AsCA2010

The 10th Conference of the Asian Crystallographic Association

PROGRAM

Program Timetable

<table>
<tr><th></th><th>Oct 31 (Sunday)</th><th>Nov 1 (Monday)</th><th>Nov 2 (Tuesday)</th><th>Nov 3 (Wednesday)</th></tr>
<tr><td>08:00</td><td rowspan="3">-</td><td>Registration
(1st Floor)</td><td>Registration
(1st Floor)</td><td>Registration
(1st Floor)</td></tr>
<tr><td>09:00</td><td>Plenary 1
PL-1 (Hall A)

09:00-10:00</td><td>Keynote 1, 2
KN-1 (Hall C)
KN-2 (Hall B)
09:00-10:00</td><td>Keynote 3, 4
KN-3 (Hall C)
KN-4 (Hall B)
09:00-10:00</td></tr>
<tr><td>10:00</td><td>Break</td><td>Break</td><td>Break</td></tr>
<tr><td>10:15</td><td rowspan="2">Oral session 1
MS-1 (Hall B)
MS-2 (Hall C)
MS-3 (Hall D)
10:15-12:15</td><td rowspan="2">Oral session 3
MS-7 (Hall B)
MS-8 (Hall C)
MS-9 (Hall D)
10:15-12:15</td><td rowspan="2">Oral session 5
MS-13 (Hall B)
MS-14 (Hall C)
MS-15 (Hall D)
10:15-12:15</td></tr>
<tr><td>12:15</td></tr>
<tr><td>13:30</td><td rowspan="4">Registration
(1st Floor)
13:30-18:00</td><td>Poster Session 1
Odd numbers
(1st & 2nd Floor)
13:30-15:30</td><td>Poster Session 2
Even numbers
(1st & 2nd Floor)
13:30-15:30</td><td>AsCA rising stars symposium
MS-16 (Hall A)
13:30-15:30</td></tr>
<tr><td>15:30</td><td>Break</td><td>Break</td><td>Break</td></tr>
<tr><td>16:00</td><td rowspan="2">Oral session 2
MS-4 (Hall B)
MS-5 (Hall C)
MS-6 (Hall D)
16:00-18:00</td><td rowspan="2">Oral session 4
MS-10 (Hall B)
MS-11 (Hall C)
MS-12 (Hall D)
16:00-18:00</td><td>Plenary 2
PL-2 (Hall A)
16:00-17:00</td></tr>
<tr><td>17:00</td><td>Closing
(Hall A)
17:00-17:30</td></tr>
<tr><td>17:30</td><td rowspan="3">Opening, Welcome Mixer & AsCA Special Lecture
SL-1 (Hall E)
18:00-21:00</td><td rowspan="2">-</td><td>-</td><td rowspan="3">-</td></tr>
<tr><td>18:00</td><td rowspan="2">Award Ceremony & Conference Banquet
(Hall E)
18:30-21:00</td></tr>
<tr><td>18:30
19:20</td><td>Oral session 2e
MS-10e (Hall B)
19:20-21:00</td></tr>
</table>

Hall A (1st floor)
Hall B, C, D (2nd floor)
Hall E (3rd floor)

Session Topics

Area 1. Structural Biology

MS01: Membrane proteins
MS04: Macromolecular complexes including nucleic acids
MS07: Enzymes and enzyme inhibitors
MS10 and MS10e: Drug discovery/disease related proteins
MS13: Structural proteomics and bioinformatics

Area 2. Chemical Crystallography and Materials Science

MS02: Metal organic frameworks
MS05: Chemical crystallography - structure and properties
MS08: Dynamic aspects of molecular and solid state crystals
MS11: Magnetic structures/molecular magnets
MS14: Nanomaterials, surface, and interface

Area 3. Specialized Techniques

MS03: Synchrotron and neutron sources, instrumentation and applications
MS06: Small angle X-ray and neutron scattering
MS09: Combining methods/new tools in structural biology
MS12: Crystal growth and engineering
MS15: Powder diffraction

Area 4. Others

MS-16: AsCA rising stars symposium
MS-17: Other areas

Detailed Program

Day 1: October 31 (Sunday)

13:30-18:00 **Registration (Level 1)**

18:00-21:00 **Bruker & Incoatec Welcome Mixer,**
Opening Ceremony, and Special Opening Lecture

Hall E / Special Opening Lecture
Chair: Se Won Suh

SL-1 **The Crystal Dragon: AsCA and crystallography in the Asia-Pacific region**
Gautam Desiraju (India)

Day 2: November 1 (Monday)

08:00-09:00 **Registration (Level 1)**

09:00-10:00 **Plenary Lecture-1 (PL-1)**

Hall A
Chair: Edward N. Baker
PL-1 **Demography and evolution of protein structural folds**
Sung-Hou Kim (USA)

10:00-10:15 **Break**

10:15-12:15 **Oral Sessions (MS01, 02, 03)**

Hall B / MS01 Membrane proteins
Chairs: Tomitake Tsukihara and Nieng Yan

10:15-10:45 MS01-O1 Daniela Stock (Australia)
Structure of the torque ring of the flagellar motor and the molecular basis for rotational switching

10:45-11:15 MS01-O2 Che Ma (Taiwan)
Structure of membrane proteins in drug discovery

11:15-11:45 MS01-O3 Megan Maher (Australia)
The molecular mechanism of the ferrous iron transporter, FeoB

11:45-12:15 MS01-O4 Wladek Minor (USA)
HKL-3000 - Toward the future of structural biology

Hall C / MS02 Metal Organic Frameworks
Chairs: Masaki Kawano and Wing-tak Wong

10:15-10:45 MS02-O1 Jaheon Kim (Korea)
Design and synthesis of highly porous Metal-Organic Frameworks

10:45-11:15 MS02-O2 Shuhai Furukawa (Japan)
Crystal interface functionalization of porous coordination polymers

11:15-11:45 MS02-O3 Ming-Liang Tong (China)
Metal-mediated in-situ ligand synthesis and application in const ruction of functional Metal-Organic Frameworks

11:45-12:00 MS02-O4 Masoumeh Tabatabaee (Iran)
Synthesis and crystal structure of a new cadmium metal–organic coordination polymer

12:00-12:15 MS02-O5 Apinpus Rujiwatra (Thailand)
Rapid crystal growth of two metal-organic frameworks constructed by linking of 1-D coordination polymers by hydrogen bonding

Hall D / MS03 Synchrotron and neutron sources, instrumentation and application
Chairs: S. C. Mande and Ian Gentle

10:15-10:45 MS03-O1 Masaki Yamamoto (Japan)
The SPring-8 high-brilliant beamlines for macromolecular crystallography

10:45-11:15 MS03-O2 Garry McIntyre (France)
Laue diffraction from spin-polarised protons: a new tool for neu tron protein crystallography?

11:15-11:45 MS03-O3 Toru Ishigaki (Japan)
The current status of versatile neutron diffractometer iMATERIA at J-PARC (II)

11:45-12:15 MS03-O4 Jey Jau Lee (Taiwan)
X-ray powder diffraction station at NSRRC for soft materials under non-ambient conditions

12:15-13:30 Lunch

Hall C Bruker & Incoatec Luncheon Seminar
[Please pick up a ticket for lunch box at the Bruker & Incoatec exhibition booth.]

Meeting rm. IUCr Journal Commission Meeting

13:30-15:30 Poster Session 1 (Last digit: Odd numbers)

15:30-16:00 Break

16:00-18:00 Oral Sessions (MS04, 05, 06)

Hall B / MS04 Macromolecular complexes including nucleic acids
Chairs: David Hsiao and Daniela Stock

16:00-16:30 MS04-O1 Hanna Yuan (Taiwan)
Structural basis of RNase T in stable RNA 3'-end maturation

16:30-17:00 MS04-O2 Osamu Nureki (Japan)
Structural analysis of bacterial Sec translocon machinery

17:00-17:30 MS04-O3 Kenji Inaba (Japan)
Structural basis of an ERAD pathway mediated by the ER-resident protein disulfide reductase ERdj5

17:30-18:00 MS04-O4 Takeshi Murata (Japan)
Structural studies of V_1-ATPase from Enterococcus hirae

Hall C / MS05 Chemical crystallography - structure and properties
Chairs: Wai-Yeung Wong and Kimoon Kim

16:00-16:30 MS05-O1 Song Gao (China)
Recent studies on single-ion magnets

16:30-17:00 MS05-O2 Masaki Kawano (Korea)
Kinetic syntheses of coordination networks and ab initio powder structure analysis

17:00-17:30 MS05-O3 Ian Williams (Hong Kong)
Metal imidazolate polymers: Synthesis, structure and properties of silica analogues
17:30-17:45 MS05-O4 Jason Cole (UK)
Crystal structure analysis in drug development
17:45-18:00 MS05-O5 Myoung Soo Lah (Korea)
Size- and shape-selective Metal-Organic Frameworks based on pillared Kagomé layers

Hall D / MS06 X-ray and neutron scattering
Chairs: Moonhor Ree and David Cookson
16:00-16:30 MS06-O1 Hyun Hoon Song (Korea)
Intermediate phase in oriented poly (pentamethylene 2,6-naphthalate)
16:30-17:00 MS06-O2 Michael James (Australia)
When explosives are welcome at your nuclear reactor …
Molecular sensing using fluorescent dendrimer films and neutron reflectometry
17:00-17:30 MS06-O3 Atsushi Takahara (Japan)
Chain conformation of zwitter ionic polymers in solution and immobilized brush at solid/liquid interfaces
17:30-17:45 MS06-O4 Matthew Wilce (Australia)
Innate immunity and RNA sensing by the retinoic acid inducible gene I receptor
17:45-18:00 MS06-O5 Ross O. Piltz (Australia)
Structures determined by single crystal neutron diffraction with KOALA – what is possible now, what improvements are planned and when another experiment may be the answer!

18:00-19:20 Break for dinner

19:20-21:00 Oral Session (MS10e)

Hall B / MS10e Drug discovery and disease related proteins
Chairs: Sam-Yong Park and J. Shaun Lott
19:20-19:45 MS10e-O1 Yuh-Ju Sun (Taiwan)
The crystal structure of LipL32, a virulence factor from pathogenic Leptospira
19:45-20:10 MS10e-O2 Colin Groom (UK)
When does a disease-related protein become a viable target?
20:10-20:35 MS10e-O3 Cai-Hong Yun (USA)
Structure and mechanism-based discovery of mutant-selective inhibitors of the drug-resistant EGFR T790M mutant kinase
20:35-21:00 MS10e-O4 J. Shaun Lott (New Zealand)
The crystal structure of the N-terminal domain of human COMMD9 reveals an unexpected domain-swapped trimer

Day 3: November 2 (Tuesday)

08:00-09:00 **Registration (Level 1)**

09:00-10:00 **Keynote Lectures (KN-1, 2)**

Hall C
Chair: Alice Vrielink
KN-1 **Structure and assembly of Sesbania mosaic virus**
M. R. N. Murthy (India)

Hall B
Chair: Yoshio Matsui
KN-2 **Design and synthesis of porous metal-organic frameworks for gas storage and separation**
Myunghyun Paik Suh (Korea)

10:00-10:15 **Break**

10:15-12:15 **Oral Sessions (MS07, 08, 09)**

Hall B / MS07 Enzymes and enzyme inhibitors
Chairs: Isao Tanaka and K. Sivaraman

10:15-10:45 MS07-O1 Alice Vrielink (Australia)
Probing the structure of cholesterol oxidase by atomic resolution crystallography: Towards the design of novel antibiotics with high specificity and potency

10:45-11:15 MS07-O2 Masakazu Sugishima (Japan)
Structural insights into ferredoxin dependent bilin reductases

11:15-11:45 MS07-O3 Nobutaka Numoto (Japan)
Crystal structure and rotation mechanism of V_1-ATPase

11:45-12:00 MS07-O4 Chun-Jung Chen (Taiwan)
Crystal structures of Aspergillus japonicus fructosyltransferase in complex with donor/acceptor substrates reveal complete subsites for catalysis

12:00-12:15 MS07-O5 Dong Wu (China)
Structural basis for the inhibition of human MTHFS by N10-substituted folate analogues

Hall C / MS08 Dynamic aspects of molecular and solid state crystals
Chairs: Jun Harada and Hans-Beat Buergi

10:15-10:45 MS08-O1 Cameron Kepert (Australia)
Guest- and thermally-induced deformations of coordination framework materials

10:45-11:15 MS08-O2 Thammarat Aree (Thailand)
Thermodynamics properties of molecular crystals derived from multi-temperature diffraction data

11:15-11:45 MS08-O3 Hidehiro Uekusa (Japan)
Structural rearrangement of organic crystals in polymorphic transition investigated by ab initio structure determination from powder diffraction data

11:45-12:00 MS08-O4 Jagadese J. Vittal (Singapore/Korea)
Photoreactivity and structural rearrangements in the solid state
12:00-12:15 MS08-O5 Panče Naumov (Japan)
"Jumping crystals": Structural aspects of the thermosalient phenomenon

Hall D / MS09 Combining methods/new tools in structural biology
Chairs: Min Yao and R. Sankaranarayanan
10:15-10:45 MS09-O1 Nathan Cowieson (Australia)
Combining SAXS and CD to study flexibility and dynamics in multi-domain proteins
10:45-11:15 MS09-O2 Junichi Takagi (Japan)
Combination of correlative light-electron microscopy and X-ray crystallography reveals a unique trans-synaptic adhesion architecture
11:15-11:45 MS09-O3 Shekhar Mande (India)
Analysis of protein dynamics by crystallographic refinement and normal mode analysis
11:45-12:00 MS09-O4 Edward N. Baker (New Zealand)
Use of racemic protein crystallography to solve the structure of Rv1738, an essential protein from Mycobacterium tuberculosis
12:00-12:15 MS09-O5 Chae Un Kim (USA)
High pressure cryocooling at MacCHESS

12:15-13:30 Lunch

[A limited number of lunch boxes will be provided at the luncheon seminar lecture halls.]

