

Time	A-05MH (MS 43)	F-12CH (MS 44)	D-1003 (MS 45)
9:55-10:00 Opening Remarks	Structural biology of the cell Chairs: P. Alzari, H. S. Yuan	Teaching macromolecular crystallography Chairs: K. Kantardijeff, B. Santarsiero	Crystal design from hydrogen bond to halogen bond and beyond Chairs: A. Beatty, M. Bhadbhade
10:00-10:30	MS.43.1(C78) K. Diederichs: Structure of AcrB: A novel mechanism for multidrug resistance	MS.44.1(C80) M. Ruf: Is there a steep learning curve in crystallography?	MS.45.1(C81) G. Minguez: Metal-organic networks designed by combination of hydrogen bonds and halogen bonds
10:30-11:00	MS.43.2(C78) A. M. Houdusse: Structural description of the ATPase cycle of a myosin that moves backward	MS.44.2(C80) A. Faust: A tutorial for learning and teaching macromolecular crystallography	MS.45.2(C81) P. Metrangolo: A journey through the rational design of molecular solids with halogen bonding
11:00-11:30	MS.43.3(C79) P. E. Czabotar: How programmed cell death is regulated: Insights from structures of Bel-2 family protein complexes	MS.44.3(C80) S. Djordjevic: The web-based teaching in the Institute of Structural and Molecular Biology, University of London	MS.45.3(C82) J. F. Gallagher: Structural systematic studies of fluoro(pyridinyl) benzamide derivatives
11:30-12:00	MS.43.4(C79) M. Machius: Structural basis of spindle checkpoint activation and inactivation by Mad2 and p31comet	MS.44.4(C81) C. Yang: Sulfur-SAD phasing becomes a routine approach to solve <i>de novo</i> structures	MS.45.4(C82) S. A. Bourne: Crystal engineering using the thiourea moiety
12:00-12:30	MS.43.5(C79) S. B. Gabelli: Structural basis for the effects of PI3Kalpha oncogenic mutations	MS.44.5(C81) B. Rupp: Scientific inquiry and inference in macromolecular crystallography	MS.45.5(C82) M. A. Spackman: Electrostatic complementarity: A universal theme in molecular crystal structures?

C-1001, 2 (MS 46)	G-1202 (MS 47)	B-05SH (MS 48)	E-1009 (MS 49)
Powder diffraction studies of hydrogen storage materials Chairs: M. O. Jones, P. Whitfield	High pressure studies on advanced and nano-materials Chairs: N. Dubrovinskaia, V. Solozhenko	Physical properties from integrated electron diffraction and X-ray diffraction Chairs: A. Avilov, K. Tsuda	Wide-gap semiconductors for health, energy and environment Chairs: K. Kakimoto, D. Bliss
MS.46.1(C83) B. David: Structure and properties of ammonia borane based hydrogen storage materials	MS.47.1(C84) E. Takayama-Muromachi: High pressure synthesis and physical property measurements of perovskite transition-metal oxides	MS.48.1(C85) Y. Zhu: Quantitative electron and X-ray diffraction study of charge density in complex oxides	MS.49.1(C87) K. Stanislaw: The structure and dynamics of GaN(0001) surface during HVPE GaN growth – <i>Ab initio</i> study
MS.46.2(C83) Y. Filinchuk: Light metal borohydrides: Going beyond crystal structures	MS.47.2(C84) E. Gregoryanz: Synthesis and characterization of metal nitrides	MS.48.2(C86) K. Kato: Bonding electrons visualization in photo-excited state using synchrotron X-ray powder diffractometry	MS.49.2(C87) A. Koukitu: Hydride vapor phase epitaxy of AlN and AlGaIn
MS.46.3(C83) T. Sato: Structural investigation of metal borohydrides by X-ray/neutron diffraction and computational study	MS.47.3(C85) L. S. Dubrovinsky: High pressure synthesis of nanocrystalline superhard materials	MS.48.3(C86) B. B. Iversen: Structure based design of new thermoelectric materials	MS.49.3(C88) S. Naritsuka: Fabrication of InN dot structures by droplet epitaxy using NH ₃
MS.46.4(C83) C. Weidenthaler: Powder diffraction investigations of a new class of rare-earth aluminum hydrides	MS.47.4(C85) S. Quartieri: Pressure-induced over-hydration of zeolites: New insights from the elastic behavior of gismondine	MS.48.4(C86) J. Ciston: Experimental measurements of bond density at the Si(111)-7x7 surface	MS.49.4(C88) X. Chen: Dislocation density in silicon ingot during a unidirectional solidification process
MS.46.5(C84) J-H. Her: Neutron scattering studies on deuterium adsorbed pore framework compound, K ₂ Zn ₃ [Fe(CN) ₆] ₂	MS.47.5(C85) J-P. Itie: Pressure induced transition in nano-TiO ₂ : An X-ray absorption spectroscopy study	MS.48.5(C87) V. E. Dmitrienko: Phonon and electronic properties of crystals and chirality studied with resonant X-ray diffraction	MS.49.5(C88) T. Ohachi: AlN and GaN hetero epitaxy on Si substrate using activity modulation migration enhanced MBE (15 min)
			MS.49.6(C89) H. Matsuhata: Contrast of dislocations in 4H-SiC by SR topography in grazing-incidence geometry (15 min)

