

A-2 Plasma Deposition

Representative Organizer

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Hisao MAKINO (Kochi University of Technology)

Poster Session March 30 (Mon.) 11:15 ~ 12:30

- 11:15 A2-P-01 **Amorphous InGaZnO Phototransistors with a Ga₂O₃ Interlayer**
Ting-Hao Chang, Wen-Yin Weng, Shoou-Jinn Chang
INSTITUTE OF MICROELECTRONICS AND DEPARTMENT OF ELECTRICAL ENGINEERING, NATIONAL CHENG KUNG UNIVERSITY
- 11:15 A2-P-02 **Behavior of Excited Ar Atoms in RF Magnetron Carbon Sputtering Plasma Measured by Laser Absorption Spectroscopy**
¹Yusuke Sago, ¹Takayuki Ohta, ²Akinori Oda, ³Hiroyuki Kousaka
1 DEPARTMENT OF ELECTRONICS AND ELECTRICAL ENGINEERING, MELJO UNIVERSITY
2 DEPARTMENT OF ELECTRICAL, ELECTRONICS AND COMPUTER ENGINEERING, CHIBA INSTITUTE OF TECHNOLOGY
3 DEPARTMENT OF MECHANICAL SCIENCE AND ENGINEERING NAGOYA UNIVERSITY
- 11:15 A2-P-03 **Low-Frequency Noise Characterization of Amorphous InGaZnO Thin-Film Transistors with Double-Stack Ga₂O₃/SiO₂ Dielectric**
Chih-Yu Wei, Ting-Hao Chang, Shoou-Jinn Chang
INSTITUTE OF MICROELECTRONICS AND DEPARTMENT OF ELECTRICAL ENGINEERING, NATIONAL CHENG KUNG UNIVERSITY
- 11:15 A2-P-04 **Preparation of Bi, Fe Thin Film by Pulsed Laser Deposition Method Using a Powder Target**
Hiroharu Kawasaki, Tamiko Ohshima, Yoshihito Yagyu, Takeshi Ihara, Yuki Tanaka, Yoshiaki Suda
DEP. OF ELECTRICAL & ELECTRONICS ENG., NATIONAL INSTITUTE OF TECHNOLOGY, SASEBO COLLEGE
- 11:15 A2-P-05 **BCA Simulation on Noble-Gases-Absorptivity of Tungsten Fuzz Structure**
^{1,2}Hiroaki Nakamura, ³Seiki Saito, ¹Atsushi M. Ito, ¹Arimichi Takayama
1 NATIONAL INSTITUTE FOR FUSION SCIENCE
2 DEPARTMENT OF ENERGY ENGINEERING AND SCIENCE, NAGOYA UNIVERSITY
3 DEPARTMENT OF ELECTRICAL ENGINEERING, KUSHIRO NATIONAL COLLEGE OF TECHNOLOGY
- 11:15 A2-P-06 **Amorphous InGaZnO Ultraviolet Phototransistors with Double-Stack Ga₂O₃/SiO₂ Dielectric**
Ke-Ting Chen, Ting-Hao Chang, Shoou-Jinn Chang
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- 11:15 A2-P-07 **Effects of Substrate Temperature on the Electrical Properties of Ga-Doped ZnO Films Deposited by RF Magnetron Sputtering**
¹Lukman Nulhakim, ^{1,2}Hisao Makino
1 ELECTRONIC AND PHOTONIC SYSTEM ENGINEERING, KOCHI UNIVERSITY OF TECHNOLOGY
2 RESEARCH INSTITUTE, KOCHI UNIVERSITY OF TECHNOLOGY
- 11:15 A2-P-08 **Precursor of N Atoms of Hydrogenated Amorphous Carbon Nitride Films Formed from the Microwave Discharge of C₂H₂/N₂ Gas Mixture**
Haruhiko Ito, Hiroki Tsudome, Nobuyoshi Mogi
DEPARTMENT OF CHEMISTRY, NAGAOKA UNIVERSITY OF TECHNOLOGY