Hall C ***Rigaku Luncheon Seminar***

Hall D ***GE Healthcare Luncheon Seminar***
Brian M. Baker (USA)
Modulation of T cell receptor binding affinity by targeted fluorine substitutions: Structural, thermodynamic, and kinetic effects

Meeting rm. ***AsCA Council Meeting***

13:30-15:30 Poster Session–2 (Last digit: Even numbers)

15:30-16:00 Break

16:00-18:00 Oral Sessions (MS10, 11, 12)

Hall B / MS10 Drug discovery and disease related proteins
Chairs: Sam-Yong Park and J. Shaun Lott
16:00-16:30 MS10-O1 Eiji Obayashi (Japan)
The structural study on influenza RNA polymerase for designing new anti-viral drug
16:30-17:00 MS10-O2 Hao Wu (USA)
Death domain interactions in apoptosis and immunity

17:00-17:30 MS10-O3 Catherine Day (New Zealand)
Regulating the ubiquitin E3 ligase activity of C-terminal RING domains
17:30-17:45 MS10-O4 Yang Wu (China)
Structures of EV71 RNA-dependent RNA polymerase in complex with substrate and inhibitor provide a drug target against the hand-foot-and-mouth disease pandemic in China
17:45-18:00 MS10-O5 Bostjan Kobe (Australia)
Structural basis of innate immunity in plants against fungal pathogens

Hall C / MS11 Magnetic structures and molecular magnets
Chairs: Je-Geun Park and Song Gao
16:00-16:30 MS11-O1 Yukio Noda (Japan)
Spin distribution of pi-electron in organic conductor studied by neutron magnetic structure analysis
16:30-17:00 MS11-O2 Seongsu Lee (Korea/USA)
The studies of multiferroric X-tal bismuth ferrite
17:00-17:30 MS11-O3 Jing-Lin Zuo (China)
Molecular magnetic semiconductors based on organic ligands with delocalized sulfur-rich core
17:30-17:45 MS11-O4 Deok-Yong Cho (Korea)
Anomalous L3/L2 X-ray absorption branching ratios in 5d transition metal oxides
17:45-18:00 MS11-O5 Jan Wikaira (New Zealand)
An investigation of magnetic exchange through double halide bridges

Hall D / MS12 Crystal growth and engineering
Chairs: A. Ramanan and Kumar Biradha
16:00-16:30 MS12-O1 Srinivasan Natarajan (India)
Polymorphism, solvotomorphism and related aspects in framework inorganic compounds
16:30-17:00 MS12-O2 Claude LeComte (France)
High resolution crystallography to understand the bonding between a transition metal and an alkyne
17:00-17:30 MS12-O3 Myoung Soo Lah (Korea)
Microporous Metal-Organic Frameworks based on Metal-Organic Supramolecules
17:30-17:45 MS12-O4 A. David Rae (Australia)
A compound with 6 chiral centers that uses the same unit cell and space group to grow either a racemate or an enantiomer
17:45-18:00 MS12-O5 Katsuhiro Tsukimura (Japan)
Kinetic theory of crystallization of nanoparticles

18:30-21:00 Award Ceremony and Rigaku Conference Banquet

Hall E / Award Ceremony and Rigaku Conference Banquet

Day 4: November 3 (Wednesday)

09:00-10:00 Keynote Lectures (KN-3, 4)

Hall C
Chair: Hanna Yuan
KN-3 Structure and function of enzymes relevant in drug discovery
Andrew H. Wang (Taiwan)

Hall B
Chair: Richard Tilley
KN-4 New functional materials via crystal- and nano-engineering
Wenbin Lin (USA)

10:00-10:15 Break

10:15-12:15 Oral Sessions (MS13, 14, 15)

Hall B / MS13 Structural proteomics and bioinformatics
Chairs: Zhi-Jie Liu and Seong Eon Ryu

10:15-10:45 MS13-O1 Satoshi Watanabe (Japan)
Crystal structures of the Hyp proteins for [NiFe] hydrogenase maturation

10:45-11:15 MS13-O2 Bill Duax (USA)
Combining sequence and structural analysis to obtain a perfect alignment essential to rational drug design

11:15-11:45 MS13-O3 Kwang Yeon Hwang (Korea)
Structural insights into the conformational change upon activation of tyrosine site-specific recombinase

11:45-12:00 MS13-O4 Muralidharan Muthu (New Zealand) - AsCA Rising Star
Crystal structures of the N-terminal dystrophin and utrophin spectrin repeats show a three helix bundle fold

12:00-12:15 MS13-O5 Maxim Titushin (China)
Structural basis of energy transfer in the bioluminescent system of jellyfish Clytia: the GFP-photoprotein complex

Hall C / MS14 Nanomaterials, surface and interface
Chairs: Joanne Etheridge and Taeghwan Hyeon

10:15-10:45 MS14-O1 Yoshio Matsui (Japan)
Nano magnetic structure analysis by cryo Lorentz TEM – visualization of the "Skirmion" crystal

10:45-11:15 MS14-O2 Richard Tilley (New Zealand)
Watching nanocrystals grow: In-situ synchrotron experiments

11:15-11:45 MS14-O3 Sunghoon Kwon (Korea)
Artificial structural colored microstructures via magnetically tunable photonic crystal

11:45-12:00 MS14-O4 Andrew Stewart (Germany)
Automated electron diffractometry: solving structures of nano crystals

12:00-12:15 MS14-O5 Daisuke Morikawa (Japan) - AsCA Rising Star
Structure analysis of charge-orbital ordered phases in A-site ordered perovskites $SmBaMn_2O_6$ and $NdBaMn_2O_6$ using CBED

Hall D / MS15 Powder diffraction
Chairs: Jungeun Kim and Kia Wallwork
10:15-10:45 MS15-O1 Makoto Sakata (Japan)
The challenge of highly reliable ab initio powder structure analysis by the novel concept of genetic algorithm
10:45-11:15 MS15-O2 Nathan Webster (Australia)
Industrial applications of in situ powder diffraction
11:15-11:45 MS15-O3 Bridget Ingham (New Zealand)
In situ studies using synchrotron powder diffraction
12:00-12:15 MS15-O4 Yongmoon Lee (Korea)
Structural study of monovalent cation-exchanged natrolites during dehydration
12:00-12:15 MS15-O5 Takashi Ida (Japan)
Particle statistics in high-resolution synchrotron powder X-ray diffractometry

12:15-13:30 Lunch

Hall C ***IUCr Luncheon Seminar***
Howard Einspahr (USA)
How to publish crystallographic results
[A limited number of lunch boxes will be provided at the luncheon seminar lecture hall.]

Hall D ***J-PARC Business Meeting***

13:30-15:30 Oral Session (MS16)

Hall A / MS16 AsCA Rising Stars Microsymposium
Chairs: Eunice Kim and Cameron Kepert
Speakers: Six speakers will be announced at the Tuesday Banquet.

15:30-16:00 Break

16:00-17:00 Plenary Lecture-2 (PL-2)

Hall A
Chair: Jennifer Martin
PL-2 Chirality in crystals
Reiko Kuroda (Japan)

17:00-17:30 Closing

Hall A / Closing ceremony

Poster Presentations

Area 1. Structural Biology

MS01: Membrane proteins

MS01-P01 **The structure of mouse anoctamin1 (mANO1) domains TM2↔TM3 (DTM1↔TM2) and TM5↔TM6 (DTM5↔TM6)**
Sang Ho Park, Ho Kyung Jung, and Byung Woo Han

MS01-P02 **Purification of LDL receptor–related protein and nano-gold labeling for structure analysis**
Kyung Eun Lee, Oh Yeun Kwon, and Hyesung Jeon

MS01-P03 **Interaction of PDZ adapter proteins NHERF and E3KARP in vitro**
Se Bok Jang, Eun Young Hwang, and Mi Suk Jeong

MS04: Macromolecular complexes including nucleic acids

MS04-P01 **In vitro reconstitution of the interactions in the PIDDosome**
Hyun Ho Park, Tae-ho Jang, Hao Wu, and Chao Zheng

MS04-P02 **High-resolution crystal structure of chicken cytokine interleukin-1β reveals differences in receptor binding compared to human interleukin-1β**
Chao-Sheng Cheng, Wen-Shiang Lu, I-Fan Tu, Ping-Chiang Lyu, Long-Huw Lee, and Hsien-Sheng Yin

MS04-P03 **Molecular interplay between the replicative hexameric helicase DnaC with ssDNA and its loader DnaI from Geobacillus kaustophilus**
Chwan-Deng Hsiao, Yu-Hua Lo, and Kuang-Lei Tsai

MS04-P04 **DNA/RNA binding properties of PCBP-1 KH domains**
Daouda AK Traore, Yano M Yoga, Matthew CJ Wilce, and Jackie A Wilce

MS04-P05 **Paraspeckle proteins: a novel arrangement of RNA-binding domains**
Mihwa Lee, Daniel Passon, Archa H. Fox, and Charles S. Bond

MS04-P06 **Structural study of RLR family innate immune proteins**
Hyunjin Moon and Jungwoo Choe

MS04-P07 **Translation elongation factor-P (EF-P) from Pseudomonas aeruginosa, a mimic of tRNA?**
Sarah choi and Jungwoo Choe

MS04-P08 **Nuclear translocation machinery of pre-microRNA**
Soo Jae Lee, Chimari Okada, Eiki Yamashita, Satoshi Shibata, Jun Katahira, Atsushi Nakagawa, Yoshihiro Yoneda, and Tomitake Tsukihara

MS04-P09 **Structural analysis of exosome from Thermoplasma acidophilum**
Hyun Sook Kim, Hye-Jeong Cho, Cho Gye Yoon, Ho Sam Ki, Moon Jung Song, and Kwang Yeon Hwang

MS04-P10 **An insight into the pairing geometry of DNA duplexes containing O6-carboxymethylguanine, a damaged base analogue relevant to gastrointestinal cancer**
Fang Zhang, Kaoru Suzuki, Md. Mominul Hoque, Masaru Tsunoda, Christopher L. Millington, David M. Williams, and Akio Takénaka

MS04-P11 **Crystal structures of E2-25K, E2-25K/Ub and E2-25K/UBB+1**
Jung-Gyu Lee, Gil Bu Kang, Sunggeon Ko, Sung Min Song, Yong-Keun Jung, Yung Joon Yoo, Weontae Lee, and Soo Hyun Eom

MS04-P12 **The role of the p-electron systems in regulation of reduction potentials of tetraheme cytochrome c_3**
Hideo Akutsu, Yuki Takayama, Midori Taketa-Sato, Hirofumi Komori, Kumiko Morita, Sujin Kang, and Yoshiki Higuchi

MS04-P13 **Two different modes of UvrD helicase by 2B domain movement**
Hyun Koo Yeo and Jae Young Lee

MS04-P14 **Functional implication of Ufd1-Npl4 complex in the FAF1 recognition mechanism by AAA-ATPase p97/VCP**
Joon Kyu Park and Eunice EunKyeong Kim

MS04-P15 **The structure of rat liver vault at 3.5 Å resolution**
Koji Kato, Hideaki Tanaka, Eiki Yamashita, Tomoyuki Sumizawa, Yong Zhouc, Min Yao, Kenji Iwasaki, Masato Yoshimura, and Tomitake Tsukihara

