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## [PS2] Poster Session 2

**Date:** October 13, 2010 (Wednesday)

**Time:** 14:40 – 16:40

**Topics include:**

11. Applications - Environmental
12. Applications - Medical
13. Applications - Biological
14. Applications - Industrial
16. Applications - EM Launchers
17. Applications - Z-pinch and Imploding Liners
18. Applications - Soft/hard X-Ray
19. Applications - Lasers
61. Particle Beam Technology - Beam Sources
63. Particle Beam Technology - Interaction with Matter
64. Particle Beam Technology - High Power electron and Ion Beams Physics
65. Particle Beam Technology - Accelerator Technology
66. Particle Beam Technology - Applications of Particle Beams
67. Particle Beam Technology - Diagnostics and Experimental Equipment
68. Particle Beam Technology - Theory and Simulations
69. Particle Beam Technology - Beams from Lasers
70. Electromagnetic Pulse

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**[PS2-1]      14:40 - 16:40      LONG GAP DISCHARGE IN WATER**  
Y. S. Jin<sup>1</sup>, J. H. Cho<sup>1</sup>, H. J. Ryoov, J. S. Kim<sup>1</sup>, G. H. Rim<sup>1</sup>, and S. W. Lim<sup>2</sup>  
<sup>1</sup>Korea Electrotechnology Research Institute, Korea  
<sup>2</sup>UST, Korea

**[PS2-2]      14:40 - 16:40      DEGRADATION OF RHODANMINE-B BY HIGH-VOLTAGE PULSED DIELECTRIC BARRIER DISCHARGE IN WATER-GAS MEDIUM**  
Haiyan Zhao, Kefu Liu, Jian Qiu, and Jian He  
Fudan University, China

**[PS2-3]      14:40 - 16:40      IMPROVEMENT OF ENERGY TRANSFER EFFICIENCY DURING**

**OZONE PRODUCTION USING NANO-SECONDS PULSED DISCHARGE**

Araki Yoshitaka, Mastumoto Takao, Wang Douyan, Namihira Takao, and Akiyama Hidenori  
Kumamoto University, Japan

**[PS2-4] 14:40 - 16:40 INFLUENCE OF FEEDING GAS HUMIDITY IN NANO-SECONDS PULSED DISCHARGE BASED OZONIZER**

Tomoyuki Hirota, Takao Matsumoto, Douyan Wang, Takao Namihira, and Hidenori Akiyama  
Kumamoto Univ., Japan

**[PS2-5] 14:40 - 16:40 A STUDY OF THE EFFECT OF SALINITY ON PULSED ARC DISCHARGE IN WATER**

Seok-geun Lee, Sooseok Choi, Kyoung-Jae Chung, and Y. S. Hwang  
Seoul National University, Korea

**[PS2-6] 14:40 - 16:40 INFLUENCE OF GAS COMPOSITIONS ON NO REMOVAL USING NANO-SECONDS PULSED DISCHARGE**

Yuusuke Shimasaki, Takao Matsumoto, Douyan Wang, Takao Namihira, and Hidenori Akiyama  
Kumamoto Univ., Japan

**[PS2-7] 14:40 - 16:40 STUDY OF THE PLASMA EFFICIENCY OF DIELECTRIC BARRIER DISCHARGES BY VARIATION OF ELECTRICAL PULSE SHAPE**

Batu Klump, Christian Hock, Marcus Iberler, Byung-Joon Lee, Benjamin Koubek, Andreas Schoenlein, and Joachim Jacoby  
Goethe University Frankfurt, Germany

**[PS2-8] 14:40 - 16:40 STERILIZATION OF ESCHERICHIA COLI BASED ON ND:YAG RESONATOR WITH A PULSED XENON FLASHLAMP**

Dong-Gil Lee, Chang-Doo Park, Kyoung-Hoon Lee, Gun-Ho Lee, and Hee-Je Kim  
Pusan National University, Korea

