

POSTER SESSION – Wednesday, May 24, 2017 from 14:30 to 16:00 in Wildwood 5

Session WE Posters: WE P2

Poster Session

Wednesday, May 24 14:30-16:00, Poster Room

Session Chairs:

WE Posters-4 BROMATE FREE DISINFECTION OF DRINKING WATER USING A HIGH VOLTAGE IMPULSE (HVI) TECHNIQUE

I. -S. Chang¹, J. -H. Lee², H. -R. Kim¹, C. H. Cho¹

¹*Environmental Engineering, Hoseo University, Asan, South Korea*

²*Electrical Engineering, Hoseo University, Asan, south Korea*

WE Posters-5 OUTER CIRCULAR RING-SHAPED RF MAGNETIZED PLASMA FOR SPECIFIC AREA TARGET UTILIZATION BY MAGNETIC MONOPOLE ARRANGEMENT

M. A. Hossain, Y. Ohtsu

Graduate School of Science and Engineering, Saga University, 1 Honjo-machi, Saga, 840-8502, Japan

WE Posters-6 ORGANIC WASTE PROCESSING IN PLASMA REACTOR

V. Sauchyn, I. Khvedchyn

Arc Plasma Department, A.Luikov Heat and Mass Transfer Institute, Minsk, Belarus

WE Posters-7 NEXT GENERATION HIGH-CURRENT SWITCHING DEVICES FOR COSMIC CURRENT SOURCE CONVERTER

A. Mustafaev¹, A. Grabovskiy¹, V. Soukhomlinov², V. Kuznetsov³, V. Babanin³, A. Pashchina⁴

¹*St. Petersburg Mining University, St. Petersburg, Russian Federation*

²*St. Petersburg State University, St. Petersburg, Russian Federation*

³*Ioffe Institute RAS, St. Petersburg, Russian Federation*

⁴*JIHT RAS, Moscow, Russian Federation*

WE Posters-8 PRELIMINARY STUDY ON PLASMA-CATALYST COMBINATION FOR CF₄ REMOVAL

K. -T. Kim, S. Jo, D. Lee, Y. -H. Song

Department of Plasma Engineering, Korea Institute of Machinery & Materials, Daejeon, South Korea

WE Posters-9 ABATEMENT CHARACTERISTICS OF TiCl₄ IN A LOW-PRESSURE PLASMA REACTOR

J. O. Lee, J. Y. Lee, W. S. Kang, M. Hur, Y. -H. Song

Plasma engineering laboratory, Korea Institute of Machinery and Materials, Daejeon, South Korea

WE Posters-10 TECHNOLOGIES FOR CLEANING WATER MEDIUMS WITH STRONG ELECTROPULSE FIELDS

E. J. Gurbanov, F. F. Yusifov

Scientific research and international relations, "Azersu" OJSC, Baku, Azerbaijan

WE Posters-11 YIELD CHARACTERISTIC AND ENERGY CONSTRAINT OF ACTIVE SPECIES WITH DISCHARGE IN WATER-GAS MIXTURE

B. Chen¹, Y. Gan¹, P. Fang¹, C. Zhu¹, J. Fei¹, Y. Jiang¹, L. Wan², J. Bian², J. Wan²

¹*Department of Mathematics and Physics, Hohai University, Changzhou, Jiangsu, China*

²*Nanjing Suman Plasma Techology Co., Ltd, Nanjing, Jiangsu, China*

WE Posters-12 DENIM BLEACHING BY CNC CONTROLLED PLASMA JET METHOD

E. Uygun¹, F. Bozduman², G. Karaca³, A. Uygun Oksuz³, L. Oksuz^{1,2}

¹*Plazmatek, Technopark, Suleyman Demirel University, Isparta, Turkey*

²*Physics, Suleyman Demirel University, Isparta, Turkey*

³*Chemistry, Suleyman Demirel University, Isparta, Turkey*

WE Posters-13 RECTANGLE PULSED ATMOSPHERIC DBD PLASMA FOR SURFACE MODIFICATION

K. Zerbe, M. Iberler, J. Jacoby, C. Wagner

Institut for Applied Science, Goethe-University Frankfurt, Frankfurt, Germany

WE Posters-14 SELF-OSCILLATORY OPERATION MODE OF ATMOSPHERIC-PRESSURE PLASMA JET

X. Wang, A. Shashurin

School of Aeronautics and Astronautics, Purdue University, West Lafayette, IN, United States

