

IUCr 2008

Osaka, Japan

23-31 August, 2008

XXI Congress and General Assembly of the
International Union of Crystallography



Second Announcement



www.iucr2008.jp



CONTENTS

WELCOME	page 1
COMMITTEES	page 2
IMPORTANT DATES	page 3
TIMETABLE	page 3
SCIENTIFIC PROGRAM	page 4
SATELLITE MEETINGS	page 11
WORKSHOP	page 14
CONGRESS MAIN TOPICS	page 14
ABSTRACT SUBMISSION	page 18
STUDENT BURSARIES	page 19
SOCIAL PROGRAM	page 19
REGISTRATION	page 20
HOW TO GET TO OSAKA	page 21
GENERAL INFORMATION	page 22
HOTEL ACCOMMODATIONS & CONGRESS TOURS	page 23
HOTEL & TOUR RESERVATION FORM	page 27
REGISTRATION FORM	page 28



WELCOME

The International Union of Crystallography (IUCr) was founded in 1948 to promote international cooperation in crystallography and the first General Assembly and Congress was held in Cambridge, USA. The Union has additional objects to contribute to advancement of crystallography in all its aspects including related topics concerning the non-crystalline states; to facilitate international standardization of methods, of nomenclature, and of symbols used in crystallography; and to form a focus for the relations of crystallography to other sciences.

Since then, the Union showed its activities in three fields. The first one is the organization of General Assembly and Congress every three years. The second one is the publication of eight crystallographic journals and many books in crystallography. The third one is the activities given by 17 scientific commissions.

The year 2008 is the 60th Anniversary. The number of the membership countries and Adhering bodies increased from 4 to 40. The crystallography became the basis of all the sciences studying inorganic, organic and biological substances. The 21st General Assembly and Congress will be held in Osaka, Japan, 23 - 31 August. We have a chance to see the full breadth of current crystallography and glimpse of what is to come.

Before the Opening Ceremony of the Congress, IUCr will have the 60th Anniversary Ceremony in the same place to celebrate the great advancement of crystallography and to aim at further development in crystallography.

It would give me great pleasure to welcome you to the active and modern city, Osaka, which is neighboring to Kyoto and Nara, the cities of cultural inheritance in Japan.

Yuji Ohashi

President
International Union of Crystallography



Even since the Middle Ages, the City of Osaka has been a crossroads for people, goods, culture and information. All have passed through and met in Osaka historically, giving birth to something new and valuable. The modern City of Osaka has played an even greater role as a crossroads of international exchange, where we are preparing for the IUCr-XXI Congress and General Assembly.

Its scientific program in 7 days, which has been prepared by the International Program Committee formed by 26 experts covering a wide field of crystallography, is very rich and exciting with 2 Plenary Lectures and 36 Keynote Lectures. As many as 98 Microsymposia will highlight topically hot as well as basically important crystallographic subjects with about 500 selected speakers. A special attention for programming has been paid to promote interdisciplinary fields in crystallography.

Crystallography plays a key role of bridging major fields such as biology, chemistry, physics, mineralogy, and earth science ranging from academic research to industrial/medical applications. In such a respect, crystallography has high scientific and technological potentials to introduce an innovation in the global issues such as health, environment, energy and information.

Our hearty invitation is extended to all crystallographers and their accompanying persons to attend IUCr-XXI and to enjoy scientific and social activities.

Yasuhiko Fujii

Chairperson
International Program Committee



Tomitake Tsukihara

Chairperson
Local Organizing Committee



COMMITTEES

International Program Committee

Y. Fujii, Japan, Chairperson

E. Arnold, USA
A. Bacchi, Italy
E. Boldyreva, Russia
L. Cranswick, Canada
R. Dinnebier, Germany
M. T. Fernandez-Diaz, Spain
H. Graafsma, France
N. Hamaya, Japan
T. Kamiyama, Japan
L. Marks, USA
Ir. A. Molenbroek, Denmark
A. Nangia, India
K. Ogawa, Japan
M. O'Keeffe, USA
A. Podjarny, France

P. Thomas, United Kingdom
T. Tsukihara, Japan
E. Vlieg, The Netherlands
Yu Wang, Taiwan
R. Withers, Australia
N. Yagi, Japan

Ex-officio:

E. Gutierrez-Puebla, Spain
C. Mealli, Italy

Executive Committee Representative:

G. Heger, Germany
I. Torriani, Brazil

IUCr Executive Committee

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Local Organizing Committee

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Y. Kai, Secretary General, Fukui University of Technology

Y. Fujii, Japan Atomic Energy Agency
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N. Kamiya, Osaka City University
T. Kamiyama, IMSS/KEK
K. Miki, Kyoto University
I. Miyahara, Osaka City University
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Y. Noda, Tohoku University
K. Ogawa, The University of Tokyo

M. Sakata, Nagoya University
S. Sasaki, Tokyo Institute of Technology
M. Sato, Yokohama City University
Y. Sugawara, Kitasato University
M. Takata, SPring-8/RIKEN
A. Takenaka, Tokyo Institute of Technology
S. Wakatsuki, IMSS/KEK
A. Yoshiasa, Kumamoto University

Organizing Secretariat

c/o Congress Corporation
Congress Bldg., 3-6-13 Awajimachi, Chuo-ku, Osaka 541-0047, Japan
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IMPORTANT DATES

Deadline for bursary applications (abstract should be included with application): **February 29, 2008**

Deadline for submission of abstracts: **March 31, 2008**

Deadline for payment of registration fees at 'Early Bird' rate: **May 15, 2008**

Deadline for payment of registration fees for validation and publication of submitted abstracts: **June 30, 2008**

Deadline for hotel reservations: **June 30, 2008**

Deadline for tour reservations: **June 30, 2008**

TIMETABLE

Saturday, August 23, 2008	Registration Open (11:00) Pre-Congress Workshop The 60th Anniversary Ceremony (16:00-17:30) Opening Ceremony (18:00-19:30) Welcome Reception (20:00-22:00) Rihga Royal Hotel
Sunday, August 24, 2008	Scientific Session Exhibition Evening: IUCr General Assembly
Monday, August 25, 2008	Scientific Session Exhibition Evening: IUCr General Assembly
Tuesday, August 26, 2008	Scientific Session Exhibition
Wednesday, August 27, 2008	Scientific Session Exhibition
Thursday, August 28, 2008	Scientific Session Evening: IUCr General Assembly
Friday, August 29, 2008	Scientific Session Late Afternoon: IUCr General Assembly Evening: Social Banquet (19:00-21:00) Rihga Royal Hotel
Saturday, August 30, 2008	Scientific Session Closing Ceremony (17:30-18:30)
Sunday, August 31, 2008	Congress Tours

SCIENTIFIC PROGRAM

Please note that the scientific program, elaborated by the International Program Committee and approved by the IUCr Executive Committee, is still subject to the confirmation of the invited speakers and chairs. Please refer to the Web site for the revised information.

●Sunday, August 24, 2008

Time	Session	Theme (Speaker)	Chair	Co-Chair
8:30- 9:30	PL1	Carbon nanotubes Sumio Iijima	Tomitake Tsukihara	
9:30- 9:55	Break			
9:55-12:30	MS1	Large macromolecular complexes	Marina Garber	Jianping Ding
	MS2	Advances in grazing incidence, reflectivity and diffuse scattering	Andrew Allen	Moonhor Ree
	MS3	New algorithms for single crystal and powder diffraction	Fujio Izumi	Richard Cooper
	MS4	Hydrothermal growth of crystals	Kullaiah Byrappa	Shouhua Feng
	MS5	Modelization of structure of molecular compounds and implications for reactivity	J. M. Calhorda	Nour Eddine Ghermani
	MS6	Computational methods	Eleanor Dodson	Vladimir Lunin
	MS7	Water clusters in molecular crystals, coordination polymers and biological macromolecule	Kumar Biradha	Lourdes Infantes
12:30-14:45	Lunch Break and Poster Display			
14:45-17:20	MS8	Protein-nucleic acid interactions	Nuira Verdaguer Massana	Rajan Sankaranarayan
	MS9	Macromolecular structural studies by powder diffraction, AFM, etc.	(to be determined)	John Helliwell
	MS10	Decision making and algorithms for automation of data acquisition	Simon Teat	James F. Britten
	MS11	Pitfalls and successes in crystallographic teaching	David Watkin	Paola Spadon
	MS12	Liquid crystals and crystallography: A tribute to Pierre-Gilles de Gennes (1932.10.24-2007.5.18)	Bertrand Donnio	Alessandra Crispini
	MS13	Growth of single crystals for neutron and X-ray investigation by the floating zone and other techniques	Hanna Dabkowska	Isao Tanaka
	MS14	Symmetry, asymmetry and chirality in molecular aggregation	Werner Kaminsky	Ichiro Hisaki
17:20-17:30	Break			
17:30-18:30	KN1	What the Protein Data Bank tells us about the past, present and future of structural biology Helen Berman	Stephen Burley	
	KN2	<i>Ab-initio</i> powder diffraction studies of organometallics and coordination polymers Angelo Sironi	Martin Schmidt	
	KN3	The growth of silica biomorphs: Self-assembled crystal aggregates with non-crystallographic morphologies Juan Manuel García-Ruiz	Katsuo Tsukamoto	

