

## Program of Users' Meeting

*Chairs: Ming-Wen Chu (朱明文) and Hsin-Yi Lee (李信義)*

**August 29 (Wednesday)**

**Place: Rm. 107**

08:00		Registration	
09:00		<b>Opening Remarks</b> <i>Ming-Wen Chu (朱明文), Chairperson of Users Executive Committee, National Taiwan Univ. (國立台灣大學)</i>	
			<i>Session Chair: Ming-Wen Chu (朱明文)</i>
09:05		<b>NSRRC Current Status and Future Development</b> <i>Shih-Lin Chang (張石麟), National Synchrotron Radiation Research Center (國家同步輻射研究中心)</i>	
			<i>Session Chair: Shih-Lin Chang (張石麟)</i>
09:35	S1	<b>Keynote Speech --- Re-search Research</b> <i>Lih J. Chen (陳力俊), National Taiwan Univ. (國立清華大學)</i>	
10:15		Poster Setup and Coffee Break	
			<i>Session Chair: Chun-Jung Chen (陳俊榮)</i>
10:30		<b>Light Source Report</b> <i>Yi-Chih Liu (劉毅志), National Synchrotron Radiation Research Center (國家同步輻射研究中心)</i>	
10:50		<b>Development of Experimental Facilities</b> <i>Di-Jing Huang (黃迪靖), National Synchrotron Radiation Research Center (國家同步輻射研究中心)</i>	
			<i>Session Chair: Ming-Wen Chu (朱明文)</i>
11:10		<b>Users' Town Meeting</b> <i>Ming-Wen Chu (朱明文) &amp; Shih-Lin Chang (張石麟)</i>	
12:10		Poster Session and Lunch	
13:00		DECTRIS Ltd. Presentation (Lunch) ~13:40 at Rm. 108	
			<i>Session Chair: Hwo-Shuenn Sheu (許火順)</i>
14:00	O1	<b>Functional Nanomaterials from Self-assembly and Templating of Chiral Block Copolymer</b> <i>Rong-Ming Ho (何榮銘), National Tsing Hua Univ. (國立清華大學)</i>	
14:30	O2	<b>H<sup>+</sup>- Pyrophosphatase: a Membrane Embedded Proton-Pumping Protein</b> <i>Yuh-Ju Sun (孫玉珠), National Tsing Hua Univ. (國立清華大學)</i>	
15:00		Group Picture/Coffee Break	
15:30		<b>NSRRC Site Tour for Invited Speakers</b> <b>Young Scientist Oral Presentation &amp; Student Poster Contest Presentation</b>	
17:15		<b>Interest Group Meetings for PX (Rm. 106), PXD (Rm. 211), SAXS (Rm. 108), SRM (Rm. 203), XAS (Rm. 107), and XNS (Rm. 202)</b>	
18:15			
18:30		Banquet	<i>Host: Ming-Wen Chu (朱明文)</i>

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*Session Chair: Wei-Tsung Chuang (莊偉綜)*

### Student Poster Contest Presentation - Materials Science

- 15:30 P50 **Fabrication of BiFeO<sub>3</sub>/LaNiO<sub>3</sub> Artificial Superlattice by RF Sputtering**  
*Liu, Yen-Ting (劉晏廷), National Chiao Tung Univ. (國立交通大學)*
- 15:40 P99 **Growth of Nanocrystalline CuFeO<sub>2</sub> via Ion-exchange Method**  
*Chen, Hung-Ming (陳泓明), National Taiwan Univ. of Science and Technology (國立台灣科技大學)*
- 15:50 P102 **Controlling Cation-Size-Mismatch to Tune Photoluminescence in Oxynitride Phosphors**  
*Chen, Wei-Ting (陳韋廷), National Taiwan Univ. (國立台灣大學)*
- 16:00 P113 **Soft X-ray Absorption Spectroscopic and Raman Studies on Li<sub>1.2</sub>Ni<sub>0.2</sub>Mn<sub>0.6</sub>O<sub>2</sub> Material for Lithium Ion Battery**  
*Hy, Sunny, National Taiwan Univ. of Science and Technology (國立台灣科技大學)*
- 16:10 P114 **Synthesis of Mesoporous Platinum Replicas by Low Temperature Hydrogen Reduction**  
*Lai, Nien-Chu (賴念筑), National Tsing Hua Univ. (國立清華大學)*
- 16:20 P126 **In-situ Observation of Cu@Ag Core-shell Nanoparticles upon Heating**  
*Tsai, Chi-Hang (蔡齊航), National Taiwan Univ. of Science and Technology (國立台灣科技大學)*
- 16:30 P158 **A Peptide Cu<sup>I</sup>Cu<sup>I</sup>Cu<sup>I</sup> Cluster that Mediates Facile O-Atom Transfer to Small Organic Substrates upon Activation by Dioxygen**  
*Hung, Mu-Cheng (洪木成), Academia Sinica (中央研究院)*
- 16:40 P216 **Phase Transitions of Block Copolymer Examined by Time-resolved Small-angle X-ray Scattering and Electron Tomography**  
*Lo, Ting-Ya (羅廷亞), National Tsing Hua Univ. (國立清華大學)*
- 16:50 P226 **Using Neutron-diffraction Measurements to Investigate the Three-orthogonal-directions Strain around a Fatigue-crack Tip**  
*Lin, Tian-Yu (林天鈺), National Central Univ. (國立中央大學)*
- 17:00

