

November 05, Monday

Plenary 1 (09:00 – 10:00) (Convention Hall)

Chair: Sydney Hall

09:00 PL05-001 **OXIDE NANOSTRUCTURES – FROM GROWTH TO
NANOGENERATORS AND TO NANOPIEZOTRONICS**
Zhong Lin Wang

Oral Session 1 (10:15-12:15) (Convention Hall)

MS-16/17: New methods for structural biology

Chair/Co-chair: Isao Tanaka, Zhi-Jie Liu

- 10:15 O1A05-M1 **THE EFFECT OF AMINO ACIDS AND AMINO ACID
DERIVATIVES ON PROTEIN CRYSTALLIZATION**
L. Ito, T. Kobayashi, K. Shiraki, T. Narukawa, A. Oosuka and H.
Yamaguchi
- 10:40 O1A05-M2 **(NZ)CH...O CONTACTS ASSISTED CRYSTALLIZATION**
Neil Shaw, Zhongyun Cheng, Bi-Cheng Wang, Zihe Rao and Zhi-Jie Liu
- 11:05 O1A05-M3 **PHASING WITH IN-HOUSE SOFTER X-RAY RADIATION**
Cheng Yang, James W. Pflugrath, Joseph D. Ferrara
- 11:30 O1A05-M4 **LONG WAVELENGTH PHASING: CURRENT AND FUTURE
CHALLENGES**
B.C. Wang, John Rose, Lirong Chen, John Ruble, James Tucker Swindell
II, Zeng-Qing Albert Fu, Jim Fait, Zhongmin Jin, Andrew Horward and
John Chrzas
- 11:55 O1A05-M5 **PSAP: PROTEIN STRUCTURE ANALYSIS PACKAGE**
K. Sekar, B.Balamurugan, M.N.A.Md.Roshan, B.Shaahul Hameed,
K.Sumathi, R.Senthil Kumar, A.Udayakumar, K.H.Venkatesh Babu,
M.Kalaivani, G.Sowmiya, P.Sivasankari, S.Saravanan, C.Vasuki Ranjani,
K.Gopalakrishnan, K.N.Selvakumar, M.Jaikumar, T.Brindha and Daliah
Michael

Oral Session 1 (10:15-12:15) (Conference Room)

MS-12: Crystallography of pharmaceuticals and natural products

Chair/Co-chair: Ian D. Williams, H. K. Fun

- 10:15 O1B05-M1 **CONTROL OF POLYMORPHIC TRANSITION INDUCING PREFERENTIAL ENRICHMENT BY MODIFYING MOLECULAR STRUCTURES OR ADDING SEED CRYSTALS**
Rui Tamura
- 10:45 O1B05-M2 **POLYMORPHISM CASE STUDIES IN THE ARTEMISININ FAMILY OF ANTI-MALARIAL DRUGS: INVOLVEMENT OF MOLECULAR SHEET MOTIFS**
Fanny L-Y. Shek, Herman H-Y. Sung, Richard K. Haynes and Ian D. Williams
- 11:05 O1B05-M3 **DETERMINATION OF ABSOLUTE CONFIGURATION FOR SOME NATURAL PRODUCTS FROM TRADITIONAL CHINESE MEDICINE**
Herman H-Y. Sung, Nancy Y. Ip and Ian D. Williams
- 11:25 O1B05-M4 **DISTINGUISHING BETWEEN NATURAL PRODUCTS AND NATURAL PRODUCT ARTIFACTS USING SINGLE CRYSTAL X-RAY STRUCTURE DETERMINATION: A CASE STUDY ON MACLURAXANTHONE, A COMPOUND CONTAINING A CHROMENE RING**
Suchada Chantrapromma, Nawong Boonnak, and Hoong-Kun Fun
- 11:45 O1B05-M5 **PROTEIN MEASUREMENTS ON A LABORATORY POWDER X-RAY DIFFRACTOMETER**
D. Beckers, S. Prugovečki, T. Degen, A. Stefanovic

Oral Session 1 (10:15-12:15) (Room 103)