- [PS2-9] 14:40 - 16:40 DECOMPOSITION OF SULFUR HEXAFLUORIDE BY USING NONTHERMAL PLASMA-ASSISTED CATALYTIC PROCESS**  
Dong-Hong Kim and Young Sun Mok  
Jeju National University, Korea
- [PS2-10] 14:40 - 16:40 PRODUCING BIOACTIVE COATINGS ON STEEL AND TI SUBSTRATES FROM ABLATION PLASMA**  
Saltymakov Maxim<sup>1</sup>, Tverdokhlebov Sargei<sup>2</sup>, Pushkarev Alexander<sup>1</sup>, Shvetsov Egor<sup>2</sup>, and Volokitina Tatiana<sup>2</sup>  
<sup>1</sup>High Voltage Research Institute, Russian Federation  
<sup>2</sup>National Research Tomsk Polytechni University, Russian Federation
- [PS2-11] 14:40 - 16:40 THICKNESS EFFECTS OF THE METALLIC FOIL AND INSULATOR OF AN ELECTROMAGNETIC CYLINDRICAL SHOCK WAVE TRANSDUCER EMPLOYED IN EXTRACORPOREAL SHOCK WAVE THERAPY**  
Min Choi<sup>1</sup>, Sung Cho<sup>1</sup>, Kang Lee<sup>2</sup>, and Dong Paeng<sup>1</sup>  
<sup>1</sup>Jeju National University, Korea  
<sup>2</sup>Kangwon National University, Korea
- [PS2-12] 14:40 - 16:40 30W FIBER COUPLED LASER DIODE OPTICAL MODULE FOR MEDICAL APPLICATIONS**  
Duchang Heo, Dae-Sic Lee, Kwang-Hoon Kim, and Uk Kang  
Korea Electrotechnology Research Institute, Korea
- [PS2-13] 14:40 - 16:40 HIGH FREQUENCY DOPPLER ULTRASOUND TRANSDUCER FOR THE PERIPHERAL CIRCULATORY SYSTEM**  
Young Min Bae, Uk Kang, Jeongwon Yang, and Kuang Hoon  
Korea Electrotechnology Research Institute, Korea
- [PS2-14] 14:40 - 16:40 A STUDY ON THE OPTICAL LENS COUPLED CCD BASED HIGH RESOLUTION GAMMA RAY DETECTOR**  
Young-Jun Jung<sup>1</sup>, Hakjae Lee<sup>1</sup>, Kisung Lee<sup>1</sup>, Joochul Yoon<sup>2</sup>, and SungChae Jeon<sup>3</sup>  
<sup>1</sup>Korea University, Korea  
<sup>2</sup>Newcastle Univerity, UK  
<sup>3</sup>Korea Electrotechnology Research Institute, Korea

- [PS2-15]      14:40 - 16:40      **QUANTUM DOT-BASED OPTICAL IMMUNOSENSING SYSTEM FOR SIMULTANEOUSLY DETECTING TUMOR MARKERS**  
Seo Young Son, Young Min Bae, and Kyeong-Hee Lee  
Korea Electrotechnology Research Institute, Korea
- [PS2-16]      14:40 - 16:40      **IMPROVEMENT OF POLYPHENOL EXTRACTION FROM GRAPE SKIN BY PULSE DISCHARGES UNDER WATER**  
Koichi Takaki, Hitoshi Hatayama, Shoji Koide, and Yukio Kawamura  
Iwate University, Japan
- [PS2-17]      14:40 - 16:40      **DEVELOPMENT OF AN ELECTRO-OPTIC KERR EFFECT SENSOR FOR UNDERWATER STUDIES OF INTENSE TRANSIENT ELECTRIC FIELDS**  
Fahd Banakhr<sup>1</sup>, Bucur Novac<sup>1</sup>, Ivor Smith<sup>1</sup>, Laurent Pecastaing<sup>2</sup>, Rebert Ruscassie<sup>2</sup>, Antoine De Ferron<sup>2</sup>, and Pascal Pignolet<sup>2</sup>  
<sup>1</sup>Loughborough University, UK  
<sup>2</sup>University of Pau, France
- [PS2-18]      14:40 - 16:40      **STUDY OF ELECTRICAL EXPLOSION OF WIRE METHOD FOR THE PRODUCTION OF NANOPOWDER**  
Rashmita Das, Basanta Das, Rohit Shukla, Partha Banerjee, Surender Shrama, Pankaj Deb, Prabakaran T, Biswajit Adhikary, and Anurag Shyam  
Bhabha Atomic Research Centre, India
- [PS2-19]      14:40 - 16:40      **ENERGY SAVING USING IGBT**  
Tejinder Saggu and Arvind Dhingra  
AICTE, India
- [PS2-20]      14:40 - 16:40      **OVER-VOLTAGE TRIGGER DEVICE FOR MARX GENERATORS**  
Martin Sack, René Stängle , and Georg Müller  
Karlsruhe Institute of Technology, Germany
- [PS2-21]      14:40 - 16:40      **OPTIMUM DISCHARGE CONDITIONS FOR SMALLER PARTICLES AT THE AG WIRE EXPLOSION IN LIQUID MEDIA**  
Chuhyun Cho, Chungil Kang, Yooncheol Ha, Yunsik Jin, and Geunhie Rim

