Poster session 1

March 18 (MON) 14:00-15:45

18P1-01 Power Source Improvement for Atmospheric Plasma Jet Production

¹Hiroto Matsuura, ¹Trung Nguyen Tran, ¹Yoshiki Matsui and ²Yuichiro Takemura

¹Osaka Prefecture University

²Kindai University

18P1-02 Oxygen Radical Measurement of Atmospheric Pressure Microwave Plasma

Employing Vacuum Ultraviolet Absorption Spectroscopy

Hansin Bae, Yosuke Koike, Hirotsugu Koma, Haruka Suzuki and Hirotaka Toyoda

Nagoya University

18P1-03 Time-resolved Measurement of Cross-Sectional Structure of a Narrow Gap Plasma

Produced by an Atmospheric Pressure Microwave Discharge

Yoshiki Baba, Haruka Suzuki and Hirotaka Toyoda

Nagoya University

18P1-04 Hydrogen Recycling Properties of Tin Wall in DC Glow Hydrogen Plasma

¹Kota Tamura, ¹Haruka Suzuki, ¹Hirotaka Toyoda and ²Junichi Miyazawa

¹Nagova University

²National Institute for Fusion Science

18P1-05 Application of Atmospheric-Pressure Plasma Treatment to Coat Ti-Alloy Orthodontic Wire with White Oxide Layer

¹Naho Mitsuishi, ²Eri Miura-Fujiwara, ¹Motoko Yamada, ¹Tadachika Chiba, ¹Hisashi Sato,

¹Yoshimi Watanabe, ³Michiko Ito, ³Seigo Takashima, ⁴Masaaki Nakai and ⁵Toshikazu Akahori

¹Nagoya Institute of Technology

²University of Hyogo

³Nagoya Industries Promotion Corporation

⁴Kindai University

⁵Meijo University

⁶Kyushu University

⁷Tohoku University

8Osaka University

⁹Nagoya University

¹⁰Takeuchi Katan Ltd.,Co

18P1-06 High Density and Low Temperature Nitrogen Plasmas for Nitrogen Atom Source

¹Noriyasu Ohno, ¹Koji Asaoka, ¹Shin Kajita, ¹Hirohiko Tanaka and ²Yuki Hayashi

¹Nagoya University

²National Institute for Fusion Science

18P1-08 Hybrid DC+ HIPIMS Magnetron Sputtering Deposition of Cu Films

Viacheslav Semenov, Vladimir Oskirko, Alexander Zakharov, Sergey Rabotkin,

Igor Ionov and Andrey Solovyev

Institute of High Current Electronics SB RAS

18P1-09 Langmuir Probe Characterization of Annular DC Magnetron Plasmas with Al, Ti and Ti-Al Targets

Jarl Tynan Collado, Christian Lorenz Mahinay, Paz Victoria Ramos, Franulfo Dela Cruz,

Rafael Alexander Carreon and Juan Gabriel Troncales

Ateneo de Manila University

18P1-10 Study on Soil Disinfection using Ozone Water

¹Tatsuya Seto, ¹Daigo Yasutake, ¹Shota Kawazoe, ²Noriko Horibe, ²Kazuhiro Nagahama,

²Shin-ichi Aoqui and ¹Fumiaki Mitsugi

¹Kumamoto University

²Sojo University

18P1-11 Visualization of the Sound Pressure Distribution of Acoustic Wave Emitted by

Surface Discharge using Optical Wave Microphone CT Scanning System

¹Sho Honda, ¹Ryo Kikuchi, ²Paiva Victoria, ³Toshiyuki Nakamiya and ³Yoshito Sonoda

¹Kumamoto University

²Instituto Tecnologico de Aeronautica

³Shin-Giken Co., Ltd.

18P1-12 Diagnostics and Monitoring of Low Temperature Plasma by Multipole Resonance

Probe

Natthapong Jampaiboon, Chatchai Sirithipvanich, Worawan Bhanthumnavin and

Boonchoat Paosawatyanyong

Chulalongkorn University

18P1-13 Nitriding Treatment using Active Screen Plasma and Its Evaluation

¹Susumu Ichimura, ¹Seigo Takashima, ²Ippei Tsuru, ²Daichi Ohkubo, ²Hideaki Matsuo and

²Mineo Goto

¹Nagoya Industries Promotion Corporation

²Nakanihon-Ro Kogyo Co., Ltd.