MS-04: Advances in small angle X-ray and neutron scattering

Chair/Co-chair: Yoshiyuki Amemiya, Moonhor Ree

- 10:15 O1C05-M1 **QUANTITATIVE GISAXS ANALYSIS OF LAMELLAR STRUCTURES SELF-ASSEMBLED IN BRUSH POLYMER THIN FILMS**
Moonhor Ree, Jinhwan Yoon, Kyeong Sik Jin, Kyuyoung Heo, Sangwoo Jin, Jehan Kim, Kwang-Woo Kim, Tae Joo Shin
- 10:35 O1C05-M2 **MESO AND NANO-SCALE STRUCTURAL FORMATION OF POLYETHYLENE THIN FILMS EVALUATED BY SYNCHROTRON GRAZING-INCIDENCE SMALL-ANGLE AND WIDE-ANGLE X-RAY SCATTERING MEASUREMENTS**
Sono SASAKI, Hiroyasu MASUNAGA, Hiroo TAJIRI, Katsuaki INOUE, Hiroshi OKUDA, Atsushi TAKAHARA, Masaki TAKATA
- 10:55 O1C05-M3 **STRUCTURAL CHANGES IN THE MECHANICAL DEFORMATION PROCESS OF SPECIFICALLY-ORIENTED POLYETHYLENE SAMPLES AS VIEWED FROM THE SIMULTANEOUS MEASUREMENTS OF SYNCHROTRON SAXS-WAXD AND RAMAN SPECTRA**
Kohji TASHIRO, Shinichi TAKEDA, Makoto HANESAKA, Hiroyasu MASUNAGA, Sono SASAKI and Masaki TAKATA
- 11:15 O1C05-M4 **STRAIN-INDUCED CRYSTALLIZATION OF REINFORCED NATURAL RUBBER AS STUDIED BY SYNCHROTRON X-RAY SCATTERING**
Hyun Hoon Song, Min Kwan Kang, Hye-Jin Jeon, Gwanghoon Kwag and Hyungkyu Choi
- 11:35 O1C05-M5 **ANOMALOUS SMALL ANGLE X-RAY SCATTERING FOR THE DISTRIBUTION AND AGGREGATION OF THE GOLD NANOPARTICLES IN A PS-*b*-P4VP DIBLOCK COPOLYMER**
U-Ser Jeng, Ying-Huang Lai, Ching-Mao Huang, and Kung-Hwa Wei, Chiu-Hun Su, and Hwo-Shuenn Sheu
- 11:55 O1C05-M4 **CORE-SHELL MICELLAR STRUCTURES OF NOVEL TERTIARY AMINE METHACRYLATE-BASED BLOCK COPOLYMERS STUDIED BY SMALL ANGLE X-RAY SCATTERING AND DYNAMIC LIGHT SCATTERING**
Yusuf Ozcan, U-Ser Jeng, Vural Butun, Ying-Huang Lai, Chiu-Hun Su, Keng S. Liang, Semra Ide

Oral Session 2 (16:00-18:30) (Convention Hall)

MS-15: Macromolecular assemblies: proteins and nucleic acids

Chair/Co-chair: Atsushi Nakagawa, Mike Lawrence

- 16:00 O2A05-A1 **STRUCTURE, ASSEMBLY AND ACTION OF DODECAMERIC DPS, A STRESS RELATED FAMILY OF PROTEINS**
Siddhartha Roy, Ramachandran Saraswathi, Surbhi Gupta, K.Sekar, Dipankar Chatterji and M.Vijayan
- 16:25 O2A05-A2 **STRUCTURE AND FUNCTIONAL STUDY OF C. ELEGANS CELL-DEATH RELATED NUCLEASE 4 (CRN-4)**
Yu-Yuan Hsiao and Hanna S. Yuan
- 16:45 O2A05-A3 **CONFORMATIONAL CHANGE IN BIFUNCTIONAL REPLICATION INITIATOR PROTEIN RepE**
Akira Nakamura, Chieko Wada and Kunio Miki
- 17:05 O2A05-A4 **STRUCTURE OF AN IgNAR-AMA1 COMPLEX**
Victor Streltsov, Kylie Henderson, Andrew Coley, Adrian Batchelor, Robin Anders, Michael Foley, Stewart Nuttall
- 17:25 O2A05-A5 **STRUCTURAL AND FUNCTIONAL INSIGHTS INTO DOM34, A KEY COMPONENT OF NO-GO mRNA DECAAY**
Hyung Ho Lee and Se Won Suh
- 17:45 O2A05-A6 **THE CRYSTAL STRUCTURE OF A VIRUS-LIKE PARTICLE FROM HYPERTHERMOPHILIC ARCHAEOON PYROCOCCLUS FURIOSUS PROVIDE INSIGHT INTO THE EVOLUTION OF VIRUSES**
Fusamichi Akita, Khoon Tee Chong, Hideaki Tanaka, Eiki Yamashita, Naoyuki Miyazaki, Yuichiro Nakaishi, Kazunori Namba, Mamoru Suzuki, Tomitake Tsukihara and Atsushi Nakagawa
- 18:10 O2A05-A7 **HIGHER RESOLUTION STRUCTURE OF GIANT HEMOGLOBIN FROM OLIGOBRACHIA MASHIKOI**
Nobutaka Numoto, Taro Nakagawa, Akiko Kita, Yuichi Sasayama, Yoshihiro Fukumori and Kunio Miki

