

B-3 SiC • Diamond • Other Related Materials

Representative Organizer

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Kenji UEDA (Nagoya University)

Takeshi YOSHIKAWA (The University of Tokyo)

Oral Session March 27 (Fri.) Room 2

Chair : Isaho Kamata (Central Research Institute of Electric Power Industry)

- 13:00 B3-I-01 **4H-SiC Bulk Growth Using High Temperature Gas Source Method** [Invited Lecture]
^{1,2}Jun Kojima, ^{1,2}Emi Makino, ^{1,2}Yuichiro Tokuda, ^{1,2}Naohiro Sugiyama, ^{1,3}Norihiro Hoshino, ^{1,3}Isaho Kamata, ^{1,3}Hidekazu Tsuchida
1 R&D PARTNERSHIP FOR FUTURE POWER ELECTRONICS TECHNOLOGY
2 DENSO CORPORATION
3 CENTRAL RESEARCH INSTITUTE OF ELECTRIC POWER INDUSTRY (CRIEPI)
- 13:30 B3-I-02 **Radiation Response of Silicon Carbide Metal-Oxide-Semiconductor Transistors in High Dose Region** [Invited Lecture]
¹Takeshi Ohshima, ^{1,2}T.Yokoseki, ^{1,2}K.Murata, ^{1,2}T.Matsuda, ^{1,2}S.Mitomo, ¹H.Abe, ¹T.Makino, ¹S.Onoda, ²Y.Hijikata, ³Y.Tanaka, ³M.Kandori, ³S.Okubo, ³T.Yoshie
1 JAPAN ATOMIC ENERGY AGENCY
2 SAITAMA UNIVERSITY
3 SANKEN ELECTRIC CO., LTD.
- 14:00 B3-O-01 **Correlation Between Grown Polytypes and Activity Ratio During Solution Growth of SiC with Multi-Component Solvent**
Atsushi Horio, Shunta Harada, Daiki Koike, Kenta Murayama, Kenta Aoyagi, Takenobu Sakai, Miho Tagawa, Toru Ujihara
DEPARTMENT OF MATERIALS SCIENCE AND ENGINEERING, NAGOYA UNIVERSITY
- 14:15 B3-O-02 **High Speed 4H-SiC Bulk Growth Under High Source Gas Concentration Using High Temperature Gas Source Method**
^{1,2}Yuichiro Tokuda, ^{1,2}Emi Makino, ^{1,2}Naohiro Sugiyama, ³Norihiro Hoshino, ^{1,2}Jun Kojima, ³Hidekazu Tsuchida
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3 CENTRAL RESEARCH INSTITUTE OF ELECTRIC POWER INDUSTRY (CRIEPI)
- 14:30 B3-O-03 **Influence of Growth Pressure on Filling 4H-SiC Trenches by CVD Method**
¹Shiyang Ji, ^{1,2}Kazutoshi Kojima, ^{1,2}Ryoji Kosugi, ²Shingo Saito, ²Yuuki Sakuma, ^{1,2}Yasunori Tanaka, ²Sadafumi Yoshida, ¹Hiroaki Himi, ²Hajime Okumura
1 R&D PARTNERSHIP FOR FUTURE POWER ELECTRONICS TECHNOLOGY
2 ADPERC, NATIONAL INSTITUTE OF ADVANCED INDUSTRIAL SCIENCE AND TECHNOLOGY
- 14:45 B3-O-04 **Spectral Response, Carrier Lifetime and Photocurrents of SiC Photocathodes**
Masashi Kato, Keiko Miyake, Masaya Ichimura
DEPARTMENT OF ENGINEERING PHYSICS, ELECTRONICS AND MECHANICS, NAGOYA INSTITUTE OF TECHNOLOGY
- 15:00 **Break**

Chair : Kenji Ueda (Nagoya University)

- 15:15 B3-I-03 **Diamond FETs Using Heterojunction and High-k Dielectrics** [Invited Lecture]
^{1,2}Yasuo Koide, ³Jiangwei Liu, ¹Masataka Imura, ¹Meiyong Liao
1 WIDE BANDGAP MATERIALS GROUP, OPTICAL & ELECTRICAL MATERIALS UNIT, NATIONAL INSTITUTE FOR MATERIALS SCIENCE (NIMS)
2 RESEARCH NETWORK AND FACILITIES SERVICES DIVISION, NIMS
3 INTERNATIONAL CENTER FOR YOUNG SCIENTISTS, NIMS
- 15:45 B3-O-05 **Effects of Impurity and Substrate Temperature on Diamond Growth**
Hideaki Yamada, Akiyoshi Chayahara, Yoshiaki Mokuno
DIAMOND RESEARCH GROUP, AIST
- 16:00 B3-O-06 **Cu/Diamond Schottky Diodes for High-Temperature and High-Power Applications**
Kenichi Ohtsuka, Kenji Ueda, Shinya Aichi, Hidefumi Asano
GRADUATE SCHOOL OF ENGINEERING, NAGOYA UNIVERSITY
- 16:15 B3-O-07 **Electrically-Active Defects in Ge_{1-x}Sn_x Epitaxial Layer**
¹Wakana Takeuchi, ^{1,2}Takanori Asano, ¹Mituo Sakashita, ¹Osamu Nakatsuka, ¹Shigeaki Zaima,
1 GRADUATE SCHOOL OF ENGINEERING, NAGOYA UNIVERSITY
2 RESEARCH FELLOW OF JAPAN SOCIETY FOR THE PROMOTION OF SCIENCE
- 16:30 B3-O-08 **Response to Visible Light in Amorphous Carbon Nitride Films Prepared by Reactive Sputtering**
Masami Aono, Tomo Harata, Nobuaki Kitazawa, Yoshihisa Watanabe
DEPARTMENT OF MATERIALS SCIENCE AND ENGINEERING, NATIONAL DEFENSE ACADEMY