Monday, August 25, 2008

Time	Session	Theme (Speaker)	Chair	Co-Chair
8:30- 9:30	KN4	Using protein microcrystals combine with synchrotron session on microfocus and other advanced technologies Sine Larsen	(to be determined)	
	KN5	Photochromic crystals - From a single molecule to a crystal morphology change Masahiro Irie	Sergei M. Aldoshin	
	KN6	Quantum simulations of liquids and solids under pressure: Synergy between theory and experiment Giulia Galli	Artem R. Oganov	
9:30- 9:55	Break			
9:55-12:30	MS15	Protein "microcrystallography" (Methods and results for tiny crystals at 3rd generation sources)	Takashi Tomizaki	Quan Hao
	MS16	Structure-based drug design	Dagmar Ringe	Johan Wouters
	MS17	Photochemistry and solid-state transformations of molecular solids	Hidehiro Uekusa	Menahem Kaftory
	MS18	In-situ & time-resolved powder diffraction studies	Claudia Weidenthaler	Jonathan Hanson
	MS19	Structure simulation under extreme condition	Rajeev Ahuja	John Tse
	MS20	Time resolved and coherent X-ray scattering	Pappannan Thiagarajan	Shuji Akiyama
	MS21	Crystallographic algorithm libraries (In honor of P. Jane Brown)	Jon Wright	Lukas Palatinus
12:30-14:45	Lunch Break and Poster Display			
14:45-17:20	MS22	Interface between cryo-EM and crystallography	(to be determined)	Catherine Lawson
	MS23	Crystallizing macromolecular complexes and engineering crystallization	(to be determined)	Richard Giege
	MS24	Photo-excited state crystallography	Sebastien Pillet	Yoshiki Ozawa
	MS25	Crystallographic teaching using new computer and internet based approaches	T. N. Guru Row	Armél Le Bail
	MS26	Biological and soft condensed matter under pressure	Francesca P. A. Fabbiani	Roland Winter
	MS27	Multitechnique approach for the determination of inorganic structures	Hartmut Fuess	Cristiano Ferraris
	MS28	Uncommon organic and organometallic structures and functions	Javier Ellena	Hakan Arslan
17:20-17:30	Break			
17:30-18:30	KN7	Electron crystallography of 2D crystals: Interface between cryo-EM and crystallography Wolfgang Baumeister	Patrick Schultz	
	KN8	Advances in direct-space structure determination of molecular materials from powder diffraction data Kenneth Harris	Rene de Gelder	
	KN9	Powder diffraction studies of proteins Irene Margiolaki	Robert B von Dreele	

● Tuesday, August 26, 2008

Time	Session	Theme (Speaker)	Chair	Co-Chair
8:30- 9:30	KN10	Virus structures Zihe Rao	Jack Johnson	
	KN11	Crystallochemical basis of synthetic mineral immobilization Timothy John White	Giovanni Ferraris	
	KN12	Imaging of quantum dots and metallic nanoclusters at diffraction-limited resolution from electron diffraction patterns Jian-Min Zuo	John C. H. Spence	
9:30- 9:55	Break			
9:55-12:30	MS29	Virus structure and antiviral strategies	John Johnson	Ignacio Fita
	MS30	From minerals to materials	Rainer Hock	Gerard Ferey
	MS31	Electric and magnetic properties of molecular crystals	Michel Verdaguer	Kim Dunbar
	MS32	Nanostructure refinement and solution	Cinzia Giannini	Francesco Matteucci
	MS33	Liquids and amorphous systems at high pressure	Malcom Guthrie	Yoshinori Katayama
	MS34	Advanced electron microscopy	Randi Holmestad	Angus Kirkland
	MS35	Combined XAFS and diffraction of inorganic structures	Kiyotaka Asakura	(to be determined)
12:30-14:45	Lunch Break and Poster Display			
14:45-17:20	MS36	Biological electron diffraction, electron microscopy, and general imaging	Werner Kuhlbrandt	Joachim Frank
	MS37	Crystal properties and bonding: What we really learn from accurate charge density studies and quantum calculations?	Mark Spackman	Kiyoaki Tanaka
	MS38	Self-organization and self-assembly (From nucleation to crystal growth, from eutectics to photonic and liquid crystals, and from theory to application)	Dorota Pawlak	Victor M. Orera
	MS39	PDF/RDF analysis from pulsed-neutron and X-ray scattering	Takeshi Egami	Matt Tucker
	MS40	Crystallography of planetary materials at extreme conditions	Takehiko Yagi	John Parise
	MS41	Precession electron diffraction and electron crystallography	Stavros Nicolopoulos	Jon Gjønnes
	MS42	Decision making and algorithms for automation in macromolecular structure solution	Harry Powell	Rob Hooft
17:20-17:30	Break			
17:30-18:30	KN13	Biological electron crystallography Yoshinori Fujiyoshi	(to be determined)	
	KN14	Charge density studies on the photo-excited states Claude Lecomte	Philip Coppens	
	KN15	Nanostructure refinement and solution Simon Billinge	Thomas Proffen	

● Wednesday, August 27, 2008

Time	Session	Theme (Speaker)	Chair	Co-Chair
8:30-9:30	KN16	Large macromolecular complexes (Immunology) Piet Gros	(to be determined)	
	KN17	Structure-properties relationships Judith Ann Kathleen Howard	Oacar Au-Alvarez	
	KN18	Electron diffraction intensities and structure analysis Jon Gjønnes	Laurence Marks	
9:30-9:55	Break			
9:55-12:30	MS43	Structural biology of the cell	Pedro Alzari	Guy Dodson
	MS44	Teaching macromolecular crystallography	Katherine Kantardijeff	Jane Richardson
	MS45	Crystal design from hydrogen bond to halogen bond and beyond	Alicia Beatty	Mohan Bhadbhade
	MS46	Powder diffraction studies of hydrogen storage materials	Martin Owen Jones	Pamela Whitfield
	MS47	High pressure studies on advanced and nano-materials	Natalia Dubrovinskaia	Vladimir Solozhenko
	MS48	Physical properties from integrated electron diffraction and X-ray diffraction	Anatoly Avilov	Kenji Tsuda
	MS49	Wide-gap semiconductors for health, energy and environment	Koichi Kakimoto	David Bliss
12:30-14:45	Lunch Break and Poster Display			
14:45-17:20	MS50	Hot structures	Richard Garratt	(to be determined)
	MS51	Complementarity of SAXS and SANS with other structural methods in molecular biology	Jill Trehwella	Tetsuro Fujisawa
	MS52	Host-guest crystal chemistry	Susan Ann Bourne	Petra Bombizc
	MS53	Developments in structure solution and refinement from powders	Hideo Toraya	Peter W. Stephens
	MS54	Shape memory alloys	Kurt R. A. Ziebeck	Takeshi Kanomata
	MS55	Surfaces	Dilano Saldin	F. Boscherini
	MS56	Phase transitions and physical properties at high pressure	Robin Benedetti	Guoyin Shen
17:20-17:30	Break			
17:30-18:30	KN19	Combined methods: SAXS/NMR, SAXS/crystallography Jill Trehwella	(to be determined)	
	KN20	Frontiers in high pressure neutron diffraction Igor Goncharenko	Osamu Shimomura	
	KN21	Charge flipping Gábor Oszlányi	Lynne McCusker	

● Thursday, August 28, 2008

Time	Session	Theme (Speaker)	Chair	Co-Chair
8:30-9:30	KN22	Recent and future advances in neutron diffraction Nobuo Niimura	(to be determined)	
	KN23	Crystallography and mechanisms of structural phase transitions: A modern perspective J. Manuel Perez-Mato	Anthony M. Glazer	
	KN24	Nanostructures: From ensemble average to single object properties Till Hartmut Metzger	Ian Robinson	
9:30-9:55	Break			
9:55-12:30	MS57	Recent and future advances in neutron structural biology	Dean Myles	Ichiro Tanaka
	MS58	Structure-property correlations and phase transition in inorganics	Jens Kreisel	Wolfgang Kleemann
	MS59	Chemical recognition and supramolecular architectures	M. W. Hosseini	Paola Paoli
	MS60	Microstructure and structural imperfections	Andres Leineweber	Tamas Ungar
	MS61	New algorithms for magnetic crystallography and understanding magnetic structures	Sean Cadogan	Maxim Avdeev
	MS62	Real space direct methods	Patrick Combettes	Jian-Min Zuo
	MS63	XAFS in biocrystallography	Isabella Ascone	(to be determined)
12:30-14:45	Lunch Break and Poster Display			
14:45-17:20	MS64	New membrane protein structures	Robert Stroud	(to be determined)
	MS65	Recent progress in synchrotron data collection	Ruslan Sanishvili	Clemens Schulze-Briesse
	MS66	Co-crystals: Theory, synthesis and use	Miao Du	Andrew Bond
	MS67	Quantum phase transitions	Bella Lake	Michel Kenzelmann
	MS68	Extraction of physical and chemical properties from charge density maps	Ullrich Pietsch	Wolfgang Scherer
	MS69	Use of coherence in life and physical sciences	Ian Vartanians	Henry Chapman
	MS70	Crystal chemistry and crystallography of aperiodic crystals	Yuichi Michiue	Luca Bindi
17:20-17:30	Break			
17:30-18:30	KN25	Incommensurate and composite modulated structures Gervais Chapuis	Sander van Smaalen	
	KN26	Advances in micro and nano-SAXS Peter Fratzl	Dmitri Svergun	
	KN27	Synchrotron X-ray and neutron scattering investigations of metal oxides Alan Tennant	Michael Steiner	