MS04-P16 **Biophysical investigation of RBP-ARE interactions: Application of SPR, NMR, and SAXS**
Henry Kim, Yano Yoga, Nathan Cowieson, Martin Scanlon, Steven Headey, Myriam Gorospe, Bryan Williams, Matthew Wilce, and Jackie Wilce

MS04-P17 **Identification and analysis of dominant negative mutants of RAIDD and PIDD**
Hyun Ho Park, Tae-ho Jang, Ju Young Bae, and Ok Kyeung Park

MS04-P18 **Human MTERF3 crystal structure of left-handed superhelical tandem repeat**
Dong-Uk Kim, Sang-Gil Cho, Kuk-Lea Kim, and Hyun-Soo Cho

MS04-P19 **Structure analysis of ligand-independent activation of Fushi tarazu factor-1 ligand binding domain from Drosophila melaganoster**
Ji-Ho Yoo, Sunggeon Ko, Hyeyon Kim, Kwang-Min Choe, Weon Tae Lee, and Hyun-Soo Cho

MS04-P20 **Structure of the entire ectodomain of gp130: Insights into the molecular assembly of cytokine receptor complexes**
Yibin Xu, Nadia J. Kershaw, Cindy S. Luo, Priscilla Soo, Michael J. Pocock, Peter E. Czabotar, Douglas J. Hilton, Nicos A. Nicola, Jian-Guo Zhang, and Thomas P. J. Garrett

MS07: Enzymes and enzyme inhibitors

MS07-P01 **Crystal structure of human transglutaminase 2 in complex with adenosine triphosphate**
Byeong-Gu Han, Jea-Won Cho, and Byung Il Lee

MS07-P02 **Structure and function of the Fibrobacter succinogenes 1,3-1,4-β-D-glucanase mutants F40I and W203F in complex with inhibitors**
Li-Chu Tsai, Hsiao-Chuan Huang, Ching-Hua Hsiao, Wei-Ru Li, and Li-Ming Yin

MS07-P03 **Investigating the structure and function of the redox folding factors αDsbA2 and αDsbB**
Walden, PM, Heras, B, Iturbe-Ormaetxe, I, and Martin, JL

MS07-P04 **Time-resolved X-ray crystal structure analysis of enzymatic reaction of copper amine oxidase from Arthrobacter globiformis**
Misumi Kataoka, Hiroko Oya, Ayuko Tominaga, Masayuki Otsu, Toshihide Okajima, Katsuyuki Tanizawa, and Hiroshi Yamaguchi

MS07-P05 **Metabolic adaptation for short-chain fatty acids degradation: crystal structure of 2-methylcitrate synthase from Salmonella typhimurium**
Sagar Chittori, H. S. Savithri, and M. R. N. Murthy

MS07-P06 **Crystal structures of Helicobacter pylori shikimate kinase reveal three conserved arginines involved in the induced movement**
Wen-Chi Cheng, Hung-Jung Wang, and Wen-Ching Wang

MS07-P07 **Involvement of scaffolding residues in efficient inhibition: Lesssons from chimeric proteins**
Sudip Majumder, Susmita Khamrui, Jhimli Dasgupta, J. K. Dattagupta, and Udayaditya Sen

MS07-P08 **Structural insights into catalysis of bC-S lyase from Streptococcus anginosus**
Yuichiro Kezuka, Yasuo Yoshida, and Takamasa Nonaka

MS07-P09 **SbcD, the subunit of SbcCD DNA strand break repair protein from Deinococcus radiodurans**
Mi Ra Han and Byung Woo Han

MS07-P10 **Structure of protochlorophyllide reductase: a greening mechanism of plants in the dark**
Norifumi Muraki, Jiro Nomata, Yuichi Fujita, and Genji Kurisu

MS07-P11 **Structural basis for the enantioselectivity of Est-Y29 toward S-ketoprofen**
Tri Duc Ngo, Seung Bum Kim, Sang Bum Joo, Sang Young Yoon, T. Doo Hun Kim, and Kyeong Kyu Kim

MS07-P12 **Crystal structure of M18 family dodecameric tetrahedral (TET) shape aminopeptidase from Pseudomonas aeruginosa**
Duy Nguyen Duc, Sampath Natarajan, Kap Sun Kim, Kyung Hee Yun, Hyejin Park, and Kyeong Kyu Kim

MS07-P13 **RNA binding mechanism of ThiI deduced from structural and binding analyses of a minimal RNA ligand**
Yoshikazu Tanaka, Shiori Yamagata, Yu Kitago, Yoko Yamada, Sarin Chimnaronk, Min Yao, and Isao Tanaka

MS07-P14 **Basis for the lack of stereospecificity in coenzyme B_{12}-dependent ethanolamine ammonia-lyase**
Naoki Shibata, Tetsuo Toraya, and Yoshiki Higuchi

MS07-P15 **Structural analysis and functional study of the human small MutS-related protein**
Euiyoung Jeong, Weejeong Jun, Seonghwan Lee, Sung-jin Choi, and Changill Ban

MS07-P16 **Structure and mechanism of XometC, a cystathionine γ-lyase from Xanthomonas oryzae pv. oryzae (Xoo): Insights for the substrate specificity and lyase mechanism of XometC**
Ho Phuong Thuy Ngo, Jin-Kwang Kim, Yeh-Jin Ahn, Jeong-Gu Kim, Byoung-Moo Lee, Hee-Wan Kang, and Lin-Woo Kang

MS07-P17 **Structure-based catalytic optimization of a type III Rubisco from a hyperthermophile**
Yuichi Nishitani, Shosuke Yoshida, Masahiro Fujihashi, Kazuya Kitagawa, Takashi Doi, Haruyuki Atomi, Tadayuki Imanaka, and Kunio Miki

MS07-P18 **Structural and functional analysis of the LMO2642 cyclic nucleotide phosphodiesterase from Listeria monocytogenes**
Yeon-Gil Kim1, Jae-Hee Jeong, Nam-Chul Ha, and Kyung-Jin Kim

MS07-P19 **Comparison of DNA translocators based on their structures**
Suk-Youl Park, Nguyen To Uyen, Ji-Woo Choi, Hyun-Ju Lee, Kosuke Nishi, and Jeong-Sun Kim

MS07-P20 **Structure and mechanism of the Nudix hydrolase Orf153 (YmfB) from E. coli**
Myoung-ki Hong, Jin-kwang Kim, Yeh-jin Ahn, and Lin-woo Kang

MS07-P21 **Crystal structure analysis of ATPase domain from Mycobacterium tuberculosis DosS protein**
Ha Yeon Cho and Beom Sik Kang

MS07-P22 **Crystal structure of LapB from Pseudomonas sp. strain KL28**
Jang-Hee Cho, Du-Kyo Jung, Kyoung Lee, and Sangkee Rhee

MS07-P23 **The crystal structure of D-ribose-5-phosphate isomerase B from Clostridium thermocellum with the unique high kinetic properties**
Jin Kwang Kim, Junho Jung, Soo Jin Yeom, Yeh Jin Ahn, Deok Kun Oh, and Lin Woo Kang

MS07-P24 **Structural feature of the extreme thermophile maltogenic amylase from Staphylothermus marinus**
Tae-Yang Jung, Dan Li, Jong-Tae Park, Se-Mi Yoon, KwanHwa Park, and Eui-Jeon Woo

MS07-P25 **Crystallization and preliminary X-ray analysis of a novel thermostable amylase from Pyrococcus furiosus (PFTA) in glycoside hydrolase 13 family**
Hyung-nam Song, Tae-yang Jung, Sae-mi Yoon, Sung-jae Yang, Kwan-hwa Park, and Eui-jeon Woo

MS07-P26 **Structural basis for the recognition of N-end rule substrates by the UBR box of ubiquitin ligases**
Woo Suk Choi, Byung-Cheon Jeong, Myeong-Ryeol Lee, Michael J. Eck, and Hyun Kyu Song

MS07-P27 **Structure basis of genetic encoded photosensitizer KillerRed**
Naoki Sakai, Yu Kitago, Kiwamu Takemoto, Tomoki Matsuda, Tokiyoshi Ayabe, and Takeharu Nagai

MS07-P28 **Crystal structures of ribosome-inactivating protein from barley seeds (Hordeum vulgare L.)**
Byung-Gil Lee, Min Kyung Kim, Se Won Suh, and Hyun Kyu Song

MS07-P29 **Crystal structure of human Evectin-2 PH domain and its complex with O-phospho-L-serine**
Seiji Okazaki, Yasunori Uchida, Ryuichi Kato, Takao Inoue, Yusuke, Yamada, Tomohiko Taguchi, Hiroyuki Arai, and Soichi Wakatsuki

MS07-P30 **Crystal structure analysis of the oxygenase component (GraA) of a resorcinol hydroxylase**
Yasuo Hata, Tomomi Fujii, Kazutaka Kobayshi, Masahiro Yoshida, and Tadao Oikawa

MS07-P31 **Structural basis of abscisic acid signaling**
Masaru Tanokura, Takuya Miyakawa, Ken-ichi Miyazono, Keiko Kubota, and Yoriko Sawano

MS07-P32 **X-ray structural analysis of N-terminal domain of KaiC for understanding of restrained ATPase activity**
Se-Young Son, Takao Kondo, and Shuji Akiyama

MS07-P33 **Unexpected substrate recognition and hydrolysis mechanisms of human NUDT5**
Takao Arimori, Haruhiko Tamaoki, Teruya Nakamura, Hiroyuki Kamiya, Shinji Ikemizu, Yasumitsu Takagi, Toru Ishibashi, Hideyoshi Harashima, Mutsuo Sekiguchi, and Yuriko Yamagata

MS07-P34 **Crystal structure of human ppGpp hydrolase**
Hye-Yeon Kim, Dawei Sun, and Young Ho Jeon

MS07-P35 **Crystal structures of extra cellular dermal glycoprotein from carrot and xyloglucan specific endo-β-1,4-glucanase from Aspergillus aculeatus**
Takuya Yoshizawa, Hiroshi Hashimoto, Toshiyuki Shimizu, Hisashi Hirano, and Mamoru Sato

MS07-P36 **Crystallization and preliminary X-ray analysis of a family 51 glycoside hydrolase, the α-L-arabinofuranosidase from Thermotoga maritima MSB8**
Arti Baban Dumbrepatil, Tae-Yang Jung, Jung Mi Park, Tae Jib Kim, and Eui-Jeon Woo

MS07-P37 **Structural and biological investigation of ppGpp hydrolase in Metazoa**
Dawei Sun, Gina Lee, Jun Hee Lee, Hye-Yeon Kim, Hyun-Woo Rhee, Seung-Yeol Park, Kyung-Jin Kim, Yongsung Kim, Bo Yeon Kim, Jong-In Hong, Chankyu Park, Hyon E. Choy, Jung-Hoe Kim, Young Ho Jeon, and Jongkyeong Chung

MS07-P38 **Structural insight into bacterial flavin containing monooxygenase**
Hyo Je Cho and Beom Sik Kang

MS07-P39 **Asymmetric dimeric structure of ferredoxin-NAD(P)$^+$ oxidoreductase from Chlorobaculum tepidum: Implications for binding ferredoxin and NADP$^+$**
Norifumi Muraki, Daisuke Seo, Takeshi Sakurai, and Genji Kurisu

MS07-P40 **Crystal structure and functional study of ureidoglycolate dehydrogenase from Escherichia coli**
Myung-Il Kim, Jeehyun Lee, and Sangkee Rhee

MS07-P41 **Structural and functional studies of an ureidoglycine-hydrolyzing enzyme from Arabidopsis thaliana**
Inchul Shin, Woo-Suk Jung, and Sangkee Rhee

MS07-P42 **Crystal structures of human peroxiredoxin VI in multiple oxidation states**
Kyung Hee Kim, Weon Tae Lee, and Eunice EunKyeong Kim

MS07-P43 **Crystal structures of malonyl-CoA-acyl carrier protein transacylase (MCAT) from Staphylococcus aureus and Streptococcus pneumoniae**
Seung Kon Hong, Kook Han Kim, Joon Kyu Park, and Eunice EunKyeong Kim

MS07-P44 **Characterization and crystallization of perakine reductase, an enzyme involved in monoterpenoid indole alkaloid biosynthesis**
Lianli Sun, Yixin Chen, Meitian Wang, Santosh Panjikar, and Joachim Stöckigt

MS07-P45 **Structural analysis of raucaffricine glucosidase, a central enzyme in the alkaloid biosynthetic network of the Indian plant Rauvolfia**
Liqun Xia, Martin Ruppert, Meitian Wang, Santosh Panjikar, and Joachim Stöckigt