Korea Electrotechnology Research Institute, Korea

- [PS2-22]      14:40 - 16:40      **INTRODUCTION OF RECYCLED AGGREGATE PRODUCTION SYSTEM BASED ON PULSED DISCHARGE INSIDE OF WASTE CONCRETE**  
K. Ogata, T. Aoki, S. Iizasa, M. Shigeishi, M. Ohtsu, T. Namihira, and H. Akiyama  
Kumamoto University, Japan
- [PS2-23]      14:40 - 16:40      **SHEATH DYNAMICS AND PLASMA RECOVERY IN PLASMA SOURCE ION IMPLANTATION**  
Kyoung-Jae Chung, S. W. Jung, J. M. Choe, G. H. Kim, and Y. S. Hwang  
Seoul National University, Korea
- [PS2-24]      14:40 - 16:40      **LI STORAGE CHARACTERISTICS OF SN@C NANOCOMPOSITE MATERIAL SYNTHESIZED BY ELECTRICAL EXPLOSION METHOD**  
Yoon-Cheol Ha, Chungil Kang, Minwoo Kim, and Chuhyun Cho  
Korea Electrotechnology Research Institute, Korea
- [PS2-25]      14:40 - 16:40      **PULSED POWER SYSTEMS FOR ELECTROMAGNETIC AND ELECTROHYDRAULIC FORMING**  
Anurag Shyam<sup>1</sup>, Rishi Verma<sup>2</sup>, Rajesh Kumar<sup>2</sup>, Rohit Shukla<sup>1</sup>, Surender Sharma<sup>1</sup>, and Biswajeet Adhikaray<sup>1</sup>  
<sup>1</sup>Bhabha Atomic Research Centre, India  
<sup>2</sup>Institute for Plasma Resaerch, India
- [PS2-26]      14:40 - 16:40      **APPLICATION OF ELECTROMAGNETIC PULSE POWER TO THE CONSOLIDATION OF NANO-SIZED POWDERS**  
Jung G. Lee, M. K. Lee, and C. K. Rhee  
KAERI, Korea
- [PS2-27]      14:40 - 16:40      **THERMAL CONDUCTIVITY ENHANCEMENT OF ETHYLENE GLYCOL-BASED NANOFLUID CONTAINING OXIDE NANOPARTICLES**  
Gyoung-Ja Lee, Chang-Kyu Kim, and Chang-Kyu Rhee  
KAERI, Korea
- [PS2-28]      14:40 - 16:40      **PREPARATION OF CARBON ENCAPSULATED AG NANOPARTICLES FOR DISPERSION IN LA0.6SR**

