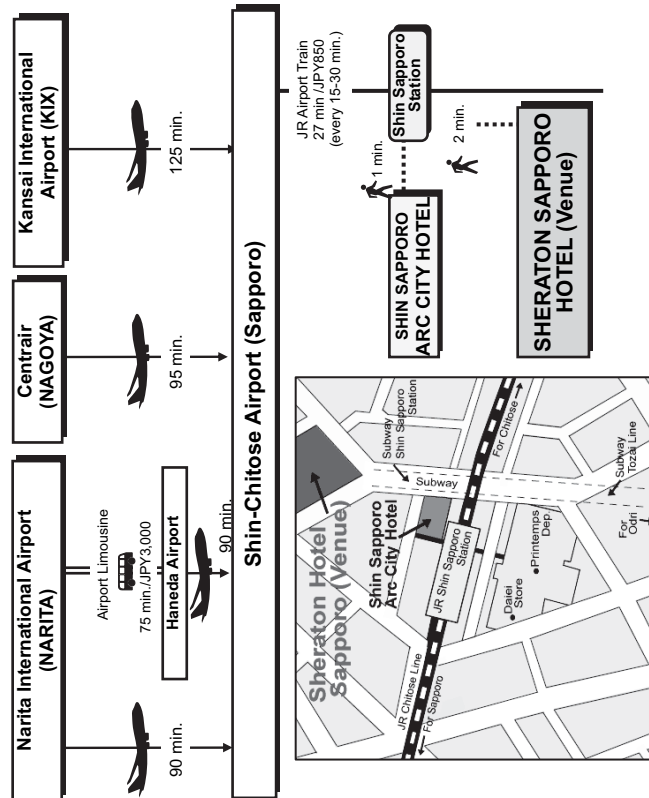
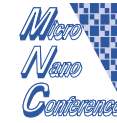


ACCESS TO SAPPORO



As of May 2009

Final Call for Paper



MNC 2009

22nd International Microprocesses and Nanotechnology Conference

November 16-19, 2009
Sheraton Sapporo Hotel
Sapporo, Japan

MNC Web Site: <http://imnc.jp/>

Abstract Deadline: June 30

Late News Paper Deadline: September 15

Sponsored by
The Japan Society of Applied Physics

Technical-Cosponsored
IEEE Electron Device Society

Cooperation
Association of Super-Advanced Electronics
Technologies
The Institute of Electrical Engineers of Japan
The Institute of Electronics, Information and Commu-
nication Engineers
The Japan Society for Precision Engineering
The Japanese Society for Synchrotron Radiation
Research
The Japanese Society of Microscopy
The Surface Science Society of Japan
The Vacuum Society of Japan

Call for Papers and Final Announcement

PROFILE

Microprocess and nanotechnology play an important role of technical backbone for constructing the advanced information communications society with ubiquitous networks of the 21st century. The MNC conference is now in its 22nd year and is intended to provide a forum for discussing lithographic science and process technology using photon, electron, ion, other energetic particles and nanomaterials. This conference covers not only their applications to micro- and nano-structure fabrication and related physics and devices, but also their fusion applications with other fields like bio, medical, information, and communication technology.

SCOPE AND TOPICS

Papers are being solicited on the following subjects.

1.Lithography and Related Technologies

1-1:DUV, EUV Lithography and Metrology

This session focuses on DUV, EUV, Immersion Lithography, and Computational Lithography including OPC, SMO, DFM. In addition, Metrology such as SEM and Scatterometry is included.

1-2:Electron- and Ion-Beam Lithography

Electron and ion beam technologies such as lithography, metrology, inspection and repair tools. Other related technologies using charged particle beams are also welcome.

1-3:Resist Materials and Processing

Resist materials(EUV, immersion, double patterning, DUV, EB, X-ray, multilayer, inorganic, molecular glass etc.), antireflective coatings, polyimide, adhesive, and other materials related to lithography. resist processes(PEB, development, rinse, resist removal, etching etc.) characterization, line edge roughness, trade-off problem, outgassing, modeling and simulation of resist process (exposure, acid diffusion, development etc.). materials and processes for the production of flat-panel display, photonics devices, and electronics packaging.

2:Nanotechnology

2-1:Nanodevices

Nanodevices and related technologies targeting more Moore, more than Moore and beyond CMOS; next-generation Si and compound semi conductor-based FETs, graphene FETs, 1D FETs such as nanowire FETs and carbon nanotube FETs, quantum dot devices, and all other nanodevices utilizing nanostructures and nanomaterials such as inorganics, organics, and molecules. Novel-concept devices utilizing nanostructures and nanophysics are also welcome.