18P1-14 Neutron Irradiation Effects on Bubble Formed Tungsten Material

¹Seiki Saito, ^{2,3}Hiroaki Nakamura and ⁴Kanta Suzuki

¹Yamagata University

²National Institute for Fusion Science

³Nagoya University

⁴National Institute of Technology, Kushiro College

18P1-15 Plasma Polymerization of Poly (Methyl-Methacrylate) and Cyclopropylamine Inside

the Inner Surface of Silicone Tube using Capacitively Coupled Radio Frequency

Plasma Reactor

Himanshu Mishra, Nima Bolouki and Hsieh Jang Hsing

Ming Chi University of Technology

18P1-16 Control of SiO₂/InAlN Interface by Plasma Surface Oxidation

Shouhei Kitajima and Masamichi Akazawa

Hokkaido University

18P1-17 Fabricating Improved Fit Soft Contact Lenses with Various Monomers

Zhong-Rui Wu, Meng-Jiy Wang and Jinn-Hsuan Ho

National Taiwan University of Science and Technology

18P1-18 Enhanced Growth or Fiberform Nanostructures by He Plasma Irradiation

¹Shin Kajita, ¹Shota Kawaguchi, ²Naoaki Yoshida, ¹Tatsuki Okuyama, ¹Tomohiro Nojima,

¹Hirohiko Tanaka and ¹Noriyasu Ohno

¹Nagoya University

²Kyushu University

18P1-19 Characteristics of HiPIMS Driven by Spiker-sustainer Pulses for DLC Deposition

¹Koichi Takaki, ¹Mutsumi Takahashi, ¹Katsuyuki Takahashi, ¹Seiji Mukaigawa and ²Ken

Yukimura

¹Iwate University

²National Institute of Advanced Industrial Science and Technology (AIST)

18P1-20 Plasma-Modified Zeolites as Adsorbents of Volatile Organic Compounds

Fatima Jenina Arellano, Eleanor Olegario and Magdaleno Jr. Vasquez

University of the Philippines-Diliman

18P1-21 Fluorine-plasma Etching Behavior of Sputter-deposition Yttrium Fluoride Film

Wei-Kai Wang, Yu-Xiu Lin and Yi-Jie Xu

Da-Yeh University

18P1-22 Comparison of Plasma Surface Functionalized 3D PCL and 3D PCL/ Beta-TCP

Scaffold on Bone Regeneration Efficiency

¹Min-Suk Kook, ²Byung-Hoon Kim, ¹Myung-Sun Kim, ¹Eun-Ji Lee and ¹Gwang-Min Heo

¹Chonnam National University

²Chosun University

18P1-23 Decolorization of Amaranth Aqueous Solution by Atmospheric-pressure Plasma Jet

Irradiation

Hiroshi Kuwahata, Daisuke Sato, Yusuke Kezuka and Yoshiki Oda

Tokai University

18P1-24 Effect of Bipolar Pulsed Parameters on The Microstructure and Corrosion Resistance of AZ31 Magnesium Alloys Treated by Plasma Electrolytic Oxidation

¹Chien-An Yen, ^{1,2}Jyh-Wei Lee and ^{2,3}Bih-Show Lou

¹Ming Chi University of Technology

²Chang Gung University

³Chang Gung Memorial Hospital

18P1-25 The Performance of Three-Dimensionally Integrated Micro Solution Plasma Assisted

with Argon Micro-Bubble

Reiya Nakagawa, Hiroto Masunaga, Jun-seok Oh and Tatsuru Shirafuji

Osaka City University

18P1-26 The Influence of Pulse Voltage Polarity on Au-Nanoparticle-Embedded Film

Formation on Aqueous Solution in contact with DBD

¹Shunta Hirano, ¹Shiori Azuma, ¹Yusuke Nakamura, ²Toshiyuki Isshiki, ¹Jun-seok Oh and

¹Tatsuru shirafuji

¹Osaka City University

²Kyoto Institute of Technology

18P1-27 AC Glow Discharge in Liquids: Its Influence and Ability to Silver Nanoparticles