MS07-P46 **Drug protein interaction studies of an antiviral agent garcinol targeting HIV-1 protease by in silico approach**
Prashantha Karunakar, Girija CR, Shalini S, Noor Shahina Begum, and Akheel Ahmed Syed

MS07-P47 **Structural and functional analyses of W272A and N277A mutant forms of prostacyclin synthase**
Yi-Ching Li, Shu-I Tsai, Lee-Ho Wang, and Nei-Li Chan

MS07-P48 **Structural and functional assay of AtTLP18.3 revealed its novel phosphatase activity involved in repair cycle of photosystem**
Hsin-Yi Wu, Mao-Sen Liu, Tsan-Piao Lin, and Yi-Sheng Cheng

MS07-P49 **Structural characterization of a serpin from the large beetle Tenebrio molitor and its regulation by heparin**
Sun Hee Park, Rui Jiang, Shunfu Piao, Bing Zhang, Eun-Hye Kim, Hyun-Mi Kwon, Xiao Ling Jin, Bok Luel Lee, and Nam-Chul Ha

MS07-P50 **The crystal structure of hexameric Lon protease: dynamics of the AAA+ module controls access to a sequestered proteolytic chamber**
Sun-Shin Cha, Young Jun An, Chang-Sook Jeong, and Sung Gyun Kang

MS07-P51 **X-ray structure of a 3-isopropylmalate isomerase large subunit from Methanococcus jannaschii**
Eun-Hye Lee and Kwang-Yeon Hwang

MS07-P52 **Crystal structure of enonyl-acyl carrier protein reductase (FabI) in complex with NADH and triclosan from Pseudomonas aeruginosa**
Jeong Hye Lee, Ae Kyung Park, Jin Ho Moon, and Young Min Chi

MS10: Drug discovery/disease related proteins

MS10-P01 **Crystal structure of human transglutaminase 2 in complex with adenosine triphosphate**
Byeong-Gu Han and Byung Il Lee

MS10-P02 **The c-AMP receptor-like protein CLP is a novel c-di-GMP receptor linking cell-cell signaling to virulence gene expression in Xanthomonas campestris**
Shan-Ho Chou, Ko-Hsin Chin, Yen-Chung Lee, and Andrew H.-J. Wang

MS10-P03 **Modulating immune function through chemokine binding – Orf virus presents a new twist on an old motif**
Kurt L. Krause, Rafael Counago, Stephen Fleming, and Andy Mercer

MS10-P04 **Structural and functional studies on thiolase from Mycobacterium smegmatis and Mycobacterium tuberculosis**
Neelanjana Janardan and M. R. N. Murthy

MS10-P05 **Crystal structure of the sensor domain of naphthalene chemoreceptor NahY from Pseudomonas putida**
Truc Kim and Kyeong Kyu Kim

MS10-P06 **Crystal structures and binding studies of atovaquone and its derivatives with cytochrome bc_1: Molecular basis for drug design**
Susanta K. Nayak, S. B. Mallik, S. P. Kanaujia, K. Sekar, and T. N. Guru Row

MS10-P07 **Structural basis of human p70 ribosomal S6 kinase-1 regulation by activation loop phosphorylation**
Sunami T, Byrne N, Diehl RE, Funabashi K, Hall DL, Ikuta M, Patel SB, Shipman JM, Smith RF, Takahashi I, Zugay-Murphy J, Iwasawa Y, Lumb KJ, Munshi SK, and Sharma S

MS10-P08 **Structural studies of TIRAP, an adaptor protein of Toll-like receptor signaling pathway**
Yoora Kang and Jungwoo Choe

MS10-P09 **Structural insights into the dual nucleotide exchange and GDI displacement activity of SidM/DrrA**
Kwang-Hoon Lee, Hye-Young Suh, and Byung-Ha Oh

MS10-P10 **Structural study of GTP-sensing pleiotropic transcriptional repressor CodY from Starphylococcus aureus**
Ah Reum Han, Kyung-Hee Rhee, Gye Yoon Cho, Hosam Ki, and Kwang Yeon Hwang

MS10-P11 **Structure-function analysis of human L-prostaglandin D synthase bound with fat**
Yangyan Zhou, Neil Shaw, Yang Li, Yu Zhao, Rongguang Zhang, and Zhi-Jie Liu

MS10-P12 **Recombinant fusion protein design for biophysical analysis of integrin subunit dimerization and function**
Andrea Francesca M. Salvador, Gabriel N. Valbuena, Lydia Teresa Isabel Salud-Bautista, and Neil Andrew D. Bascos

MS10-P13 **Structural study and antibacterial drug design against bacterial blight disease caused by Xanthomonas oryzae pv. Oryzae**
Sampath Natarajan, Thanh Thi Ngoc Doan, Phuong-Thuy Ho Ngo, Jae-Wook Jung, and Lin-Woo Kang

MS10-P14 **Crystal structure of D-alanine-D-alanine ligase a from Xanthomonas oryzae pathovar oryzae and its inhibitors from structure-based virtual screening**
Thi-Ngoc-Thanh Doan, Jin-Kwang Kim, Sam Natarajan, Yeh-Jin Ahn, and Lin-Woo Kang

MS10-P15 **Structure based design and synthesis of NAmPRTase inhibitors as anticancer agent**
Hyung-Seop Youn, Jung-Gyu Lee, Jun Yop An, Kyoung Ryoung Park, Woo Lai San, Youngjin Lee, Won Ju Jeong, Hyun You, Isak Im, Man-Ho Bae, Yong-Chul Kim, and Soo Hyun Eom

MS10-P16 **The structural and pharmacological studies of a dimeric acetylcholine binding protein**
Ching-I Anderson Wang, Vu Bach, and Richard Lewis

MS10-P17 **Cloning, expression, crystallization and preliminary X-ray crystallographic analysis of HrcN – an inner membrane ATPase from Xanthomonas oryzae pv. oryzae**
Viet Tan Pham, Yeh-Jin Ahn, and Lin-woo Kang

MS10-P18 **Molecular basis for recognition of paired immunoglobulin like type2 receptor (PILR) alpha to glycoprotein B (gB) of herpes simplex virus-1 (HSV-1)**
Osw Toyoyuki, Yamaguchi Munechika, Jing Wang, Kimiko Kuroki, Shigekazu Tabata, Nobuo Maita, Seiko Nakamura, Mizuho Kajikawa, Takeshi Satoh, Hisashi Arase, and Katsumi Maenaka

MS10-P19 **AraC transcription regulator in Bacillus cereus**
Mi Seul Park and Byung Woo Han

MS10-P20 **Crystal structures of murine norovirus RNA-dependent RNA polymerase and its complex with 5-fluorouracil and ribavirin**
Intekhab Alam, Ji-Hye Lee, and Kyung Hyun Kim

MS10-P21 **Molecular characterization of human influenza virus hemagglutinin**
Ki Joon Cho, Ji-Hye Lee, Seokha Kang, Yi Ho Park, Jun Young Lee, Taslima Gani Khan, Joo-Yeon Lee, Hee-Bok Oh, Chun Kang, and Kyung Hyun Kim

MS10-P22 **Comparison of the structures of horse spleen and Helicobacter pylori ferritins for iron uptake**
Yi-ho Park, Ki Joon Cho, and Kyung Hyun Kim

MS10-P23 **Structural study of aprotinin complexed with a pentapeptide, a conserved sequence responsible for Aβ aggregation**
Taslima Gani Khan, Ji-Hye Lee, and Kyung Hyun Kim

MS10-P24 **Structural basis of the interaction between FAF1 and p97/VCP**
Wonchull Kang, Ho Yeon Lee, Men Thi Ngoc Nguyen, Le Thi My Le, and Jin Kuk Yang

MS10-P25 **Crystal structure of thermostable direct hemolysin from Vibrio parahaemolyticus**
Hiroshi Hashimoto, Kumiko Nakahira, Tsutomu Yamane, Takashi Fukui, Kiyohisa Ohnishi, Toshiyuki Shimizu, Takeshi Honda, Mamoru Sato, Mitsunori Ikeguchi, and Itaru Yanagihara

MS10-P26 **Crystal structure of hypothetical protein HP0062 from Helicobacter pylori**
Ae-Ran Kwon

MS10-P27 **Structural analysis of Toll-like receptor 2-activating lipoprotein from Vibrio vulnificus**
Sangheon Yu, Na Yeon Lee, Soon-Jung Park, and Sangkee Rhee

MS10-P28 **Structure of EvpC: A type six secretion system protein from Edwardsiella tarda**
J. Sivaraman, Chacko Jobichen, Lissa Joseph, and Yu-Keung Mok

MS10-P29 **In silico search for putative GmhA binding compounds**
Mi-Sun Kim, Areum Lim, Sarinna Tumapa, Sharon Peacock, and Dong Hae Shin

MS10-P30 **2,3-difluoro-sialic acids as inactivators of influenza neuraminidases**
Victor Streltsov, Susan Barrett, Pat Pilling, Stefan B. Hader, Patricia Marcé, Andrew G. Watts, and Jennifer McKimm-Breschkin

MS10-P31 **Crystal structure of GmhA from Burkholderia pseudomallei, the causative agent of melioidosis**
Mi-Sun Kim, Areum Lim, Sarinna Tumapa, Sharon Peacock, and Dong Hae Shin

MS10-P32 **ABIN-1 senses linear ubiquitin chains: structural and biophysical insights**
Simin Rahighi, Fumiyo Ikeda, Masato Kawasaki, Ryuichi Kato, Ivan Dikic, and Soichi Wakatsuki

MS10-P33 **HIV-1 protease complexed to natural oligopeptide substrates**
Amit Das, S. C. Bihani, V. Prashar, J.-L. Ferrer, and M. V. Hosur

MS13: Structural proteomics and bioinformatics

MS13-P01 **Crystal structure of PPC protein from Pyrococcus furiosus**
Ji Young Yoon, Do Jin Kim, Kyoung Hoon Kim, Sang Jae Lee, Hyoun Sook Kim, Jun Young Jang, and Se Won Suh

MS13-P02 **Structural evidence for a dehydrated intermediate in green fluorescent protein chromophore biosynthesis**
Sergei Pletnev, Nadya V. Pletneva, Konstantin A. Lukyanov, Nadya G. Gurskaya, Ekaterina A. Goryacheva, Vladimir I. Martynov, Alexander Wlodawer, Zbigniew Dauter, and Vladimir Z. Pletnev

MS13-P03 **Crystal structure of Tpa1 from Saccharomyces cerevisiae, a component of the messenger ribonucleoprotein complex**
Hye-Jin Yoon, Ji Yong Kang, Hyung Ho Lee, and Se Won Suh

MS13-P04 **Crystal structure of phosphopantetheine adenylyltransferase from Enterococcus faecalis in the ligand-unbound state and in complex with ATP and pantetheine**
Hye-Jin Yoon, Ji Yong Kang, Hyung Ho Lee, and Se Won Suh

MS13-P05 **Crystal structures of LacD from Stapylococcus aureus and LacD.1 from Streptococcus pyogenes: Insights into substrate specificity and virulence gene regulation**
Sang Jae Lee , Hyoun Sook Kim, Do Jin Kim, Hye-Jin Yoon, Kyoung Hoon Kim, Ji Young Yoon, and Se Won Suh

MS13-P06 **Crystal structure of Hsm3p, an assembly chaperone of the 19S regulatory particle of the proteasome**
Sangwoo Kim, Tsunehiro Mizushima, Yasushi Saeki, Keiji Tanaka, and Koichi Kato

MS13-P07 **A structural genomics approach to the structure determination of macrophage proteins**
Kai-En Chen, Gautier Robin, Justine M. Hill, Matthew J. Sweet, Stuart Kellie, Bostjan Kobe, and Jennifer L. Martin

MS13-P08 **Crystal structure of the dimerization domain of human filamin A**
Bong-Jin Lee

MS13-P09 **Structural basis for the functional insight of HP0420-homologue from Helicobacter felis**
Shunfu Piao, Xiao Ling Jin, Bo-Young Yun, and Nam-Chul Ha

MS13-P10 **The hexameric structure of AcrA suggests the assembly of a bacterial multidrug efflux pump AcrAB-TolC**
Yongbin Xu1, Saemee Song, Shunfu Piao, Hong-Man Kim, Se-Hoon Sim, Xiao Ling Jin, Hyesung Jeon, Kangseok Lee, and Nam-Chul Ha

MS13-P11 **Crystal structure of the MukB hinge domain and its functional implications**
Bonsu Ku and Byung-Ha Oh

MS13-P12 **Crystal structure and functional characteristics of LmDPK, a novel DNA protection kinase, in Listeria monocytogenes**
Thao Thi Phuong Duong, Sung Wook Kang, Truc Dinh Trung Kim, Boi Hoa San, and Kyeong Kyu Kim