Oral Session 2 (16:00-18:30) (Conference Room)

MS-09: Science of inorganic materials

Chair/Co-chair: Yukio Noda, Je-Geun Park

- 16:00 O2B05-A1 **VISUALIZATION OF RATTILING IN PrOs₄Sb₁₂ BY SINGLE CRYSTAL NEUTRON DIFFRACTION**
Koji Kaneko, Naoto Metoki, Hiroyuki Kimura, Yukio Noda, Tatsuma D. Matsuda and Masafumi Kohgi
- 16:30 O2B05-A2 **SINGLE CRYSTAL NEUTRON DIFFRACTION INVESTIGATIONS OF TYPE I CLATHRATES – POTENTIAL THERMOELECTRIC MATERIAL**
Mogens Christensen, Bo B. Iversen.
- 16:50 O2B05-A3 **X-RAY SCATTERING STUDY OF RB₄**
Ki Bong Lee, S. Ji, C. Song, J. Koo, Y. J. Park, J. Y. Kim and B. K. Cho
- 17:20 O2B05-A4 **HYDROGEN BONDING PHASE TRANSITIONS IN SOME ORGANIC CRYSTALS**
Hoong-Kun Fun, Beck-Sim Lee and Suchada Chantrapromma
- 17:40 O2B05-A5 **DIFFRACTION STUDIES OF RELATION BETWEEN HELICITY OF CYCLOID MAGNETISM AND FERROELECTRIC POLARIZATION IN MULTIFERROIC MANGANESE OXIDES**
Taka-hisa Arima, Hajime Sagayama, Nobuyuki Abe, Koji Taniguchi, Hiroyuki Ohsumi, Masato Matsuura, Kazuma Hirota, Daisuke Okuyama, Yuichi Yamasaki, and Yoshinori Tokura
- 18:10 O2B05-A6 **ANOMALOUS STRUCTURAL PHASE TRANSITION ABOVE LIQUID NITROGEN TEMPERATURE IN THE MULTIFERROIC PEROVSKITE Dy(Mn_{0.5}Fe_{0.5})O₃**
Fu-Kuo Chiang, Fei-Ting Huang, and Ming-Wen Chu

Oral Session 2 (16:00-18:30) (Room 103)

MS-05: Electronic structure and bonding by X-ray diffraction and other techniques

Chair/Co-chair: Yu Wang, T. N. Guru Row

- 16:00 O2C05-A1 **SINGLE CRYSTAL STRUCTURE ANALYSIS OF PHOTO-EXCITED STATES OF HALOGEN-BRIDGED DICOPPER(I) COMPLEXES**
Yoshiki Ozawa, Shingo Yoshida, Nobuyuki Kitayama, Minoru Mitsumi, Koshiro Toriumi, Kiyoshi Tsuge, Hiromi Araki, and Yoichi Sasaki
- 16:30 O2C05-A2 **INVESTIGATION OF THE PHOTOEXCITED CHARGE-TRANSFER STATE OF [AuBr(PPh₃)₂] BY THE MULTIPLE-EXPOSURE IP METHOD**
Manabu Hoshino, Hidehiro Uekusa, Shintaro Sonoda, Takuhiro Otsuka, Youkoh Kaizu, Yoshiki Ozawa, Koshiro Toriumi
- 17:00 O2C05-A3 **X-RAY ATOMIC ORBITAL ANALYSIS AND ITS APPLICATION TO RARE-EARTH CRYSTALS**
Kiyooki Tanaka, Ryoko Makita, Shiro Funahashi, Takashi Komori, Terutoshi Sakakura
- 17:30 O2C05-A4 **STRUCTURES OF POLYPYRIDINE MONONUCLEAR IR(III) COMPLEXES IN THE CLOSED-SHELL SINGLET AND TRIPLET STATES**
Naokazu Yoshikawa, Shinichi Yamabe, Nobuko Kanehisa, Yasushi Kai, Hiroshi Takashima, and Keiichi Tsukahara
- 18:00 O2C05-A5 **APEX II ULTRA - PRECISION AND ACCURACY**
Michael Ruf, Martin Adam

November 06, Tuesday

Plenary 2 (09:00 – 10:00) (Convention Hall)

Chair: Sine Larsen

09:00 PL06-002 **BIOMOLECULAR SIGNALLING AND REGULATION; A SOLUTION SCATTERING VIEW**

Jill Trehwella

Plenary 3 (09:00 – 10:00) (Conference Room)