Synthesis

Phuoc Thai, Shinnosuke Abe, Kenichiro Kosugi, Nobuo Saito, Kazumasa Takahashi, Toru Sasaki and Takashi Kikuchi

Nagaoka University of Technology

18P1-28 Carbon Nanoflakes Involving Fe-N-C Bonds by Growth of In-liquid Plasma of Ethanol and Iron Phthalocyanine Mixture

¹Ryo Hamaji, ¹Tomoki Amano, ¹Hiroki Kondo, ¹Takayoshi Tsutsumi, ¹Kenji Ishikawa,

¹Makoto Sekine, ²Keigo Takeda, ²Mineo Hiramatsu and ¹Masaru Hori

¹Nagoya University

²Meijo University

18P1-29 Effect of Discharge Current on Phase Transitions in Dusty Plasma in Neon Glow Discharge at Cryogenic Temperature

Dmitry Polyakov, Valeria Shumova and Leonid Vasilyak

Russian Academy of Sciences

18P1-30 Trial of the Two-dimentional Functional Thin Film Preparation by Sputtering Method using Powder Targets

¹Hiroharu Kawasaki, ¹Tamiko Ohshima, ¹Yoshihito Yagyu, ¹Takeshi Ihara, ¹Masanori Shinohara and ²Yoshiaki Suda

¹National Institute of Technology, Sasebo College ²National Institute of Technology, Ishikawa College

18P1-31 Cubic Boron Nitride Film Deposition by Electron Beam Excited Plasma

¹Seigo Takashima, ¹Susumu Ichimura, ²Hiroyuki Yamamoto, ²Koji Yamakawa,

²Shoji Den, ³Masanao Iwata, ⁴Kenji Ishikawa and ⁴Masaru Hori

¹Nagoya Industries Promotion Corporation

²Katagiri Engineering Co., Ltd.

³Iwata Tool Co., Ltd.

⁴Nagoya University

18P1-32 Application of RF Sputtering Prepared CuO Micro-Electro-Mechanical-Systems (MEMS) Gas Sensor

¹Shao-Yu Fan, ¹Cheng-Liang Hsu and ²Ting-Jen Hsueh

¹National University of Tainan

²National Kaohsiung University of Science and Technology

18P1-33 Dual Magnetron Sputtering System Operating in Deep Oscillation Mode

Vladimir Oskirko, Viacheslav Semenov, Alexander Grenadyorov, Alexander Zakharov,

Artem Pavlov and Andrey Solovyev

Institute of High Current Electronics SB RAS

18P1-34 Deposition of Protective and Anti-reflection a-C:H:SiO_x Films for IR Optic

Alexander Grenadyorov, Konstantin Oskomov, Viacheslav Semenov and Andrey Solovyev Institute of High Current Electronics SB RAS

18P1-35 Improving P-type Micro-oxidized ZnO:N Film by Efficient Thermal Treatment

Chiung-Wei Lin, Cheng-Hung Shen and Bing-Ying Zhong

Tatung University

18P1-36 Microwave Plasma Treatment of CVD-Synthesized Single- and Few-Layer MoS₂

Akihisa Ogino and Masahiro Sugiyama

Shizuoka University

18P1-37 Hydrophilic Functional DLC Coating on an Inner-wall of Artificial Vascular Grafts Using Oxygen Plasma by AC High Voltage Burst Plasma CVD Method

¹Yuichi Imai, ²Tatsuyuki Nakatani, ³Yasuhiro Fujii and ³Susumu Ozawa

¹STRAWB Inc.