WE Posters-15 REMOVAL OF MICROCYSTIN-LR VIA ADVANCED OXIDATION PROCESSES USING A BUBBLING PLASMA JET

J. C. Lai, J. E. Foster

Department of Nuclear Engineering and Radiological Sciences, University of Michigan, Ann Arbor, MI, United States

WE Posters-16 HYDROPHOBIC COATING OF GLASS SURFACE USING ATMOSPHERIC PRESSURE DIELECTRIC BARRIER DISCHARGE PLASMA

Q. H. Trinh, M. M. Hossain, Y. S. Mok

Jeju National University, Jeju, South Korea

WE Posters-17 ATMOSPHERIC PLASMA JET FOR SPACECRAFT SURFACE STERILIZATION FOR PLANETARY PROTECTION

J. Prager¹, T. Ziemba¹, J. Miller²

¹*Eagle Harbor Technologies, Inc., Seattle, WA, United States*

²*Edmonds Community College, Lynnwood, WA, United States*

WE Posters-18 PLASMA-LIQUID INTERACTION FOR TREATMENT OF HYDRAULIC FRACTURING WASTEWATER

J. R. Groele¹, J. E. Foster²

¹*Mechanical Engineering, University of Michigan, Ann Arbor, MI, United States*

²*Nuclear Engineering and Radiological Sciences, University of Michigan, Ann Arbor, MI, United States*

WE Posters-19 EFFECTS OF PLASMA TREATMENT ON THE GERMINATION AND DEVELOPMENT OF SOYBEANS

K. W. Engeling, V. C. Fritz, J. E. Foster, C. MacAlister

University of Michigan, Ann Arbor, Michigan, United States

WE Posters-20 PREPARATION OF GRAPHENE OXIDE/CONDUCTING POLYMER NANOCOMPOSITES BY RF-PLASMA POLYMERIZATION

S. Cogal¹, G. Celik Cogal², A. Oksuz²

¹*Polymer Engineering, Mehmet Akif Ersoy University, Burdur, Turkey*

²*Chemistry, Suleyman Demirel University, Isparta, Turkey*

WE Posters-21 DESIGN AND CONTROL OF PLASMA ACTUATED UNMANNED AERIAL VEHICLES (UAV)

M. T. Rajan, H. Xu, C. Avalos, A. Matheson, E. Swinny

Plasma Engineering Research Lab (PERL), Texas A&M University - Corpus Christi, Corpus Christi, TX, United States

WE Posters-22 THE EFFECT OF VOLTAGE ON FILM PROPERTIES DLC:CAMPHOR FILMS DEPOSITED ON POLYURETHANE SUBSTRATES BY PECVD

T. B. Santos¹, P. A. Radi^{1,2}, R. S. Pessoa^{1,2}, L. Vieira^{1,2}

¹*Grupo Nanotecplasma, Universidade do Vale do Paraíba, São José dos Campos/SP, Brasil*

²*Laboratório de Processamento a Plasma, Instituto Tecnológico de Aeronáutica, São José dos Campos/SP São José dos Campos/SP, Brasil*

WE Posters-23 DOUBLE-COOLED ELECTRODE TEMPERATURE EFFECTS IN OZONE GENERATORS

M. Feurer, J. Lopez, D. Guerrero

Seton Hall University, New Jersey, United States

WE Posters-24 INVESTIGATING THE GROWTH MODIFICATION OF VARIOUS PLANT SPECIES VIA ATMOSPHERIC PRESSURE PLASMA JETS

A. N. McFarlane¹, D. Piatek¹, I. C. Guevara¹, D. Guerrero¹, J. L. Lopez¹, C. Antonacci², G. J. Buonopane²

¹*Physics, Seton Hall University, South Orange, NJ, United States*

²*Chemistry and Biochemistry, Seton Hall University, South Orange, NJ, United States*

WE Posters-25 GENERATION OF MICROPLASMA IN A REVERSE-BIASED SILICON CARBIDE SCHOTTKY DIODE

O. A. Sonoiki, J. G. Eden

Department of Electrical and Computer Engineering, University of Illinois at Urbana-Champaign, Urbana, IL, United States

WE Posters-26 SURFACE MODIFICATION OF CEMENT FIBER ADDITIVES USING ATMOSPHERIC PRESSURE PLASMA JETS

T. J. McVeigh, W. P. Davis, D. Guerrero, J. L. Lopez

Physics Dept., Seton Hall University, South Orange, New Jersey, United States

WE Posters-27 CHARACTERISTICS OF POROUS CERAMICS DIELECTRIC BARRIER DISCHARGE IN AR/CH4 METHANE MIXTURE AT ATMOSPHERIC PRESSURE

C. Y. Yu, H. B. Mu, P. Li, C. W. Yao, S. L. Chen, G. M. Xu, G. J. Zhang

State Key Laboratory of Electrical Insulation and Power Equipment, Xi'an Jiaotong University, No.28, Xianning West Road, Xi'an, Shaanxi, 710049, P.R. China

WE Posters-28 LIGHT SOURCES FOR WATER STERILISATION

M. Hamady

Physics Department, Faculty of sciences, Beirut Arab University, Debbieh, Lebanon

Session WE Posters: WE P3

Poster Session

Wednesday, May 24 14:30-16:00, Poster Room

Session Chair: Peter Stoltz, Tech-X Corp.

