

International Conference on
**“Photoinduced Phase Transitions,
their Dynamics and Precursor Phenomena”**

Second Circular

November 14-16,2001
at Epochal Tsukuba

In the research field of the solid state optics, problems related with photoinduced phase transitions have become matters of considerable interest in recent years. Here in Japan, the governmental research project on “Photoinduced Phase Transitions and their Dynamics” has started from 1999. As the end of this project, the abovementioned international conference is to be held, under the support of this governmental project.

In this conference, we will extend hot discussions on the following problems, from both experimental and theoretical view points.

Scope of the conference

- Photoinduced structural phase transitions, their dynamics and precursor phenomena.
- Photoinduced magnetic or electronic phase transitions and their dynamics.
- High density excitons.
- Photo-polymerization in solids.
- Strongly collective and nonlinear phenomena in photoexcited states.

主催 文部科学省科学研究費補助金特定領域研究 (B)
「光誘起相転移とその動力学」総括班

<http://www.sanken.osaka-u.ac.jp/~tanimura/index.html>

Call for papers

You are cordially invited to participate in this conference, and are requested to submit abstracts of your papers to the conference office before **June 30, 2001**. The format of the abstract is shown in this circular.

The authors whose abstract is accepted, are requested to give poster or oral presentations in the conference, and are also requested to submit their manuscript of papers. Most of them will be presented as posters.

Publication

The authors whose abstract is accepted, will receive the format of manuscript from the conference office, and the accepted manuscripts will be published from the Gordon Breach Science publisher (a member of Taylor & Francis), as the conference proceedings.

Publishing committee

K.Nasu (IMSS KEK), K.Tanimura (Osaka Univ),
A.Nakamura (Nagoya Univ.), T.Ogawa (Osaka Univ.)

Banquet and Registration Fees

No participation nor registration fee is necessary, except for the banquet, which is scheduled to be held at the evening of November 15. It is 10000 yen per person.

Weather

The weather in Tsukuba in November is rather cool. The average high is 15 ~ 17 degrees C (59 ~ 63 degrees F), and average low is 4 ~ 6 degrees C (39 ~ 42 degrees F). In the daytime, a light jacket or a heavy sweater is necessary, while at night, you need a heavy jacket.

Conference Office

Prof. Keiichiro Nasu
Institute of Materials Structure Science, KEK
1-1 Oho, Tsukuba, Ibaraki, 305-0801, JAPAN
Fax: 81-298-64-3202
Tel: 81-298-64-5698 (Ms. Naomi Matsuba)
E-mail: matsuba@post.kek.jp

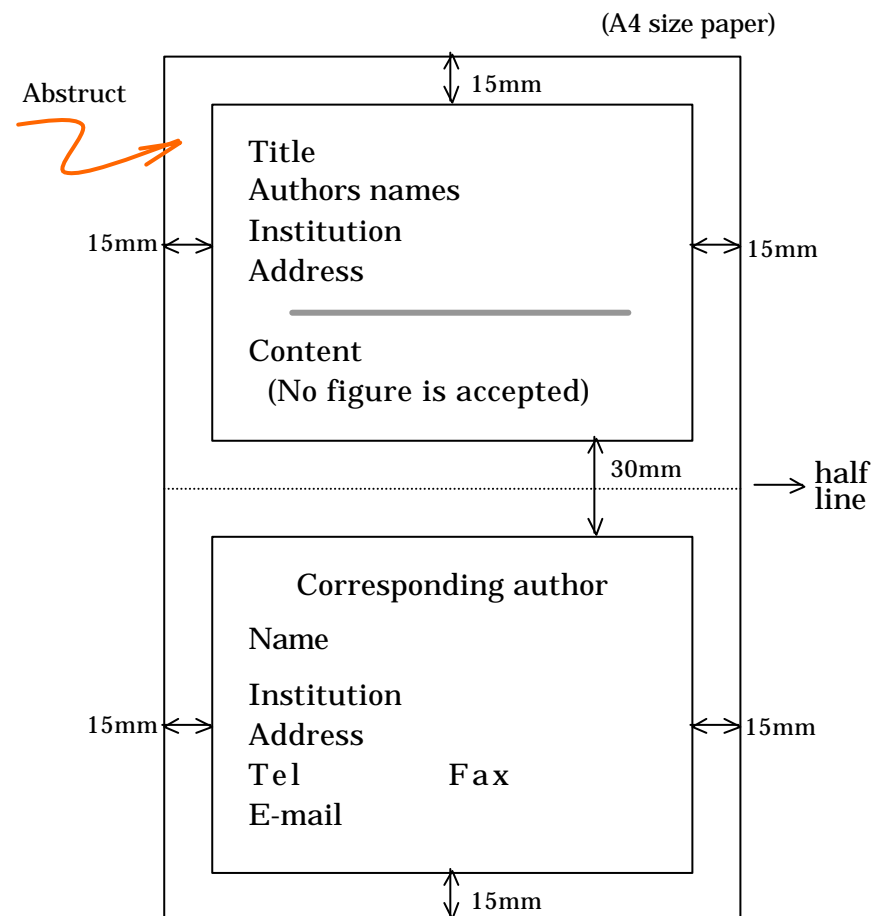
Conference Secretary

Prof. Katsumi Tanimura
Institute of Scientific and Industrial Research,
Osaka University
8-1 Mihogaoka, Ibaraki, Osaka 567-0047, Japan
Fax: 81-6-6879-8494 Tel: 81-6-6879-8490
E-mail: tanimura@sanken.osaka-u.ac.jp