²Okayama University of Science

³Okayama University

18P1-38 Characteristics of ZnO-SnO₂ Thin Film Transistors on Flexible Substrates

Kazuo Satoh, Shuichi Murakami, Yusuke Kanaoka, Yoshiharu Yamada, Yoshiharu Kakehi,

Yusuke Kondo and Yoshiaki Sakurai

Osaka Research Institute of Industrial Science and Technology

18P1-39 Preparation and Characteristics of Al Doped ZnO Films for Transparent Electorode

of Photovoltaic Devices by using Low- Damage Sputtering

Yu Jin Kim, Sangmo Kim and Kyung Hwan Kim

Gachon University

18P1-40 Gate-bias Instability of Amorphous In-Ga-Zn-Ox Thin-film Transistors Fabricated by Plasma-assisted Reactive Processes

¹Kosuke Takenaka, ¹Masashi Endo, ¹Tomoki Yoshitani, ¹Hiroyuki Hirayama, ¹Giichiro Uchida,

²Akinori Ebe and ¹Yuichi Setsuhara

¹Osaka University

²EMD Corporation

18P1-41 Double Conductive Filaments Behavior in the (In, N) co-doped ZnO Resistive Memory

¹Sih-Sian Li, ¹Ricky W. Chuang and ^{1,2}Yan-Kuin Su

¹National Cheng Kung University

²Kun Shan University

18P1-42 Fabrication of Tungsgten Carbide Films by Unbalanced Magnetron Sputtering for Electrical Conductive Hard Coating

¹Koki Tamekuni, ¹Toru Harigai, ¹Satoshi Degai, ¹Tsuyoshi Tanimoto, ¹Yoshiyuki Suda,

¹Hirofumi Takikawa, ²Shigeki Takago, ²Haruyuki Yasui, ³Satoru Kaneko and

⁴Shinsuke Kunitsugu

¹Toyohashi University of Technology

²Industrial Research Institute of Ishikawa

³Kanagawa Institute of Industrial Science and Technology

⁴Industrial Technology Center of Okayama Prefecture

⁵Itoh Optical Industrial Co., Ltd.

⁶Onward Ceramic Coating Co., Ltd.

18P1-43 Influence of Annealing on Sputtered Boron Nitride Film

¹Hongshuo Wang, ¹Tadayoshi Sakai, ¹Xu Yang, ¹Manato Deki, ¹Maki Kushimoto, ^{1,2}Atsushi

Tanaka, ¹Shugo Nitta, ¹Yoshio Honda and ^{1,2}Hiroshi Amano

¹Nagova University

²National Institute for Materials Science

18P1-44 Preparation and Application of Ni-doped CuCo₂O₄ Thin Films

1,2Ruei-Sung Yu and 1Tzu-Chi Cheng

¹Asia University

²China Medical University

18P1-45 Development of Repairing Technology for Local Damaged Points of Diamond-Like Carbon Film ¹Hajime Takamatsu, ¹Hiroyuki Kousaka, ¹Tatsuya Furuki and ²Ippei Tanaka ¹Gifu University ²University of Hyogo Change in Molecular Structure of 1-Butanol Irradiated with Intense UV Pulsed Laser 18P1-46 Sho Shimizu, Takuto Yamaguchi, Keigo Takeda and Mineo Hiramatsu Meijo University 18P1-47 Potential Control of Surface Wave Plasma by Applying DC Pulse Voltage to a Slot Type Microwave Antenna ¹Sho Fukuda, ¹Kou Udagawa, ¹Haruka Suzuki, ²Yuki Yauchi and ¹Hirotaka Toyoda ¹Nagoya University, ¹Nagoya University ²Kobe Steel Ltd 18P1-48 Energetic Electrons in a Magnetized Sheet Plasma Arnold Rey Gines, Beverly Anne Suarez and Motoi Wada Doshisha University 18P1-49 Electric Probe Characterization of Atmospheric Pressure Inductively Coupled Joey Kim Soriano, Takashi, Torii and Motoi Wada Doshisha University 18P1-50 Spatiotemporally Resolved Laser Absorption Spectroscopy on Helium 2³S Metastable Atoms in an Atmospheric Pressure and Low Temperature Plasma Jet Jiro Kakutani, Keisuke Ueno, Keisuke Fujii, Taiichi Shikama and Masahiro Hasuo Kyoto University Elucidation of Electron Extinction Mechanism during Afterglow of Fluorocarbon 18P1-51 Pulsed Plasma with Synchronized DC Bias Kazuya Nakane, Toshinari Ueyama, Xie Xitong, Takayoshi Tsutsumi, Keigo Takeda, Hiroki Kondo, Kenji Ishikawa, Makoto Sekine, Yoshinobu Ohya and Masaru Hori Nagova University 18P1-52 Plasma Surface Kinetic Studies of Etch Process Based on Plasma Diagnostics in **Inductively Coupled Fluorocarbon Plasmas** ¹Won-SeokChang, ¹Deuk-Chul Kwon, ¹Hee-Chu lChoi, ¹Mi-Young Song, ¹Jung-Sik Yoon, ³Dong-HunYu, ²Yeong-Geun Yook and ²Yeon-HoIm ¹National Fusion Research Institute ²Kyungwon Tech Inc. ³Chunbuk National University 18P1-53 Optimize Processing of YSZ Coatings Deposition by High Power Impulse Magnetron **Sputtering** ^{1,2}Yu-Wei Lin, ²You-Chen Chang, ²Jia-Hong Huang, ²Ge-Ping Yu, ¹Wei-Chun Chen, ¹Hung-Pin Chen and ¹Fong-Zhi Chen ¹National Applied Research Laboratories ²National Tsing Hua University 18P1-54 Deposition of TiN Thin Films using a Magnetized Sheet Plasma System Glenson Panghulan, Catherine Dela Cruz, Henry Ramos and Magdaleno Jr. Vasquez University of the Philippines-Diliman