**0.4CO0.3FE0.7O3-Δ**

S. H. Jun, Y. R. Uhm, C. K. Rhee, and R. H. Song  
KAERI, Korea

- [PS2-29]      14:40 - 16:40      **EXPERIMENTAL AND COMPUTATIONAL INVESTIGATION OF MONOLITHIC ARMATURE WITH DIFFERENT ARM LENGTH**  
Mintang Li, Ping Yan, Weiqun Yuan, Yaohong Sun, Tao Shao, Jue Wang, and Yuan Zhou  
Chinese Academy of Sciences, China
- [PS2-30]      14:40 - 16:40      **EFFECTS OF ARMATURE'S STRUCTURE AND MATERIAL ON INITIAL CONTACT INTERFACIAL CONDITIONS**  
Mintang Li, Ping Yan, Weiqun Yuan, Yaohong Sun, Tao Shao, Jue Wang, and Yuan Zhou  
Chinese Academy of Sciences, China
- [PS2-31]      14:40 - 16:40      **MULTIPLE CONTINUOUS PULSED MAGNETIC TRAVELING WAVE PROPULSION BASED ON INTERLACED COIL LAYOUT**  
Fang Guo<sup>1</sup> and Yuejin Tang<sup>2</sup>  
<sup>1</sup>Naval University of Engineering, China  
<sup>2</sup>Huazhong University of Science and Technology, China
- [PS2-32]      14:40 - 16:40      **TWO-DIMENSIONAL NUMERICAL STUDIES OF ABLATED-PLASMA DYNAMICS OF WIRE-ARRAY Z-PINCHES**  
Ning Ding, Jun Huang, Shun Kai Sun, and De Long Xiao  
Institute of Applied Physics and Computational Mathematics, China
- [PS2-33]      14:40 - 16:40      **X-PINCH-BASED NEUTRON SOURCE**  
Yury Kalinin, Sergey Anan'ev, Yury Bakshaev, Vladimir Bryzgunov, Andrey Chernenko, Sergey Dan'ko, Evgeny Kazakov, Valery Korolev, Evgeniya Smirnova, Gennady Ustroev, Viktor Vikhrev, and Andrey Zelenin  
Russian Research Centre Kurchatov Institute, Russian Federation
- [PS2-34]      14:40 - 16:40      **3-D PIC SIMULATIONS OF THE EFFECT ON ELECTRON FLOW IN THE MITL OF Z**  
Laqun Liu, Dagang Liu, and Lin Meng  
University of Electronic Science and Technology of China, China
- [PS2-35]      14:40 - 16:40      **X-RAY BACKLIGHTING OF DEVELOPMENTS WIRE-ARRAY**

- Z-PINCHES USING AN X-PINCH AND THE DENSITY MEASUREMENT OF THE CORNAL PLASMAS**  
Ran Zhang, Xiaobing Zou, Xinxin Wang, and Tong Zhao  
Tsinghua University, China
- [PS2-36] 14:40 - 16:40 **BENCHMARKS OF A NEW MATLAB X-RAY FEL SIMULATION PROGRAM WITH GENESIS**  
Xiaowei Gu and Meng Lin  
University of Electronic Science and Technology of China, China
- [PS2-37] 14:40 - 16:40 **OBTAINING GW X-RAY RADIATION SOURCE WITH THE EEHG SCHEME**  
Xiaowei Gu and Lin Meng  
University of Electronic Science and Technology of China, China
- [PS2-38] 14:40 - 16:40 **EFFECT OF ANNEALING TEMPERATURE ON THE POLLYCRYSTALLINE LEAD OXIDE FILM DERIVED BY SEDIMENTATION METHOD**  
Sang Sik Kang<sup>1</sup>, Young Zun Choi<sup>1</sup>, Mi Hyeun Lee<sup>1</sup>, Bong Jae Jung<sup>1</sup>, Kyu Seuk Cho<sup>2</sup>, and Ji Koon Park<sup>1</sup>  
<sup>1</sup>Korea International University, Korea  
<sup>2</sup>Inje University, Korea
- [PS2-39] 14:40 - 16:40 **CHARACTERISTIC EVALUATION OF CDS CELL FOR THE PORTABLE X-RAY DOSIMETER INSTRUMENTATION**  
Ji-koon Park<sup>1</sup>, Hyun-hee Kim<sup>1</sup>, Il-hong Choi<sup>1</sup>, Si-cheul Noh<sup>2</sup>, Heung-ho Choi<sup>1</sup>, Sang-hee Nam<sup>2</sup>, and Sang-sik Kang<sup>1</sup>  
<sup>1</sup>Korea International University, Korea  
<sup>2</sup>Inje University, Korea
- [PS2-40] 14:40 - 16:40 **INFLUENCE OF NITROGEN PRESSURE ON GROWTH OF ALUMINUM NITRIDE THIN FILMS BY PULSE LASER DEPOSITION**  
Zhiping Wang, Hiroaki Ito, and Katsumi Masugata  
University of Toyama, Japan
- [PS2-41] 14:40 - 16:40 **THE CAPILLARY DISCHARGE X-RAY LASER PULSE POWER SUPPLY DESIGN**  
Xing Jia, Min Xie, Ningxiang Cao, and Weijun Deng  
Institute of Fluid Physics (CAEP), China
- [PS2-42] 14:40 - 16:40 **PHYSICAL PARAMETERS OF LASER-PRODUCED PLASMA IN**