WE Posters-29 GAIN ESTIMATIONS FOR A FUSION TARGET COMPRESSED BY A SPHERICALLY IMPLoding PLASMA LINER

P. Stoltz¹, K. Beckwith¹, S. Langendorf², S. Hsu²

¹Tech-X Corp., Boulder, CO, United States

²LANL, Los Alamos, NM, United States

WE Posters-30 ENHANCING UNDERSTANDING OF HIGH ENERGY DENSITY PLASMAS USING FLUID MODELING WITH KINETIC CLOSURES

R. Masti¹, B. Srinivasan¹, J. King², P. Stoltz², D. Hansen³, E. Held³

¹Aerospace & Ocean Engineering, Virginia Tech, Blacksburg, VA, United States

²Tech-X Corporation, Boulder, CO, United States

³Utah State University, Logan, UT, United States

WE Posters-31 DENSITY AND TEMPERATURE UNIFORMITY OF A CONICAL SECTION OF A SPHERICALLY IMPLoding PLASMA LINER

K. C. Yates¹, M. A. Gilmore¹, S. C. Hsu², S. J. Langendorf², J. P. Dunn², J. Cassibry³, K. Schillo³, R. Samulyak⁴, W. Shih⁵

¹University of New Mexico, Albuquerque, New Mexico, United States

²Los Alamos National Laboratory, Los Alamos, New Mexico, United States

³University of Alabama in Huntsville, Huntsville, Alabama, United States

⁴Brookhaven National Laboratory, Upton, New York, United States

⁵Stony Brook University, Stony Brook, New York, United States

WE Posters-32 SPECTROSCOPIC MEASUREMENTS OF THE FORMATION OF A CONICAL SECTION OF SPHERICALLY IMPLoding PLASMA LINERS

S. J. Langendorf¹, S. C. Hsu¹, J. P. Dunn¹, J. Cassibry², K. Schillo², R. Samulyak³, W. Shih⁴, K. C. Yates⁵, M. A. Gilmore⁵

¹P-24, Los Alamos National Laboratory, Los Alamos, NM, United States

²Mechanical & Aerospace Engineering, University of Alabama in Huntsville, Huntsville, AL, United States

³Computational Science Center, Brookhaven National Laboratory, Upton, NY, United States

⁴Stony Brook University, Stony Brook, NY, United States

⁵Electrical and Computer Engineering, University of New Mexico, Albuquerque, NM, United States

WE Posters-33 DT NEUTRON YIELD MODELING FOR STAGED Z-PINCH EXPERIMENTS ON THE 1MA ZEBRA MACHINE

E. Ruskov¹, H. U. Rahman¹, F. J. Wessel¹, P. Ney¹, A. Qerushi²

¹Experimental Physics, Magneto-Inertial Fusion Technologies, Inc., Tustin, CA, United States

²Lockheed Martin, Palmdale, CA, United States

WE Posters-34 STAGED Z-PINCH EXPERIMENTS ON THE MEGA-AMPERE CURRENT DRIVER ZEBRA

F. J. Wessel¹, E. Ruskov¹, T. W. Darling², F. Conti³, M. P. Ross³, J. C. Valenzuela³, N. Aybar³, F. N. Beg³, J. Narkis³,

H. U. Rahman¹, P. Ney¹

¹Experimental Physics, Magneto-Inertial Fusion Technologies, Inc., Irvine, CA, United States

²Nevada Terawatt Facility, University of Nevada, Reno, NV, United States

³Center for Energy Research, University of California, San Diego, CA, United States

WE Posters-35 EXPERIMENTAL INVESTIGATION OF MAGNETIZED LINER IMPLodingS ON A 1-MA LINEAR TRANSFORMER DRIVER

P. C. Campbell, D. A. Yager-Elorriaga, N. M. Jordan, R. D. McBride, Y. Y. Lau, R. M. Gilgenbach

Nuclear Engineering and Radiological Sciences Department, University of Michigan, Ann Arbor, MI, United States