●Friday, August 29, 2008

Time	Session	Theme (Speaker)	Chair	Co-Chair
8:30-9:30	KN28	Structural pharmacology and drug discovery: Using crystallography to explore biological and chemical space Tom Blundell	(to be determined)	
	KN29	Crystal design and synthesis: Reticular chemistry Omar M. Yaghi	Mohamed Eddaoudi	
	KN30	Studies of new multiferroic materials Paolo Radaelli	Juan Rodriguez-Carvajal	
9:30-9:55	Break			
9:55-12:30	MS71	Biophysical techniques for detecting ligand binding to pharmaceutical targets	Gerhard Klebe	Celia Schiffer
	MS72	Micro-SAXS for nanoscience and medicine	Peter Fratzl	Jean Doucet
	MS73	Structure-functions relationships of MOF	Mohamed Eddaoudi	S. L. James
	MS74	Multiferroic materials	Tsuyoshi Kimura	Loreynne Pinsard-Gaudart
	MS75	Charge, spin and momentum density studies in material science	Beatrice Gillon	Piero Macchi
	MS76	Diffraction imaging	F. R. Chen	Helen Faulkner
	MS77	Diffuse scattering in partially ordered/disordered systems	Hiroshi Abe	Cambell Branton
12:30-14:45	Lunch Break and Poster Display			
14:45-17:20	MS78	Crystallization of membrane proteins	Eva Pebay-Peroula	(to be determined)
	MS79	Motion in macromolecular machines	Michael Rossmann	Nenad Ban
	MS80	Understanding and controlling polymorphism	Susan M. Reutzel-Edens	Urszula Rychlewska
	MS81	New neutron sources	Shane Kennedy	Yukio Noda
	MS82	Magnetic Compton scattering	Yoshiharu Sakurai	Hiroshi Kawada
	MS83	Femto-second diffraction (Time resolved studies)	Simone Techert	Robert Feindenhans'l
	MS84	Quasicrystals and related giant crystalline alloys	Eiji Abe	Ronan McGrath
17:20-17:30	Break			
17:30-18:30	KN31	Bacterial membrane proteins (to be determined)	Brian W. Matthews	
	KN32	Crystal engineering for developing new materials, pharmaceutical Michael John Zaworotko	Nair Rodriguez-Hornedo	
	KN33	Quasicrystals - Structures, properties and applications An Pang Tsai	Walter Steurer	

●Saturday, August 30, 2008

Time	Session	Theme (Speaker)	Chair	Co-Chair
8:30-9:30	KN34	Structural genomics, focused structural genomics Andrzej Joachimiak	Helen Berman	
	KN35	XUV and X-ray free electron lasers Jochen R. Schneider	Akira Kira	
	KN36	Structure refinement and structure modelling: A chemical probe for complex mineral groups Roberta Oberti	Wulf Deppmeier	
9:30-9:55	Break			
9:55-12:30	MS85	Structural proteomics, focused structural proteomics	Christian Cambillau	Ray Stevens
	MS86	Perovskites and related materials	Dhanajai Pandey	Christpher J. Howard
	MS87	Design and applications of nanoscale materials	Satoshi Takamizawa	J. J. Vittal
	MS88	Algorithmic developments for solving and refining periodic and aperiodic structures	Hai-fu Fan	Martin Lutz
	MS89	Microsymposium in honour of E. Ascher and J. J. Burckhardt	Hans Grimmer	Massimo Nespolo
	MS90	New X-ray sources (ERLs, table top SR, (X)FELs)	Gerhard Materlik	Tadashi Matsushita
	MS91	Spinel - geometrically frustrated system- Dedicated to Prof. Nishikawa	Kazuhisa Kakurai	Bryan Chakoumakos
12:30-13:45	Lunch Break			
13:45-16:20	MS92	Structural informatics and database	(to be determined)	(to be determined)
	MS93	RNA and DNA structures	(to be determined)	A. C. Dock-Bregeon
	MS94	Complementary low-Z element absorption spectroscopy by X-ray Raman scattering	Uwe Bergmann	Elizabeta Holub- Krappe
	MS95	Microanalysis of cultural heritage	Yasuko Terada	Gilberto Artioli
	MS96	Programming for CIF and related filestructures	I. David Brown	Ilia Guzei
	MS97	New X-ray detectors (Pixel detectors)	Mark Tate	Pablo Fajardo
	MS98	Knowledge-based applications in structural chemistry	Martyn Winn	J. van de Streek
16:20-16:30	Break			
16:30-17:30	PL2	NMR in solution and X-ray diffraction in crystals for postgenomic biology Kurt Wüthrich	Timothy John Richmond	

SATELLITE MEETINGS

The 6th International Conference on Borate Glasses, Crystals and Melts

August 18-22, 2008

Egret Himeji, Hyogo, Japan

Organizer: **Dr. Norimasa Umesaki**

(JASRI/SPRing-8) (Chair)

International Organizing Committee:

Adrian C. Wright (UK)

Alexis Clare (USA)

Yanko Dimitriev (Bulgaria)

Giuseppe Dalba (Italy)

Natalia M. Vedishcheva (Russia)

Alex Hannon (UK)

Efstratius Kamitsos (Greece)

Doris Ehrt (Germany)

Josef W. Zwanziger (Canada)

Steven A. Feller (USA)

The 6th International Conference on BORATE GLASSES, CRYSTALS AND MELTS follows the previous meetings held at Alfred, New York, USA (1977); Abingdon, England (1996); Sofia, Bulgaria (1999); Cedar Rapids, USA (2002) and Trento, Italy (2005). The conference will be dedicated to Professor Adrian C. Wright in order to honor his achievements in the Glass Science and in

particular Borate Glasses. This conference is also recognized as a satellite meeting of the 21st Congress of the International Union of Crystallography (IUCr2008, August 23-31 2008, Osaka, Japan).

Topics covered will include, but are not limited, to the following: Short and intermediate range order in borate glasses and melts; Structure and physical properties; Computer simulation and modeling; Phase separation and inhomogeneities; New spectroscopic techniques; EPR, XAFS, XPS, IR, NMR, and diffraction studies of borates; Novel borate glasses and crystals; Mineralogical crystals; Local thermal properties; Thermodynamics of borate systems; Industrial applications of borate and borosilicate glasses; Biomedical applications; Optical properties and materials; Superionic systems and ionic conductivity

URL: <http://borate2008.spring8.or.jp/>

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Tel: +81-791-58-0834, Fax: +81-791-58-0830

X-ray and Neutron Techniques for Nano-Structural Research

August 20-22, 2008

SPRing-8, Japan

Organizer: **IUCr Commission on Small-Angle
Scattering**

(<http://www.iucr.org/iucr-top/iucr/csas.html>)

Instrumentation and experimental techniques related to the following topics:

Applications of ASAXS in the structure of nanocomposites / Applications of GISAXS on thin films / Applications of XPCS and neutron spin echo on dynamics / Systems under flow and time resolved studies / Applications of scanning microbeam SAS / New Modeling methods of SAS / X-ray and neutron imaging - comparison with scattering / Advances in the studies of biological materials by SAXS and SANS / New Japanese neutron source

URL: http://xrm.spring8.or.jp/IUCr_satellite.html

Contact person: Naoto Yagi at yagi@spring8.or.jp

XAFS Tutorial for Crystallographers

August 20-23, 2008

Photon Factory, Tsukuba, Japan

Organizer: **Kiyotaka Asakura**
(Hokkaido Univ., Japan)

Combination of XAFS and diffraction techniques are important for the structure analysis of metal proteins, nanomaterials and catalysts. The purpose

of the meeting is to give the general introduction and analysis tutorials to crystallographers who are beginners of XAFS techniques.

The meeting contains 1) general introduction of XAFS, 2) Theory of XAFS, 3) How to analyze EXAFS and practice, 4) Tour in Photon Factory, 5) Applications of XAFS

URL: http://www.hucc.hokudai.ac.jp/~q16691/XAFS_tut

Contact person: Kiyotaka Asakura at
askri@cat.hokudai.ac.jp

Molecular Crystals Exhibiting Exotic Functions

August 21-22, 2008

Senri Life Science Center Building, Osaka, Japan

Organizers: **T. Enoki**
(Tokyo Institute of Technology)
A. Kobayashi (Nihon University)
H. Kobayashi (Nihon University)
T. Sugawara
(The University of Tokyo)
T. Sugimoto
(Osaka Prefecture University)
J. Yamada (University of Hyogo)
M. Yamashita (Tohoku University)

This satellite meeting will cover the following topics:

- Molecular conductors and superconductors
- Molecule-based magnets
- Molecular assemblies with other novel physical properties

URL: to be announced

Contact person:
A.Kobayashi at akoba@chs.nihon-u.ac.jp &
T. Sugimoto at toyonari@c.s.osakafu-u.ac.jp

Neutron Protein Crystallography (NPC) - Current Status and Future Prospect

August 21-22, 2008

JAEA Ricotti in Tokai, Ibaraki, Japan

Organizers: **Nobuo Niimura** (Ibaraki University)
Ryota Kuroki
(Japan Atomic Energy Agency)
Alberto Podjarny
(Institut de Genetique et de Biologie
Moleculaire et Cellulaire)

This satellite meeting will cover the following topics:

- 1) Hot topics, recent results of NPC
- 2) Current status of new neutron sources, J-PARC, SNS, ISIS and others
- 3) Techniques and instrumentations such as fully deuterated proteins, crystallization of proteins, software of joint refinement of neutron and X-ray data, direct phasing of neutron data and so on
- 4) Future prospects of NPC

URL: http://nsb.mat.ibaraki.ac.jp/2008iucr_nsb.html

Contact person: Nobuo Niimura at
niimura@mx.ibaraki.ac.jp

(The background of pages 11-13 are photos of J-PARC presented by JAEA.)

Symposium on Organic Micro- and Nano-Crystals

August 22, 2008 (13:00-18:30)

IMRAM, Tohoku University, Sendai, Japan

Organizers: **Hachiro Nakanishi**
(IMRAM, Tohoku University, Japan)
Hidetoshi Oikawa
(IMRAM, Tohoku University, Japan)

During the past decade a certain concrete progress has been made in the field of organic

small crystals. To evaluate and facilitate the growth of this emerging field in both science and technology, present status of fabrication, characterization, chemistry, applications etc. of organic micro- and nano-crystals will be presented mainly by invited speakers. Poster session will be held on demand.