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*Session Chair: Chung-Li Dong (董崇禮)*

### Young Scientist Oral Presentation - Phys. / Chem. Science

- 15:30 P10 **Breakdown of the Role of O<sub>3</sub>-H<sub>2</sub>O Complex in Atmospheric OH Production**  
*Jin, Bing (金兵), Academia Sinica (中央研究院)*
- 15:45 P26 **Designing an Efficient Spin-Injection via Molecular Restructuring-assisted Spin Polarization for Organic Spintronics**  
*Chen, Chih-Han (陳志漢), National Synchrotron Radiation Research Center (國家同步輻射研究中心)*

*Session Chair: Chung-Li Dong (董崇禮)*

### Student Poster Contest Presentation - Phys. / Chem. Science

- 16:00 P17 **Determine the Composition of Water-Ozone Complex**  
*Su, Man-Nung (蘇曼儂), Academia Sinica (中央研究院)*
- 16:10 P36 **Depth Profiling Photoelectron-spectroscopic Study of Organic Spin Valve with Plasma-Modified Pentacene Spacer**  
*Hong, Jhen-Yong (洪振湧), National Taiwan Univ. (國立台灣大學)*
- 16:20 P42 **Influence of Electronic and Magnetic Symmetry on Spin Injection and Transport at Organic-Ferromagnetic Contact**  
*Lam, Tu-Ngoc (林秀玉), National Chiao Tung Univ. (國立交通大學)*
- 16:30 P44 **Direct Observation the Strain Evolution and Quantum Dots Formation on Ultra-thin M-plane ZnO/sapphire Interface Grown by Flow-rate Interruption Atomic Layer Deposition**  
*Lin, Man-Ling (林曼玲), National Chiao Tung Univ. (國立交通大學)*
- 16:40 P45 **The Study of Interfacial Electronic Structure between Long Chain Alkane N-C<sub>44</sub>H<sub>90</sub> and Uniform Ag Films by Angle-resolved Photoemission Spectroscopy**  
*Lin, Meng-Kai (林孟凱), National Tsing Hua Univ. (國立清華大學)*
- 16:50 P79 **High Pressure Induced Anomalous Structural Phase Transition Properties in ReSe<sub>2</sub> and Au-doped ReSe<sub>2</sub> : An Angular-dispersive X-ray Diffraction Study**  
*Huang, Yi-Sheng (黃譯陞), National Hsinchu Univ. of Education (國立新竹教育大學)*
- 17:00 P85 **Manganese Deficiency and Its Impact on the Magnetic Phase Diagram of Helimagnet MnSi Single Crystals**  
*Ou-Yang, Tsung-Yu (歐陽宗煜), National Taiwan Univ. (國立台灣大學)*
- 17:10

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**Place: Rm. 108**

*Session Chair: Ming-Tao Lee (李明道)*

### Student Poster Contest Presentation - Biological Science

- 15:30 P138 **Structural Functions of Orange-spotted Grouper Nervous Necrosis Virus**  
*Chen, Nai-Chi (陳乃齊), National Cheng Kung Univ. (國立成功大學)*
- 15:40 P153 **Studying Solution Structure and Dynamics of a Multidomain Molecular Chaperone by a Hybrid Approach**  
*Huang, Chih-Ting (黃芝婷), Academia Sinica (中央研究院)*
- 15:50 P162 **Functional and Structural Investigation of H<sup>+</sup>-PPase from *Clostridium Tetani***  
*Li, Kun-Mou (李昆謀), National Tsing Hua Univ. (國立清華大學)*
- 16:00 P165 **A Novel Structure of Primary Proton Pumps - Membrane-embedded H<sup>+</sup>-translocating Pyrophosphatase**  
*Lin, Shih-Ming (林士鳴), National Tsing Hua Univ. (國立清華大學)*
- 16:10 P173 **Revisiting Radii of Gyration of Proteins under Native and Denatured States Studies by SAXS**  
*Shih, Po-Min (施博閔), Academia Sinica (中央研究院)*
- 16:20 P177 **Characterization of the Structure and Folding of HP0242 from *H. Pylori***  
*Wang, Liang-Wei (王亮崑), Academia Sinica (中央研究院)*
- 16:30 P180 **Structural and Kinetics Analysis of Substrate Binding to the Phosphopantetheine Adenylyltransferase and Its Mutants from *Helicobacter Pylori***  
*Wu, Ya-Hui (吳雅惠), National Tsing Hua Univ. (國立清華大學)*
- 16:40 P218 **Calcium Effect on Anionic Bicelle-DNA Complexes**  
*Yang, Po-Wei (楊博偉), National Tsing Hua Univ. (國立清華大學)*
- 16:50