## **HIGH PRESSURE FLUID**

K. Kotake, R. Tsuruga, M. Matsuda, D. Wang, T. Namihira, and H. Akiyama

Kumamoto University, Japan

- [PS2-43]      14:40 - 16:40      **A SIMPLE DSSC SEALING TECHNIQUE ADOPTING A CO<sub>2</sub> LASER BEAM EXCITED BY THE 60HZ AC DISCHARGES**  
Dong-Gil Lee<sup>1</sup>, Seong-Wook Park<sup>1</sup>, Sam-Kwang Cho<sup>1</sup>, Seong-Hun Kim<sup>1</sup>, and Hee-Je Kim<sup>2</sup>  
<sup>1</sup>National Fisheries Reserch & Development Institute, Korea  
<sup>2</sup>Pusan National University, Korea
- [PS2-44]      14:40 - 16:40      **MULTI-ARC SOURCE OF INTENSE LARGE AREA MICROSECOND ELECTRON BEAMS**  
Vladimir Engelko<sup>1</sup> and Georg Mueller<sup>2</sup>  
<sup>1</sup>Efremov Institute of Electrophysical Apparatus, Russian Federation  
<sup>2</sup>Institute for Pulsed Power and Microwave Technology, Germany
- [PS2-45]      14:40 - 16:40      **EMISSION CHARACTERISTIC OF HIGH ENERGY PULSED ION BEAM PRODUCED IN DENSE PLASMA FOCUS DEVICE**  
Hiroaki Ito, Yuuki Nishino, Hamid Yousefi, and Katsumi Masugata  
University of Toyama, Japan
- [PS2-46]      14:40 - 16:40      **GENERATION OF HIGH CURRENT PULSED HEAVY ION BEAM FOR APPLICATION OF MATERIALS PROCESSING**  
Hiroaki Ito, Yasushi Ochiai, and Katsumi Masugata  
University of Toyama, Japan
- [PS2-47]      14:40 - 16:40      **THE COMPACT PULSE ELECTRON ACCELERATOR.**  
Alexandr Nashilevskiy, Vitaliy Ezhov, Gennady Kanaev, and Gennady Remnev  
National Research Tomsk Politechnic University, Russian Federation
- [PS2-49]      14:40 - 16:40      **A STUDY ON THE CONTROL OF A CW CO<sub>2</sub> LASER OUTPUT USING RESONANCE CHARACTERISTICS**  
Guo-Cheng Xu, Ji-Tae Hong, Dong-Gil Lee, and Hee-Je Kim

Pusan National University, Korea/ National Fisheries Research & Development Institute, Korea

- [PS2-50]      14:40 - 16:40      **A STUDY FOR FEASIBLE PRODUCTION OF DEUTERIATED TITANIUM FILM BY USING DENSE PLASMA FOCUS**  
Basanta Das, Rashmita Das, Rohit Shukla, Partha Banerjee, Surender Sharma, Pankaj Deb, Prabhakaran T., Biswajit Adhikary, and Anurag Shyam  
Bhabha Atomic Research Centre, India
- [PS2-51]      14:40 - 16:40      **HYDRODYNAMIC RESPONSE OF CONVERTER TARGET IMPACTED BY HIGH-CURRENT RELATIVISTIC ELECTRON BEAM**  
Jun Zhu, Haijun Yu, Xiaoguo Jiang, Nan Chen, and Yuan Wang  
Institution of Fluid Physics (CAEP), China
- [PS2-53]      14:40 - 16:40      **SIMULATION ANALYSIS OF TRANSMISSION-LINE IMPEDANCE TRANSFORMERS FOR PETAWATT-CLASS PULSED POWER ACCELERATORS**  
Yixiang Hu<sup>1</sup>, Fengju Sun<sup>2</sup>, Tao Huang<sup>2</sup>, Ai'ci Qiu<sup>1</sup>, Peitian Cong<sup>2</sup>, Zhengzhong Zeng<sup>2</sup>, Liangping Wang<sup>2</sup>, Jiangtao Zeng<sup>2</sup>, Yan Li<sup>2</sup>, and Tianshi Lei<sup>2</sup>  
<sup>1</sup>Xi'an Jiaotong University, China  
<sup>2</sup>Northwest Institute of Nuclear Technology, China
- [PS2-54]      14:40 - 16:40      **EFFECT OF THE PULSE TRANSFORMER CHARGING TIME ON THE OUTPUT VOLTAGE OF INTENSE ELECTRON-BEAM ACCELERATOR**  
Yi Yin, Huihuang Zhong, Jinliang Liu, Jianhua Yang, and Jiahuai Feng  
National University of Defense Technology, China
- [PS2-55]      14:40 - 16:40      **THREE-ELECTRODE GAS-FILLED CONTROLLABLE DISCHARGER**  
Yegorov Ivan, Remnev Gennady, Stepanov Andrey, and Kaikanov Marat  
Tomsk Polytechnic University, Russian Federation

