemission Spectroscopy
	4-3	Fermi Surfaces and Kink in the Energy Dispersion of Sr ₂ RuO ₄
		Band Structure and Fermi Surface of La _{1-x} Sr _x MnO ₃ Thin Films Studied by <i>In-Situ</i> Angle-Resolved
		Photoemission Spectroscopy
	4-5	XAS and XMCD Studies of an Fe-Wedge(001) Layer Facing an Epitaxial MgO(001) Tunnel Barrier
5.		ials Science
		Ferroelectricity in (Tb,Dy)MnO ₃ Derived from Spiral Spin Ordering
		Antiferro Orbital Ordering in a Mn Oxide Thin Film
		Photo-Induced Effects in Quantum Paraelectric SrTiO ₃ Probed by X-Ray Absorption Spectroscopy
	5-4	Co-Existing Handednesses of Lamella Twisting in a Spherulite of Polymer Blend
	5-5	Intralayer Molecular Orientation in the B1 Phase of a Bent-Core Liquid-Crystal Molecule Studied by X-Bay Micro-Beam Diffraction

6. Crystallography 6-1 pH Dependent Formation of Three-Dimensional Network Structures with {Mo _{154-x} } Building Blocks 6-2 A Charge-Ordered State in Geometrically Frustrated Crystal AIV ₂ O ₄	39
7. High Pressure Science 7-1 Pressure-Induced Structural Changes in Liquid III-V Compounds 7-2 A New High Pressure Polymorph of FeAIO ₃	42
 8-Biological Science 8-1 Crystal Structure of Thymine DNA Glycosylase Conjugated to SUMO-1 or SUMO-3 8-2 Double-Sided Ubiquitin Interacting Motif of Hrs in Protein Sorting 8-3 Structural Basis of a Toxin-Antitoxin Complex: YefM-Induced Rearrangement of the YoeB Catalytic Site 8-4 Detecting a Bacterial Foe 8-5 Crystal Structure of Bispecific Antibody R310 against Modified Protein and DNA with Oxidized Lipids 8-6 Structural Basis of Alanine Discrimination in Editing Site 8-7 Novel Ca²⁺ Independent Glycoprotein Cargo Receptors, Emp46p and Emp47p 8-8 Crystal Structure of Glucooligosaccharide Oxidase from Acremonium strictum, a Novel Flavinylation of 6-S-Cysteinyl, 8α-N1-Histidyl FAD 8-9 Structure of the Supra-Molecular Pigment in Blue Cornflower 8-10 Elucidation of the Structural Change of Inactive Misarranged Recombinant Hyperthermophilic Glutamate Dehydrogenase during Heat Induced Activation under High Temperature 8-11 Does Cold Water Act Like Alcohol? 8-12 Cell-Cycle Arrest in M Phase EGFP-HeLa Cells Caused by Soft X-Ray Micro-Beam Irradiation 	45
9. Medical Imaging 9-1 Attempt at Visualizing Internal Organs Using X-Ray Refraction Based 3-Dimensional Imaging - Is It Possible to Establish an X-Ray Pathology? - 9-2 An Intravenous Coronary Angiography System 9-3 Quantitative Analysis of Amyloid Plaques in a Mouse Model of Alzheimer's Disease by Phase-Contrast X-Ray Computed Tomography	60
10-1 Characterization of Nano-Textured AIN Thin Films Using X-Ray Absorption Near Edge Structure Spectroscopy 10-2 Crystal Structure of a New Phase in Metal-Doped Higher Fullerene Rb _{8.8(7)} C ₈₄ 10-3 Resonant X-Ray Emission Spectroscopy Study of (Ga,Mn)As 10-4 Positron Transmission Images	64
11. Instrumentation and Methodology 11-1 X-Ray Phase-Contrast Imaging Using an X-Ray HARP Camera 11-2 Nonreciprocal Magnetoelectric X-Ray Scattering in Magnetite Fe ₃ O ₄ 11-3 Development of a Scanning Tunneling Microscope for Elemental Analysis Using Synchrotron Radiation	
12. Theory 12-1 Non-Localization of Both Types of Carriers in a Quasi-One-Dimensional Strongly Correlated Electron System	74