

Information for IWBNS-IV, JAPAN

IWBNS-IV



**4th International Workshop on
Bulk Nitride Semiconductors**

**October 17 - 22, 2006
Makino Prince Hotel, Shiga, Japan**

4th International Workshop on Bulk Nitride Semiconductors

October 17 – 22, 2006

**Okubiwako Makino Prince Hotel
Shiga, Japan**

Abstract Deadline: July 20, 2006

Sponsored by

21st Century COE Program, “Future Nano-Materials”

Tokuyama Corporation

Sumitomo Electric Industries, Ltd.

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<http://iwbns-4.jpn.org/>

Scope of the Workshop

The 4th International Workshop on Bulk Nitride Semiconductors (IWBNS-IV) will be held Oct. 17 through 22 of 2006 at the Makino Prince Hotel, Shiga-prefecture Japan. The Workshop will focus on the most recent advances and potential solutions to the remaining challenges of bulk group-III nitride crystal growth, and other substrates technologies such as chemical solution, fast growth, thick layers, polar and semi-polar substrates growth, characterization and properties (thermal, piezoelectric, [opto] electronics, etc.), lift-off techniques, homo-epitaxial growth, doping, surface preparation, device fabrication and characterization (on bulk substrates), modeling and theory.

This Workshop is designed to exchange scientific information on problems and challenges in the science and technologies of fabrication of nitride-based bulk crystals and substrates with low concentrations of structural defects and unintentional impurities, and to avoid problems with hetero-epitaxial growth on substrates such as sapphire, silicon carbide, etc.

Seeded and unseeded bulk growth methods, low- and high-pressure, and fast/thick pseudo bulk epitaxial techniques will be addressed.

Growth and properties of undoped and intentionally doped homoepitaxial layers on bulk and thick heteroepitaxial substrates will be discussed. The growth and properties of device structures and the characterization of devices fabricated on these substrates are of high interest.

This Workshop will foster interaction between attendees from industry, government, and academia to address the current issues, research, and future potential of these technologies.

Location

Shiga is located at the center of Japan. It has the largest lake (Lake Biwa) in Japan. Shiga Prefecture is a transportation hub for most of the Kansai region such as Hyogo, Osaka and Kyoto. With a mild climate on October (15 ~ 20 °C), Makino is very rich in natural beauties of mountains, an avenue of redwoods and lake.



Invited Speakers (Scene setter)

- T. Fukuda (Tohoku Univ., Japan)
"Ammonothermal growth of Nitrides"
- B. Feigelson (Naval Research Lab., USA)
"New approach for bulk Nitrides growth from solution"
- H. Yamane (Tohoku Univ., Japan)
"Large area bulk GaN growth from solution"
- B. Epelbaum (Univ. of Erlangen-Nurnberg, Germany)
"Growth of bulk AlN"
- I. Grzegory (UNIPRESS, Poland)
"Non-polar Bulk GaN growth"
- D. Hanser (Kyma Tech., USA)
"Wafering and surface preparation of bulk Nitrides boules"
- D. Storm (Naval Research Lab., USA)
"High frequency devices based on homoepitaxial layers"

Submission of Abstracts

Authors are requested to submit the abstract by e-mail to iwbns-abst@tuat.sakura.ne.jp. The abstract of one page at maximum written in English must be prepared. The author must include figures, tables and references within the **one page limit**. The title should be placed at the top of the abstract, followed by the author's name(s), affiliation(s) and e-mail address of the presenting author. Send your abstract as an attachment file in MS-Word (Microsoft Word 98 or later versions) format.

The abstract should have the following format.

1. Paper size: A4- or letter-sized paper.
2. Margins: 2.0 cm margins on all sides.
3. Font style: "Times New Roman" or "Times" is recommended.
4. Font size: **12pt bold font** is for title and **10pt normal font** is for authors' name(s), affiliation(s), e-mail address and main text.
5. File format: MS-Word (Microsoft Word 98 or later version).

Submission form: MS-Word format

Address: iwbns-abst@tuat.sakura.ne.jp

Abstract deadline: July 20, 2006

Proceedings

The Proceedings will be published by the Journal of Crystal Growth and that information about the publication are described on the site:

<http://authors.elsevier.com/JournalDetail.html?PubID=505670&Precis=DESC>

Presentations

Presentations will be limited to 10 minutes, followed by 10 minutes for questions. (Scene-setters will be asked to present for 15 minutes, allowing 15 minutes for discussion.) An LCD projector for PowerPoint presentations and a laser pointer will be available in the room. Please bring your PowerPoint presentation on a CD-ROM, USB storage or your own PC (no Zip and Floppy disks).