Chair: Shih-Lin Chang

09:00 PL06-003 **CHALLENGES IN CHARACTERIZATION OF SINGLE CRYSTALS, THIN LAYERS AND DEVICES BY HIGH RESOLUTION X-RAY DIFFRACTION AND REFLECTION TECHNIQUES**

Krishan Lal

Oral Session 3 (10:15-12:15) (Convention Hall)

MS-13: Membrane proteins - methods and structures

Chair/Co-chair: Satoshi Murakami, Che Alex Ma

10:15 O3A06-M1 **FLUORESCENCE-DETECTION SIZE EXCLUSION CHROMATOGRAPHY FOR PRECRYSTALLIZATION SCREENING OF INTEGRAL MEMBRANE PROTEINS**

Toshimitsu Kawate, Atsuko Yamashita, Jaysankar Jasti, Michael Rosconi, Paul Shaffer, Alexander Sobolevsky, Tanja Homrichhausen and Eric Gouaux

10:40 O3A06-M2 **ION BINDING AND SELECTIVITY OF THE ROTOR OF THE V-TYPE Na^+ -ATPASE FROM *ENTEROCOCCUS HIRAE***

Takeshi Murata, Ichiro Yamato, Yoshimi Kakinuma, Mikako Shirouzu, John E. Walker, Shigeyuki Yokoyama and So Iwata

11:05 O3A06-M3 **NEW STRUCTURAL ASPECTS OF BOVINE HEART CYTOCHROME C OXIDASE**

H. Aoyama, T. Tsukihara and S. Yoshikawa

11:30 O3A06-M4 **STRUCTURE OF THE CYTOCHROME *b₆f* COMPLEX: QUINONE ANALOGUE INHIBITORS AS LIGANDS OF HEME**

c_n

Eiki Yamashita, Huamin Zhang, William A. Cramer

11:50 O3A06-M5 **X-RAY STRUCTURE of EmrE SUPPORTS DUAL TOPOLOGY
MODEL**

Yen-Ju Chen, Owen Pornillos, Samantha Lieu, Che Ma, Andy P. Chen,
Geoffrey Chang

Oral Session 3 (10:15-12:15) (Conference Room)

MS-06: Scattering studies of novel electronic and magnetic systems

Chair/Co-chair: Donglai Feng, Yong-Qiang Cai

- 10:15 O3B06-M1 **MOMENTUM DEPENDENT CHARGE EXCITATIONS IN CORRELATED ELECTRON SYSTEMS STUDIED BY RESONANT INELASTIC X-RAY SCATTERING**
Kenji Ishii
- 10:40 O3B06-M2 **SPIN, CHARGE, AND ORBITAL ORDERING OF TRANSITION-METAL OXIDES**
Di-Jing Huang
- 11:05 O3B06-M3 **WIGNER CRYSTALLIZATION IN A MOLECULAR CONDUCTOR, (DI-DCNQI)₂Ag**
Hiroshi Sawa, Toru Kakiuchi, Yusuke Wakabayashi, and Kazushi Kanoda
- 11:25 O3B06-M4 **Q-DEPENDENT DIELECTRIC FUNCTION STUDIES USING INELASTIC X-RAY SCATTERING**
N. Hiraoka, H. Ishii, I. Jarrige, and Y. Q. Cai,
- 11:45 O3B06-M5 **CRYSTAL AND MAGNETIC STRUCTURE OF ORGANIC CONDUCTOR β' -ET₂ICl₂ BY USING NEUTRONS**
Yukio Noda, Masashi Watanabe, Atsushi Matsunaga, Satoshi Komiyama, Hiromi Taniguchi, Atsushi Kawamoto and Yoshiya Uwatoko
- 12:00 O3B06-M6 **LATTICE DISTORTION AND FERROMAGNETISM IN BaRuO₃**
Chao-hung Du, K. J. Tseng, Y. Y. Lo, Mau-Tsu Tang

Oral Session 3 (10:15-12:15) (Room 103)

MS-02: Synchrotron, instrumentation, time-resolved technique, and remote access

Chair/Co-chair: Soichi Wakatsuki, Julian Adams

10:15 O3C06-M1 **THE AUSTRALIAN SYNCHROTRON**

Julian Adams

10:45 O3C06-M2 **AUTOMATION AT SER-CAT: TOWARDS SIGNAL BASED DATA COLLECTION**

John P. Rose, John Chrzas, James Fait, Zeng-Qing Albert Fu, Andrew Howard, John Gonczy, Zhongmin Jin and B. C. Wang

11:15 O3C06-M3 **100-PS TIME-RESOLVED X-RAY EXPERIMENTS WITH DAILY SINGLE BUNCH MODE: CURRENT STATUS OF BEAM LINE NW14A AT THE PHOTON FACTORY ADVANCED RING**