MS13-P13 **Structure mechanism of antigen recognition of the neural cell adhesion molecule L1 protein antibody**
Chunhua Wei, Eung Suk Lee, Jeong Yi Jeon, Seung Jun Kim, Young Ho Jeon, Hyo Jeong Hong, and Seong Eon Ryu

MS13-P14 **Crystal structure of Helicobacter pylori MinE, a cell division topological specificity factor**
Jun Yop An, Hyung-Seop Youn, Jung-Gyu Lee, Kyoung-Ryoung Park, Lai San Woo, Youngjin Lee, Won Ju Jeong, Gil Bu Kang, Hye-Eun Song, Mun-Kyoung Kim, Jang-Soo Chun, Hyesung Jeon, and Soo Hyun Eom

MS13-P15 **Ligand-binding-site prediction program POCASA**
MinYao, Jian Yu, Yong Zhou, and Isao Tanaka

MS13-P16 **Structures of enoyl-ACP reductase from Bacillus cereus**
Su Jin Kim, Byung Hak Ha, Kook-Han Kim, Seung Kon Hong, Key-Jung hin, Se Won Suh, and and Eunice EunKyeong Kim

MS13-P17 **PDBj Mine: Design and implementation of relational database interface for Protein Data Bank Japan**
Akira R. Kinjo, Reiko Yamashita, Haruki Nakamura

MS13-P18 **Crystallization and structural analysis of human Mitogen-Activated Protein Kinase Phosphatase (MAKP) proteins**
Song Yi Kim, A Young kyung, and Dae Gwin Jeong

MS13-P19 **Crystallization of human MST2 SARAH domain**
Jinsue Song, Saehae Choi, Il Young Park, and Soo Jae Lee

MS13-P20 **Structural basis for the specialization of Nur, a nickel-specific Fur homologue, in metal sensing and DNA recognition**
Young Jun An, Chang-Sook Jeong, Jung-Ho Shin, Jung-Hye Roe, and Sun-Shin Cha

Area 2. Chemical Crystallography and Materials Science

MS02: Metal organic frameworks

MS02-P01 **Metal-organic interpenetrated frameworks based on dipyridyl ligands bearing amide groups**
Pei-Chi, Cheng, Jian-Jr Cheng, Ya-Ting Chang, and Jhy-Der Chen

MS02-P02 **Calcium Metal-Organic Frameworks: Synthesis, structural transformations, and sorption properties**
Po-Ching Liang, Hsin-Kuan Liu, Chun-Ting Yeh, Chia-Her Lin, and Vítězslav Zim

MS02-P03 **Synthesis, structure and optical properties of new 4,4'-bipyridine - intercalated lanthanide sulfates layered framework**
Bunlawee Yotnoi, Apinus Rujiwatra, and Srinivasan Natarajan

MS02-P04 **X-ray structure of a nickel complex containing 2-aminopyrimidine and thiocyanate mixed ligands with a three-dimensional network structure**
Masoumeh Tabatabaee and Saina Saheli

MS02-P05 **Structural diversity of four Nd(III)-NDC MOFs based on different secondary building units (SUBs) showing interesting gas adsorption properties (NDC2 = 2,6-naphthalenedicarboxylate)**
Chih-Chieh Wang, Ching-Chun Yang, Chang-Tsung Yeh, and Gene-Hsiang Lee

MS02-P06 **Syntheses, structures and photoluminescence properties of hexanuclear gold(I)-silver(I) mixed metal complexes**
Hiroko Fujioka, Yoshiki Ozawa, and Koshiro Toriumi

MS02-P07 **Functional cyclobutane derivatives for metal organic frameworks**
Goutam Kumar Kole, Geok Kheng Tan, Lip Lin Koh, and Jagadese J. Vittal

MS02-P08 **Stepwise synthesis of charged and neutral 2-D networks via 1-D silver(I) coordination polymer based on bis(4-pyridylmethyl)sulfide**
Ki-Min Park, Joobeom Seo, Suk-Hee Moon, Jagadese J. Vittal, and Shim Sung Lee

MS02-P09 **Networking of O_2S_2-macrocycle with silver perchlorate into 1-D and 2-D coordination polymers: Kinetic and thermodynamic products**
So Young Lee, Jong Hwa Jung, Ki-Min Park, Jagadese J. Vittal, and Shim Sung Lee

MS02-P10 **Synthesis of 4d-4f heterometallic coordination framework by postsynthetic modification**
Young Ok Jang and Soon W. Lee

MS02-P11 **Reactivity of RhCp* complexes containing labile ligands toward potential linking ligands containing terminal thiophene or furan rings: preparation and structures of [Cp*Rh(L1)Cl_2], [Cp*Rh(h2-NO_3)(L1)](OTf), and {[Rh(L2)]·(OTf)}∞ [L1 = 1,2-bis((thiophen-2-yl)methylene)hydrazine); L2 = 1,2-bis((furan-2-yl)methylene)hydrazine]**
Kyung-Eun Lee and Soon W. Lee

MS02-P12 **Tailored thermal expansion in Metal-Organic Frameworks**
Yue Wu and Cameron J. Kepert

MS02-P13 **Cancelled**

MS02-P14 **Structurally responsive flexible PCPs to sorption of guests and ligand substitutions**
Joobeom Seo, Ryotaro Matsuda, Charlotte Bonneau, and Susumu Kitagawa

MS02-P15 **Solvothermal synthesis and structures of templated and hybrid solids in the imidazole manganese vanadate system**
Kittipong Chainok, Herman H-Y. Sung, and Ian D. Williams

MS05: Chemical crystallography - structure and properties

MS05-P01 **Supramolecular assemblies of 1,2,4,5-cyclohexanetetracarboxylic acid with various aza-donor compounds**
Manish Raut and V. R. Pedireddi

MS05-P02 **Unusual C--H...π interactions in the structure of 3,4,5-trimethoxy-N-p-tolylbenzamide**
Jim Simpson and Aamer Saeed

MS05-P03 **Using water as a design element in crystal engineering: Host-guest compounds of hydrated 3,5-dihydroxybenzoic acid**
Sunil Varughese and Gautam R. Desiraju

MS05-P04 **Investigation of the crystal structure of mixed $(Rb_{1-x}Tl_x)H_2PO_4$ by neutron diffraction**
In-Hwan Oh, Kwang-Sei Lee, Martin Meven, and Gernot Heger

MS05-P05 **Crystal and molecular structure of tris(tert-butyl-3-butanoato)gallium**
S. Brahma, S.A. Shivashankar, T. Narasimhamurthya, and Vasu

MS05-P06 **Molecular structure of fluorescent copper(II) complexes with anticancer activity**
Vedavati G. Puranik, Satish Bhat, Anupa Kumbhar, Huissain Heptullah, and Ayesha Khan

MS05-P07 **The relevance of unconventional hydrogen bonding in the polymerization and assembly of polydiacetylene DCHD**
Bagautdin Bagautdinov, Kunihisa Sugimoto, Sono Sasaki, Fumiko Yoshida, Che-Hsiu Shih, Jungeun Kim, Hiroshi Tanaka, Kohji Tashiro, and Masaki Takata

MS05-P08 **Crystal engineering of hydroxybenzoic acids: Influence of solvent in the synthon diversity and crystal packing**
SeethaLekshmi Sunil and T. N. Guru Row

MS05-P09 **Crystal structure of 7, 8-dimethyl-4-bromomethylcoumarin**
Ramakrishna Gowda, K.V. Arjuna Gowda, Mahantesha Basanagouda, and Manohar V. Kulkarni

MS05-P10 **The unusual phase behaviour of $Sr_2TiSi_2O_8$ and structurally related compounds**
Patryck Allen and Siegbert Schmid

MS05-P11 **Supramolecularly aggregated coordination solids containing 4-CNpy ligand**
Sanchay Jyoti Bora and Birinchi Kumar Das

MS05-P12 **Reinvestigation of structure-composition relationship in Na_xWO_3**
Tapas debnath, Claus H. Rüscher, and Altaf Hussain

MS05-P13 **Ordering in intercalated Co atoms and electron density distributions of layered compounds Co_xTiS_2**
Ken-ichi Ohshima and Takuro Kawasaki

MS05-P14 **Synthesis, structure and ionic conductivity in scheelite type $Li_{0.5}Ce_{0.5-x}Ln_xMoO_4$ (x = 0 and 0.25, Ln = Pr, Sm): A fast lithium-ion conductor**
Dipankar Saha, Giridhar Madras, Aninda J. Bhattacharyya and T. N. Guru Row

MS05-P15 **Polymorphism in benzyl alcohol: An in situ cryocrystallographic study**
Ranganathan Sathishkumar, Susanta K. Nayak, and T. N. Guru Row

MS05-P16 **Crystal structure and semi-empirical quantum chemical calculation of 3-dibromoacetyl-2H-1-benzopyran-2-one**
S. Shalini, C. R. Girija, T. V. Venkatesha, and M. M. Jotani

MS05-P17 **Influence of interstitial defects on the concentration of cation vacancies**
Anatoly M. Sazonov, Viktor V. Onufrienok, and Anatoly V. Chzhan

MS05-P18 **From coordinates to chemistry: 'decifering a cif'**
Colin R. Groom, Jason C. Cole, and Aurora J. Cruz-Cabeza

MS05-P19 **Photochromic property control using acid-base type co-crystal formation of salicylideneaniline derivatives**
Kohei Johmoto, Sekine Akiko, and Hidehiro Uekusa

MS05-P20 **Detail comparison on temperature dependence of XANES spectra for $PbTiO_3$, $ATiO_3$ and A_2TiO_4 compounds (A=Mg, Ca, Sr, Fe)**
Tomotaka Nakatani, Tatsuya Hiratoko, Maki Okube, Takashi Takeda, Keiichiro Murai, and Akira Yoshiasa

MS05-P21 **Temperature dependence of XANES spectra for $BaTiO_3$, $SrTiO_3$ and TiO_2 with structural phase transitions**
Tatsuya Hiratoko, Tomotaka Nakatani, Maki Okube, Akihiko Nakatsuka, Kei-ichiro Murai, and Akira Yoshiasa

MS05-P22 **Local structure analysis of tektites by Fe K-edge XAFS spectroscopy**
Takahiro Furuta, Ling Wang, Maki Okube, Takashi Takeda, Hiroki Okudera, and Akira Yoshiasa

MS05-P23 **H/D effect in a room temperature ionic liquid: N, N-diethyl-N-methyl-N-(2-methoxyethyl) ammonium tetrafluoroborate**
Hiroshi Abe, Yusuke Imai, Takahiro Takekiyo, and Yukihiro Yoshimura

MS05-P24 **A combined experimental and theoretical charge density study of di-chromium complex with a Cr-Cr quintuple bond**
Lai-Chin Wu, Chia-Wei Hsu, Yu-Chun Chuang, Gene-Hsiang Lee, Yi-Chou Tsai, and Yu Wang

MS05-P25 **In situ observation of crystal structure of $BaTiO_3$-based ceramics under high electric field**
Hisanori Ohkubo, Chikako Moriyoshi, Fumiko Yoshida, Yoshihiro Kuroiwa, Noriyuki Inoue, and Takafumi Okamoto

MS05-P26 **Nanoporous structures as a brand-new type of color conversion phosphor for solid-state lighting-LEDs**
Pei-Ci Jhang and Sue-Lein Wang

MS05-P27 **Preparation and characterization of a metformium salt of monoprotonated decavanadate**
Aungkana Chatkon and Kenneth J. Haller

MS05-P28 **Structural phase transition without accompanied spin transition of complex t-{$Fe(abpt)_2[N(CN)_2]_2$}**
Chou-Fu Sheu, Yu-Chun Chuang, Yi-Hung Liu, Hwo-Shuenn Sheu, Yu Wang

MS05-P29 **Electronic structures and luminescence properties of double activated $YTaO_4:Eu^{3+},Tb^{3+}$ and $YNbO_4:Eu^{3+},Tb^{3+}$ phosphors**
M. Nazarov, Do Young Noh, A. Zhbanov, and Yong-Gu Lee

MS05-P30 **Reversible phase transition in a new polymeric zinc metavanadate, $[Zn(Im)_4][V_2O_6]$**
Samroeng Krachodnok, Kenneth J. Haller, and Ian D. Williams

MS05-P31 **Study of intermolecular interactions in two imidazo[2,1-b] [1,3,4] thiadiazoles**
M. K. Kokila, G. N. Anil Kumar, Subhas S. Karki, R. Vinaya Kumar, and M. V. Kulkarni