URL: to be announced
Contact person: Hachiro Nakanishi at
hnakanis@tagen.tohoku.ac.jp

Development of Advanced Instruments for New Electron Microscopy and Diffraction

September 1-2, 2008

Nagoya University, Nagoya, Japan

Organizers: **Nobuo Tanaka** (Nagoya Univ., Japan)
Laurence D. Marks
(Northwestern Univ., US)
Koh Saitoh (Nagoya Univ., Japan)

In recent years, electron microscope instrumentation and techniques have achieved remarkable

progresses such as spherical aberration correction, monochromator, electron tomography, etc. This meeting is aimed at advanced instrumentation, newly developed techniques and their applications to nano-materials covering the following topics: Precession Electron Diffraction / Fast Diffraction / Advanced Electron Microscopy / Diffractive Imaging / Charge Density in the Electron Microscopy / Surfaces / EELS, atom by atom

URL: to be announced
Contact person: Nobuo Tanaka at
a41263a@nucc.cc.nagoya-u.ac.jp

Powder Diffraction on Proteins - Current Status and Future Prospect -

September 1-2, 2008

Central Hall in Kyoto Institute of Technology Kyoto, Japan

Organizers: **Keiko Miura** (SPRING-8/JASRI)
Yuji Ohashi (SPRING-8/JASRI)
Masaki Takata (SPRING-8/RIKEN)
Hajime Mori (KIT)
Shigeharu Harada (KIT)
Hiroyoshi Matsumura (Osaka Univ.)
Midori Kamimura (Teijin Pharm.)
Kazushi Yokoyama (CAST)

International organizing committee:
William I.F. David (UK), **Irene Margiolaki** (France), **Andy Fitch** (France), **Jonathan Wright** (France), **Bob Von Dreele** (USA), **Marc Schiltz** (Switzerland), **John Helliwell** (UK), **Carmelo Giacovazzo** (Italy), **Peter Stephen** (USA), **Gavin Fox** (France), **Richard Kahn** (France), **Mathias Norrman** (Denmark), **Jennifer Doeblner** (USA)

This satellite meeting will cover the following topics:

- 1) Hot topics: Recent results of new structure determination from powder diffraction on proteins and so on
- 2) Software progress: Indexing, *ab-initio* structure determination from X-ray powder diffraction data, merging with software for protein crystallography and so on
- 3) Techniques and Instrumentation: High resolution X-ray powder diffraction data collection, Synchrotron and laboratory use, sample preparation
- 4) Application in industrial fields, cf. pharmaceutical companies
- 5) Future prospects of powder diffraction on proteins

URL: to be announced
Contact person: Keiko Miura at
miurakk@spring8.or.jp

WORKSHOP

Workshop on New Routes to Crystallographic Data Publication

August 23, 2008 (10:00 -15:00)

Grand Cube Osaka/Osaka International Congress Center, Japan

Organizers: **Simon Coles** (Chair)
Mike Hursthouse
(University of Southampton, UK)
John Huffman
(Indiana University, USA)
Peter Strickland (IUCr)
Frank Allen (CCDC)
John Westbrook (PDB)

Aimed at initiating a wide-ranging debate on new routes for the effective and efficient dissemination of the ever-increasing volume of crystallographic

raw and results data, as a complementary approach to the conventional route of publication of scientific journal articles, this event is aimed at:

- a) raising awareness of innovative procedures under development for data dissemination and the new opportunities they can provide for publication,
- b) enabling groups working in the area to compare approaches and develop a unified strategy for data management, including publication and preservation and
- c) inviting participation in this topic from interested parties.

Registration Fee: Free

URL: <http://www.ncs.chem.soton.ac.uk/osaka2008.htm>

Contact person: Simon Coles at
s.j.coles@soton.ac.uk

CONGRESS MAIN TOPICS

01 Instrumentation and Experimental Techniques

1. Conventional Sources of X-rays
2. Synchrotron Radiation I: Instrumentation and Techniques
3. Synchrotron Radiation II: Applications
4. New X-ray Sources
5. Electron Diffraction (LEED, RHEED, PED, AED)
6. Cryo-Electron Microscopy
7. X-ray Imaging
8. Neutron Scattering I: Techniques and Instrumentation
9. Neutron Scattering II: Applications
10. Area Detectors (Multi-wire, Image Plate, CCD)
11. Data Accuracy and Detectors
12. Cryo-Crystallography: Techniques and Instrumentation
13. Fast (pico-second) Crystallography
14. Free Electron Lasers for X-rays

02 Methods for Structure Determination

1. Difficult Structures
2. Direct Methods of Phase Determination
3. Maximum Entropy Methods
4. Anomalous Dispersion/MAD/MIR Phasing
5. Laue Time-Resolved Methods
6. Incommensurate Structure Solution
7. EXAFS and XANES
8. High Resolution NMR and Macromolecules
9. Liquid Structure Determination
10. Structure Prediction: Computational Methods
11. *Ab Initio* Powder Diffraction Solutions: Molecular Compounds
12. *Ab Initio* Powder Diffraction Solutions: Inorganic Compounds
13. *Ab Initio* Powder Diffraction Solutions: Electron Diffraction
14. *Ab Initio* Low Resolution Macromolecular Phasing
15. X-ray and Neutron Complementarity
16. Rietveld Refinement Methods

03 Computers in Analysis, Molecular Modelling and Molecular Design

1. Programs for Refinement and Analysis
2. Atomic Displacement Analyses and Variable Temperature Analyses
3. Graphics and Virtual Reality
4. Rational Drug Design
5. Materials Design
6. Structure Simulations: Inorganic Crystals
7. Structure Simulations: Protein Folding Studies
8. Map Fitting and Modification
9. Image Reconstruction
10. Homology Modelling, Structural Families and Docking
11. Use of Genetic Algorithms and Other Optimization Methods

04 Crystallography of Biological Macromolecules

1. Peptide and Protein Crystallization
2. Enzymes and Enzyme Catalysis
3. Metallo-Enzymes
4. Muscle and Motor Proteins
5. Nucleic Acids
6. Protein - DNA Interactions
7. Protein - RNA Interactions
8. Protein Design and Engineering
9. Protein Biosynthesis
10. Cryo-Crystallography: Applications to Macromolecules
11. Proteins of the Immune System
12. Receptor and Signal Transduction Proteins
13. Viruses and Viral Proteins
14. Macromolecular Assemblies
15. Macromolecular Based Drug Design
16. Multidomain Proteins
17. Structural Motifs
18. Organelles
19. Diseases and Toxicity
20. NMR Applications to Macromolecules
21. Time Resolved Studies
22. Structural Genomics
23. High Resolution Protein Structures
24. Water and Other Solvent Structures in Macromolecules
25. Hot Macromolecular Structures

05 Crystallography of Biological Small Molecules

1. Peptides
2. CNS Agents
3. Antibiotics
4. Steroids
5. Other Natural Products
6. Other Biosynthetic and Exotic Molecules
7. Hydrogen Bonding and Included Water Structure

06 Crystallography of Organic Compounds

1. Sugars
2. Lipids
3. Alkaloids
4. Fused Ring Systems
5. Fullerenes and Carbon Cages
6. Supramolecular Assemblies
7. Inclusion Compounds and Complexes
8. Intercalates
9. Clathrates

07 Crystallography of Organometallic, Coordination and Main Group Compounds

1. Metal Atom Complexes ($N = 1-3$) and Metal Clusters ($N > 3$)
2. Molecular Recognition Complexes
3. Fullerene Metal Complexes
4. Supramolecular Coordination Complexes
5. Main Group Chemistry
6. Cage and Metallo-Cage Structures
7. Bio-Inorganic Structures
8. Bio-Mineralization and Modifications
9. Inclusion Compounds and Clathrates
10. Molecular Magnets

08 Structure/Property Relationships

1. Molecular Recognition
2. Chemical Crystallography of the Future
3. Dynamic Properties in Molecular Crystals
4. Solid State Reactions
5. Structural Thermodynamics and Kinetic Aspects
6. Phase Transitions
7. Analysis of Atomic Displacement Parameters
8. Intermolecular Interactions
9. Structure and Chemical Reactivity
10. Polymorphism and Isomorphism: Identification and Characterization
11. Polymorphism: Applications
12. Time Resolved *in situ* Reactions
13. Hydrogen Bonding Studies
14. Structure-Property Relationships

09 Crystal Engineering

1. General Applications and Strategy
2. Organic Compounds
3. Inorganic Compounds
4. Organometallic Complexes
5. Intermolecular Interactions: Exploitation
6. Noncentrosymmetric Systems: Creation and Applications

10 Inorganic Crystallography and Geosciences

1. General Geosciences
2. Systematics of Inorganic Compounds
3. Systematics in Geosciences
4. High Pressure and High Temperature Studies
5. Minerals: Characterization Methods and Structures
6. Zeolites (Natural and Synthetic)
7. Exotic Molecules

11 Crystallography in Material Science

1. Superconducting and Semi-Conducting Materials
2. Catalysis: *In situ* Studies
3. Giant Magnetoresistance Materials
4. Fullerene Complexes: Applications
5. Noncrystalline Materials
6. Ceramics, Glasses and Amorphous Materials
7. Aperiodic and Incommensurate Structures
8. Polymers
9. Liquid Crystals
10. Nonlinear Optical and Electronic Materials
11. Perovskite Materials
12. Ferroic and Ferroelectric Structures
13. Battery and Fuel Cell Materials
14. Residual Stress Measurements
15. Pore Framework Materials

12 Surfaces, Interfaces, Liquids and Thin Films

1. Surface and Interface Crystallography by X-ray and Neutron Diffraction
2. Surfaces and Catalysis
3. Dynamic Diffraction Methods
4. X-ray Reflectivity: Instrumentation and Applications
5. Neutron Reflectometry: Techniques and Applications
6. Recent Liquid Structure Determination
7. Small Angle Scattering
8. Diffuse Scattering
9. Interfacial Structures
10. Micelles
11. Thin Films and Multilayers
12. Magnetic and Conducting Properties of Thin Films

13 Fibre Diffraction

1. Polymers: Synthetic Fibres
2. Structure Determination of Fibres
3. Biological Fibre Diffraction
4. Non-Periodic and Disordered Fibres

14 Charge, Spin and Momentum Density

1. Multipole and Other Modelling Methods
2. Software Developments
3. Applications of Synchrotron Data
4. Maximum Entropy Applications
5. Experimental Methods and Techniques
6. Topological Analyses
7. Molecular and Crystal Properties from Charge Densities
8. Magnetization and Spin Densities
9. New Frontiers

