

POSTER SESSION – Tuesday, May 23, 2017 from 14:30 to 16:00 in Wildwood 5

Session TU Posters: TU P4

Poster Session

Tuesday, May 23 14:30-16:00, Poster Room

Session Chairs:

TU Posters-1 EXPERIMENTAL STUDY OF A HIGH POWER NLTL-MODULATED ELECTRON BEAM DRIVER

B. W. Hoff¹, P. D. Lepell², T. B. Montoya³, D. H. Simon¹

¹*Air Force Research Laboratory, Kirtland AFB, NM, United States*

²*Leidos, Albuquerque, NM, United States*

³*Voss Scientific, Albuquerque, NM, United States*

TU Posters-2 CHANGE IN GUIDING CENTER POSITION AS A FUNCTION OF INCIDENT AND SCATTERING ANGLE IN CROSS-FIELD DIODE

B. S. Stutzman¹, J. P. Verboncoeur²

¹*US Coast Guard Academy, New London, CT, United States*

²*Michigan State University, East Lansing, MI, United States*

Session TU Posters: TU P2

Poster Session

Tuesday, May 23 14:30-16:00, Poster Room

Session Chairs:

TU Posters-3 EXPERIMENTAL STUDIES ON TWO TYPES OF MAGNETIC POTENTIAL WELLS

I. G. Pagonakis, H. Buchelet, G. Gantenbein, S. Illy, Z. Ioannidis, T. Rzesnicki, M. Thumm, A. Zein, J. Jelonnek

Karlsruhe Institute of Technology (KIT), Institute for Pulsed Power and Microwave Technology (IHM), Karlsruhe, Germany

Session TU Posters: TU P10

Poster Session

Tuesday, May 23 14:30-16:00, Poster Room

Session Chairs:

TU Posters-4 RECENT RESEARCH ON THE MULTI-FREQUENCY RECIRCULATING PLANAR MAGNETRON

G. B. Greening, N. M. Jordan, D. A. Packard, S. C. Exelby, K. A. Schneider, P. Y. Wong, Y. Y. Lau, R. M. Gilgenbach

NERS, University of Michigan, Ann Arbor, United States

TU Posters-5 BACKWARD WAVE OSCILLATION THRESHOLDS IN A TRAVELING-WAVE TUBE

A. Jassem, P. Y. Wong, F. Antoulinakis, Y. Y. Lau

University of Michigan, Ann Arbor, MI, United States

TU Posters-6 ABSOLUTE INSTABILITY AT THE LOWER BAND EDGE IN A TRAVELING WAVE TUBE

F. Antoulinakis, Y. Y. Lau, P. Y. Wong, A. Jassem

University of Michigan, Ann Arbor, MI, United States

TU Posters-7 INVESTIGATING A LOWER LIMIT FOR THE MAGNETIC FIELD IN A TWT

N. Haytural¹, L. Oksuz^{1,2}, A. Gulec³, F. Bozduman¹, H. Yesiltepe¹

¹Plasma Research Laboratory, Suleyman Demirel University, Isparta, Turkey

²Plazmatek, Suleyman Demirel University, Isparta, Turkey

³Biomedical Engineering, Suleyman Demirel University, Isparta, Turkey

TU Posters-8 ABOUT THE INVESTIGATION OF ELECTRON-WAVE MICROWAVE AMPLIFIERS AT HIGH VALUES OF INHOMOGENEITY PARAMETER

Y. A. Kalinin, A. V. Starodubov

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

TU Posters-9 SIMULATION RESULTS OF A LINEAR FORMAT CFA USING A MODULATED CATHODE

M. Pearlman, J. Browning

Electrical Engineering, Boise State University, Boise, ID, United States

TU Posters-10 BEAM PROFILE AND POSITION INSTABILITY OF A POST-ACCELERATED PSEUDOSPARK-SOURCED ELECTRON BEAM FOR AN EXTENDED INTERACTION OSCILLATOR