- [PS2-56] 14:40 - 16:40 **DYNAMIC MODEL FOR THE Z ACCELERATOR VACUUM SECTION BASED ON TRANSMISSION LINE CODE**  
Yixiang Hu<sup>1</sup>, Ai'ci Qiu<sup>2</sup>, Liangping Wang<sup>2</sup>, Tao Huang<sup>2</sup>, Peitian Cong<sup>2</sup>, Xinjun Zhang<sup>2</sup>, Yan Li<sup>2</sup>, Zhengzhong Zeng<sup>2</sup>, Tieping Sun<sup>2</sup>, Tianshi Lei<sup>2</sup>, Hanyu Wu<sup>2</sup>, Ning Guo<sup>2</sup>, and Juanjuan Han<sup>2</sup>  
<sup>1</sup>Xi'an Jiaotong University, China  
<sup>2</sup>Northwest Institute of Nuclear Technology, China
- [PS2-57] 14:40 - 16:40 **PULSED POWER SYSTEM OF THE 20 MEV PROTON LINAC\***  
Dae-Il Kim, Hyeok-Jung Kwon, and Yong-Sub Cho  
KAERI, Korea
- [PS2-58] 14:40 - 16:40 **STATUS OF THE DIELECTRIC WALL ACCELERATOR**  
George Caporaso  
Lawrence Livermore National Laboratory, USA
- [PS2-59] 14:40 - 16:40 **INCREASING CORROSION RESISTANCE OF STAINLESS STEEL OPERATING IN CHLORINE-CONTAINING ATMOSPHERE.**  
Vladimir Engelko<sup>1</sup>, Vjacheslav Schulov<sup>2</sup>, Konstantin Tkachenko<sup>1</sup>, and Andrey Chilirjaka<sup>1</sup>  
<sup>1</sup>Efremov Institute of Electrophysical Apparatus, Russian Federation  
<sup>2</sup>Moskow Aviation Institute, Russian Federation
- [PS2-60] 14:40 - 16:40 **ORIGIN AND DEVELOPMENT OF SURFACE WAVINESS DUE TO INTENSE PULSED ELECTRON BEAM TREATMENT**  
Wladimir An, Renate Fetzer, Georg Mueller, and Alfons Weisenburger  
Karlsruhe Institute of Technology, Germany
- [PS2-61] 14:40 - 16:40 **OUTPUT CHARACTERISTICS OF THE HIGH POWER MICROWAVE GENERATED FROM AN AXIAL AND TRIODE VIRTUAL CATHODE OSCILLATOR**