- 11:15 A2-P-09 **Erosion of Tungsten Material Under Hydrogen Plasma Irradiation by Binary-Collision-Approximation-Based Simulation**
¹Seiki Saito, ^{2,3}Hiroaki Nakamura, ³Masayuki Tokitani
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2 DEPARTMENT OF ENERGY ENGINEERING AND SCIENCE, NAGOYA UNIVERSITY
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- 11:15 A2-P-10 **Investigation of the Biaxial Stress of AZO Thin Film on Flexible Substrate**
²Kuo-Ting Huang, ^{1,2}Hsi-Chao Chen, ¹Bo-Wei Cheng, ¹Jhe-Ming Chang
1 DEPARTMENT OF ELECTRONIC ENGINEERING, NATIONAL YUNLIN UNIVERSITY OF SCIENCE AND TECHNOLOGY
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- 11:15 A2-P-11 **High-Speed RF/Plasma Diagnostic and Control Technology in Plasma Enhanced Atomic Layer Deposition (PEALD) Process**
 Naeil Lee, Chin-Wook Chung
DEPARTMENT OF ELECTRICAL ENGINEERING, HANYANG UNIVERSITY
- 11:15 A2-P-12 **Quality Improvement of DLC Film Formed by Dielectric Barrier Discharge Plasma**
 Kazuya Tada, Yasutaka Asai, Shinji Yasui
DEPARTMENT OF INFORMATION ENGINEERING, NAGOYA INSTITUTE OF TECHNOLOGY
- 11:15 A2-P-13 **New Copper Alloy Film for Barrierless Si Metallization Applications**
 Chon-Hsin Lin
DEPARTMENT OF BIOTECHNOLOGY, ASIA-PACIFIC INSTITUTE OF CREATIVITY
- 11:15 A2-P-14 **Fabrication of Polymer Electrolyte Fuel Cell Using Carbon Nanowalls**
¹Ryosuke Okei, ¹Takayuki Ohta, ¹Masafumi Ito, ¹Mineo Hiramatsu, ²Hiroki Kondo, ²Masaru Hori
1 DEPARTMENT OF ELECTRICAL AND ELECTRONIC ENGINEERING, MEIJO UNIVERSITY
2 DEPARTMENT OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCE, NAGOYA UNIVERSITY
- 11:15 A2-P-15 **High Responsivity of Amorphous Indium Gallium Zinc Oxide Phototransistor with Ta₂O₅ Gate Dielectric**
Man-Yu Chang, Ting-Hao Chang, Shoou-Jinn Chang
INSTITUTE OF MICROELECTRONICS & DEPARTMENT OF ELECTRICAL ENGINEERING CENTER FOR MICRO/NANO SCIENCE AND TECHNOLOGY ADVANCED OPTOELECTRONIC TECHNOLOGY CENTER NATIONAL CHENG KUNG UNIVERSITY
- 11:15 A2-P-16 **Dry Engraving of Metals Nameplates Using Cutter with Super DLC Coat**
¹Yuma Fujii, ¹Yu Miyamoto, ¹Yoshiyuki Suda, ¹Hirofumi Takikawa, ²Hideto Tanoue, ³Masao Kamiya, ⁴Makoto Taki, ⁴Yushi Hasegawa, ⁴Nobuhiro Tsuji
1 DEPT. OF ELECTRICAL & ELECTRONIC INFORMATION ENGINEERING, TOYOHASHI UNIVERSITY OF TECHNOLOGY
2 DEPT. OF ELECTRICAL & ELECTRONIC ENGINEERING, KITAKYUSHU NATIONAL COLLEGE OF TECHNOLOGY
3 ITOH OPTICAL INDUSTRIAL CO., LTD.
4 ONWARD CERAMIC COATING CO., LTD.
- 11:15 A2-P-17 **High Energy Enhanced TCO Coatings on Polymer Substrate**
Gun Hwan Lee, Jeung Heun Yun
DEPARTMENT OF SURFACE TECHNOLOGY, KOREA INSTITUTE OF MATERIALS SCIENCE
- 11:15 A2-P-18 **High-Mobility Amorphous In₂O₃:Sn Films Prepared by Sputter Deposition with Nitrogen-Mediated Amorphization Method**
^{1,2}Naho Itagaki, ¹Toshiyuki Takasaki, ¹Takahiko Nakanishi, ¹Daisuke Yamashita, ¹Hyunwoon Seo, ¹Kazunori Koga, ¹Masaharu Shiratani
1 GRADUATE SCHOOL OF INFORMATION SCIENCE AND ELECTRICAL ENGINEERING, KYUSHU UNIVERSITY
2 PRESTO, JAPAN SCIENCE AND TECHNOLOGY AGENCY
- 11:15 A2-P-19 **Bipolar Resistive Switching Characteristics of TaO_x RRAM**
Wei-Kang Hsieh, Shoou-Jinn Chang
INSTITUTE OF MICROELECTRONICS & DEPARTMENT OF ELECTRICAL ENGINEERING, NATIONAL CHENG KUNG UNIVERSITY