Shin-ichi Adachi

11:45 O3C06-M4 **DEVELOPMENT AND APPLICATION OF THE “PINPOINT STRUCTURE MEASUREMENT SYSTEM”**

Sub-Micron Beam and Time-Resolved Measurement at SPring-8’s BL40XU

Shigeru Kimura, Nobuhiro Yasuda, Yoshimitsu Fukuyama, Jungeun Kim, Yoshihito Tanaka, Koshiro Toriumi, Yutaka Moritomo, Yoshihiro Kuroiwa, Kenichi Kato and Masaki Takata

Oral Session 4 (16:00-18:30) (Convention Hall)

MS-14: Proteins related to disease/drug discovery

Chair/Co-chair: Jennifer Martin, Andrew Wang

- 16:00 O4A06-A1 **ALANINE RACEMASE AS A TEMPLATE FOR DRUG DISCOVERY IN TUBERCULOSIS**
Kurt Krause, Mike Benedik, James Briggs, Milya Davlieva, Harold Kohn, Joe Longtin, Daniel Milligan, Ulrich Strych
- 16:30 O4A06-A2 **STRUCTURES OF ALL FOUR PHOSPHODIESTERASE-4 SUBFAMILIES PROVIDE INSIGHT INTO SUBFAMILY INHIBITOR SELECTIVITY**
Jiwen Cai, Huanchen Wang, Ming-Sheng Peng, Yi Chen, Jie Geng, Howard Robinson, Miles Houslay & Hengming Ke
- 17:00 O4A06-A3 **STRUCTURAL BASIS FOR RECRUITMENT OF TANDEM HOTDOG DOMAINS IN ACYL-COA THIOESTERASE 7 AND ITS ROLE IN INFLAMMATION**
Jade K. Forwood, Anil S. Thakur, Gregor Guncar, Mary Marfori, Dmitri Mouradov, Stuart Kellie, David A. Hume, Thomas Huber, Jennifer L. Martin, Bostjan Kobe
- 17:30 O4A06-A4 **THROUGH-PUT PROTEIN STRUCTURE DETERMINATION AND RATIONAL STRUCTURE-BASED DRUG DESIGN USING FRAGMENT-BASED APPROACH**
Tej P. Singh, Sanjit Kumar, Pradeep Sharma, Rafia Mir, Ishfaq A. Sheikh, Amit K. Singh, R. Prem Kumar, Mau Sinha, Nagendra Singh, Punit Kaur, A. Srinivasan and S. Sharma
- 17:50 O4A06-A5 **STRUCTURAL BASIS FOR GLUTAMATE RACEMASE INHIBITION**
Kook-Han Kim, Young-Jong Bong, Joon Kyu Park, Key-Jung Shin, Kwang Yeon Hwang and Eunice EunKyeong Kim
- 18:10 O4A06-A6 **CRYSTAL STRUCTURE OF ABT-737 IN COMPLEX WITH Bcl-xL**
Peter E. Czabotar, Erinna F. Lee, Brian J. Smith, Kurt Deshayes, Kerry Zobel, W. Douglas Fairlie, Peter M. Colman

Oral Session 4 (16:00-18:30) (Conference Room)

MS-07: Crystal Engineering and Supramolecular Chemistry

Chair/Co-chair: Ashwini Nangia, Jun Harada

- 16:00 O4B06-A1 **MOLECULAR BRICKS, PENS, GRIDS AND SPHEROIDS FROM DIHETEROAROMATIC HOSTS**
Roger Bishop, Solhe F. Alshahateet, Jason Ashmore, Donald C. Craig and Marcia L. Scudder
- 16:30 O4B06-A2 **ROLE OF MIXED HALOGENS (F, Br) TOWARDS CRYSTAL PACKING AND INTERMOLECULAR INTERACTIONS IN SUBSTITUTED BENZANILIDES**
Susanta K. Nayak, T. N. Guru Row
- 16:50 O4B06-A3 **SYNTHESIS, STRUCTURES AND MAGNETIC PROPERTIES OF A SERIES OF CYANO-BRIDGED HETEROMETALLIC COMPLEXES**
Shao-Jun Wang, Long Jiang, Wei-Xiong Zhang and Tong-Bu Lu
- 17:20 O4B06-A4 **WATER CLUSTERS, ISOSTRUCTURALITY AND POLYMORPHISM IN HYDROXY DERIVATIVE OF HALOBENZENE CRYSTAL STRUCTURES**
Binoy Saha
- 17:40 O4B06-A5 **ENGINEERING OF LUMINESCENT PROPERTIES IN MIXED LANTHANIDE CARBOXYLATE COORDINATION POLYMERS**
YuFong Yen, Samadara Thushari, Alvin Siu, Kam-Sing Wong and Ian D. Williams
- 18:10 O4B06-A6 **SUPRAMOLECULAR ASSEMBLIES OF MONONUCLEAR AND POLYMERIC COBALT(ii) AND NI(II) DICARBOXYLIC COMPLEXES**
Tanwawan Duangthongyou, Sutatip Siripaisarnpipat, Chris Adams