WE Posters-36 DESIGN OF A PULSED POWER DRIVER FOR STUDY OF PLANAR PLASMA SHOCKS

M. P. Ross¹, F. J. Wessel², J. C. Valenzuela¹, F. Conti¹, N. Aybar¹, F. N. Beg¹

¹Center for Energy Research, University of California, San Diego, CA, United States

²Experimental Physics, Magneto-Inertial Fusion Technologies, Inc., Tustin, CA, United States

WE Posters-37 SIMULATION FOR THE MAGNETIZED PLASMA COMPRESSION STUDY

S. V. Ryzhkov¹, V. V. Kuzenov²

¹Bauman Moscow State Technical University (BMSTU), Thermal Physics Department (E6), Moscow, Russian Federation

²VNIAA of SC "ROSATOM", Moscow, Russian Federation

WE Posters-38 Excitations of half integer up shifted decay channel and turbulent virtual modes in plasma edge for high power EBW heating scenario

M. Abbasi, M. Ali Asgarian

Department of Advanced Sciences and Technologies, University of Isfahan, Isfahan, Iran, Islamic Republic Of

WE Posters-39 MITIGATION OF THE MAGNETO-RAYLEIGH-TAYLOR INSTABILITY IN THE STAGED Z-PINCH WITH AN AXIAL MAGNETIC FIELD

H. U. Rahman¹, E. Ruskov¹, F. J. Wessel¹, P. Ney¹, J. Narkis², F. Conti², J. C. Valenzuela², M. P. Ross², F. N. Beg²

¹Magneto-Inertial Fusion Technologies, Inc., Tustin, CA, United States

²Center for Energy Research, University of California, San Diego, San Diego, CA, United States

WE Posters-40 VERIFICATION OF RUNAWAY RATE SCALING FOR RELATIVISTIC ELECTRONS

A. V. Khrabrov, E. A. Startsev, I. D. Kaganovich

PPPL, Princeton, NJ, United States

WE Posters-41 ELECTROTHERMAL INSTABILITY STUDIES ON A SMALL PULSED POWER DEVICE

S. M. Miller, A. M. Steiner, R. D. McBride, D. A. Yager-Elorriaga, N. M. Jordan, Y. Y. Lau, R. M. Gilgenbach

Nuclear Engineering and Radiological Sciences, University of Michigan, Ann Arbor, United States

WE Posters-42 COMPUTER SIMULATION OF DENSE PLASMA PROPERTIES FOR INERTIAL CONFINEMENT FUSION

M. K. Issanova, S. K. Kodanova, T. S. Ramazanov, Z. A. Moldabekov

Institute of Experimental and Theoretical Physics, Al-Farabi Kazakh National University, Almaty, Kazakhstan

WE Posters-43 VARIABLE DENSITY, UNIFORM HYDROGEN PLASMA SOURCE FOR PLASMA-BASED ACCELERATORS

J. Williams, M. Gundersen

Electrical Engineering-Electrophysics, University of Southern California, Los Angeles, United States

Session WE Posters: WE P4

Poster Session

Wednesday, May 24 14:30-16:00, Poster Room

Session Chair: Mingsheng Wei, General Atomics

WE Posters-44 SHOCK FRONT FIELD STRUCTURE IN LOW-DENSITY SYSTEMS

R. Hua¹, H. Sio², S. Wilks³, C. McGuffey¹, F. Beg¹, B. Heeter³, R. Collins³, Y. Ping³

¹MAE, UCSD, San Diego, United States

²Physics, MIT, Massachusetts, United States

³LLNL, Livermore, United States

WE Posters-45 PARTICLE-IN-CELL SIMULATIONS OF ION ACCELERATION IN HIGH CONTRAST, HIGH INTENSITY LASER-SOLID TARGET INTERACTIONS AT INTENSITIES $> 10^{20}$ W/CM²

J. Li¹, P. F. Colleon¹, C. McGuffey¹, F. Beg¹, A. Arefiev², S. Bulanov³

¹Center for Energy Research, University of California, San Diego, San Diego, CA, United States

²Center for High Energy Density Science, University of Texas, Austin, United States

³Lawrence Berkeley National Laboratory, Berkeley, United States

WE Posters-46 BREMSSTRAHLUNG RADIATION FROM THE INTERACTION OF SHORT LASER PULSES WITH DIELECTRICS

G. M. Petrov, J. P. Palastro, J. Penano

Plasma Physics Division, Naval Research Laboratory, Washington, DC, United States