15 Diffraction Physics and Optics

1. Interferometry
2. Inelastic Scattering
3. Neutron Optics
4. X-ray Optics: Lenses, Guides and Focusing
5. Resonant Magnetic X-ray Diffraction
6. Anisotropic Resonant Scattering
7. Polarization: Generation and Exploitation
8. Dynamical Diffraction
9. Extinction and Absorption
10. N-beam Diffraction
11. Grazing Angle Incidence

16 Crystal Growth: Techniques, Instrumentation and Applications

1. Systems that are Difficult to Crystallize
2. Industrial Mass Crystallization
3. Crystal Growth from Solution and Gels
4. Crystal Growth and Characterization from the Melt
5. Microgravity Crystallization
6. Epitaxial Growth
7. Crystal Doping and Imperfections
8. Self-Assembled Crystals
9. Exploitation of Chirality
10. Crystal Growth: Modelling, and Predicting Morphology
11. Morphology Modification: Theory and Experiment
12. Twinning: Acceptance and Avoidance
13. Polymorphism: Recognition and Applications
14. Low Temperature *in situ* Crystallization

17 Characterization of Defects, Microstructures and Textures

1. Techniques, Theory and Instrumentation
2. Electron Microscopy
3. X-ray Topography
4. Diffraction
5. STM and AFM Microscopy
6. Other Techniques Including Polarized Light and Infrared Studies
7. Cathodo and Photo Luminescence

18 Electron Microscopy

1. Applications to Macromolecules
2. Cryo-Microscopy
3. New Techniques and New Instrumentation
4. Applications

19 Electron Diffraction

1. New Techniques and New Instrumentation
2. High Resolution Results
3. Other Applications and Advances

20 Non-Ambient Conditions

1. High Pressure Crystallography I: Extremes of Temperature and Pressure
2. High Pressure Crystallography II: Physical Properties Under Pressure
3. High Pressure Crystallography III: Phase Transitions and High Pressure
4. High Pressure Crystallography IV: Data Acquisition and Analysis
5. High Pressure Crystallography V: Biological and Soft Matter under Pressure
6. High Pressure Crystallography VI: New Frontiers
7. High Temperature Crystallography: Instrumentation, Techniques and Applications
8. Low Temperature Crystallography: Instrumentation, Techniques and Applications
9. Phase Transitions I: Characterization and Applications
10. Phase Transitions II: Magnetic and Structural Identification
11. Applications of Light and Laser Irradiation
12. Crystallography of Excited States

21 Symmetry and its Generalizations

1. General Symmetry: Theory
2. Designer Symmetry: Theory and Practice
3. Pseudo-Symmetry: Recognition and Applications

22 Aperiodic and Incommensurate Structures

1. Data Collection and Structure Solution
2. Identification and Refinement
3. Results and Applications

23 Crystallographic Topology

1. Group Theory and Topology
2. Tiling
3. Quasicrystals
4. Networks
5. Critical Points

24 Databases

1. Creation and Exploitation
2. Coping with Rapid Expansions of Data: The Next Generation of Databases
3. Research Applications of the CSD
4. Research Applications of the PBD/ NADB
5. Research Applications of the ICSD
6. Research Applications of the PDF
7. Data Mining and Knowledge Generation
8. Bioinformatics: The Future

25 Industrial Crystallography

1. Instrumentation and Techniques
2. Stress-Strain Analysis
3. On Line Diffraction Analysis
4. Line Broadening
5. Amorphous and SAS
6. Microporous Materials
7. Nanomaterials
8. High Temperature Crystallography
9. Thick Coatings
10. Pharmaceutical Crystallography

26 Crystallographic Teaching

1. Changes in Teaching Methods for the Future
2. Maintaining Standards Despite Automation
3. Cheap Computer Programs for Developing Countries
4. Preparation for Publication; CIF Files: How Much?
5. Crystallography on the World Wide Web

27 The History of Crystallography

1. History of Crystallography

28 Art, Cultural Heritage and Crystallography

1. Art, Cultural Heritage and Crystallography
2. Crystallography and Art

29 Other Topics

ABSTRACT SUBMISSION

Deadline for Submission of Bursary Applications: February 29, 2008

Deadline for Submission of Abstracts: March 31, 2008

Participants, who would like to make an oral or poster presentation at the congress, must submit an abstract for the consideration and approval of the International Program Committee (IPC). The presenting author must register and pay the registration fee. Abstracts must be submitted on-line by connecting to the Web site, <http://www.iucr2008.jp>. You can enter the Abstract Submission Page using the Registration Number and Password which you get when you complete on-line registration. Abstracts sent by mail or fax will not be processed by the Secretariat and will not be forwarded to IPC. Incorrectly prepared abstracts will not be considered for presentation. Once the abstract is submitted, an automatic confirmation will be sent to the author. Submitted abstract can be modified using the Registration Number and Password. In cases of difficulties please contact the Organizing Secretariat: iucr2008@congre.co.jp using the Registration Number.

The topics of the microsymposia (MS) are all defined and up to three speakers will be invited by the corresponding MS chairpersons. The minimum two additional speakers will be selected by the chairpersons, after the evaluation of the abstracts proposed by the authors as an oral contribution. The request with the identification of MS needs to be specified at the time of abstract submission. It will be responsibility of the chairpersons to complete the MS program by selecting the additional speakers among the applying participants. The contribution will be automatically redirected to the poster session if the request for an oral presentation cannot be fulfilled; the Topics & Sub-Topics should be specified by the authors for the identification. The instructions for the preparation of the abstracts (specified below) will be available on the web site. The presenting author is required to ensure that all co-authors are aware of the contents of the abstract before submission.

Acceptance as a speaker in a given MS will be communicated to the author after the decision has been made by the respective chairpersons, in the middle of May, 2008. Acceptance of the poster contribution will be also notified to the presenting authors in the middle of May, 2008.

The accepted contributions will be printed in the Book of Abstracts. They will also be published in a special issue of Acta Crystallographica Section A.

ABSTRACT PREPARATION INSTRUCTIONS

Abstract must be written in English and contain a brief, clear statement of conclusion. All abbreviations must be defined before being used in the text. The text body should be not more than 1,800 characters. The title should be not more than 100 characters. The Program and Abstract book will not be printed in color. The graphic should be considered as 600 characters in a text. Please remember that the area of the printed abstract is small and the graphic will be correspondingly smaller. Please save your diagrams at the correct size and in grey-scale (or at a much reduced color-depth) before including them in your abstract. About the restriction on a graphic file, please see the Web site.

The name of the presenting author must appear first in the list of authors. No one may be the first author on more than ONE contribution. Invited speakers are, however, permitted to submit a poster presentation in addition to their talk. Please specify the Topics & Sub-Topics for the poster sessions. For oral sessions, specify both MS and the Topics & Sub-Topics. Three keywords must be supplied as they will be used in indexing the Book of Abstracts. A list of suggested keywords is available online in the documentation section.

(http://wdc.iucr.org/user/help/scientific_research_interests.html)

Further detailed information will be available in the Web site, <http://www.iucr2008.jp>

POSTER PRIZE AWARDS

Details of the Poster Prize Awards given by IUCr and the other organizations will appear shortly in the home page of IUCr2008.

STUDENT BURSARIES

The organizers are currently involved in raising funds to be redistributed as attendance bursaries to young scientists, especially those coming from the less favoured regions. It is a policy of IUCr to convey significant amounts of money to this purpose, by utilizing funds from various international institutions and by using part of the congress income.

In this respect, no reimbursements and honoraries of any sort are paid to the invited speakers and chairs of the Microsymposia.

The first requirement for obtaining a bursary is the submission of a regular abstract. Also an age limit of 35 applies.

Application form must be submitted online not later than February 29, 2008 and should be accompanied by the following documents (to be uploaded):

-Curriculum Vitae

-A headed paper letter from the Research Supervisor who certifies the student status of the applicant and whether the student has access to any source of funds to attend the congress.

The support of organizers, if granted, will include one or more of the following benefits (in a priority order):

- 1) waiving of the registration fee
- 2) accommodation in an inexpensive hotel
- 3) lump sum to cover part of the travel expenses (only in exceptional cases)

In no case, funds will be anticipated to the applicant by the organizers.

SOCIAL PROGRAM

The following program will be organized for participants and accompanying persons.

WELCOME RECEPTION

Saturday, August 23, 2008

20:00 - 22:00

(Included in the registration fee)

The Welcome Cocktail will take place immediately after the Opening Ceremony. Participants registered at the congress and accompanying persons are invited to come and share in the celebration and festivities, after having checked in at the Registration Desk.

SOCIAL BANQUET

Friday, August 29, 2008

19:00 - 21:00

(See REGISTRATION)

SPring-8 Tour

A tour visit to SPring-8 will be planned during the congress.

Further details will appear in the congress Web site (www.iucr2008.jp).

REGISTRATION

FEE

	Payment received	
	Before May 15, 2008	After May 15, 2008
Participant	55,000 Yen	65,000 Yen
Student*	25,000 Yen	30,000 Yen
Accompanying Person	10,000 Yen	10,000 Yen
Social Banquet booking fee for registered persons	8,000 Yen	8,000 Yen
Social Banquet booking fee for NOT registered persons	12,000 Yen	12,000 Yen

*A copy of a valid student card or a letter of the supervisor should be sent to the Organizing Secretariat by fax or mail.

HOW TO REGISTER

Registration should be made through the congress web site (www.iucr2008.jp) or by sending the attached Registration Form to the Organizing Secretariat.

FEE INCLUDES

Participant or student: participation at the congress scientific sessions, congress programs, Book of Abstracts and CD ROM. Invitation to the following social events: opening ceremony, welcome reception, and social banquet (with a booking charge of 8,000 Yen).

Accompanying persons: Opening ceremony, welcome reception, and social banquet (with a booking charge of 8,000 Yen). Accompanying persons are also invited to some Japanese cultural programs at the special price. Details will appear shortly in the congress web site. Social Banquet for those who are not registered has a fee of 12,000 Yen.

METHODS OF PAYMENT

Payment of fees must accompany all registrations. No registration will be confirmed until payment is received.