Ki Baek Song, Yong Seong Byeon, and Eun Ha Choi  
Kwangwoon University, Korea

- [PS2-62]      14:40 - 16:40      **DEVELOPMENT OF A TABLE-TOP TERAHERTZ FREE ELECTRON LASER BASED ON A COMPACT MICROTRON**  
Young Uk Jeong<sup>1</sup>, Seong Hee Park<sup>1</sup>, Kitae Lee<sup>1</sup>, Yong-Ho Cha<sup>1</sup>,  
Jungho Mun<sup>1</sup>, Kyu Ha Jang<sup>v</sup>, Junghye Sunwoo<sup>1</sup>, Ji Young Lee<sup>1</sup>,  
Kyung Nam Kim<sup>v</sup>, Byung Cheol Lee<sup>1</sup>, Deok Hyeon Kim<sup>2</sup>,  
Hyeongki Cha<sup>1</sup>, Byung Heon Cha<sup>1</sup>, and Grigory Kazakevich<sup>3</sup>  
<sup>1</sup>Korea Atomic Energy Research Institute, Korea  
<sup>2</sup>Hanbat National University, Korea  
<sup>3</sup>BINP, Russian Federation
- [PS2-63]      14:40 - 16:40      **STUDY OF INCREASE IN TIME-CONSTANT OF SELF-INTEGRATING ROGOWSKI COILS BY MULTILAYERED COIL-WINDING FOR LOW-FREQUENCY CURRENT MEASUREMENT**  
Rohit Shukla, Surender Sharma, Partha Banerjee, Rashmita Das,  
Pankaj Deb, Prabakaran T, Basanta Das, Biswajit Adhikary, and  
Anurag Shyam  
Bhabha Atomic Research Centre, India
- [PS2-65]      14:40 - 16:40      **NUMERICAL SIMULATION OF KINETIC ALFVÉN WAVE EXCITATION BY MAGNETOSONIC WAVE IN HIGH BETA PLASMAS**  
Sanjay Kumar and R. P. Sharma  
Indian Institute of Technology, India
- [PS2-66]      14:40 - 16:40      **INVESTIGATIONS INTO THE EFFECTS OF THE SWITCH JITTER ON THE OPERATING PERFORMANCE OF LTD**  
Liu Peng<sup>1</sup>, Sun Fengju<sup>2</sup>, Yin Jiahui<sup>2</sup>, Liang Tianxue<sup>2</sup>, and Qiu  
Aici<sup>1</sup>  
<sup>1</sup>Xi'an Jiaotong University, China  
<sup>2</sup>Northwest Insitute of Nuclear Technology, China
- [PS2-67]      14:40 - 16:40      **SIMULATION STUDY ON HIGH-QUALITY PROTON**

**GENERATION FROM THIN TARGETS DRIVEN BY INTENSE SHORT PULSE LASERS**

Ki Hong Pae, Il Woo Choi, and Jongmin Lee

GIST, Korea

- [PS2-68]      14:40 - 16:40      **APPLICATION OF RESPONSE SURFACE METHODOLOGY TO OPTIMAL DESIGN OF A CATHODE GEOMETRY IN INERTIAL ELECTROSTATIC CONFINEMENT DEVICE**  
Heung-Jin Ju<sup>1</sup>, Bongseong Kim<sup>1</sup>, Hui-Dong Hwang<sup>1</sup>, Jeong-Ho Park<sup>1</sup>, Seung-Kil Choi<sup>2</sup>, and Kwang-Cheol Ko<sup>1</sup>  
<sup>1</sup>Hanyang Univeristy, Korea  
<sup>2</sup>Ansan College of Technology, Korea
- [PS2-69]      14:40 - 16:40      **ANISOTROPICALLY FOCUSING LENS BASED SHEET-LIKE ELECTRON BEAM FOR MICROFOCUS X-RAY SOURCES**  
Sunshin Jung, Daeho Kim, and Seung Kwon Seol  
Korea Electrotechnology Research Institute, Korea
- [PS2-70]      14:40 - 16:40      **PLASMA DENSITY STRUCTURE EFFECT ON THE ELECTRON ENERGY IN LASER WAKEFIELD ACCELERATION**  
Jaehoon Kim, Geun Ju Kim, Seung Hoon Yoo, and Jong Uk Kim  
Korea Electrotechnology Research Institute, Korea
- [PS2-71]      14:40 - 16:40      **AN OVERVIEW OF LASER-DRIVEN PARTICLE-BEAM STUDIES AT AWE ALDERMASTON.**  
Timothy Goldsack  
AWE, UK
- [PS2-72]      14:40 - 16:40      **HIGH ENERGY PHOTON GENERATION USING LASER ACCELERATED ELECTRON BEAMS**  
Seong Hee Park<sup>1</sup>, Ho-hyoung Lee<sup>2</sup>, Kitae Lee<sup>1</sup>, Yong-Ho Cha<sup>1</sup>, and Young Uk Jeong<sup>1</sup>  
<sup>1</sup>Korean Atomic Energy Research Institute, Korea  
<sup>2</sup>KAIST, Korea
- [PS2-73]      14:40 - 16:40      **ENHANCED PROTON BEAM GENERATION FROM AN AULMINUM-COATED PLASTIC TARGET IRRADIATED BY AN**