WE Posters-47 DIAGNOSTICS OF LASER INDUCED PLASMA DYNAMICS IN GASES AND LIQUIDS

M. T. Rajan, A. Rhoden

Plasma Engineering Research Lab (PERL), Texas A&M University - Corpus Christi, Corpus Christi, Texas

WE Posters-48 REACTIVATION OF LASER-INDUCED PLASMAS USING TIME-DELAYED HIGH-VOLTAGE PULSES

A. Robledo-Martinez¹, A. Garcia-Villarreal¹, H. Sobral²

¹*Ciencias B sicas, Universidad Aut noma Metropolitana, Mexico City, Mexico*

²*CCADET, Universidad Nacional Aut noma de M xico, Mexico City, Mexico*

WE Posters-49 BEAM EVOLUTION PROPAGATED THROUGH THE RELATIVISTIC WARM MAGNETO PLASMA

M. R. Jafari Milani¹, S. Rezaei², M. J. Jafari³

¹*Plasma Physics Research School, NSTRI, Tehran, Iran*

²*Plasma Physics Research School, NSTRI, Tehran, Iran*

³*Plasma Physics Research School, NSTRI, Tehran, Iran*

WE Posters-50 STUDY OF THERMAL EFFECT ON THE SELF-FOCUSING MECHANISM IN THE COLLISIONAL MAGNETIZED PLASMA

M. J. Jafari¹, M. R. Jafari Milani², S. Rezaei³

¹*Plasma Physics Research School, NSTRI, Tehran, Iran*

²*Plasma Physics Research School, NSTRI, Tehran, Iran*

³*Plasma Physics Research School, NSTRI, Tehran, Iran*

Session WE Posters: WE P5

Poster Session

Wednesday, May 24 14:30-16:00, Poster Room

Session Chairs:

WE Posters-51 EFFECT OF THE ION BACKGROUND ON THE CHARACTERISTICS OF THE OUTPUT SIGNAL FROM THE OSCILLATOR WITH THE TURBULENT ELECTRON BEAM

Y. A. Kalinin, A. V. Starodubov

Department of Physics of nonlinear systems, Saratov State University, Saratov, Russian Federation

WE Posters-52 EXPERIMENTAL COMPARISON OF ELECTRONIC CYCLOTRONIC RESONANCE AND COLLISIONAL TYPE COAXIAL PLASMAS SOURCES

J. Lo¹, A. Kaiz¹, L. Therese¹, B. Caillier¹, P. Guillot¹, L. Latrasse²

¹*Laboratoire Diagnostics des Plasmas Hors Equilibre (DPHE), Universite de Toulouse, INU Champollion, Albi, France*

²*Sairem S.A., Neyron, France*

Session WE Posters: We P6

Poster Session

Wednesday, May 24 14:30-16:00, Poster Room

Session Chair: Hyyong Suk, Gwangju Institute of Science and Technology, Korea

WE Posters-53 HEAVY IONS ACCELERATED BY A HIGH INTENSITY, HIGH CONTRAST LASER PULSE FROM SUB-MICROMETER METAL TARGETS

P. Forestier-Colleoni¹, J. Li¹, C. McGuffey¹, J. Peebles¹, C. Krauland¹, F. N. Beg¹, D. C. Gautier², J. C. Fernandez²,

S. Palaniyappan², R. P. Johnson², E. D'Humieres³, A. Hussein⁴, T. Batson⁴

¹*CER, University of California San Diego, La Jolla, CA, United States*

²*Los Alamos National Laboratory, MN, United States*

³*CELIA, Talence, France*

⁴*University of Michigan, Ann Arbor, MI, United States*

Session WE Posters: WE P7

Poster Session

Wednesday, May 24 14:30-16:00, Poster Room

Session Chair: Tatyana Sizyuk, Purdue University

WE Posters-54 STUDY ON SOLID BY-PRODUCTS OF METAL-ELECTRODES/SF6 REACTIONS UNDER POWER ARC

K. Qian, J. Yan, L. Cheng, Y. Wang, Y. Wang

State Key Laboratory of Electrical Insulation and Power Equipment, Xi'an Jiaotong University, Xi'an, China

WE Posters-55 Observation of inorganic layer contamination by impurities originated from organic layers during multi-layer PEALD process for flexible electronics encapsulation

J. Y. Lee, W. S. Kang, M. Hur, J. O. Lee, Y. -H. Song

Plasma engineering laboratory, Korea Institute of Machinery and Materials, Daejeon, South Korea

WE Posters-56 INVESTIGATION OF DECOMPOSITION CHARACTERISTICS OF SF6 UNDER ARC DISCHARGE

Z. Li, Y. Wang, K. Qian, J. Yan, L. Cheng, W. Ding

State Key Laboratory of Electrical Insulation and Power Equipment, xi'an, China

WE Posters-57 SECONDARY ELECTRON EMISSION FROM CARBON VELVET

C. Jin, Y. Raitses

Princeton Plasma Physics Laboratory, Princeton, New Jersey, USA

WE Posters-58 IS THE SHEATH POTENTIAL POSITIVE OR NEGATIVE AT STRONGLY EMITTING SURFACES?