18P1-55 Fabrication of TiO2-coated ZnO Porous Nanostructured Films Rogel Jan Butalid, Anna Patricia Cristobal, Arantxa Danielle Montallana and Magdaleno Jr. Vasquez University of the Philippines-Diliman 18P1-56 Deposition of Titanium Aluminum Nitride Thin Films at Varying Gas Ratios and Substrate Temperatures Jason Audrey Licerio and Magdaleno Jr. Vasquez University of the Philippines-Diliman 18P1-57 Mechanical Properties and Microstructure of Sputtered V-Si-N Coatings Yu-Heng Liu, Li-Chun Chang and Yung-I Chen National Taiwan Ocean University 18P1-58 Fabrication of TiO₂ -Graphene Composites for Visible Light Photocatalytic Degradation of Diclofenac Nelly Karen Viktoria Rosales, Rose Jane Cuerquis, Anna Patricia Cristobal, Arantxa Danielle Montallana, Ma. Shanlene Dela Vega and Magdaleno Jr. Vasquez University of the Philippines-Diliman 18P1-59 Microstructural and Magnetic Characterization of Ion-beam-deposited Ni₈₀Fe₂₀/Alpha-Fe₂O₃ Bilayers ¹Sara Callori, ²Yi-Ju Lee and ²Ko-Wei Lin ¹California State University ²National Chung Hsing University 18P1-60 Structural Analysis of Nickel Electroplating Material Prepared by Deep-Eutectic Solvent Wei-Chun Wang and Kun-Cheng Peng Ming Chi University of Technology 18P1-61 Synthesis of Titanium Molybdenum Nitride Hard Coatings Via Magnetron Sputtering Renato Jr. Daclan, Magdaleno Jr. Vasquez and Mena Manolo University of the Philippines-Diliman 18P1-62 Influence of Ar/H₂O Ratio on the Growth of ZnO Thin Films ¹Marlo Nicole Gilos, ¹Allen Vincent Catapang, ²Magdaleno Jr. Vasquez and ¹Motoi Wada ¹Doshisha University ²University of the Philippines-Diliman 18P1-63 The Exchange Bias Properties in [Co/Ni]/PtMn Multilayers ¹Palash Manna, ²Chun-Hsien Wu, ²Yu-Ting Su, ¹Johanvan Lierop and ²Ko-Wei Lin ¹University of Manitoba ²National Chung Hsing University

18P1-64 Combinatorial Thin Film Deposition of TiAlN Hard Coatings

Ferrine Gianne Reyes, Jason Audrey Licerio and Magdaleno Vasquez

University of the Philippines-Diliman

18P1-65 PET/Pt Grown ZnO Nanorods to Investigate its Piezoelectric Property

Po-Yang Tseng and Kun-Cheng Peng Ming Chi University of Technology

18P1-66 Structural Analysis of Copper Electroplating Material Prepared by Deep-Eutectic Solvent by Annealing Process

Yang Lijue and Peng Kun Cheng Ming Chi University of Technology