Social Activities

1. Welcome Reception

Tuesday evening 6:30 p.m., October 17

A welcome party will be held at the restaurant “Chikubu” at Makino Prince Hotel (Workshop Site).

2. Group Outing

Thursday 9:30 a.m., October 19

Group outing to the beautiful spots with natural and historic interest is planned. We will enjoy a walk and sightseeing at [Makino Highland](#), [Chikubu isle](#), [Hikone Japanese Castle](#) and [Dinner at Hikone Castle Hotel](#).

3. Workshop Banquet

Saturday evening 7 p.m., October 21

A Workshop banquet will be held at a banquet hall “Kaizu” at Makino Prince Hotel. With excellent cuisine and a variety of drinks can be enjoyed.

Access to the Workshop Site

Most of participants from overseas will arrive at Kansai International Airport (KIX). To get to the workshop site, we have to go to Kyoto Station by JR (Japan Railway Company) Limited Express “Haruka” (100Km, 72 min, 3690 Yen), and go to Makino station by JR “Kosai Line” from Kyoto Station (67Km, approximately 80 min, 1100 Yen). It takes about 12 min to walk to the Okubiwako Makino Prince Hotel from Makino station. Generally, you can take a ride in a bus, if you call to the Makino Prince Hotel.

Optional Recommendation

All participants can choose an optional one-night stay plan in Kyoto (Oct. 16) for convenience. If you choose this plan, you will stay in Kyoto on Oct. 16 and go to Makino Prince Hotel (Workshop site) by bus on the morning of the 17th. Also, the sightseeing of Kyoto and its environs will be scheduled on the optional plan. Participants from overseas are strongly recommended to stay in Kyoto on Monday. Please pay room charge for this plan at the hotel by yourself. (We will only reserve the hotel room for you.)

An IWBNS-2006 workshop reduction will be available.

A single room (8,000 yen)

A twin room with single use (9,500 yen)

A twin room with twin use (12,000 yen)

The prices include tax and service. Breakfast will be served with 1,000 yen per person.

Please see workshop webpage,

<http://iwbns-4.jpn.org/kyotohotel.html>

Time Table (JR Kosai Line)	
Kyoto	Makino
7:40 a.m. ---->	8:50 a.m.
8:22 a.m. ---->	9:26 a.m.
9:20 a.m. ---->	10:32 a.m.
10:11 a.m. ---->	11:24 a.m.
11:11 a.m. ---->	0:24 p.m.
0:11 p.m. ---->	1:28 p.m.
3:45 p.m. ---->	4:40 p.m.
4:27 p.m. ---->	5:48 p.m.
4:56 p.m. ---->	6:18 p.m.
6:51 p.m. ---->	9:52 p.m.
7:57 p.m. ---->	9:08 p.m.
8:45 p.m. ---->	10:12 p.m.
9:41 p.m. ---->	10:51 p.m.

Registration

All attendees and presenters for the contributed papers are subject to pay the appropriate registration fees of **40,000 yen**. (On-site registration: **45,000 yen**)

Registration fees include:

- Attend all the technical sessions.
- Receive all the workshop documents.
- Invitation to the Welcome party
- Group outing
- Workshop Banquet
- Charges for hotel accommodation
- All of the meals during the workshop

Registration fee for accompanying person is **35,000 yen**.

Accommodation

We have already booked several single rooms, twin rooms and family rooms for all of participants. Some attendees, who will be accompanied any persons, can be stay in family room preferentially. A hotel room reservation will be made for you from Tuesday, Oct 17th through Saturday night, Oct. 21st, with Sunday departure. Room charge during the workshop is included in the registration fee.

Application and Payment

Important

Please bring your credit card to the workshop site to pay registration fee at the front desk of the Makino Prince Hotel.

Passport and Visa

All foreign visitors entering Japan must possess a valid passport. Participants from countries required a visa to enter Japan should obtain one from his/her nearest Japanese embassy or consulate in due time. For requesting documents to be issued by the workshop committee necessary for visa application (invitation letter, etc.), please contact Workshop Secretary.

Further Information

Latest information will be found on the workshop website, <http://iwbns-4.jpn.org/>.

Workshop Secretary

Dr. Hisashi Murakami

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2-24-16 Naka-cho, Koganei, Tokyo 184-8588, Japan

E-mail: iwbns-2006@uat.sakura.ne.jp

Workshop Committee

Committee Chairpersons:

Chair: Akinori Koukitu (Tokyo Univ. Agri. Tech., Japan)
Co-Chair: Sylwester Porowski (UNIPRESS, Poland)

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Makino Prince Hotel



Metasequoia Avenue



Lake Biwa



Japanese Castle "Hikone"