M. D. Campanell, M. V. Umansky

Fusion Energy Sciences Program, Lawrence Livermore National Laboratory, Livermore, CA, United States

WE Posters-59 SURFACE CHARACTERIZATION OF THE PLASMA-IONIC LIQUID INTERFACE USING X-RAY PHOTOELECTRON SPECTROSCOPY

A. M. Capece, K. Miner

Physics, The College of New Jersey, Ewing, NJ, United States

WE Posters-60 MODELING OF REDUCED EFFECTIVE SECONDARY ELECTRON EMISSION YIELD FROM VELVET AND FOAM SURFACES

C. Swanson, I. D. Kaganovich

Princeton Plasma Physics Laboratory, Princeton, NJ, United States

WE Posters-61 NON-THERMAL PLASMA-INDUCED WETTABILITY CHANGES ON MARINA WOOL VIA ATMOSPHERIC DIELECTRIC BARRIER DISCHARGES

A. Diaz, D. Staack

Mechanical Engineering, Texas A&M University, College Station, Texas, United States

WE Posters-62 INTEGRATION OF MICROPLASMA WITH SEMICONDUCTOR: PLASMA BIPOLAR JUNCTION TRANSISTOR

J. Ni, Y. Huang, S. Zhong, S. -J. Park, J. Eden

University of Illinois, Urbana, IL, United States

WE Posters-63 STUDY OF PLASMA-POLYMERIZED SiOXNY THIN FILMS STRUCTURAL PROPERTIES USING TEOS/O2/N2 MIXTURE

M. Shahpanah, M. Abbasi-Firouzjah, B. Shokri

Laser & plasma research institue, Shahid Beheshti university, Tehran, Iran, Tehran, Iran

WE Posters-64 SYNTHESISING NANOFLUIDS USING LASER INDUCED PLASMA

M. T. Rajan

Plasma Engineering Research Lab (PERL), Texas A&M University - Corpus Christi, Corpus Christi, Texas, United States

WE Posters-65 EXPERIMENTAL STUDY OF THE INTERACTION OF AN HELIUM PLASMA JET AND A CONDUCTIVE TARGET

A. Kone, B. Caillier, C. Muja, F. Sainct, P. Guillot

Diagnostics des Plasmas Hors Equilibre, Universite de Toulouse, INU Champollion, Albi, France

WE Posters-66 COMPARATIVE STUDY OF THE INTERACTIONS OF AN HELIUM AND NEON PLASMA JET WITH A CONDUCTIVE TARGET

A. Kone, B. Caillier, C. Muja, F. P. Saint, P. Guillot

Laboratoire Diagnostics des Plasmas Hors Equilibre, Universite de Toulouse, INU Champollion,, Albi, France

WE Posters-67 SURFACE MODIFICATION OF CORN STARCH AND TIO₂ WITH A COAXIAL DBD REACTOR AND WITH THE AID OF A FLUIDIZED-BED.

E. A. Garcia-Guerrero¹, M. Tirado-Guerrero¹, G. Lopez-Echevarria², M. J. Nieto-Perez¹, J. A. Huerta-Ruelas¹, G. Mendez-Montealvo², G. Velazquez-delaCruz²

¹*Alternative Energies, CICATA-IPN Queretaro, Queretaro, Mexico*

²*Biotechnology, CICATA-IPN Queretaro, Queretaro, Mexico*

WE Posters-68 PLATFORMS FOR GHZ MICROPLASMA-MATERIAL STUDIES

Z. Cohick¹, S. Antonsson¹, S. Perini², D. Wolfe^{1,3}, M. Lanagan^{1,2}

¹*Department of Engineering Science and Mechanics, The Pennsylvania State University, University Park, PA, United States*

²*Materials Research Institute, The Pennsylvania State University, University Park, Pa, United States*

³*Applied Research Laboratory, The Pennsylvania State University, University Park, PA, United States*