Payment can be made by the following methods: credit cards (Visa, MasterCard, American Express,

JCB and Diners Club) or bank transfer in favour of:

Bank Name: The Bank of Tokyo-Mitsubishi UFJ, Ltd.

Branch Name: Senrichuo Ekimae Branch (Branch No. 577)

Address: 1-4-1 Shinsenri-higashimachi, Toyonaka, Osaka 560-0082, Japan

Account Type: Savings Account

Account Number: 0399719

Account Name: IUCr2008Osaka

SWIFT: BOTKJPJT

Those planning to pay the registration fee are strongly recommended to use your credit card. If you send your registration fee by bank transfer, all bank charges incurred will be borne by the payee, and please ensure that you enter your registration number before your name. Should you prefer to pay by bank transfer, you must send via fax (+81-6-6229-2556) a copy of the receipt within 5 working days, or the registration and all other services required will not be confirmed.

The secretariat will send a written confirmation to all the participants.

CANCELLATION AND REFUND POLICY

Cancellations of registrations shall be notified by sending a written and signed document to the secretariat: Fax +81-6-6229-2556.

100 % refund cancellation by: **May 15, 2008**

50% refund cancellation by: **June 30, 2008**

No refund after: **July 1, 2008**

In any case an administrative charge of 5,000 Yen applies. Refunds will be made using the same method chosen for the payment (i.e. payment by credit card will be refunded to the same credit card).

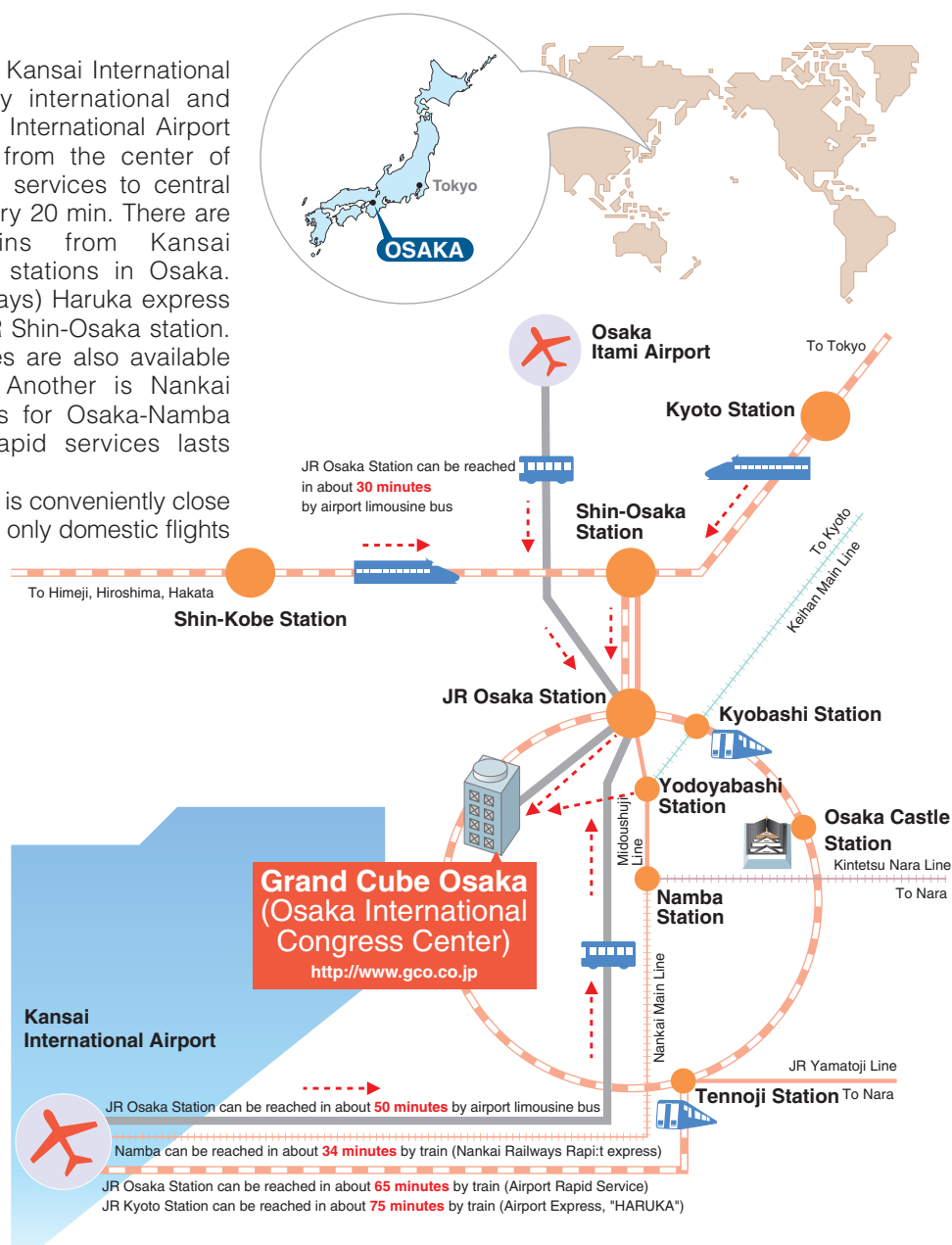
For cancellations after May 15, 2008 refunds will be made after the end of the congress.

HOW TO GET TO OSAKA

BY AIR

Osaka has two airports. Kansai International Airport (KIX) has many international and domestic flights. Kansai International Airport is situated 50 km far from the center of Osaka city. Shuttle bus services to central Osaka are available every 20 min. There are Airport express trains from Kansai International Airport to stations in Osaka. One is JR (Japan Railways) Haruka express for Kyoto stopping at JR Shin-Osaka station. JR Airport rapid services are also available to JR Osaka Station. Another is Nankai Railways Rapi:t express for Osaka-Namba station. The trip by rapid services lasts approximately one hour.

Osaka Itami Airport (ITM) is conveniently close to the downtown, but has only domestic flights including connection flights from Narita International Airport located in Tokyo area. There are Airport Limousines to JR Osaka station every 10 min. It takes approximately 30 min. A taxi ride from Osaka Itami Airport to the downtown Osaka costs about 4,000 Yen.



BY TRAIN FROM TOKYO OR OTHER CITIES

The main railway station in Osaka is JR & Subway Osaka/Umeda station. JR Osaka station is next to JR Shin-Osaka station, where Shinkansen super-express and Haruka Airport express will stop. The Shinkansen line connects Shin-Osaka with Tokyo (approximately 2h. and 30min.), Nagoya (approximately 1h.) and Hakata (approximately 2h. and 30min.).

BY FERRY

A weekly ferry operates between Shanghai (China) and Osaka, Tianjin (China) and Kobe (30 min. from Osaka by train). International ferries arrive at Osaka Port International Ferry terminal apart from the domestic ferry terminal. It takes approximately 30min from the international Ferry terminal to central Osaka in combination with bus and subway lines.

GENERAL INFORMATION

VENUE

The site of the IUCr 2008 Congress and General Assembly is Grand Cube Osaka (Osaka International Congress Center), Osaka, Japan. This congress center is equipped with all the modern facilities. It takes 10 min. by taxi and 15 min. by City Bus from JR Osaka Station. The shuttle bus service is available between RIHGA ROYAL HOTEL (next to the site) and JR Osaka Station or Subway Yodoyabashi Station.

OPENING HOURS OF THE REGISTRATION DESK ON-SITE

Registration desk will open at 11:00am on Saturday 23, August 2008. Opening hours are 08:00 - 19:00 from Sunday 24 to Sunday 31, August 2008.

OFFICIAL WEB SITE

The official Web site of the congress is: www.iucr2008.jp.

In the Web site, participants will be able to submit abstracts, to register at the congress, to make reservations for hotels and tours and to find the updated version of the Scientific Program. Any news on the congress will be announced in the official Web site.

LANGUAGE

The official language of the congress is English. Sessions and posters will be presented in English.

EXHIBITION

A professional exhibition is scheduled to take place in conjunction with the congress, from Sunday 24 to Wednesday 27, August 2008. For more detailed information please visit the Web site www.iucr2008.jp.

INTERNET AND FAX

Internet connection will be provided during the congress hours. A FAX machine is available at the Business Center located on the 11th floor in the venue. Opening hours are 8:30am - 7:00pm.

CLIMATE

August temperatures in Osaka range from 24°C at night to 32°C during the daytime. Sometimes it reaches 35°C, but all Trains, Buses, Hotels and the Congress venue are fully air conditioned.

CLOTHING

Informal for all the occasions.

CURRENCY & BANKS

The currency in Japan is the yen. You can exchange major currencies or travellers' cheques at international airports, major branches of major banks, and some of the large hotels. A passport may be required for currency exchange services. These are easy to find in downtown Osaka. Banks are open from Monday to Friday, 9:00-15:00 and closed on Saturday and Sunday. Some automated teller machines (ATMs) are available for withdrawing from 9:00 to 19:00 at almost all major banks. Visa, MasterCard, American Express, and Diners Club cards are widely accepted at hotels, department stores, shops, and restaurants as well as at major train stations.

LUNCHES

In the Congress Venue, there are a restaurant, a open cafeteria, and a tea room with a total of ca.500 seats. Inexpensive lunch boxes, sandwiches and hotdogs are also available.

ELECTRICITY

The Japanese electric current is 100 V, 60-cycle AC (in western Japan including Nagoya, Kyoto and Osaka). The plugs are flat two pin, identical to US and Canadian plugs.

TIME

Japan is all on the same time, 9 hours ahead of Greenwich Mean Time (GMT). Daylight-saving time is not used in Japan.

BUSINESS HOURS and SHOPS

Shops are typically open seven days a week from around 10 am to 8 pm. There are many shops and restaurants in Osaka area. Please find more information at the information desk.

POST OFFICE

The main post office is located next to JR Osaka station. Post offices are open from Monday to Friday, 9:00-17:00. Hotels often provide simple postage services.