Oral Session 4 (16:00-18:30) (Room 103)

MS-08: Nano technology: structure, surface, and interface

Chair/Co-chair: Shie-Ming Peng, Isao Takahashi

- 16:00 O4C06-A1 **QUENCHED DISORDER EFFECTS IN TOPOLOGICALLY ORDERED NANOPORES ON THE SMECTIC PHASE TRANSITION OF 8CB**
R. Guegan, D. Morineau, R. Lefort, A. Moreac, and M. Guendouz
- 16:20 O4C06-A2 **AN ELECTRON DIFFRACTION METHOD FOR DETERMINING THE CHIRALITY OF CARBON NANOTUBES**
Lu-Chang Qin, Hakan Deniz, Jie Tang
- 16:40 O4C06-A3 **RHEED SURFACE POLE FIGURE -- A NEW IN-SITU TECHNIQUE FOR POLYCRYSTALLINE AND NANOSTRUCTURED SURFACE TEXTURE ANALYSIS**
Fu Tang, Toh-Ming Lu and Gwo-Ching Wang
- 17:00 O4C06-A4 **QUANTUM OSCILLATIONS AND BEATS IN X-RAY REFLECTION DURING FILM GROWTH**
Y.-R. Lee, A. Gray, J. Tischler, P. Czoschke, H. Hong, S.-L. Chang, and T.-C. Chiang
- 17:20 O4C06-A5 **CHARACTERIZATION OF NANOMETER SCALE GRAIN SIZED Pt ON Si AND PtSi/Si STRUCTURES DEPOSITED BY HIGH RATE MAGNETRON SPUTTERING**
V.Uma and R.Chandramani Ramu
- 17:40 O4C06-A6 **SYNTHESIS, STUDIES AND LUMINESCENT PROPERTIES OF TERBIUM OXIDE DOPED $\text{LaMn}_{0.9}\text{Zn}_{0.1}\text{O}_{3+d}$ NANOPEROVSKITE BY SOL-GEL METHOD**
A A Alemi, E Karimpour Nahari and H Shokri
- 18:00 O4C06-A7 **STUDIES OF THE NANOSTRUCTURE OF NATURAL VEGETABLE FIBERS**
Nguyen Van Tri

November 07, Wednesday

Plenary 4 (09:00 – 10:00) (Convention Hall)

Chair: Andrew H. Wang

09:00 PL07-004 **STRUCTURAL INSIGHTS INTO THE GATING CONTROL IN BACTERIAL TRANSPORTERS**

Osamu Nureki

Plenary 5 (09:00 – 10:00) (Conference Room)

Chair: Masaki Takata

09:00 PL07-005 **SYNTHESIS, CRYSTAL STRUCTURES AND PROPERTIES OF METAL SILICATES**

Kwang-Hwa Lii

Oral Session 5 (10:15-12:15) (Convention Hall)

MS-18a: Cool structures in protein crystallography I

Chair/Co-chair: Kunio Miki, T. P. Singh

10:15 O5A07-M1 **CRYSTAL STRUCTURES OF THE COMPLEXES OF C-LOBE OF LACTOFERRIN WITH NON-STEROIDAL ANTI-INFLAMMATORY DRUGS (NSAIDS) REVEAL THE BINDING PATTERN BETWEEN C-LOBE AND NSAIDS WHICH SUGGESTS A NEW THERAPY FOR MANAGEMENT OF NSAID-INDUCED GASTROPATHY**

Sujata Sharma, Rafia Mir, Mau Sinha, Nagendra Singh, and Tej P. Singh

10:40 O5A07-M2 **CRYSTAL STRUCTURES OF NATIVE BACTERIOPHAGE-ASSOCIATED HYALURONATE LYASE AND ITS COMPLEXES WITH LACTOSE AND ASCORBIC ACID**

P. Mishra, V. Bhakuni, A. S. Ethayathulla, R. Prem Kumar, N. Singh, S. Sharma, P. Kaur, A. Srinivasan and T. P. Singh

11:05 O5A07-M3 **STRUCTURAL AND MUTATIONAL STUDIES OF ANTHOCYANIN MALONYLTRANSFERASES ESTABLISH THE FEATURES OF BAHD ENZYME CATALYSIS**

