# MNC 2023





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**ABSTRACT DEADLINE** 

July 1, 2023

**WEB ADDRESS** 

https://imnc.jp/2023/

mnc 2023



## November 14-17, 2023

### Keio Plaza Hotel Sapporo, Sapporo, Japan

#### **PLENARY**

Dr. Sri Samavedam, imec, Belgium

Dr. Heike Riel, IBM Research Europe, Switzerland

Dr. Yasumitsu Orii, Rapidus Corporation, Japan

#### **SYMPOSIUM**

Symp. A: Challenge to the physical limit for lithography and devices: Are we ready to boost the scaling roadmap?

Symp. B: Material Intelligence: Potential of in-materio computing

Symp. C: Process and Device Technologies for Quantum Computing

Symp. D: Lipid Membrane Micro and Nanotechnology

#### **IMPORTANT DATE**

Jun. 10, 2023

Jul. 1, 2023

Sep. 1, 2023

Sep. 10, 2023

Open of abstract submission site

Abstract deadline

Late news paper deadline

Open of registration site

Open of registration site

Deadline of early bird registration

Conference

Nov. 30, 2023

Open of abstract submission site

Deadline of registration of JJAP special issue

#### JJAP Special Issue

to be published in June, 2024

#### SCOPE

- 1: Lithography, Metrology and Related Technologies
  - 1-1: Advanced Lithography and Patterning
  - 1-2: Electron and Ion Beam Technologies
  - 1-3: Patterning Materials
- 2: Nanotechnology
  - 2-1: Nanocarbon & 2D Materials
  - 2-2: Nanodevices
  - 2-3: Nanofabrication
  - 2-4: Inorganic Nanomaterials
  - 2-5: Organic Nanomaterials
  - 2-6: Nano Surfaces, Interfaces, and Advanced Microscopy
- 3: Nanoimprint, Hybrid-NIL, Biomimetics, and Functional Surfaces
- 4: BioMEMS, Lab on a Chip, and Nanobiotechnology
- 5: Microsystem Technology and MEMS
- 6: Atomic Layer Processing (ALP)

#### **CONFERENCE CHAIRS**

Organizing Chair:

Seiya Kasai (Hokkaido Univ.)

Steering Chair:

Seiji Nagahara (Tokyo Electron)

Program Chair:

Koji Asakawa (Kioxia)

#### **CONTACT**

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# NC 2023

#### CONFERENCE OVERVIEW

International Microprocesses and Nanotechnology Conference (MNC) is the flagship conference on micro-and nanostructure fabrication and related physics, materials, and devices, along with EIPBN in the USA and MNE in Europe. MNC also covers the related technologies like information, communication, bio, medicine, energy, and environmental control.

MNC has been hosted by the Japan Society of Applied Physics (JSAP) annually since 1988, which started to provide a forum for discussing science and process technology in lithography. While actively taking in new terrains which draw keen attention as next-generation technologies, MNC has grown to provide opportunities for fruitful exchange of information among researchers and technical experts as well as transmitting information to the world.

MNC has also played an important role in development of human resources particularly in Asia. Young researchers can gain valuable experience in MNC. Special editions of Japanese Journal of Applied Physics (JJAP) have been issued as conference proceedings each time, which contribute to maintain the high academic level of the conference. Attention to the MNC has been growing.



#### 技術セミナー(日本語)

#### ALD 技術セミナー

【日時】令和5年11月14日(火)13:00~17:20 【場所】京王プラザホテル札幌 2F	
13:00-13:45	司会 山形大学 廣瀬 文彦 『Technology trends and recent topics of ALD (Tentatively)』 The University of Texas at Dallas Jiyoung Kim, PhD
13:45-14:20	『ALPにおけるケミカルの設計』 ジャパン・アドバンスト・ケミカルズ 安原 重雄
14:20-14:55	『ReaxFF MD Simulations for Analysis of Thin-Film Growth Mechanisms in Boron Nitride ALD Processes (反応性力場分子動力学法による窒化ホウ素ALDプロセスにおける薄膜成長機構の解析)』 東北大学流体科学研究所 徳増 崇
14:55-15:15	休憩
15:15-15:50	『高純度オゾンおよびO2プラズマ酸化ALDによる高ARトレンチへの被覆性』 明電ナノプロセス・イノベーション株式会社 萩原 崇之
15:50-16:25	『Fundamentals and Applications of Atomic Layer Etching(原子層エッチングの基礎と応用)』 大阪大学 唐橋 一浩
16:25-17:00	『A Proposal of Material Design for Atomic Layer Process』 日立製作所 山口 欣秀
17:00-17:10	『北大ALD装置による成膜事例の紹介』 北海道大学電子科学研究所 松尾 保孝
17:10-17:20	『産総研NPFのALD実験環境 ―XPS付きALD装置の紹介を中心に―』 産総研ナノプロセシング施設 有本 宏