A. W. Cross¹, H. Yin¹, L. Zhang¹, W. He¹, G. Shu¹, J. Zhao², Y. Yin³

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Session TU Posters: TU P1

Poster Session

Tuesday, May 23 14:30-16:00, Poster Room

Session Chair: Peter Mardahl, Air Force Research Laboratory

TU Posters-11 TEMPORAL AND SPATIAL ANALYSIS OF INDUCTIVELY COUPLED ATMOSPHERIC PRESSURE PLASMA

A. Gulec¹, F. Bozduman², L. Oksuz², A. M. Hala³

¹Technology Faculty/Biomedical Engineering, Suleyman Demirel University, Isparta, Turkey

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³The National Center for Applied Physics, Material Science Research Institute, King Abdul Aziz City for Science and Technology, Riyadh, Saudi Arabia

TU Posters-12 MODELING PLASMA EXPANSION INTO VACUUM WITH SPEED-LIMITED PARTICLE-IN-CELL (SLPIC) SIMULATION

T. G. Jenkins¹, P. H. Stoltz¹, J. R. Cary¹, G. R. Werner²

¹Tech-X Corporation, Boulder, CO, United States

²University of Colorado, Boulder, CO, United States

TU Posters-13 OPERATION OF A W-BAND MILLIMETER-WAVE SOURCE MANUFACTURED BY 3D PRINTING

A. R. Phipps, A. J. MacLachlan, C. W. Robertson, K. Ronald, A. W. Cross, A. D. R. Phelps

Dept of Physics, University of Strathclyde, Glasgow, United Kingdom

TU Posters-14 TIME EVOLUTION OF DISTRIBUTION FUNCTION OF PLASMA ELECTRON UNDER THE ACTION OF PULSED ELECTRON BEAM

N. E. Aktaev, G. E. Remnev

National Research Tomsk Polytechnic University, Tomsk, Russian Federation

TU Posters-15 TIME DOMAIN ANALYSIS OF HIGHER ORDER MODE PROPERTIES IN AN OPEN CAVITY RETAINING AXIAL SYMMETRY

S. Y. Lin¹, M. C. Lin²

¹STEM, Fairview High School, Boulder, CO, USA

²Department of Electrical and Biomedical Engineering, Hanyang University, Seoul, South Korea

TU Posters-16 EFFICIENT SIMULATIONS OF BEAM LOADING IN RF CAVITIES WITH MULTIPLE HIGH-ORDER MODES

S. D. Webb, N. M. Cook, D. T. Abell

RadiaSoft, LLC, Boulder, CO, United States

Session TU Posters: TU P5

Poster Session

Tuesday, May 23 14:30-16:00, Poster Room

Session Chairs:

TU Posters-17 REDUCTION OF NOX EMISSIONS BY MICROWAVE PLASMA IGNITION IN INTERNAL COMBUSTION ENGINE

C. Liu, G. Zhang, H. Xie, L. Deng

Department of Electrical Engineering, Tsinghua University, Beijing, Beijing

TU Posters-18 MEASUREMENTS OF MULTIPACTOR AND DARK CURRENT IN A 17 GHZ STANDING WAVE ACCELERATOR STRUCTURE

H. Xu, M. A. Shapiro, R. J. Temkin

Plasma Science and Fusion Center, Massachusetts Institute of Technology, Cambridge, MA, United States