Session WE Posters: WE P8

Poster Session

Wednesday, May 24 14:30-16:00, Poster Room

Session Chair: Nicholas Ouart, NRL

WE Posters-69 CREATING AND DIAGNOSING A UNIFORM HOT, DENSE PLASMA WITH THE PLASMA-FILLED ROD PINCH

N. R. Pereira

Ecopulse, Inc., Springfield, Va, United States

WE Posters-70 X-RAY SPECTROSCOPIC DIAGNOSTICS OF ICF IMPLOSIONS ON NIF USING KR DOPANT

A. Dasgupta¹, N. D. Ouart¹, J. L. Giuliani¹, R. W. Clark¹, M. B. Schneider², H. A. Scott²

¹*Plasma Physics, Naval Research Laboratory, Washington, DC, United States*

²*Lawrence Livermore National Laboratory, Livermore, CA, United States*

WE Posters-71 NON-LTE MODELING OF MOLYBDENUM L-SHELL RADIATION PRODUCED USING THE NIKE LASER

N. Ouart¹, Y. Aglitskiy¹, J. Weaver¹, A. Dasgupta¹, Y. Ralchenko²

¹*Plasma Physics Division, Naval Research Laboratory, Washington, DC, United States*

²*National Institute of Standards and Technology, Gaithersburg, MD, United States*

WE Posters-72 SIMULATIONS OF GAS PUFF Z-PINCH IMPLOSIONS WITH A XE DOPANT

V. Tangri¹, J. L. Giuliani², A. L. Velikovich², N. D. Ouart², A. Dasgupta², J. P. Apruzese³, A. J. Harvey-Thompson⁴, C. A. Jennings⁴, B. Jones⁴

¹*Berkeley Research Associates, Beltsville, MD, United States*

²*Plasma Physics Division, Naval Research Laboratory, Washington, DC, United States*

³*Syntek Technologies, Arlington VA, United States*

⁴*Sandia National Laboratories, Albuquerque, NM, United States*

Session WE Posters: WE P9

Poster Session

Wednesday, May 24 14:30-16:00, Poster Room

Session Chairs:

WE Posters-73 DESIGN OF A 250 GHZ PHOTONIC BANDGAP EXTENDED INTERACTION KLYSTRON

J. C. Stephens, M. A. Shapiro, R. J. Temkin

Plasma Science and Fusion Center, Massachusetts Institute of Technology, Cambridge, Massachusetts

WE Posters-74 MODELING AND STUDY OF THE ELECTRON OPTICAL SYSTEM WITH COMPRESSION OF AN ELECTRON SHEET BEAM

A. A. Burtsev¹, A. V. Danilushkin¹, K. V. Shumikhin¹, Y. G. Gamayunov², Y. A. Grigoriev³

¹*Saratov State Technical University, Saratov, Russian Federation*

²*Saratov State University, Saratov, Russian Federation*

³*The Kotelnikov Institute of Radio-engineering and Electronics of RAS, Saratov, Russian Federation*

WE Posters-75 STUDY OF PARTIAL-IN-CELL SIMULATION FOR THE GRAPHENE SURFACE PLASMON POLARITONS EXCITATION

L. Liu

School of Physical Electronics, University of Electronic Science and Technology of China, Chengdu, China

Session WE Posters: WE P10

Poster Session

Wednesday, May 24 14:30-16:00, Poster Room

Session Chair: John Giuliani, Naval Research Laboratory

WE Posters-76 THE MULTI-PHASE EQUATION OF STATE FOR COMPUTATIONAL INVESTIGATION ON EXPLODING ALUMINUM WIRE

K. Wang¹, D. Zhang¹, Z. Shi², Y. Shi²

¹*Hebei University of Technology, Tianjin, China*

²*Xian Jiaotong University, Xian, China*

WE Posters-77 ON THE STABILITY OF THE MAGNETIZED NOH Z-PINCH PROBLEM

S. Zalesak¹, J. Giuliani², A. Velikovich², A. Beresnyak²

¹*Berkeley Research Associates, Beltsville, MD, United States*

²*Plasma Physics Division, Naval Research Laboratory, Washington, DC, United States*

WE Posters-78 INFLUENC OF DIELECTRIC COATING AND SOLDERING ON ELECTRICAL EXPLOSION OF TUNGSTEN WIRES

Y. Shi¹, Z. Shi¹, K. Wang², Z. Wu¹, S. Jia¹

¹*Dept. of Electrical Engineering, Xi'an Jiaotong University, Xi'an, Shaanxi, China*

²*Dept. of Electrical Engineering, Hebei University of Technology, Tianjin, China*

WE Posters-79 COMPARATIVE STUDIES OF MAGNETIC FIELD EVOLUTION AND Z-PINCH DYNAMIC PROCESS OF CURRENT-CARRYING RAREFIED DEUTERIUM PLASMA SHELL