Hideaki Unno, Fumiko Ichimaida, Hirokazu Suzuki, Seiji Takahashi, Yoshikazu Tanaka, Atsushi Saito, Tokuzo Nishino, Toru Nakayama and Masami Kusunoki

- 11:30 O5A07-M4 **CRYSTAL STRUCTURE OF
N-ACETYLGLUCOSAMINE-PHOSPHATE MUTASE, A
MEMBER OF THE ALPHA-D-PHOSPHOHEXOMUTASE
SUPERFAMILY**
Yuichi Nishitani, Daisuke Maruyama, Tsuyoshi Nonaka, Akiko Kita,
Takaaki A. Fukami, Toshiyuki Mio, Hisafumi Yamada-Okabe, Toshiko
Yamada-Okabe and Kunio Miki
- 11:55 O5A07-M5 **SUBSTRATE SPECIFICITY OF PHOSPHODIESTERASES,
STRUCTURAL INSIGHT INTO VIAGRA FUNCTION, AND
STRUCTURE-BASED DESIGN OF DRUGS FOR
INFLAMMATORY DISEASES**
Hengming Ke and Huanchen Wang

Oral Session 5 (10:15-11:45) (Conference Room)

MS-10: Science of Organic Materials

Chair/Co-chair: Yoshio Nogami, Ito Chao

**10:15 O5B07-M1 COMPLEMENTARY STUDIES OF ENZYME-RESISTANT
STARCH - IMPLICATIONS FOR HUMAN HEALTH**

A. López-Rubio, M. J. Gidley, A. K. Shrestha, B.M. Flanagan, A. Htoon,
H. Chanvrier, S. Uthayakumaran, I.A.M. Appelqvist, A.R. Bird, D.L.
Topping, M.K. Morell and E.P. Gilbert

**10:45 O5B07-M2 CRYSTAL AND MOLECULAR STRUCTURES OF
ORGANOPHOSPHORUS COMPOUNDS - CONFORMATION
AND BIOLOGICAL ACTIVITY OF HETEROCYCLIC
MOLECULES**

Musali Krishnaiah and Jadaprolu Radha Krishna

**11:15 O5B07-M3 IXS STUDY OF EXCITON PROPERTIES IN ORGANIC
MOLECULES**

Ke Yang

Oral Session 5 (10:15-12:15) (Room 103)

MS-01: Neutron sources, instrumentation, and applications

Chair/Co-chair: Brendan Kennedy, Mahn Won Kim

- 10:15 O5C07-M1 **HIGH SPEED NEUTRON DIFFRACTION AT THE OPAL RESEARCH REACTOR: THE WOMBAT INSTRUMENT**
A.J. Studer, M. Avdeev, M.M. Elcombe, J.R. Hester, and V.K. Peterson
- 10:45 O5C07-M2 **WATER-REDISPERSIBLE SINGLE WALL CARBON NANOTUBES AND 40M SANS INSTRUMENT DEVELOPMENT AT HANARO**
Sung-Min Choi, Tae-Hwan Kim, Changwoo Doe, Young-Soo Han and Steven R Kline
- 11:15 O5C07-M3 **FIRST RESULTS FROM THE NEW OPAL RESEARCH REACTOR**
R. A. Robinson
- 11:45 O5C07-M4 **VERSATILE NEUTRON DIFFRACTOMETR AT J-PARC - IBARAKI MATERIALS DESIGN DIFFRACTOMETER -**
T. Ishigaki, A. Hoshikawa, M. Yonemura, F. Shikanai, T. Morishima, T. Kamiyama, K. Aizawa, T. Sakuma, Y. Tomota, M. Arai, M. Hayashi, K. Ebata, Y. Takano, K. Komatsuzaki, H. Asano, Y. Takano, T. Kasao

Oral Session 6 (13:30-15:30) (Convention Hall)

MS-18b: Cool structures in protein crystallography II

Chair/Co-chair: Mitchell Guss, Hanna Yuan

- 13:30 O6A07-A1 **TACKLING A MUNC-Y PUZZLE: STRUCTURE OF THE MUNC18C PROTEIN**
Jennifer L Martin, Shu-Hong Hu, Catherine F. Latham, Christine L. Gee, David E. James
- 13:55 O6A07-A2 **CRYSTAL STRUCTURE OF DSREFH, A PROTEIN ESSENTIAL FOR OXIDATION OF STORED SULFUR IN THE PURPLE SULFUR BACTERIUM ALLOCHROMATIUM VINOSUM**
Dong Hae Shin
- 14:20 O6A07-A3 **STRUCTURAL AND COMPUTATIONAL STUDIES ON TYPE II RIPs**
Alok Sharma, A.A. Jeyaprakash, M.J.Swamy and M.Vijayan
- 14:45 O6A07-A4 **STRUCTURAL STUDIES OF THE CPX PATHWAYH ACTIVATOR NLPE ON THE OUTER MEMBRANE OF ESCHERICHIA COLI**
Yu Hirano, Md. Motarab Hossain, Kazuki Takeda, Hajime Tokuda and Kunio Miki
- 15:10 O6A07-A5 **CRYSTAL STRUCTURE OF IL-15/IL-15RALPHA COMPLEX**
Mami Chirifu, Chiharu Hayashi, Teruya Nakamura, Sachiko Toma, Tsuyoshi Shuto, Hirofumi Kai, Yuriko Yamagata, Simon J. Davis and Shinji Ikemizu