2-2:Nanofabrication

Fabrication of nanostructures. Fabrication techniques such as scanning probe techniques, self-organizing techniques, etc. Physics and chemistry in nanofabrication processes. Etching, deposition, and related subsurface processing using photon, electron- and ion-beams, plasma, and thermal energy. Emerging technologies are also welcome.

2-3:Nanomaterials

Theory, properties, characterization and application of nanomaterials such as quantum dots, nano-particles, nanowires, carbon nanotubes, fullerenes, organic, molecular, and biomaterials. Materials prepared by self-organized or bottom-up approach are also included.

2-4:Nano-Tool

Nano-electromechanical system (NEMS), Nano-mechanics, Nanometrology, Metrology and repair for nanosystem, Novel observation and fabrication methods based on microscopic techniques, such as scanning probe microscopy (SPM), scanning electron microscopy (SEM) and focused ion beam (FIB).

3:Nanoimprint, Nanoprint and Rising Lithography

This session focuses nanoimprint system, process, material, applications and related inspection and metrology. Other novel nano-patterning technologies are also included.

4:Bio MEMS, Lab on a Chip

Micro/nano electromechanical devices (M/NEMS) are now widely applied to biochemical, medical and environmental fields and a new research field called μ -TAS or Lab. on a Chip is expanding. Fusion of microelectronic devices with materials and methods in the biomedical fields is expected to open up new scientific and business areas. Papers are solicited in the following areas (but not limited): (1) MEMS/NEMS devices for biomedical fields, (2) μ -TAS and Lab on a chip, (3) Bio-chips for DNA, proteins and cells, (4) Fabrication technologies.

5:Microsystem Technology and MEMS

Fabrication techniques, design, mechanical characterization of three dimensional microstructures, and their applications to micromechanical systems, which include microwave and photonics devices, vacuum microelectronics, novel sensors and actuators, etc.

SYMPOSIA

[A]. Computational Lithography

[B]. Graphene: Growth & Characterization

PLENARY TALKS

S. Wurm (SEMATECH)
A. Neureuter (Univ. of CA)

INVITED SPEAKERS (under negotiation)

DUV, EUV Lithography and Metrology Session

T. Uchiyama (NEC Electronics)

Electron and Ion Beam Lithography Session

H. Loeschner (IMS Nanofabrication)

Resist Materials and Processing Session

M. Shirai (Osaka Pref. Univ.)

Nanodevice Session

Y.-M. Lin (IBM)

Nanofabrication Session

T. Fukui (Hokkaido Univ.)

Nanomaterials Session

Y. Einaga (Keio Univ.)

I. Suemune (Hokkaido Univ.)

Nano-Tool Session

T. Funatsu (Univ. of Tokyo)

Nanoimprint, Nanoprint and Rising Lithography Session

H. Schiff (Paul Scherrer Inst.)

Q. Xia (HP)

Symposium A. Computational Lithography

K. Lai (IBM)

A. Erdmann (Fraunhofer)

T. Matsuyama (Nikon)

T. Takigawa (Brion Technologies)

L. Pang (Luminescent Technologies)

M. D. Smith (KLA-Tencor)

W. Demmerle (Synopsys)

Symposium B. Graphene: Growth & Characterization

C. Oshima (Waseda Univ.)

T. Seyller (FAU Erlangen-Nurnberg)

H. Hibino (NTT)

T. Otsuji (Tohoku Univ.)

M. Nihey (Fujitsu)

TECHNICAL SEMINAR in JAPANESE

Technical Seminar on "Fusion of Bio, Nano, and IT" (tentative)
by Hokkaido University Global COE "The Formation of a Center for
Next Generation Information Technology that Supports Knowledge
Creation" and "Nanoimprint Technology" (tentative)

YOUNG AUTHORS TRAVEL ASSISTANCE

Young authors, under age 33, who will present paper at MNC2009 are able to apply for Young Authors Travel Assistance. It supports a part of their travel expense within a limited amount of budget. The support amount depends on the number of persons accepted. It is the conference policy that the persons who will receive the assistance are asked to help the session progress in terms of timekeeping, speaker's slide preparation etc. Those who are interested in application may contact the MNC2009 Secretariat to get the application form no later than 15th September.