# Workshop I : X-ray Bio-imaging

*Organizer: Yao-Chang Lee (李耀昌)*

**August 30 (Thursday)**

**Place: Rm. 106**

08:20 Registration

08:50 **Workshop Opening Remarks**

*Di-Jing Huang (黃迪靖), National Synchrotron Radiation Research Center  
(國家同步輻射研究中心)*

*Session Chair: Yeukuang Hwu (胡宇光)*

09:10 I1 **Phase-contrast X-ray Imaging: From the Synchrotron to the Clinic**

*Marco Stampanoni, Swiss Federal Institute of Technology Zurich (ETH Zürich), Switzerland*

09:55 I2 **Imaging Tumor Microvessels**

*Cyril Petibois, University of Bordeaux, France*

10:40 Coffee Break

*Session Chair: Yen-Fang Song (宋艷芳)*

11:00 I3 **Full Field Hard X-ray Biomedical Imaging at SSRL**

*Joy Andrews, Stanford Synchrotron Radiation Light Source, USA*

11:45 I4 **New Dimensions in X-ray Microscopy**

*Janos Kirz, Lawrence Berkeley National Laboratory, USA*

12:30 Lunch

*Session Chair: Eva Pereiro*

13:40 I5 **Quantitative, 3-D Imaging of Biological Cells Using Soft X-ray Tomography**

*Carolyn Larabell, UCSF and Lawrence Berkeley National Laboratory, USA*

14:25 I6 **Cellular Landscape of Viral Maturation by X-ray Cryo-nano Tomography**

*Jose Lopez Carrascosa, Centro Nacional de Biotecnologia, Spain*

15:10 Coffee Break

*Session Chair: Lee-Jene Lai (賴麗珍)*

15:30 I7 **Functions of Cytosolic Galectins**

*Fu-Tong Liu (劉扶東), Academia Sinica (中央研究院)*

16:15 I8 **The MISTRAL Beamline at ALBA: First Biological Applications**

*Eva Pereiro, ALBA Synchrotron Light Source, Spain*

17:00 **Discussion & Closing Remarks**

18:20

18:40 Speakers' Dinner

*Host: Di-Jing Huang (黃迪靖)*

## **Workshop II : Powder Diffraction and its Application on Energy Materials**

*Organizers: Wen-Hsien Li (李文献) & Chia-Hung Hsu (徐嘉鴻)*

**August 30 (Thursday)**

**Place: Rm. 107**

08:20		Registration	
09:00		<b>Workshop Opening Remarks</b> <i>Di-Jing Huang (黃迪靖), National Synchrotron Radiation Research Center (國家同步輻射研究中心)</i>	<i>Session Chair: Chia-Hung Hsu (徐嘉鴻)</i>
09:10	II1	<b>Quantum Beam Platform -Neutron and Synchrotron Radiation-</b> <i>Yasuhiko Fujii (藤井 保彦), Comprehensive Research Organization for Science and Society, Japan</i>	
09:55	II2	<b>Principles, Facilities, and Applications of Neutron Scattering Techniques</b> <i>Wen-Hsien Li (李文献), National Central Univ. (國立中央大學)</i>	
10:40		Coffee Break	<i>Session Chair: Chih-Hao Lee (李志浩)</i>
11:00	II3	<b>Complementarity between Synchrotron X-rays and Neutrons and their Applications in Energy Materials Research</b> <i>Yang Ren, Advanced Photon Source, USA</i>	
11:45	II4	<b>Applications of Powder Diffraction in Energy Storage Materials</b> <i>Bing Joe Hwang (黃炳照), National Taiwan Univ. of Sci. and Tech. (國立台灣科技大學)</i>	
12:30		Lunch	<i>Session Chair: Bing Joe Hwang (黃炳照)</i>
13:40	II5	<b>Application of Neutron Powder Diffraction in Materials Science</b> <i>Qingzhen Huang (黃清鎮), National Institute of Standards and Technology, USA</i>	
14:25	II6	<b>Neutron Powder Diffraction Studies of Sustainable-energy Materials</b> <i>Vanessa Peterson, Australian Nuclear and Technology Organization, Australia</i>	
15:10		Coffee Break	<i>Session Chair: Wen-Hsien Li (李文献)</i>
15:30	II7	<b>Powder Neutron Diffraction Studies of Oxide and Oxynitride Materials</b> <i>J. Paul Attfield, Univ. of Edinburgh, UK</i>	
16:15	II8	<b>Crystal Structure and Magnetism of Layered Thermoelectric Materials</b> <i>Fang-Cheng Chou (周方正), National Taiwan Univ. (國立台灣大學)</i>	
17:00	II9	<b>Synthesis and Characterization of Multinary Selenides</b> <i>Chi-Shen Lee(李積琛), National Chiao Tung Univ. (國立交通大學)</i>	
17:45		<b>Discussion &amp; Closing Remarks</b>	
18:40		Speakers' Dinner	<i>Host: Di-Jing Huang (黃迪靖)</i>