MS05-P32 **Stereospecific metal bonding to cytosine in the tipodal tris(2-aminoethyl)amine (tren)-ligand system: Crystal structure of $[\{Cu(tren)\}_2(cytosinato)]\cdot(ClO_4)_3\cdot 0.5H_2O$**
M. S. Rahman and K. Aoki

MS05-P33 **Structures and bonding modes of tetra-bonded hypervalent oxygen compounds**
Etsuko Tomiyama, Kengo Yoshida, Masanobu Uchiyama, Yohsuke Yamamoto, and Daisuke Hashizume

MS05-P34 **Synthesis, structures, photophysical characterization and OLED applications of some multifunctional cyclometalated iridium metallophosphors containing 9-phenylcarbazoles**
Wai-Yeung Wong, Ching-Shan Lam, and Cheuk-Lam Ho

MS05-P35 **Concerted disorder through the hydrate region of tricyclic acyclovir: $C_{11}H_{13}N_5O_3\cdot 2H_2O$**
Montha Meepripruek and Kenneth J. Haller

MS05-P36 **Stability of clopidogrel bisulfate (PLAVIX), an antiplatelet drug, under elevated conditions**
Nongnuj Muangsin, Chuttree Phurut, and Thapong Teerawatananon

MS05-P37 **Successive volume expansion observed in a small-pore zeolite**
Yongjae Lee, Yongmoon Lee, and Dong-Hoon Seoung

MS05-P38 **Structural comparison of tetrapodal and bipodal host inclusion compounds with amine base**
Fumiaki Sano, Akiko Sekine, and Hidehiro Uekusa

MS05-P39 **Structural evolution of stoichiometric praseodymium silicate oxyapatite, $Pr_8Sr_2Si_4O_{26}$**
Terutoshi Sakakura, Minami Kamoshita, Jun Wang, and Nobuo Ishizawa

MS05-P40 **Crystal structure and magnetic behaviors of novel lanthanide(III) carboxylate compounds**
Hsiu-Mei Lin, Jen-Yun Wu, Pei-An Hsiung, Chi-Rung Lee, and I-Jui Hsu

MS05-P41 **Structural and electronic properties of tetrahedral fullerenes and diamond-like fullerene crystals**
Alexander Zhbanov, Yong-Gu Lee, Ching-Tarng Liang, and Yia-Chung Chang

MS05-P42 **Crystal structures of bipyridine–copper(II) complexes as anticancer agents**
A. Kaewthong, M. Sukwattanasinitt, and N. Muangsin

MS05-P43 **Visualisation and characterization of voids in molecular crystals**
Mark A. Spackman, Michael J. Turner, Joshua J. McKinnon, and Dylan JayAtilaka

MS05-P44 **The position determination of H/D in the protonated and deuterated $LaFeAsO_{1-y}H_x$**
Junrong Zhang, Chul-Ho Lee, Shuki Torii, Masao Yonemura, Toru Ishigaki, Teguh Panca Putra, Ping Miao, Takashi Muroya, Ryoko Tomiyasu1, and Takashi Kamiyama

MS05-P45 **High-temperature single-crystal X-ray diffraction study on the decarbonation of $FeCO_3$**
J. Wang, T. Sakakura, N. Ishizawa, and H. Eba

MS05-P46 **Model complexes of the active center in nitrite reductase**
Yasushi Kai, Kazue Ohmi, Haruka Teranishi, Tsuyoshi Inoue, Sinnichiro Suzuki, Akiko Minami, and Kazuya Yamaguchi

MS05-P47 **New pentanary thiophosphates, $A_x(Ta_{1-y}Ti_y)PS_5$ (A=K, Rb, Cs): A systematic approach toward new mixed-metallic phases**
Kyoung-hee Kim, Jae-min Yu, and Hoseop Yun

MS05-P48 **Gradual intermetallic bond formation controlled by alkali metals in quinternary metal thiophosphates, $A_y(Ta_xM_{1-x})PS_6$ (A=K, Rb; M=Ti, Zr)**
Sojeong Park, Eunsil Lee, and Hoseop Yun

MS05-P49 **Effect of 3d transition metal substitution on crystal structure in LaOMAs (M = Mn, Fe, Ni, Zn) by high-energy synchrotron radiation powder diffraction**
Shozo Hiramoto, Satoshi Yasuda, Chikako Moriyoshi, Fumiko Yoshida, Yoshihiro Kuroiwa, and Koichi Takase

MS05-P50 **Triplet biradical states of dibromo and dichloro mononuclear polypyridine iridium(III) complexes**
Naokazu Yoshikawa, Shinichi Yamabe, Nobuko Kanehisa, Tsuyoshi Inoue, Hiroshi Takashima, and Keiichi Tsukahara

MS05-P51 **Phase transitions of tetra-alkylammonium salts of deca-vanadates containing 1,4-dioxane molecules**
Tatsuhiro Kojima and Tomoji Ozeki

MS05-P52 **Two silver(I) complex structure in a single crystallization: flexible metallacyclodimer vs helical channel network**
Chi Won Kim, Eun Ji Kim, and Ok-Sang Jung

MS05-P53 **Fine competition and control among argentophilic, electrostatic, and π···π interactions in a molecular chair**
Jungmin Ahn and Ok-Sang Jung

MS05-P54 **Microwave-assisted preparation of an europium complex: $[Eu(NO_3)2(H_2O)_3(L)_2]\cdot(NO_3)(H_2O)$ {L = 2-(4-pyridylium)ethanesulfonate, $(4\text{-pyH})–CH_2CH_2–SO_3^-$}**
Zhen Nu Zheng and Soon W. Lee

MS05-P55 **A terbium dimer bridged by (imidazol)benzoic acid: $[Tb(NO_3)_3(OMe)(ibaH)]_2$[iba = 4-(1H-imidazol-1-yl)benzoic acid]**
Yeong-Min Jung and Soon W. Lee

MS05-P56 **Crystal and molecular structure of 5-bromo-1H-indole-2,3-dione**
S. Shylaja, K.B.R. Varma, T. Narasimhamurthy, and Vasu

MS05-P57 **Progress in using short wavelength radiation for chemical crystallography**
T. Samtleben, J. Graf, B. Hasse, J. Wiesmann, C. Michaelsen, F. Fabbiani, T. Schulz, D. Stalke, and H. Ott

MS05-P58 **Molecular structure of 2-amino-N(2-fluorophenyl)-4, 5, 6, 7-tetrahydro-1-benzothiophene-3-carboxamide**
M. K. Kokila, K. Chandra Kumar, J. Saravanan, and M. V. Kulkarni

MS05-P59 **Synthesis, structures and characterization of organotin complexes derived from 3,5-di-tert-butyl-4-hydroxybenzyl alcohol**
S. M. Lee, H. Mohd. Ali, and K. M. Lo

MS05-P60 **Structure-property relationships in phosphous-based nanoporous metal oxides**
Sue-Lein Wang

MS05-P61 **Crystal morphological study on the solubility limits of synthetic Al-substituted goethite**
Fei Wu, Peter Smith, Bill Richmond, Franca Jones, and Kate Wright

MS05-P62 **Influence of cation vacancies on the phase composition of iron sulphides 29 years after synthesis**
Viktor V. Onufrienok and Anatoly M. Sazonov

MS05-P63 **The crystal structure of a new dioxo-molybdenium(VI) complex of a tridentate Schiff base ligand**
Iran Sheikhshoaie, Niaz Monadi, and Helen Stoeckli-Evans

MS05-P64 **Synthesis, crystal structure, and fluorescence property of chalcone derivatives**
Thawanrat Kobkeatthawin, Suchada Chantrapromma, and Hoong-Kun Fun

MS05-P65 **Partial resolution of racemic Cu(I) complex via crystallization**
Michael Y. Chiang and Jing-Yun Wu

MS05-P66 **Disordering of the $[NbOF_5]^{2-}$ anions in centrosymmetric structures of $(C_2H_6NO_2)_2[NbOF_5]$, $(C_3H_8NO_2)_2[NbOF_5]\cdot 2H_2O$, $[Sn_2F_2][NbOF_5]$, $K_4[Sb_2F_8][NbOF_5]$ and $Mn[NbOF_5]\cdot 4H_2O$**
Andrey V. Gerasimenko, Ivan A. Tkachenko, Ruven L. Davidovich, Tamara F. Antokhina, and Evgeny B. Merkulov

MS05-P67 **Crystal structure and microwave dielectric properties of indialite**
H. Ohsato, A-Y. Kim, T. Sakakura, N. Ishizawa, C-I. Cheon, and J-S. Kim

MS05-P68 **Novel anticancer agents: synthesis, crystal structures, cytotoxic activities, DNA-binding studies and topoisomerase II inhibitory of the sulfonyl containing 6-deoxyclitoriacetal derivatives**
Thapong Teerawatananond, Nattaya Ngamrojnavanich, Narongsak Chaichit, and N. Muangsin

MS05-P69 **Pressure-induced hydration and cation migration in a potassium-exchanged natrolite**
Dong-Hoon Seoung, Yongmoon Lee, and Yongjae Lee

MS05-P70 **Raman spectral and X-ray diffraction of CO2 absorption into natrolite under high-pressure**
Dan Liu, Zhenxian Liu, and Yongjae Lee

MS05-P71 **Structures of herbal compounds: 5-hydroxy substituted flavones**
Krishnaiah M, Ravi Kumar R, and Jagadeesh Kumar N

MS05-P72 **Crystal chemical screening of the ICSD for discovery of materials with high Li^+ mobility**
Matthew Sale and Maxim Avdeev

MS05-P73 **Capture of hydroxyl group (OH) cationic vacancies in structures of the Pyrrhotite**
Alexander G. Nikiforov, Viktor V. Onufrienok, and Anatoly V. Chzhan

MS05-P74 **Automation in single crystal X-ray diffraction (SC-XRD)**
Bernd Hinrichsen, Martin Adam, and Joerg Kaercher

MS05-P75 **Making the most of a SuperNova diffractometer equipped with both Mo and Cu micro-focus sources, an Atlas detector and AutoChem**
Zoltán Gál, Alexandra Griffin, and Oliver Presly

MS05-P76 **Photoinduced rearrangement of N-chlorinated acetanilides and benzanilides to chloroaromatic amides in the solid state: Inverted relative stability of Π_N and Σ_N amidyl radicals**
Panče Naumov, Yildiray Topcu, Mirjana Eckert-Maksić, Fabijan Pavošević, Manoj Kochunnoonny, and Zoran Glasovac

MS05-P77 **Topochemical limits for solid-state photoreactivity by fine tuning of the π---π interactions**
Shi-Yao Yang, Panče Naumov, and Shunichi Fukuzumi

MS05-P78 **Different complexation behavior of a proton transfer compound obtained from 2,9-dimethyl-1,10-phenanthroline and 4-hydroxy-pyridine-2,6-dicarboxylic acid with Cr(III), Co(III), Ni(II) and Cu(II)**
Janet Soleimannejad and Hossein Aghabozorg

MS08: Dynamic aspects of molecular and solid state crystals

MS08-P01 **Comparison with three H-, Si- and C-based giant materials on the various planetary materials**
Yasunori Miura

MS08-P02 **Local structure of Co-based additives in $LiBH_4$ + $LiNH_2$ system**
Takashi Asano, Daiju Matsumura, Yuka Okajima, Hai-Wen Li, Shin-ich Orimo, Hikaru Terauchi, Isao Takahashi, and Yasuo Nishihata

MS08-P03 **Molecular dynamics simulations of structure and dynamics of organic molecular crystals**
Alexandra Nemkevich, Hans-Beat Bürgi, Mark A. Spackman, and Ben Corry

MS08-P04 **Crystal structure of new cobaloxime complex with photochromic azobenzene derivatives as axial base ligand**
Hiroki Yamagiwa, Akiko Sekine, and Hidehiro Uekusa

MS08-P05 **Controllable photochromism in hybrid type cobaloxime complex**
Akiko Sekine, Sayaka Ina, Hiroki Yamagiwa, Kohei Johmoto, and Hidehiro Uekusa

MS08-P06 **Dehydration induced color switching of isophthalic acid crystal**
Aya Sakon, Akiko Sekine, and Hidehiro Uekusa

MS08-P07 **Hydration and dehydration transformation of sodium naproxen Pseudopolymorphs**
Takashi Miyamoto, Akiko Sekine, and Hidehiro Uekusa

MS08-P08 **Single crystal structure analyses of photo-excited states of photoluminescent hexanuclear d^{10} metal complexes**
Yoshiki Ozawa, Toru Ishida, Kimihiro Kimura, and Koshiro Toriumi