## **ULTRA-INTENSE LASER PULSE**

Kitae Lee<sup>1</sup>, Ji Young Lee<sup>2</sup>, Seong Hee Park<sup>1</sup>, Yong-Ho Cha<sup>1</sup>,  
Yong Woo Lee<sup>1</sup>, Kyung Nam Kim<sup>3</sup>, and Young Uk Jeong<sup>1</sup>

<sup>1</sup>Korea Atomic Energy Research Institute, Korea

<sup>2</sup>Hannam University, Korea

<sup>3</sup>Kongju National University, Korea

- [PS2-74]      14:40 - 16:40      **FORMERS OF HIGH-VOLTAGE SUBNANOSECOND PULSES  
BASED ON COMPRESSION ENERGY SCHEMES WITH  
CAPACITOR STORAGE AND SPARKS DISCHARGERS.**  
M. R. Ulmaskulov, V. G. Shpak, M. Y. Yalandin, S. A. Shunailov,  
and K. A. Sharypov  
Institute of Electrophysics, RAS, Russian Federation
- [PS2-75]      14:40 - 16:40      **HV IMPULSE GENERATOR USING FERROELECTRIC  
MATERIALS**  
Seung-Moon Han<sup>1</sup>, Chang-Su Huh<sup>1</sup>, and Jin-Soo Choi<sup>2</sup>  
<sup>1</sup>Inha University, Korea  
<sup>2</sup>Agency Defence for Development, Korea
- [PS2-76]      14:40 - 16:40      **Study on erosion resistance of glassy carbon to fusion  
thermal loads by high-intensity pulsed ion beam  
experiment**  
X.P. Zhu, T.K. Song, and M.K. Lei  
Dalian University of Technology, China
- [PS2-77]      14:40 - 16:40      **Mechanism of nitriding and carbonitriding under high-  
intensity pulsed ion beam irradiation**  
X. P. Zhu, F. G. Zhang, Y. Tang, and M. K. Lei  
Dalian University of Technology, China
- [PS2-78]      14:40 - 16:40      **ELECTICAL PROPERTIES OF INDUCTIVELY COUPLED  
ELECTRODELESS LAMP**  
Changquan Wang<sup>1</sup>, Guixin Zhang<sup>1</sup>, Jinyang Dong<sup>1</sup>, Xinxin  
Wang<sup>1</sup>, ZANJI Wang<sup>1</sup>, Mingsong Shao<sup>1</sup>, and Jianzhou Zhu<sup>2</sup>  
<sup>1</sup>Tsinghua University, China  
<sup>2</sup>Beijing Century of Energy Technologies Ltd. Company, China

**[PS2-79]      14:40 - 16:40      CAPILLARY PLASMA SOURCE DEVELOPMENT FOR HIGH ENERGY FS ELECTRON BEAMS AT GIST**

Min-Seok Kim<sup>1</sup>, Do Geun Jang<sup>1</sup>, Han S. Uhm<sup>2, 3</sup>, Seok Won Hwang<sup>4</sup>, and Hyyong Suk<sup>1, 3</sup>

<sup>1</sup>Gwangju Institute of Science and Technology, Korea

<sup>2</sup>Kwangwoon University, Korea

<sup>3</sup>Advanced Photonics Research Institute, Korea

<sup>4</sup>Pusan National University, Korea

**[PS2-80]      14:40 - 16:40      HIGH-POWER FEMTOSECOND LASER SYSTEM FOR THE LASER-PLASMA ACCELERATOR**

In Hyuk Nam, Min Seok Kim, Dong Gyu Jang, and Hyyong Suk  
Gwangju Institute of Science and Technology, Korea