SUBMISSION of ABSTRACT

Please visit our Web Site after middle of June, 2009. <http://imnc.jp/>

Abstract Deadline: June 30, 2009

1. INTRODUCTION

This describes instructions for the preparation of a camera-ready abstract. Prospective authors are encouraged to submit a 2-page abstract. The abstract must clearly state the purpose, achievement and significance of the work. Please note that the most common cause of rejection of submitted papers is a lack of specific results, e.g. figures and tables, and of the description on experimental/theoretical procedures. The abstract must be prepared following the instruction because it is printed by the photo-offset method. The abstracts are published as the Digest of papers, which will be available for registrants at the conference.

2. INSTRUCTION

The abstract should be neatly typed on A4-size or US letter size (8.5" x 11") plain white sheets. Type the title on the first line, authors' name(s) on the third line and addresses on the fourth line. Title, author(s) and address(es) should be typed centered. Begin the texts two lines below the last line of the title/author section. The second page should be used for indicating figures, tables and photographs. Caption should be typed underneath the figure and above the table.

Additional typing guidelines are summarized in Table 1.

Sectioning is not always required and is optional.

3. SUBMISSION

Submit the abstract in a PDF format with the copyright form.

Table 1. Typing guidelines for the abstract

PDF File: Please avoid setting up user password and master password in the PDF files. A PDF file must be smaller than **3MByte**.

Line spacing: single-spaced.

Format: An A4-size or a 21.6cm×28cm is preferable. The first page must include the title of the paper, author(s), affiliation(s), address, e-mail address, and article text.

Font Size: 11 - 12 point font is recommended for text.

Character: Times-Fonts Family and Helvetica-Fonts Family are recommended. As for Symbolic Characters such as (α) (μ), please use Symbol-Fonts Family. **DO NOT** use two byte characters and Asian Fonts, e.g., Japanese, Korean, and Chinese characters, MS Gothic, MS Mincho, Ryumin, Batang etc.

Late News Paper Deadline: September 15, 2009

JJAP PROCEEDINGS

Authors of accepted papers are recommended to submit full-length manuscripts to Japanese Journal of Applied Physics (JJAP). Papers passed through the standard reviewing procedures of JJAP will be published in a special issue. This issue will be delivered to the participants as the conference proceedings. The authors (or their institution) are requested to pay the publication charge for the JJAP special issue (Microprocesses and Nanotechnology) when the paper is accepted.

CONFERENCE AWARDS

Conference awards will be given to The Outstanding Paper(s), The Most Impressive Poster(s), The Most Impressive Paper, and The Young Author's Award. The outstanding paper(s) will be selected from the paper published in the JJAP special issue (Microprocesses and Nanotechnology). The most impressive paper is selected from oral presentations. The young author's award is selected from oral and poster presentations. The most impressive poster(s) will be selected on the basis of participant's vote.

REGISTRATION OFFICE

JTB Global Marketing & Travel Inc. (JTB GMT) has been appointed as the official registration office for the conference and will handle registration and hotel accommodation.

JTB Global Marketing & Travel Inc.

Convention Center (CD102152-007)

2-3-11 Higashi-Shinagawa, Shinagawa-ku, Tokyo 140-8604 Japan

Phone: +81-3-5796-5445

Fax: +81-3-5495-0685

E-mail: mnc2009@jtb.jp

REGISTRATION

Code	Registration	Until October 15	On site Registration
FUL-1	Full Conference with Digest, Proceedings and Banquet	JPY 55,000	JPY 65,000
FUL-2	Full Conference with Digest and Proceedings (No Banquet)	JPY 50,000	JPY 60,000
STU	Student Conference with Digest (No Proceedings, No Banquet)	JPY 15,000	JPY 15,000
BQT	Banquet Ticket	JPY 5,000	JPY 5,000
EXHIBITOR	Technical Exhibitor for Full Conference	JPY 20,000	JPY 20,000
ONLY TEC	Technical Seminar on November 16 in Japanese EXCEPT MNC 2009 Participants and student	JPY3,000	JPY3,000
TEC-FREE	Technical Seminar in November 16 in Japanese (MNC 2009 Participants and Student)	Free	Free

HOTEL ACCOMMODATION

JTB GMT has booked rooms at following hotels in Sapporo for the Congress period. Reservations will be made in order of receipt of application form.