Time	A-05MH (MS 50)	F-12CH (MS 51)	D-1003 (MS 52)
14:45-14:50 Opening Remarks	Hot structures Chairs: P. Chui Shaw, S. Eon Ryu	Complementarity of SAXS and SANS with other structural methods in molecular biology Chairs: J. Trehella, T. Fujisawa	Host-guest crystal chemistry Chairs: S. A. Bourne, P. Bombizc
14:50-15:20	MS.50.1(C89) J-H. Wang: Decoding homophilic recognition specificity of Dscam, a neuronal receptor with thousands isoforms	MS.51.1(C91) D. I. Svergun: Joint use of SAXS and SANS with high resolution methods for macromolecular solutions	MS.52.1(C92) K. Tanaka: Novel cyclic salicylide derivatives: Guest inclusion and organo-gellation
15:20-15:50	MS.50.2(C89) K. Miki: Crystal structure of the [2Fe-2S] transcriptional activator SoxR bound to DNA	MS.51.2(C91) M. Kojima: Additivity, redundancy, and complementarity between structural information from NMR and SAXS data	MS.52.2(C92) L. Brammer: Porous material behaviour in non-porous crystals: A route to chemical reactions
15:50-16:20	MS.50.3(C89) J-O. Lee: Hybrid LRR technique and crystal structures of the toll-like receptor complexes	MS.51.3(C91) E. J. Goldsmith: The structure of the MAP2K MEK6 is an autoinhibitory dimer both in crystals and in solution	MS.52.3(C93) L. R. Nassimbeni: Polymorphism, isostructurality and selectivity in inclusion compounds
16:20-16:50	MS.50.4(C90) J. P. Morth: Crystal structure of the sodium pump at 3.5 Å	MS.51.4(C91) H. Tsuruta: Time-resolved X-ray scattering studies on bacteriophage assemblies	MS.52.4(C93) L. Fabian: What are the molecular properties that influence the formation of methanol solvates?
16:50-17:20	MS.50.5(C90) L. Tong: Structural studies of pre-mRNA 3'-end processing	MS.51.5(C92) S. Akiyama: Real-time SAXS observation of assembly and disassembly dynamics of cyanobacterial clock proteins	MS.52.5(C93) X. Wang: Framework deformation and guest packing in a microporous vanadium benzenedicarboxylate

C-1001, 2 (MS 53)	G-1202 (MS 54)	B-05SH (MS 55)	E-1009 (MS 56)
Developments in structure solution and refinement from powders Chairs: H. Toraya, P. W. Stephens	Shape memory alloys Chairs: K. R. A. Ziebeck, T. Kanomata	Surfaces Chairs: D. K. Saldin, F. Boscherini	Phase transitions and physical properties at high pressure Chairs: L. Robin Benedetti, G. Shen
MS.53.1(C94) M. Takata: Electrostatic potential and electric field imaging by MEM powder diffraction data analysis	MS.54.1(C95) R. Kainuma: Martensitic transformations in the Ni-based ferromagnetic shape memory alloys	MS.55.1(C97) M. A. Van Hove: Structure of nanomaterials via electron multiple scattering	MS.56.1(C98) Y. Feng: Quantum phase transitions using non-resonant X-ray magnetic scattering at high pressures
MS.53.2(C94) M. C. Burla: MAD techniques applied to powder data: The method of the joint probability distribution functions	MS.54.2(C96) T. Ohba: Martensitic transformation and phonon softening behavior in TiNi alloy system	MS.55.2(C97) C. J. Hirschmugl: Distinguishing chirality using electron diffraction	MS.56.2(C99) N. Dragoe: High pressure induced charge ordering in lithium vanadate spinel
MS.53.3(C94) C. C. Wilson: Towards routine refinement of hydrogenous materials by neutron powder diffraction	MS.54.3(C96) T. Hickel: First principles determination of phase transitions in magnetic shape memory alloys	MS.55.3(C97) A. Diethert: Surface enrichment layers in pressure sensitive adhesive films	MS.56.3(C99) Y. Lee: Pressure-induced hydration and order-disorder transition in a synthetic gismondine zeolite
MS.53.4(C95) V. V. Chernyshev: Powder diffraction and DFT optimization in structural characterization of macrocyclic compounds	MS.54.4(C96) W. Hu: X-ray fluorescence holography of Ti-Ni-Fe alloy single crystal	MS.55.4(C98) C. Carbone: Coordination effects in magnetic nanostructures	MS.56.4(C99) I. Loa: Lattice dynamics in incommensurate elemental crystals at high pressure
MS.53.5(C95) K. Shankland: SDPD: A key component in populating the carbamazepine crystal structure landscape	MS.54.5(C96) K. Rolfs: Co-doped Ni-Mn-Ga - A new smart material for industry	MS.55.5(C98) E. Holub-Krappe: Structural effects and the spin reorientation in Au/Co/Au films	MS.56.5(C100) M. Eremets: Phase transformations in silane - Hydrogen-dominant material