Oral Session 6 (13:30-15:30) (Conference Room)

MS-11: Dynamic aspects of molecular crystals

Chair/Co-chair: Keiichiro Ogawa, Roger Bishop

- 13:30 O6B07-A1 **IXS STUDY OF EXCITATION PROPERTIES OF ORGANIC MOLECULAR CRYSTALS AND SIMPLE MOLECULES**
Binping Xie, Ke Yang, Y. Q. Cai, N. Hiraoka, Donglai Feng
- 13:50 O6B07-A2 **MOLECULAR DYNAMICS IN SEVERAL CHLORINE COMPOUNDS ON THE BASIS OF X-RAY THERMAL PARAMETER, IR/RAMAN AND NQR DATA**
L.Ramu and R.Chandramani.
- 14:10 O6B07-A3 **VAPOR INDUCED GUEST EXCHANGE OF ORGANIC INCLUSION CRYSTAL**
Hidehiro Uekusa, Yasunari Ashida, Kotaro Fujii
- 14:30 O6B07-A4 **CONCERTED STRUCTURAL CHANGE AND PHOTOCHROMISM OF TRANS-BIINDENILIDENEDION DERIVATIVES**
Akiko Sekine, Kumiko Aruga, Hidehiro Uekusa, Katsuya Souno and Koichi Tanaka
- 14:50 O6B07-A5 **CRYSTAL STRUCTURE ANALYSES OF CIS/TRANS PHOTOISOMERIZATIONS**
Jun Harada, Mayuko Harakawa and Keiichiro Ogawa
- 15:10 O6B07-A6 **CRYSTALLINE STATE PHOTO ISOMERIZATION OF AN ORGANO-DIRHODIUM DITHIONITE COMPLEX**
Koshiro Toriumi, Hiroshi Kanamono, Shouichi Hashimoto, Yoshiki Ozawa, Minoru Mitsumi, Hidetaka Nakai, Yousuke Miyano, Yoshihito Hayashi, and Kiyoshi Isobe

Oral Session 6 (13:30-15:30) (Room 103)

MS-03: Advances in powder X-ray and neutron diffraction

Chair/Co-chair: Takashi Kamiyama, Andrew Studer

- 13:30 O6C07-A1 **STRUCTURE DETERMINATION FROM HIGH RESOLUTION SYNCHROTRON POWDER DIFFRACTION DATA**
Eiji Nishibori, Shinobu Aoyagi, and Makoto Sakata
- 14:00 O6C07-A2 **STRUCTURAL STUDIES EMPLOYING HIGH ENERGY POWDER DIFFRACTION**
Peter L. Lee
- 14:30 O6C07-A3 **EXPECTING THE UNEXPECTED. PHASE TRANSITIONS IN MANGANESE PEROVSKITES**
Brendan J Kennedy, and Zhaoming Zhang
- 14:50 O6C07-A4 **MORPHOTROPIC PHASE BOUNDARY LIKE CHARACTERISTIC IN A LEAD-FREE, AND NON-FERROELECTRIC SYSTEM $(1-x)\text{NaNbO}_3-x\text{CaTiO}_3$**
Saurabh Tripathi, Rajeev Ranjan, Dhananjai Pandey, Sanjay Kumar Mishra and P.S.R. Krishna
- 15:10 O6C07-A5 **SYNCHROTRON RADIATION X-RAY DIFFRACTION AND SPECTROSCOPIC ELLIPSOMETRY INVESTIGATION OF Si_3N_4 ON Si FOR SUB-50NM Si-IC APPLICATIONS**
Zhe Chuan Feng, Li-Chi Cheng, Chu-Wan Huang, Ying-Lang Wang, and Hwo-Shuenn Sheu

Plenary 6 (16:00 – 17:00) (Convention Hall)

Chair: Peter M. Colman

09:00 PL07-006 **MECHANISM OF PROGRAMMED CELL DEATH THROUGH STRUCTURAL BIOLOGY**

Yigong Shi