No.	Hotel Name (Check-in & out time)	Room Rates		Address Phone Access to the Site or the nearest station
		Single with bath	Twin with bath	
1	Sheraton Hotel Sapporo (15:00/ 12:00)	JPY 11,550	JPY 16,800	5-5-25 Atsubetsucho 2JO, Atsubetsu-ku · Sapporo, Hokkaido +81-11-895-8811 2 min. walk from JR Shin-Sapporo Station
2	Shin Sapporo Arc City Hotel (15:00/ 11:00)	JPY 7,000	JPY 13,000	5-6-2 Atsubetsucho 2 JO, Atsubetsu-ku, Sapporo, Hokkaido +81-11-890-2525 Adjacent to JR Shin-Sapporo Station

Room rates include breakfast, service charge and a 5% consumption tax

REGISTRATION AND PAYMENT

Participants wishing to make registration and reserve hotel accommodation should apply online to reach JTB GMT **no later than October 15, 2009.**

Please ensure that each registrant makes his/her own online registration. Application should be accompanied by a remittance covering the registration fee and hotel deposit (**one night room charge**) due JTB GMT. (The hotel deposit will be credited to your bill. All hotel expenses deducting the deposit should be paid directly to the hotel.) No reservation will be confirmed in the absence of this payment. All payment must be in Japanese yen. If the remittance covers more than one person, please inform us the name of each participant. Payment should be in the form of:

- One of the following credit cards:
1. VISA 2. MasterCard 3. Diners Club 4. AMEX 5. JCB
- A bank transfer to JTB Global Marketing & Travel Inc. (Message: MNC2009)
Account at The Bank of Tokyo-Mitsubishi UFJ, Ltd.
Shin-Marunouchi Branch (swift code: BOTKJPJT)
1-4-2 Marunouchi, Chiyoda-ku, Tokyo 100-0005 Japan
(Account number: 4760343)

CANCELLATION

In the event of cancellation, written notification should be sent to JTB GMT. The following cancellation fees will be deducted before any refund is made.

Registration: If a cancellation notice is received by JTB GMT on or before
October 15, 2009 -----JPY5,000 of processing fee
On and after October 16, 2009 -----100% of the registration fee

Hotels: If a cancellation notice is received by JTB GMT
Up to 10 days before the first night of stay -----None
9 to 2 days before-----20% of daily room charge
1 day before -----80% of daily room charge
On the day of arrival or no notice given -----100% of daily room charge

COMMITTEE MEMBERS

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Chairperson: S. Shoji (Waseda Univ.)
Vice-Chair: T. Asano (Kyushu Univ.)
T. Fukui (Hokkaido Univ.)

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N. Hayashi (Dai Nippon Printing) S. Okazaki (EÜVA)
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T. Horiuchi (Tokyo Denki Univ.) S. Tagawa (Osaka Univ.)
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S. Ishihara (Univ. of Tokyo) N. Yoshioka (Renesas Technol.)
S. Kadamura (Sony) S. Zaima (Nagoya Univ.)

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K. Gamo (Osaka Univ.) C. Shih (ERSOITRI)
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L.R. Harriott (Univ. of Virginia) S. Tedesco (Leti)
O. Joubert (CRS-LTM) T. Tsurushima (Kyushu Univ.)
D. Kern (Univ. of Tubingen) M. Wang (China Academic Sci.)
H.W.P. Koops (NaWoTec GmbH) J. Wiesner (Nikon Precision)
J. Melngailis (Univ. of Maryland) N. Yokoyama (Fujitsu Labs.)

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Program Chair: T. Meguro (Tokyo Univ. of Sci.)
Secretariat: K. Nakano (NEC)
Y. Ono (NTT)

Treasurer: S. Aoyama (Renesas)
Y. Ono (NTT)
Seminar: S. Kasai (Hokkaido Univ.)
F. Nihey (NEC)

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K. Tohmezuka (Tokyo Electron)

Publicity H. Yamashita (HOYA)
T. Kozawa (Osaka Univ.)

Technical Exhibition N. Sakai (Toyo Gosei)
N. Taneichi (Tokyo Ohka)

Place: S. Hara (Hokkaido Univ.)
M. Takeyama (Kitami Inst. of Technol.)

Overseas J.H. Ahn (Hanyang Univ.)
A. Chen (ASML)
O.H. Kim (POSTEC)
C.K. Sung (National Tsing Hua Univ.)

PROGRAM COMMITTEE

Chairperson: T. Meguro (Tokyo Univ. of Sci.)
Vice-Chairpersons: S. Akita (Osaka Pref. Univ.)
T. Kozawa (Osaka Univ.)