MS08-P09 **Selective pseudo-polymorphic transformation pathways of organic crystalline materials established using powder X-ray diffraction analysis**
Kotaro Fujii, Yasunari Ashida, Hidehiro Uekusa, Fang Guo, and Kenneth D.M. Harris

MS08-P10 **New insights into molecular mechanisms of photoinduced and thermally induced effects in crystals**
Panče Naumov

MS08-P11 **The origin of solid-state thermochromism of polycyclic overcrowded enes: A hundred-year old mystery resolved**
Panče Naumov, Nobuo Ishizawa, Jun Wang, Ljupčo Pejov, and Sang Cheol Lee

MS08-P12 **New type of dual solid-state thermochromism: Modulation of intramolecular charge transfer by intermolecular π–π interactions, kinetic trapping of aci-nitro group and reversible molecular locking**
Panče Naumov, Sang Cheol Lee, Nobuo Ishizawa, Young Gyu Jeong, Ihn Hee Chung, and Shunichi Fukuzumi

MS11: Magnetic structures/molecular magnets

MS11-P01 **Room temperature ferromagnetism in pure CdSe and CdSe:Ni nanorods**
Sanjeev Kumar, Sunil Kumar, and N. K. Verma

MS11-P02 **Doping effects of multiferroic $BiFeO_3$ ceramics**
Jun-Ki Hong, Jin-Ho Joo, Je-Geun Park, and Seongsu Lee

MS11-P03 **Magnetic and dielectric properties of multi-ferroic $YMn^{4+}(Mn_{1-x}T_x)^{3+}O_5$ (T = Ga and Fe)**
Hiroyuki Kimura, Kenta Yamazaki, Yuma Sakamoto, Mamoru Fukunaga, Yukio Noda, Nobuyuki Abe, Takahisa Arima, and Haruhiro Hiraka

MS11-P04 **Role of interlayer electrostatic interaction in superconductivity of $LaFeAsO_{1-x}F_x$**
J. Kim, T. Sawada, K. Sugimoto, K. Kato, M. Ishikado, S. Shamoto, A. Fujiwara, and M. Takata

MS11-P05 **X-ray magnetic circular dichroism study of $La_{1-x}Ba_xCoO_3$ at Co K absorption edge**
Hiroaki Morii, Takuya Yasue, Maki Okube, Takeshi Ohno, Takayasu Hanashima, and Satoshi Sasaki

MS11-P06 **Propeller-like thermal vibration of molecules in ferroelectric molecular crystal CCl_3CONH_2**
Chikako Moriyoshi and Yoshihiro Kuroiwa

MS11-P07 **The structural characterization and magnetic interactions in doped rare-earth manganites**
Wiqar Hussain Shah

MS14: Nanomaterials, surface, and interface

MS14-P01 **Cancelled**

MS14-P02 **Cancelled**

MS14-P03 **Mapping the strain field of chemically treated surface of semiconductor crystals using X-ray Bragg-surface diffraction**
Y. W. Tsai, C. H. Chu, S,-C. Weng, Y.-Z. Zeng, H.-Y. Chen, Y.-H. Yan, O. N. Zarubina, G. M. Mokrousov, and S.-L. Chang

MS14-P04 **Protein cages provide a platform of cell-permeable and biocompatible imaging probe in living cells**
Seung-Hye Choi, Kuiwon Choi, Ick Chan Kwon, Kwang Yeon Hwang, and Hyung Jun Ahn

MS14-P05 **Long-range-order and short-range-order structures of Co-doped Y_2O_3 nanocrystals**
Y. L. Soo, T. S. Wu, C. S. Wang, S. L. Chang, T. S. Chan, C. A. Hsieh, and J. F. Lee

MS14-P06 **Nano-particle formation by Pd complex deposited on polystyrene thin films**
Koyasu Naoki, Ohshima Yuji, Koiso Naohiro, Terauchi Hikaru, Hashimoto Takeji, and Takahashi Isao

MS14-P07 **Interfacial structure of polystyrene/polyhydroxybutyrate two-layer film revealed by X-ray diffraction**
K. Nozaki, K. Ishimoto, J. Takemoto, C. Yang, X. Sun, K. Shimizu, H. Terauchi, and I. Takahashi

MS14-P08 **Surface structure and morphology of PEG/PEO blends thin film: composition and temperature dependence study**
Yoshiki Kurokawa, Hideaki Takahashi, Hikaru Terauchi, Isao Takahashi, and Katsumi Shimizu

MS14-P09 **Glass transition and thermal expansion of ultrathin polystyrene films - An X-ray reflectivity study at various heating/cooling rates**
Chunming Yang, Shunsui Matsuura, Kiyoaki Inoue, Kohei Ishimoto, Naoki Koyasu, Hikaru Terauchi, and Isao Takahashi

MS14-P10 **Structure analysis of hydroxyapatite nano-crystals by electron powder diffraction**
Kyung Song, Jin-Gyu Kim, and Youn-Joong Kim

MS14-P11 **Symmetry determination of Ag_2Te nanowire using electron diffraction**
Jin-Gyu Kim, Sang-Gil Lee, Kyung Song, Juneho In, Bongsoo Kim, and Youn-Joong Kim

MS14-P12 **Development for X-ray crystal structure analysis of a surface-shallow layer and its application to the epitaxial crystals of halogen-bridged platinum(II,IV) complexes**
Hiroaki Yamanaka, Daisuke Yamashita, Aki Takazaki, Minoru Mitsumi, Yoshiki Ozawa, Koshiro Toriumi, and Osami Sakata

MS14-P13 **One-pot synthesis and application of magnetite containing mesoporous carbon via organic-organic self-assembly**
Sang-Wook Chu, Sung Soo Park, Jeong Hun Shin, and Chang-Sik Ha

MS14-P14 **Adsorption behavior of amino acids on periodic mesoporous organosilicas (PMOs)**
Jeong Hun Shin, Sung Soo Park, Sang-Wook Chu, and Chang-Sik Ha

MS14-P15 **First-principles calculation of dielectric function for graphite, graphene, and carbon nanotubes**
Alexander Zhbanov and Yong-Gu Lee

MS14-P16 **Moved to MS15-P13**

MS14-P17 **Synthesis of biocompatible and mechanically compatible Ti based solid material for implant prototyping**
A. A. Shaikha, S. Dudziakc, O. Meierc, and T. M. Gesingb

MS14-P18 **Analysis of electron diffraction patterns from bone minerals**
Chang-Yeon Kim, Tae-Hoon Jeon, Eun-Kyung Kim, Hyosun Lim, Seung-Won Nam, Kyung Song, Sang-Gil Lee, Woomi Yang, Jun-Ho Jeong, Jong-Man Jeong, Jin-Gyu Kim, Hwanuk Kim, and Youn-Joong Kim

MS14-P19 **Synthesis and characterization of Sb_2S_3 & Sb_2Se_3 nanorods via complex decomposition by hydrothermal method**
Abdolali Alemi and Younes Hanifehpour Firouzsalari

MS14-P20 **Preparation & characterization of Ho^{3+} doped Sb_2Te_3 nanoplates by hydrothermal method and investigation of optical properties**
Abdolali Alemi and Younes Hanifehpour Firouzsalari

MS14-P21 **Collecting complete 3D electron diffraction data using the automatic rotation method**
Sven Hovmöller, Peter Oleynikov, Daliang Zhang, and Xiaodong Zou

Area 3. Specialized Techniques

MS03: Synchrotron and neutron sources, instrumentation and applications

MS03-P01 **Site preference and electron-density distribution of Fe ions in magnetite by X-ray resonant and non-resonant scattering**
Takuya Yasue, Yuhei Kaneko, Maki Okube, and Satoshi Sasaki

MS03-P02 **Accurate determination of local structural properties by X-ray absorption fine structure**
Sang-Wook Han

MS03-P03 **Structure of transmembrane pore reconstructed by anomalous X-ray diffraction**
Ming-Tao Lee, Shiuan-Shiaou Wu, Wei-Yu Lin, and Yi-Ting Sun

MS03-P04 **MAX200x and max80 high-pressure / high-temperature experiments from Helmholtz Centre Potsdam, GFZ German Research Centre for Geosciences at DESY, German Electron synchrotron**
Christian Lathe, Hans Joachim Mueller, and Joern Lauterjung

MS03-P05 **Environmental structural analysis of hydrolytic condensed oxides with complex structure**
Reiko Murao and Kazumasa Sugiyama

MS03-P06 **Development of a micro-strip detector for high-energy XRD**
Taguchi Takeyoshi, Matsushita Kazuyuki, Maciej Kachel, Robert Szczygiel, and Pawel Grybos

MS03-P07 **Structural study of $Zr_{50}Cu_{40}Al_{10}$ and $Zr_{50}Ni_{40}Al_{10}$ amorphous alloys by anomalous X-ray scattering coupled with reverse Monte-Carlo simulation**
T. Kawamata, Y. Yokoyama, and K. Sugiyama

MS03-P08 **High brilliance laboratory sources for small X-ray beams**
T. Samtleben, C. Michaelsen, B. Hasse, J. Wiesmann, U. Heidorn, S. Kroth, and F. Hertlein

MS03-P09 **Synchrotron radiation beamline for macromolecular assemblies at SPring-8 operated by the Institute for Protein Research (BL44XU)**
Eiki yamashita, Masato Yoshimura, Mamoru Suzuki, Kazuya Hasegawa, Yukito Furukawa, Toru Ohata, Takashi Kumasaka, Go Ueno, Masaki Yamamoto, Shinya Yoshikawa, Tomitake Tsukihara, and Atsushi Nakagawa

MS03-P10 **Data processing software for a new TOF single crystal neutron diffractometer "iBIX" at J-PARC**
Takashi Ohhara, Katsuhiro Kusaka, Takaaki Hosoya, Kazuo Kurihara, Taro Yamada, Katsuaki Tomoyori, Takeshi Yokoyama, Yuki Onishi, Ichiro Tanaka, Nobuo Niimura, Toshiya Otomo, Jiro Suzuki, and Takeshi Nakatani

MS03-P11 **Development of a new beamline dedicated to low energy SAD experiments at the Photon Factory**
Naohiro Matsugaki, Yusuke Yamada, Leonard M.G. Chavas, Masahiko Hiraki, Masato Kawasaki, Ryuichi Kato, Noriyuki Igarashi, Atsushi Koyama, Shigeru Yamamoto, Kimichika Tsuchiya, Tatsuro Shioya, Tomohiro Aoto, Hideki Maezawa, Seiji Asaoka, Hiroshi Miyauchi, Toshihiro Tahara, Yasunori Tanimoto, and Soichi Wakatsuki

MS03-P12 **SENJU: A new time-of-flight single crystal neutron diffractometer at J-PARC**
Takuro Kawasaki, Kenichi Oikawa, Itaru Tamura, Takashi Ohhara, Koji Kaneko, Hiroyuki Kimura, Ryoji Kiyanagi, Miwako Takahashi, Tamiko Kiyotani, Masatoshi Arai, Yukio Noda, and Ken-ichi Ohshima

MS03-P13 **The Australian Synchrotron: research opportunities now and into the future**
Kia S. Wallwork, Chris Glover, Nigel Kirby, Tom Caradoc-Davies, and Ian Gentle

MS03-P14 **Introduction of 6B beamline at Pohang Accelerator Laboratory in Korea for the small molecule X-ray crystallography**
Dohyun Moon

MS03-P15 **A simulation report of a single crystal diffractometer using an image plate for nano-bio research**
Sang Jin Cho, Tae Sung Yoon, Chang Hee Lee, Shin Ae Kim, Ji Yong So, and Kyong-Pyo Kim

MS03-P16 **The first neutron structure analysis of biological macromolecule with IBARAKI Biological Crystal Diffractometer -iBIX- in J-PARC**
Katsuhiro Kusaka, Taro Yamada, Takaaki Hosoya, Takashi Ohhara2, Kazuo Kurihara, Ichiro Tanaka, and Nobuo Niimura

MS03-P17 **Highest brilliance X-ray sources for home lab instrumentation – From solid target anode to liquid metal jet micro-focus**
Martin Adam, Arnt Kern, Christoph Ollinger, Carsten Michaelson, Till Samtleben

MS03-P18 **New X-ray imaging cameras give insight into X-ray source characteristics**
Licai Jiang, Hugh Garvey, Nick Grupido, Bodo Ehlers, Bonglea Kim, Ladislav Pina, and Martin Horvath

MS06: Small angle X-ray and neutron scattering

MS06-P01 **Morphological structures of a polymethacrylate diblock copolymer bearing POSS moieties probed by grazing incidence X-ray scattering**
Byungcheol Ahn, Sangwoo Jin, Tomoyasu Hirai, Yecheol Rho, Sungmin Jung, Kwang-Woo Kim, Samdae Park, Jin Chul Kim, Wonsang Kwon, Junman Choi, Dong Min Kim, Jungwoon Jung, Kyungtae Kim, Mihee Kim, Yong-Gi Ko, Masa-aki Kakimoto, Padma Gopalan, Teruaki Hayakawa, and Moonhor Ree