Conference Site

Tsukuba international congress center " Epochal Tsukuba "
2-30-3, Takezono, Tsukuba, Ibaraki, 305-0032, JAPAN
Tel: 81-298-61-0001

Abstract Submission Format



Please send it before **June 30, 2001** by the post and also by E-mail

To. Ms. Naomi Matsuba, c/o Prof. Keiichiro Nasu
Institute of Materials Structure Science, KEK
1-1 Oho, Tsukuba, Ibaraki, 305-0801 JAPAN

E-mail: matsuba@post.kek.jp (MS-Word is strongly recommended)
Tel 81-298-64-5698 Fax 81-298-64-3202

Program (tentative)

11/13 pm 3:00~pm 8:00

Registration (third floor, Conference Room 301)

11/14 morning session (second floor, Convention Hall 200)
subjects: **general aspects, charge-spin orderings**

Opening, K. Nasu (Institute of Materials Structure Science, KEK)
Theory for photoinduced structural phase transitions

Invited talk, Y. Tokura (Tokyo Univ.)
Photo-modulation of spin-orbital superstructures in correlated electron systems

Invited talk, C.Siders (Univ. of Central Florida)
Femtosecond x-ray diffraction studies of ultrafast phase transitions

- *Coffee break* -

Invited talk, A. Bianconi (Universita di Roma La Sapienza)
X-ray photoinduced effect on dynamical and static charge/lattice ordering in cuprates

A. Nakamura (Nagoya Univ.)
Dynamical properties of photoinduced spin disorder in half-metal systems

Invited talk, C.Taliani (National Research Council of Italy, IMS)
Spin injection in organic semiconductors

- *Lunch* -

11/14 afternoon session (second floor, Convention Hall 200)
subject: **high density effects**

Invited talk, A. Mysyrowicz (LOA, ENSTA, ecole polytechnique)
Filamentation of femtosecond laser pulses

Invited talk, M. Kuwata-Gonokami (Tokyo Univ.)
Phase-coherent optical manipulation of cold biexcitonic waves

T. Inagaki (Nara Institute of Science and Technology)
Macroscopic quantum state in optically driven semiconductors
- Crossover from electron-hole BCS state to exciton Bose condensation -

- *Coffee break* -

Invited talk, H. Haug (Johann Wolfgang Goethe Universit)
Quantum Kinetics of the Exciton Bose-Einstein Condensation

Invited talk, V.Sugakov (National Academy of Science of Ukraine)
Instabilities and self-organization phenomena in the high density exciton systems

T. Karasawa (Osaka City Univ.)
Photoinduced high density phases of exciton-polariton masses and their coherent propagation at stacking fault interface in BiI₃.

M. Nakayama (Osaka City Univ.)
Quantum statistics behavior of the exciton-biexciton system in GaAs/AlAs type-II superlattices.

T. Iida (Osaka City Univ.)
Ordered states and superfluidity of quasi-two dimensional excitons in type-II quantum wells.

11/15 morning session (second floor, Convention Hall 200)
subjects: **spin-crossover complexes, and others**

T. Ogawa (Osaka Univ.)

Statistical theory of the Domino dynamics via nonadiabatic transitions

S. Koshihara (Tokyo Institute of Technology)

New class of photoinduced cooperative phenomena in organic and inorganic hybrid-complexes

Invited talk, M.Irie (Kyushu Univ.)

New aspects of aingle-crystalline photochromism

- *Coffee break* -

Invited talk, K.Hashimoto (Tokyo Univ.)

Photoinduced phase transition accompanied with spin transition on Co-Fe polycyanide

K.Tanaka (Kyoto Univ.)

A new spin-crossover-complex phase generated by photoinduced phase transition

O.Sakai (Physics Department, Tokyo Metropolitan Univ.)

Monte Carlo simulation study on domain formation in the photoinduced low-spin high-spin transition

- *Lunch* -

11/15 afternoon session (second floor, Convention Hall 200)
subject: **spin-crossover complexes**

Invited talk, F.Varret (Versailles Univ.)

Cooperative phenomena in Spin crossover system

M. Kamada (Inst. for Molecular Science)

Photoelectron spectroscopic study on photoinduced phase transition of spin-crossover complex

11/15 pm 3:00 ~ pm 5:00

Poster session (second floor, Conference Room 202)

11/15 evening

Banquet (first floor, Restaurant ESPOIR)

11/16 morning session (second floor, Convention Hall 200)
subject: **Photoinduced phase transitions in quasi-one dimensional materials**

K. Tanimura (Osaka Univ.)

Initial condition sensitivity of the neutral-to-ionic phase transition in TTF-CA

S.Iwai (CERC)

Ultrafast primary process of photoinduced NI transition and macroscopic oscillation of domain boundary in TTF-CA

Invited talk, T. Luty (Wroclaw Technical Univ.)

Three states model for photoinduced phase transitions

- *Coffee break* -

Invited talk, H. Cailleau (Universite de Rennes 1)

Time-resolved X-ray diffraction and photoinduced phase transformations

Invited talk, A.Bishop (Los Alamos National Lab.)

Some nonlinear and nonadiabatic photoinduced effects in soft electronic matter

H. Okamoto (Tokyo Univ.)

Phase control and photoinduced transition in halogen-bridged transition metal compounds

T. Suemoto (ISSP, Tokyo Univ.)

Relaxation dynamics in photo-excited halogen-bridged Pt-complexes studied by femtosecond luminescence spectroscopy

Closing, K. Tanimura (Osaka Univ.)