1-1: DUV, VUV, EUV Lithography and Metrology

Section Head: T. Sato (Toshiba)
Sub Head: S. Nagahara (NEC Electronics)
J.H. Ahn (Hanyang Univ.)
Members: T. Chijimatsu (Fujitsu)
N. Hirayanagi (Nikon)
J. Kitano (Tokyo Electron)
Y. Morikawa (DNP)
M. Suzuki (Canon)
A. Yamaguchi (Hitachi)

1-2: Electron- and Ion-Beam Lithography

Section Head: M. Miyamoto (Tokyo Inst. of Technol.)
Sub Head: J. Yanagisawa (Univ. of Shiga Pref.)
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M. Kotera (Osaka Inst. of Technol.)
H. Nozue (NuFlare Tech.)
K. Ogino (Fujitsu)
A. Yamada (Advantest)
J. Yamamoto (Hitachi)
Y. Yamamoto (SII Nanotechnology)
H. Yamashita (HOYA)

1-3: Resist Materials and Processing

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Sub Head: H. Oizumi (Selete)
Members: T. Azuma (Toshiba)
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K. Nozaki (Fujitsu)
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2-1: Nanodevices

Section Head: Y. Ohno (Nagoya Univ.)
Sub Head: S. Kasai (Hokkaido Univ.)
T.-S. Chao (National Chiao Tung Univ.)
S.W. Hwang (Korea Univ.)
J.-T. Sheu (National Chiao Tung Univ.)
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K. Nagashio (Univ. of Tokyo)
K. Nishiguchi (NTT)
S. Shingubara (Kansai Univ.)

2-2: Nanofabrication

Section Head: M. Masahara (AIST)
Sub Head: T. Hasegawa (NIMS)
Members: T. Asahi (Osaka Univ.)
T. Chikyo (NIMS)
Y. Ishikawa (Univ. of Tokyo)
T. Kobayashi (Riken)

A. Kohno (Fukuoka Univ.)
K. Takase (Nihon Univ.)
T. Yoneda (Tohoku Univ.)
X.W. Zhao (Tokyo Univ. of Sci.)

2-3: Nanomaterials

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Sub Head: Y. Tajima (Riken)
E.K. Kim (Hanyang Univ.)
Members: J. Fujita (Univ. of Tsukuba)
T. Ishida (AIST)
T. Miyazawa (Univ. of Tokyo)
T. Takenovu (Tohoku Univ.)
K. Tani (Waseda Univ.)

2-4: Nano-Tool

Section Head: M. Nagase (NTT)
Sub Head: S. Akita (Osaka Pref. Univ.)
Members: H. Ina (Canon)
M. Kitazawa (Olympus)
D.-W. Lee (Chonnam National Univ.)
Y. Mitsui (Hitachi Hightechnologies)
M. Miyoshi (Univ. of Tokyo)
T. Ono (Tohoku Univ.)
S. Takahashi (Univ. of Tokyo)
M. Yasutake (SII NanoTechnology)

3: Nanoimprint, Nanoprint and Rising Lithography

Section Head: H. Hiroshima (AIST)
Sub Head: A. Yokoo (NTT)
F.-B. Hsiao (National Cheng Kung Univ.)
Members: Y. Hirai (Osaka Pref. Univ.)
H. Lee (Korea Univ.)
A. Miyauchi (Hitachi)
M. Okinaka (Canon)
N. Sakai (Toyo Gosei)
J. Taniguchi (Tokyo Univ. of Sci.)

4: Bio MEMS, Lab on a Chip

Section Head: T. Ichiki (Univ. of Tokyo)
Sub Head: Y. Takamura (JAIST)
G.-B. Lee (National Cheng Kung Univ.)
F.-G. Tseng (National Tsing Hua Univ.)
Members: T. Horiuchi (NTT)
W.-T. Liu (National University of Singapore)
H. Takei (KAST)
Y. Miyahara (NIMS)
Y. Murakami (Hiroshima Univ.)

5: Microsystem Technology and MEMS

Section Head: K. Suzuki (Ritsumeikan Univ.)
Sub Head: T. Ikehara (AIST)
W. Fang (National Tsing Hua Univ.)
J.-W. Hsieh (Asia Pacific Microsystems)
J. Shin (Kyungpook Univ.)
Members: H. Kuwano (Tohoku Univ.)
Y. Suzuki (Nikon)
Z. Rymuza (Warsaw Univ. of Technol.)
H. Takao (Toyohashi Univ. of Technol.)
T. Tsuchiya (Kyoto Univ.)
D.F. Wang (Ibaraki Univ.)

Secretariat - 22nd International Microprocesses and Nano- technology

Conference (MNC 2009), c/o Secretariat Corporation
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