C. Ning, Z. Feng, S. Sun, C. Xue, B. Li

Institute of Applied Physics and Computational Mathematics, Beijing, China

WE Posters-80 RESEARCH ON TWO-DIMENSIONAL MHD SIMULATIONS OF X-PINCH IMPLOSION DYNAMICS

J. Cui, T. Zhao, L. Shi, Y. Zhang, L. Zou

School of Electrical Engineering, Shandong University, Ji'nan, Shandong Province, China

WE Posters-81 THE EFFECTS OF CENTRAL JET ON THE AR-ON-D DOUBLE-SHELL GAS PUFF Z-PINCH LOADS ON SANDIA ZR FOR PULSED NEUTRON SOURCE

Y. Chong¹, A. L. Velikovich¹, J. Giuliani¹, P. Knapp², C. Jennings²

¹*Naval Research Laboratory, WASHINGTON, DC*

²*Sandia National Laboratories, Albuquerque, NM*

WE Posters-82 DEVELOPMENT OF PULSED PINCH PLASMAS FOR THE APPLICATION AS FAIR PLASMA STRIPPER

M. Iberler, T. Ackermann, B. Bohlender, K. Cistakov, C. Hock, D. Mann, G. Xu, J. Wiechula, J. Jacoby

Institute for Applied Physics, Goethe University Frankfurt, Frankfurt am Main, Germany

WE Posters-83 PLASMA SPECTRAL CHARACTERISTICS OF SINGLE ALUMINUM WIRE ELECTRICALLY EXPLODED IN HIGH VACUUM

Z. Wu, Z. Shi, Y. Shi, J. Bai, S. Jia

Xi'an Jiaotong University, Xi'an, Shaanxi, China

WE Posters-84 FULLY KINETIC MODELING OF DENSE PLASMA FOCI FROM KILO- TO MEGA-AMP DEVICES

D. P. Higginson, J. Angus, I. Holod, S. Jiang, C. Kueny, J. Liu, M. McMahon, A. Pankin, J. Sears, K. Tummel, A. Voronin, A. Link, A. Schmidt

Lawrence Livermore National Lab, Livermore, CA, United States

WE Posters-85 Investigation of 1-MA, 200-ns Ar Gas Puff Z-Pinches on COBRA

N. Qi, S. V. Rocco, J. T. Banasek, L. Atoyán, T. Byvank, W. M. Potter, J. B. Greenly, D. A. Hammer, B. R. Kusse

Lab. of Plasma Studies, Cornell University, Ithaca, NY, United States

WE Posters-86 INSTABILITIES AND THE IMPLOSION DYNAMICS OF GAS-PUFF Z-PINCH EXPERIMENTS

S. V. Rocco¹, J. Banasek¹, D. Hammer¹, B. Kusse¹, N. Qi², W. Potter¹

¹*Lab of Plasma Studies, Cornell University, Ithaca, NY, United States*

²*L3 Communications, San Leandro, CA, United States*

WE Posters-87 STAGED Z-PINCH EXPERIMENTS ON THE MEGA-AMPERE CURRENT DRIVER COBRA

J. C. Valenzuela¹, F. Conti¹, M. P. Ross¹, N. Aybar¹, J. Narkis¹, F. N. Beg¹, F. J. Wessel², E. Ruskov², H. U. Rahman², P. Ney², T. W. Darling³, A. Covington³, D. A. Hammer⁴, T. Byvank⁴, J. T. Banasek⁴, J. B. Greenly⁴, W. M. Potter⁴, S. V. Rocco⁴

¹*University of California, San Diego, San Diego, CA, United States*

²*Magneto-Inertial Fusion Technologies, Inc, Tustin, CA, United States*

³*University of Nevada, Reno, Nevada, Reno, United States*

⁴*Cornell University, Ithaca, NY, United States*

WE Posters-88 FORCE-FREE CURRENT FLOW IN Z PINCHES IMPLoded IN AN AXIAL MAGNETIC FIELD

A. L. Velikovich¹, N. D. Ouart¹, J. L. Giuliani¹, R. B. Baksht², A. G. Roussikh², V. I. Oreshkin², D. Mikitchuk³, M. Cvejic³, R. Doron³, E. Kroupp³, Y. Maron³

¹*Plasma Physics Division, Naval Research Laboratory, Washington, DC, United States*

²*Institute of High Current Electronics of the Siberian Branch of the Russian Academy of Sciences, Tomsk, Russia*

³*Weizmann Institute of Science, Rehovot, Israel*