MS06-P02 **Nanoporous conducting polymer thin films generated from ionic interaction block copolymers templates**
Yecheol Rho, Ayumi Takahashi, Tomoya Higashihara, Byungcheol Ahn, Samdae Park, Jin Chul Kim, Dong Min Kim, Jungwoon Jung, Wonsang Kwon, Kyungtae Kim, Mihee Kim, Yong-Gi Ko, Sungmin Jung, Junman Choi, Moonhor Ree, and Mitsuru Ueda

MS06-P03 **Effect of C_{60} fullerene on the duplex structure of i-motif DNA with complementary DNA in solution**
Byungcheol Ahn, Mihee Kim, Kyeong Sik Jin, Su Ryon Shin, Yecheol Rho, Kyungtae Kim, Sungmin Jung, Seon Jeong Kim, and Moonhor Ree

MS06-P04 **Molecular organization of laterally tethered rod-coil molecules**
Dong-Je Hong and Myongsoo Lee

MS06-P05 **Microstructure of PLA-PEG block copolymer aqueous solutions as studied by small angle X-ray scattering**
Hye-Jin Jeon, Yeon Hung Oh, Hak Seung Jeong, Woon Bo Shim, and Hyun Hoon Song

MS06-P06 **Surface-induced columnar structures of discotic liquid crystals in thin films**
Hyo-Sik Kim, Sung-Min Choi, Brian D. Pate, and Po Gyu Park

MS06-P07 **Fabrication of highly ordered SWNT superstructures in a polymeric system**
Changwoo Doe, Hyung-Sik Jang, Tae-Hwan Kim, Steven R. Kline, and Sung-Min Choi

MS06-P08 **Highly ordered self-assembly of negatively charged nanorods and cationic liposomes**
Tae-Hwan Kim, Shin-Hyun Kang, Changwoo Doe, Jihyun Yu, Jun-Bo Sim, Jehan Kim, Steven R. Kline, and Sung-Min Choi

MS06-P09 **Synchrotron grazing incidence wide-angle X-ray scattering analysis on molecular aggregation structure of full- or semi-aromatic polyimide films**
Byungcheol Ahn, Junji Wakita, Sangwoo Jin, Tae Joo Shin, Yecheol Rho, Samdae Park, Jin Chul Kim, Wonsang Kwon, Dong Min Kim, Jungwoon Jung, Kyungtae Kim, Mihee Kim, Yong-Gi Ko, Sungmin Jung, Junman Choi, Moonhor Ree, and Shinji Ando

MS06-P10 **Self-assembled brush polymers with glycine derivatives and its biocompatibility**

Yecheol Rho, Jungwoon Jung, Gahee Kim, Samdae Park, Hyunchul Kim, Jin Chul Kim, Dong Min Kim, Byungcheol Ahn, Wonsang Kwon, Kyungtae Kim, Mihee Kim, Yong-Gi Go, Sungmin Jung, Junman Choi, Sejin Son, Won Jong Kim, and Moonhor Ree

MS06-P11 **Structures characterization of star polystyrenes with varying numbers of arms through synchrotron X-ray scattering**

Yecheol Rho, Sangwoo Jin, Tomoya Higashihara, Samdae Park, Jin Chul Kim, Dong Min Kim, Jungwoon Jung, Byungcheol Ahn, Sungmin Jung, Wonsang Kwon, Kyungtae Kim, Mihee Kim, Yong-Gi Ko, Junman Choi, Moonhor Ree, and Akira Hirao

MS09: Combining methods/new tools in structural biology

MS09-P01 **A fast and fully automated solution for lipidic cubic screening (LCP) using Mosquito LCP**
Joby Jenkins, Patricia Edwards, Rob Lewis, and Joanne Franklin

MS09-P02 **macroSNAP: A computer program for comparing and clustering protein structures**
Christopher Gilmore, Gordon Barr, Wei Dong, Adrian Lapthorn, and Stuart MacKay

MS09-P03 **Automated crystal centering by use of UV LED**
Leonard M.G. Chavas, Yamada Yusuke, Masahiko Hiraki, Noriyuki Igarashi, Naohiro Matsugaki, and Soichi Wakatsuki

MS09-P04 **Improved technologies for high-resolution X-ray crystallography**
H. Tanaka, M. Sato, K. Inaka, N. Furubayashi, S. Takahashi, B. Yan, A. Higashiura, M. Suzuki, S.-Y. Park, Y. Higuchi, Y. Yoshimura, and A. Nakagawa

MS09-P05 **High-quality protein crystal growth experiment (JAXA PCG) onboard the Japanese experiment module 'Kibo' in the International Space Station**
M. Sato, H. Tanaka, K. Inaka, N. Furubayashi, S. Sano, S. Takahashi, B. Yan, E. Hirota, T. Ichikawa, S. Shinozaki, M. Shirakawa, and Y. Yoshimura

MS09-P06 **Analyses of X-ray damage on the oxidized form of high-potential iron-sulfur protein at ultra-high resolution**
Yu Hirano, Hiraku Ohno, Hideyuki Jonotsuka, Kazuki Takeda, and Kunio Miki

MS09-P07 **Towards efficient crystallization screening using high performance UV fluorescence imaging**
Jian Xu and Michael Willis

MS09-P08 **The high-pressure cryocooling for supramolecular crystals: In the case of Rice Dwarf Virus**
Akifumi Higashiura, Masaru Sato, Koji Inaka, Masaki Shirakawa, Yoshinori Yoshimura, and Atsushi Nakagawa

MS09-P09 **Fluorescence-based screening for soluble human proteins by POET in baculovirus-infected insect cells for structural studies**
Song-ying Ouyang, Neil shaw, and Zhi-Jie Liu

MS09-P10 **Hematin-hematin self-association in hemozoin by X-ray powder diffraction and X-ray absorption spectroscopy**
Victor Streltsov, Ruben Dilanian, Nectarios Klonis, Eric Hanssen, Harry Quiney, and Leann Tilley

MS09-P11 **Automating microseeding protein crystallography set-ups using Mosquito®**
Joby Jenkins, Rob Lewis, and David Smith

MS09-P12 **Getting the most out of your synchrotron**
Joseph D. Ferrara, Colin Acheson, Keith Crane, Angela Criswell, Pierre Le Magueres, and Bret Simpson

MS09-P13 **High-end solution for in-house protein crystallography**
Martin Adam, Marianna Biadene, Matt Benning, and Vernon Smith

MS12: Crystal growth and engineering

MS12-P01 **Crystallization of catalytic domain of human MAP kinase phosphatase 5 for neutron diffraction experiments**
Simranjeet Singh Sekhon, Elena Magay, and Tae-Sung Yoon

MS12-P02 **Growing lysozyme crystals for neutron diffraction beamlines**
Au Elena Magay and Tae-Sung Yoon

MS12-P03 **Controlling the coordination numbers of lanthanoid atoms by the use of multidentate polyoxometalate ligands**
Tomoji Ozeki, Yusuke Kato, and Takahiro Shimono

MS12-P04 **The fascinating world of tautomers and their crystal structures**
Aurora J. Cruz-Cabeza, Jason C. Cole, and Colin R. Groom

MS12-P05 **Crystal engineering of rare-earth (Sm, Gd) molybdates based on organic linkers**
Dinesh Kumar and A. Ramanan

MS12-P06 **Protein crystallization with synthetic zeolite molecular sieves as hetero-epitaxic nucleants**
Michihiro Sugahara, Yuko Kageyama-Morikawa, and Naoki Kunishima

MS12-P07 **Crystal packing analysis of nonmolecular solids – A retrosynthetic approach**
Monika Singh, Dinesh Kumar, and Arunachalam Ramanan

MS12-P08 **Desktop Alchemist™: A high precision fine screen maker to automate crystallization optimization**
Jian Xu and Michael Willis

MS12-P09 **Growth and study of optical properties of polycrystalline and single crystals of CdI2**
Alka Garg and Anita

MS12-P10 **In situ diffraction: a powerful tool for studying undisturbed crystals in crystallization droplets**
Tadeusz Skarzynski

MS12-P11 **Gel crystallization of calcium-lead hydroxyapatite, MHAP (M = Ca^{2+} and/or Pb^{2+})**
Oratai Saisa-ard and Kenneth J. Haller

MS15: Powder diffraction

MS15-P01 **Ab initio structure analysis of solid-state photodimerized methoxyazachalcone from powder diffraction data**
Hisashi Konaka, Yoko Tokugaw, and Shinji Yamada

MS15-P02 **Effect of pH on zinc oxide crystallographic structure**
Sanjeev Gautam, I. J. Lee, and Keun Hwa Chae

MS15-P03 **Structures differ from sodium and potassium urate crystals**
Hwo-Shuenn Sheu, Wei-Ju Shi, and Wei-Tsung Chuang

MS15-P04 **Diffraction vector approach and new detector for two-dimensional X-ray diffraction**
Bob B. He

MS15-P05 **Comparison of crystallite shape ellipsoid in various polymers**
H. Somashekarappa, R. Gopalakrishne Urs, V. Annadurai, S. S. Mahesh, and R. Somashekar

MS15-P06 **Using crystallographic knowledge to ease powder structure solution using DASH**
Jason C. Cole, Colin R. Groom, and Aurora J. Cruz-Cabeza

MS15-P07 **The importance of Mn(III) in phase transition of some Mn perovskites**
T. Y. Tan and B. J. Kennedy

MS15-P08 **Crystal structural change by guest sorption/release processes of the macrocyclic boronic ester investigated by laboratory powder X-ray diffraction analysis**
Kotaro Fujii, Hidehiro Uekusa, Yuji Kikuchi, Hiroki Takahagi, Kosuke Ono, and Nobuharu Iwasawa

MS15-P09 **Status report on super high resolution powder diffractometer at J-PARC**
Shuki Torii, Masao Yonemura, Teguh Panca Putra, Junrong Zhang, Miao Ping, Takashi Muroya, Ryoko Tomiyasu, Takahiro Morishima, Setsuo Sato, Hidenori Sagehashi, Toru Ishigaki, Yukio Noda, and Takashi Kamiyama

MS15-P10 **Research and developments at the Australian synchrotron powder diffraction beamline**
Kia S. Wallwork, Qinfen Gu, and Justin A. Kimpton

MS15-P11 **In situ powder X-ray diffraction for gas adsorption on ordered mesoporous materials**
Keiichi Miyasaka, Norihiro Muroyama, Kyoungmin Jung, Yoshiki Kubota, and Osamu Terasaki

MS15-P12 **X-ray diffraction analysis of carbon extracted from a fruit like fullerene**
B. Mallick, Sonam Narayan, Suraj Patra, Ashmaa Parvin, K. B. Sahu, B. Mishra, and S. Sahu

MS15-P13 **Moved to MS15-P13Development of defect perovskites for use as cathode materials in lithium ion batteries**
William R. Brant and Siegbert Schmid

Area 4. Others

MS-17: Other areas

MS17-P01 **Stacking faults in $Ca_4B_2B'O_9$-type layered brownmillerites**
H. Krüger, T. R. Welberry, J. D. FitzGerald, R. L. Withers, and S. Stöber

MS17-P02 **Enhancement of the ν4 band in heme at NIR laser enhancement attributed to supramolecular interactions**
Ratchadaporn Puntharod, Bayden R. Wood, and Kenneth J. Haller

MS17-P03 **Recombinant fusion protein design for biophysical analysis of integrin subunit dimerization and function**
Andrea Francesca M. Salvador, Gabriel N. Valbuena, Lydia Teresa Isabel Salud-Bautista, and Neil Andrew D. Bascos

MS17-P04 **Development of computer software for General Area Detector Diffraction System (GADDS)**
Hosung Kim and Hohyuk Kim

MS17-P05 **Mineralogy and geochemistry of volcanic rocks of Poledokhtar, Myaneh (NW Iran)**
Amin Kamali, Mohssen Moayed, Hadi Pirooj, and Mohamade Mehri

MS17-P06 **Evolution and development of CrysAlis^{Pro}**
Zoltan Gal, Alexandra Griffin, and Oliver Presly

MS17-P07 **Structure of Hibiscus latent Singapore virus by fiber diffraction: insights into evolution of a distinct Tobamovirus**
Kunchithapadam Swaminathan, Sunil Kumar Tewary, Toshiro Oda, Amy Kendall, Wen Bian, Gerald Stubbs, and Sek-Man Wong