TIPPING AND CONSUMER TAX

Tipping is not customary in Japan. However, major restaurants or hotels may add a 10% to 15% service charge. Japan has a 5% consumer tax.

VISAS

Entry visas are not required for citizens of South Korea, Hong Kong, Taiwan, Australia, New Zealand, most European countries, the USA and Canada. Citizens of other countries and regions can obtain a visa.

For details, please visit the website of The Ministry of Foreign Affairs of Japan.

(http://www.mofa.go.jp/j_info/visit/visa/index.html)

CITY TRANSPORTATION

Osaka is the center of an extensive rail network that spreads across the Kansai region. Ancient capitals, Kyoto and Nara, are each about 50 min.,

and Himeji Castle is about 70 min. from Osaka. JR and some private railways (Hankyu, Keihan and Kintetsu lines) offer easy access from Osaka to Kyoto, Nara and Himeji. Osaka city has a good subway network and a JR loop line that circles the city area. You can reach the Osaka Castle and Shitennoji Temple using the train network. Subways and JR stations are clearly marked in English as well as Japanese. Osaka has a bus system as easy as the rail network, though it has less English signs. For general transport, taxis are plentiful but are relatively more expensive.

HOTEL ACCOMMODATIONS & CONGRESS TOURS

Kinki Nippon Tourist Co., Ltd. (KNT) will be the official agent for hotel accommodations and tours. Please address all inquiries regarding accommodations and tours to:

IUCr2008 Hotel & Tour Desk
Kinki Nippon Tourist Co., Ltd. (KNT)
Event & Convention, Kansai
2-4-10, Imabashi, Chuo-ku, Osaka 541-0042, Japan
Phone: +81-6-6202-9057 Fax: +81-6-6202-7921
E-mail: eckansai2@or.knt.co.jp

HOTEL ACCOMMODATIONS

**Deadline for Hotel Reservations :
Monday, June 30, 2008**

RESERVATION AND PAYMENT

Rooms at these selected hotels have been blocked under the congress and offered at special reduced rates for the convenience of the congress participants. Please note that room numbers are limited. We recommend you to reserve as soon as possible.

Reserved period Friday, August 22 - Sunday, August 31, 2008 (10 nights)

Hotels can be reserved on the Congress web site (www.iucr2008.jp) or by sending the attached Hotel & Tour Reservation Form. Hotel reservations must be accompanied by payment of a deposit (10,000 Yen per room) and handling charge (500 Yen per room).

Payment by overseas attendees should be made by credit card (Visa, MasterCard, American Express,

JCB and Diners Club).

Domestic attendees are asked to pay by bank transfer to:

Bank Name: The Bank of Tokyo-Mitsubishi UFJ, Ltd.
Branch Name: Furikomi Daini Branch
Account Type: Savings Account
Account Number: 0723428
Account Name: Kinki Nippon Tourist Co., Ltd.

Note that bank transfer to the above account from overseas is NOT AVAILABLE.

Confirmation will be e-mailed for overseas attendees or posted for domestic attendees when the reservation and payment are completed.

CANCELLATION AND REFUND POLICY

Please notify cancellation in writing by fax or by e-mail. The following restrictions apply to cancellations:

Hotel handling charge will not be refunded when you cancel hotel reservations. Failure to check in on the arrival date without prior notice may result in automatic cancellation of the entire reservation.

Cancellation notice received:

8 days or more before the date of arrival

No cancellation fee

2 to 7 days before the date of arrival

30% of one night fee

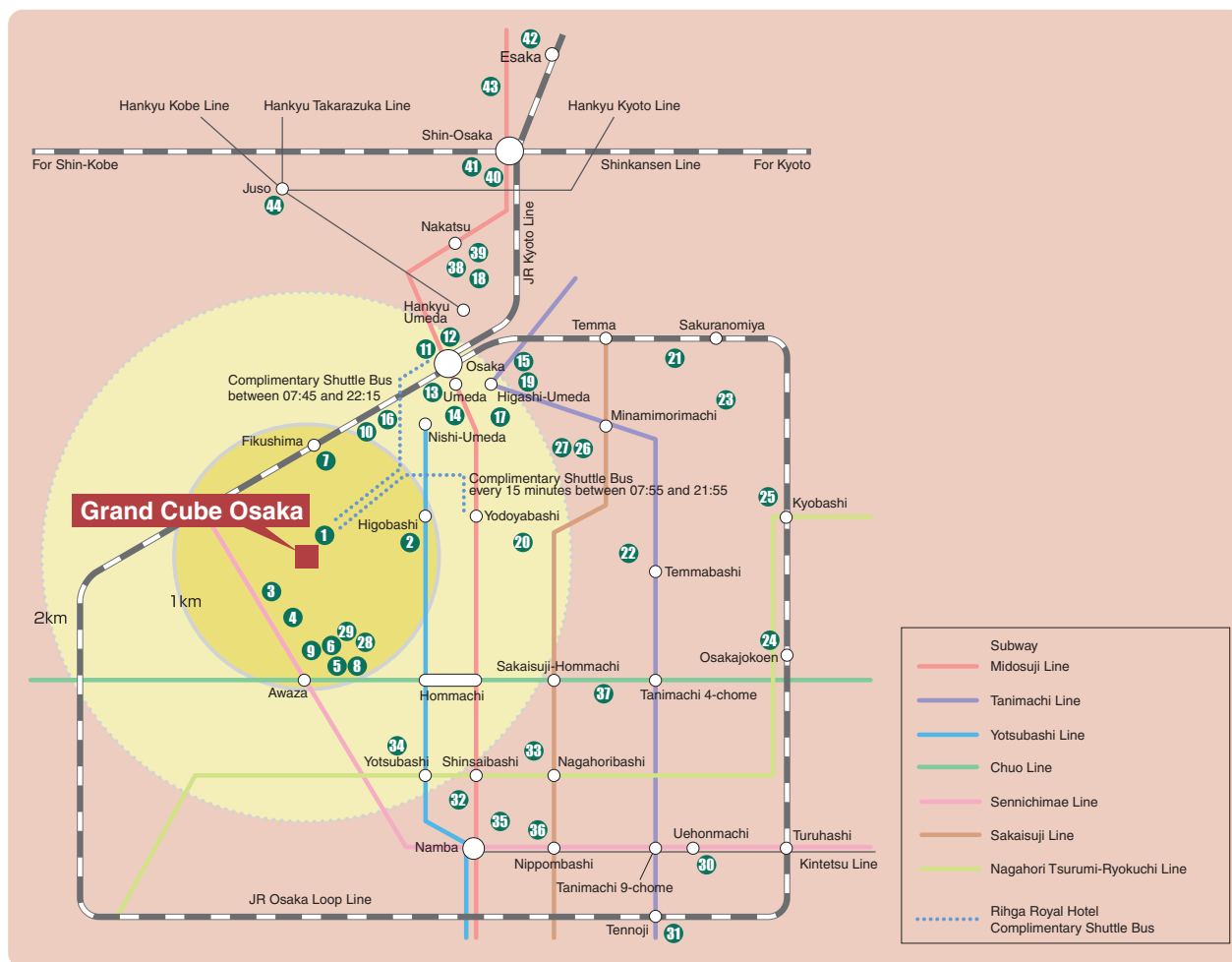
1 day prior to the date of arrival

50% of one night fee

On the date of arrival or no notice given

100% of one night fee

Refunds will be made using the same method chosen for the payment (i.e. payment by credit card will be refunded to the same credit card).



No	Hotel Name	Single		Twin		Twin (single use)		Remarks	Access
		Code	Rate	Code	Rate	Code	Rate		
1	RIHGA Royal Hotel	1S	12,600	1T	12,075	1U	19,425		10min. by shuttle bus from JR Osaka station
2	RIHGA Nakanoshima Inn	2S	8,400	2T	6,825				1 min. walk from Subway Higobashi station
3	Hotel NCB	3S	5,000						7 min. walk from Subway Awaza station
4	Super Hotel City Osaka Natural Hot Springs	4S	6,280						5 min. walk from Subway Awaza station
5	New Oriental Hotel	5S	5,565	5T	4,410				1 min. walk from Subway Awaza station
6	Hotel Sunlife	6S	6,300						1 min. walk from Subway Awaza station
7	Hotel Hanshin	7S	10,185	7T	9,660	7U	14,910		1 min. walk from JR Fukushima station
8	Hotel Route Inn Osaka Hommachi	8S	6,500						1 min. walk from Subway Awaza station
9	Hotel Okuuchi Osaka	9S	5,000						2 min. walk from Subway Awaza station
10	The Ritz-Carlton Osaka	10S	26,103 28,476 34,408					Mon.-Thu. Friday Saturday	7 min. walk from JR Osaka station
11	The Westin Osaka			11T	14,490	11U	20,790		5 min. by shuttle bus or 10 min. walk from JR Osaka station
12	Hotel New Hankyu Osaka	12S	10,500	12T	9,450		15,750		2 min. walk from JR Osaka station
13	Hotel Granvia Osaka	13S	10,500 9,450 12,600	13T	8,400 7,350 12,075			Mon.-Fri. Sunday Saturday	Connected to JR Osaka station
14	Osaka Dai-ichi Hotel	14S	11,550	14T	9,450				3 min. walk from JR Osaka station
15	Osaka Tokyu Inn	15S	8,925	15T	7,875				5 min. walk from JR Osaka station
16	Hearton Hotel Nishi Umeda	16S	8,925	16T	8,400				5 min. walk from JR Osaka station
17	Umeda OS Hotel	17S	7,980						5 min. walk from JR Osaka station
18	Hotel Sunroute Umeda	18S	8,820	18T	7,875	18U	15,750		10 min. walk from JR Osaka station or 3 min. walk from Subway Nakatsu station