- 11:15 A2-P-20 **Study of Tritium Desorption from Tungsten Material by Energetic Ion Bombardment**
¹Shuichi Kato, ¹Toshiro Kasuya, ¹Mamiko Sasao, ¹Motoi Wada, ²Hiroaki Nakamura
 1 DEPARTMENT OF SCIENCE AND ENGINEERING, DOSHISHA UNIVERSITY
 2 DEPARTMENT OF HELICAL PLASMA RESEARCH, NATIONAL INSTITUTE FOR FUSION SCIENCE
- 11:15 A2-P-21 **Application and Behaviors of Silicon-Related Film Prepared by Hybrid PECVD**
¹Jongwook Kim, ¹Jaeyoung Yang, ¹Keunoh Park, ¹Ginyung Hur, ¹Jaeho Lee, ²Hongbae Kim
 1 ADVANCED TECHNOLOGY LAB., TES CO. LTD.
 2 DEPARTMENT OF ELECTRONICS AND INFORMATION ENGINEERING, CHEONGJU UNIVERSITY
- 11:15 A2-P-22 **Fabrication of ZnInON-Based Multi-Quantum Well Solar Cells by RF Magnetron Sputtering**
¹Koichi Matsushima, ¹Ryota Shimizu, ¹Tomoaki Ide, ¹Daisuke Yamashita, ¹Hyunwoong Seo, ¹Kazunori Koga, ¹Masaharu Shiratani, ^{1,2}Naho Itagaki
 1 GRADUATE SCHOOL OF INFORMATION SCIENCE AND ELECTRICAL ENGINEERING, KYUSHU UNIVERSITY
 2 PRESTO, JAPAN SCIENCE AND TECHNOLOGY AGENCY
- 11:15 A2-P-23 **Mechanical Properties of SiO₂ and Nb₂O₅ Optical Thin Films Prepared by High-Density Plasma-Assisted Vapor Deposition**
^{1,2}Yasushi Morizumi, ^{1,2}Hitoshi Endo, ³Hideo Honma, ^{2,3}Osamu Takai
 1 NITTOH KOGAKU K. K.
 2 DEPARTMENT OF INDUSTRIAL CHEMISTRY, GRADUATE SCHOOL OF ENGINEERING, KANTO GAKUIN UNIVERSITY
 3 MATERIALS & SURFACE ENGINEERING RESEARCH INSTITUTE, KANTO GAKUIN UNIVERSITY
- 11:15 A2-P-24 **Synthesis of SiN_x Barrier Film by Radical Control in PECVD**
¹Jun S.Lee, ¹Kyung S. Shin, ¹B.B.Sahu, ¹Su B. Jin, ²Tae I. Baek, ¹Jeon G. Han
 1 NU-SKKU JOINT INSTITUTE FOR PLASMA-NANO MATERIALS, SUNGKYUNKWAN UNIVERSITY
 2 JESAGI HANKOOK LTD.
- 11:15 A2-P-25 **Sputtering Deposition of Titanium-Base Thin Films by Powder Target**
Tamiko Ohshima, Takashi Maeda, Yuki Tanaka, Hiroharu Kawasaki, Yoshihito Yagyū, Takeshi Ihara, Yoshiaki Suda
 DEPARTMENT OF ELECTRICAL AND ELECTRONIC ENGINEERING, NATIONAL INSTITUTE OF TECHNOLOGY, SASEBO COLLEGE
- 11:15 A2-P-26 **Properties of the Coatings Deposited in a Magnetron with Melted Cathode under Different Experimental Conditions**
Alexander Tumarkin, Dobrynya Kolodko, Andrey Kaziev, Georgy Khodachenko
 DEPARTMENT OF PLASMA PHYSICS, NATIONAL RESEARCH NUCLEAR UNIVERSITY MEPhI
- 11:15 A2-P-27 **CVD Synthesis of Monolayer Transition Metal Dichalcogenides**
Tomoyuki Takahashi, Toshiaki Kato, Toshiro Kaneko
 DEPARTMENT OF ELECTRONIC ENGINEERING, TOHOKU UNIVERSITY
- 11:15 A2-P-28 **Processes Parameter Dependent Sputtering Control of Thin Films for Improvement of Film Stress**
¹Y.S.Song, ¹T.H.Yim, ²J.R.Kim
 1 SURFACE TECHNOLOGY R&BD GROUP, KITECH
 2 DEPARTMENT OF MATERIALS AND METALLURGICAL SCIENCE, HANYANG UNIVERSITY
- 11:15 A2-P-29L **Fabrication of Graphene Using Plasma Enhanced Chemical Vapor Deposition**
¹Masakazu Tomatsu, ¹Mineo Hiramatsu, ²Hiroki Kondo, ²Masaru Hori
 1 DEPARTMENT OF ELECTRICAL AND ELECTRONIC ENGINEERING, MEIJO UNIVERSITY
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