No	Hotel Name	Single		Twin		Twin (single use)		Remarks	Access
		Code	Rate	Code	Rate	Code	Rate		
19	Hotel Hokke Club Osaka	19S	6,825						10 min. walk from JR Osaka station
20	Mitsui Garden Hotel Osaka Yodoyabashi	20S	7,500	20T	6,500	20U	10,500		3 min. walk from Subway Yodoyabashi station
21	APA Hotel Osaka-Temma	21S	8,700						5 min. walk from JR Temma station
22	Hotel Osaka Castle	22S	7,500	22T	6,500				2 min. walk from Subway Temmabashi station
23	Imperial Hotel Osaka	23S	18,900	23T	14,700	23U	25,200		5 min. walk from JR Sakuranomiya station
24	Hotel New Otani Osaka	24S	14,175	24T	9,975	24U	18,375		3 min. walk from JR Osakajo Koen station
25	Hotel Keihan Kyobashi	25S	8,715	25T	7,875	25U	12,600		1 min. walk from JR and Keihan Kyobashi stations
26	Toko City Hotel Umeda	26S	7,350						1 min. walk from Subway Minamimorimachi station
27	Hotel Il Grande Umeda	27S	6,000						3 min. walk from Subway Minamimorimach station
28	Cityroute Hotel	28S	6,000	28T	5,500	28U	7,600		5 min. walk from Subway Hommachi station
29	Hotel Schon Belle Court Osaka	29S	8,000						5 min. walk from Subway Hommachi or Awaza station
30	Sheraton Miyako Hotel Osaka	30S	9,450						Connected to Kintetsu Uehommachi station
31	Tennoji Miyako Hotel	31S	12,075	31T	9,450				1 min. walk from JR & Subway Tennoji stations
32	Hotel Nikko Osaka	32S	13,125 13,650	32T	12,075 14,175	32U	17,325 24,675	Sun.-Fri. Saturday	Connected to Subway Shinsaibashi station
33	Chisun Hotel Shinsaibash	33S	7,350	33T	6,300				5 min. walk from Subway Shinsaibashi station
34	Toyoko Inn Shinsaibashi Nishi	34S	6,930					Breakfast included	1 min. walk from Subway Yotsubashi station
35	Cross Hotel Osaka	35S	11,025	35T	8,925	35U	14,700		3 min. walk from Subway Namba station
36	Hotel Metro The 21	36S	6,930						5 min. walk from Subway Nihonbashi station
37	Toyoko Inn Osaka Tanimachi 4-chome	37S	5,880					Breakfast included	5 min. walk from Subway Tanimachi 4-chome or Sakaisuji Hommachi station
38	Mitsui Urban Hotel Osaka	38S	7,350	38T	6,300				Connected to Subway Nakatsu station
39	Ramada Osaka	39S	11,550						Connected to Subway Nakatsu station
40	New Osaka Hotel	40S	7,000	40T	6,500	40U	10,000		3 min. walk from JR & Subway Shin-Osaka stations
41	Chisun Hotel Shin-Osaka	41S	7,350	41T	5,775				6 min. walk from JR & Subway Shin-Osaka stations
42	Chisun Inn Esaka	42S	5,775	42T	5,250			Single room with shower	7 min. walk from Subway Esaka station
43	Hotel Daito	43S	5,775	43T	5,250	43U	7,350		5 min. walk from Subway Esaka station
44	Hotel Plaza Osaka	44S	6,825						5 min. walk from Hankyu Juso station

* Above rates are per day per person in Japanese Yen, including service charge, and consumption tax. Handling charge is not included.

* Breakfast is not included in these rates except for two Toyoko Inns (34 & 37).

CONGRESS TOURS

Deadline for Tour Reservations: Monday, June 30, 2008

Various tours are offered to allow congress delegates and accompanying persons a chance to experience the history, culture and environments of Osaka and its surrounding areas. The tours can be reserved on the Congress web site (www.iucr2008.jp) or by sending the attached Hotel & Tour reservation Form.

The tours are based on the participation of minimum 20 persons. If a minimum number of participants is not obtained by June 30, 2008, the tour may not be operated. KNT will suggest alternative tours or refund the paid tour fare.

Note that the combinations of (1) Morning Tour and Afternoon Tour, (2) Afternoon Tour and Night Tour and

(3) One Day Tour and Night Tour on the SAME DAY are NOT AVAILABLE. Tour application must be accompanied by payment of tour fare.

As for payment and cancellation, please refer to HOTEL ACCOMMODATIONS and the Congress web page (www.iucr2008.jp).

Cancellation notice received:
8 days or more before the date of tour No cancellation fee
2 to 7 days before the date of tour 30% of tour fare
1 day prior to the date of tour 50% of tour fare
On the date of tour or no notice given 100% of tour fare

Approx. time schedule (Tour details are available on the web site.)

Morning Tours **08:00-13:00**
Afternoon Tours **13:00-18:00**
Night Tours **17:00-**
One Day Tours **09:00-18:00**

	Code	Tour Name	Tour Fare
Sunday, August 24, 2008			
Afternoon Tour	T24A	World Heritages in Kyoto (Golden Pavilion and Nijo Castle)	8,000 Yen
Night Tour	T24N	Gangara Fire Festival in Ikeda City	8,500 Yen
Monday, August 25, 2008			
Morning Tour	T25M	Osaka Castle and River Cruise	7,500 Yen
Afternoon Tour	T25A	World Heritages in Nara (Todaiji Temple and Kasuga Shrine)	7,500 Yen
One Day Tour	T25F	World Heritages in Kyoto (Golden Pavilion, Nijo Castle and Shimogamo Shrine)	15,000 Yen
Night Tour	T25N	Osaka (Floating Garden Observatory and Hep Five Ferris Wheel)	14,000 Yen
Tuesday, August 26, 2008			
Morning Tour	T26M	Factory Tour (Asahi Breweries in Suita City)	5,500 Yen
Afternoon Tour	T26A	World Heritages in Kyoto (Golden Pavilion and Nijo Castle)	8,000 Yen
One Day Tour	T26F	World Heritages in Nara (Todaiji Temple, Kasuga Shrine) and Naramachi merchant town	16,500 Yen
Night Tour	T26N	Osaka River Cruise with dinner	12,500 Yen
Wednesday, August 27, 2008			
Morning Tour	T27M	Osaka Castle and River Cruise	7,500 Yen
Afternoon Tour	T27A	World Heritages in Nara (Todaiji Temple and Kasuga Shrine)	7,500 Yen
One Day Tour	T27F	World Heritages in Kyoto (Golden Pavilion, Nijo Castle and Shimogamo Shrine)	15,000 Yen
Night Tour	T27N	Osaka (Floating Garden Observatory and Hep Five Ferris Wheel)	14,000 Yen
Thursday, August 28, 2008			
Morning Tour	T28M	Hakutsuru Sake Brewery Museum & Disaster Reduction and Human Renovation Institution	5,900 Yen
Afternoon Tour	T28A	World Heritages in Kyoto (Golden Pavilion and Nijo Castle)	8,000 Yen
One Day Tour	T28F	Kaiyukan (Aquarium), Osaka Castle and Osaka Museum of History	13,000 Yen
Night Tour	T28N	Dotonbori (Osaka downtown) with dinner	8,500 Yen
Friday, August 29, 2008			
Morning Tour	T29M	Osaka Mint Bureau and Osaka Museum of History	6,000 Yen
Afternoon Tour	T29A	Bridge World (Guided tour to climb Akashi Strait Bridge)	9,500 Yen
Saturday, August 30, 2008			
Morning Tour	T30M	Osaka Castle and River Cruise	7,500 Yen
Afternoon Tour	T30A	Bridge World (Guided tour to climb Akashi Strait Bridge)	9,500 Yen
One Day Tour	T30F	World Heritages in Nara (Todaiji Temple, Kasuga Shrine) and Naramachi merchant town	16,500 Yen
Night Tour	T30N	Osaka River Cruise with dinner	12,500 Yen
Sunday, August 31, 2008			
Morning Tour	T31M	Kaiyukan (Osaka Aquarium) and Osaka downtown (Dotonbori & Doguya-suji)	8,000 Yen
Afternoon Tour	T31A	Nissin Instant Ramen Noodle Museum and Takarazuka Revue *Programs of Takarazuka Revue are subject to change.	15,800 Yen
One Day Tour	T31G	World Heritages in Kyoto (Golden Pavilion, Nijo Castle and Shimogamo Shrine)	15,000 Yen
One Day Tour	T31H	World Heritages in Nara (Todaiji Temple, Kasuga Shrine) and Naramachi merchant town	16,500 Yen
One Day Tour	T31I	World Heritages in Koyasan (Daimon, Kongo-buji, Okuno-in)	16,800 Yen

Registration Form

On-line Registration (<http://www.iucr2008.jp>) will be available from January 15, 2008

Deadline for advanced registration: **May 15, 2008**

Acknowledgement / Confirmation of registration will be forwarded within next 72 hours.

1. Personal Informa

Category	Advanced Registration Before May 15, 2008	On-site Registration After May 15, 2008
Participant	<input type="checkbox"/> 55,000 Yen	<input type="checkbox"/> 65,000 Yen
Student*1	<input type="checkbox"/> 25,000 Yen	<input type="checkbox"/> 30,000 Yen
Accompanying Person(s)	<input type="checkbox"/> 10,000 Yen × ____ Person(s)	<input type="checkbox"/> 10,000 Yen × ____ Person(s)
Social Banquet booking fee for registered persons	<input type="checkbox"/> 8,000 Yen × ____ Person(s)	<input type="checkbox"/> 8,000 Yen × ____ Person(s)
Total Amount of Payment		_____ Yen

*1 A copy of a valid student card or a letter of the supervisor should be sent to the Organizing Secretariat by fax or mail.

- Social Banquet tickets for NON-registered persons are available on-site at the registration desk for 12,000 JPY per person.
- Access to the scientific sessions are limited to registered participants and students only.

Card Number :

Expiration Date : / (mm/yy) Security(CVC)Number*2 :

Cardholder's Name : (in block letters)

Cardholder's Signature :

www.iucr2008.jp



Organizing Secretariat

c/o Congress Corporation
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Chuo-ku, Osaka 541-0047, Japan
E-mail: iucr2008@congre.co.jp