TU Posters-19 RESONANT CHARACTERISTICS IN 7X7 MICROWAVE DISCHARGE ARRAY BASED ON MICROSTRIP SPLIT RING RESONATOR

H. Kim, S. G. Parsons, J. A. Hopwood

Electrical and Computer Engineering, Tufts University, medford, United States

TU Posters-20 STATIONARY STATISTICAL THEORY FOR COAXIAL MULTIPACTOR

S. Lin, Y. Li, H. Wang, C. Liu

Xi'an Jiaotong University, Xi'an, China

TU Posters-21 TWT SUPPORT ROAD COATING BY MPCVD

F. Bozduman¹, N. Haytural², A. Gulec³, O. N. Asan⁴, L. Oksuz⁵

¹*Physics, Ferhat Bozduman, Isparta, Turkey*

²*Physics, Necati Haytural, Isparta, Turkey*

³*Biomedical, Ali Gulec, Isparta, Turkey*

⁴*Physics, Orkun Nuri Asan, Isparta, Turkey*

⁵*Physics, Lutfi Oksuz, Isparta, Turkey*

TU Posters-22 DIAGNOSTICS OF CAPACITIVE COUPLED PLASMA BY SPECTROSCOPY AND MICROWAVE

X. He¹, C. Liu¹, Y. Zhang², J. Chen³, Y. Chen³, X. Zeng³, B. Chen¹

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TU Posters-23 INTERACTION MECHANISM OF MICRO-PLASMA AND TERAHERTZ WAVES

L. Hou¹, W. Shi¹, M. Xu¹, C. Ma¹, H. Liu¹, X. Sun²

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TU Posters-24 ELECTRIC FIELD DISTRIBUTION OF A WEDGE SHAPE PLASMA PHOTONIC CRYSTAL

S. S. M. Chung

Institute of Biophotonics Engineering, National Yang Ming University, Taipei, Taiwan

Session TU Posters: TU P3

Poster Session

Tuesday, May 23 14:30-16:00, Poster Room

Session Chairs:

TU Posters-25 A STUDY ON FLEXIBLE SOLID STATE ELECTROCHROMIC DEVICES CONSISTING OF RF PLASMA MODIFIED WO3 HYBRID

E. Eren¹, C. Alver¹, G. Yurdabak Karaca¹, E. Uygun², L. Oksuz², A. Uygun Oksuz¹

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

TU Posters-26 DESIGN OF ELECTROCHROMIC HYBRID POLY(3-METHYLTHIOPHENE)/WO₃ MATERIALS VIA ELECTROCHEMICAL ROUTE

C. Dulgerbaki, A. Uygun

Chemistry, Suleyman Demirel University, Isparta, Turkey

TU Posters-27 EXPERIMENTAL STUDY OF TIME DEPENDENCE ABLATION RATE IN ATMOSPHERIC PRESSURE DC CARBON ARC DISCHARGES

T. Huang, V. Vekselman, Y. Raitse

Princeton Plasma Physics Laboratory, Princeton, NJ, United States

TU Posters-28 UNIFIED ANALYTICAL TREATMENT OF NEAR-CATHODE LAYERS OF ARC DISCHARGES WITH APPLICATION TO SPOTLESS CATHODIC ATTACHMENT OF VACUUM ARCS

L. G. Benilova¹, M. S. Benilov^{1,2}

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²*IST, Instituto de Plasmas e Fusão Nuclear, Universidade de Lisboa, Lisboa, Portugal*

TU Posters-29 ELECTROMAGNETIC THERMAL FLUID SIMULATION OF VACUUM ARC CATHODE SPOT WITH VAPOR FROM OXIDE LAYER

S. Yamamoto, T. Iwao, Y. Ehara

Electrical and electronic engineering, Tokyo City University, Tokyo, Japan

TU Posters-30 EVAPORATION QUANTITY OF TROLLEY WIRE AFFECTED BY ARC CURRENT USING ELECTROMAGNETIC THERMAL FLUID SIMULATION

Y. Maeda¹, S. Iwata¹, S. Yamamoto¹, T. Iwao¹, T. Hayasaka²

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²*Railway Technical Research Institute, Tokyo, Japan*

TU Posters-31 CONTRIBUTION OF ARC COLUMN FOR MOVING SPEED AFFECTED BY EXTERNAL MAGNETIC FIELD IN MAGNETIC DRIVEN ARC

T. Yamato, Y. Inuzuka, S. Yamamoto, T. Iwao

Electrical & Electronic Engineering, Tokyo City University, Setagaya-ku, Japan

TU Posters-32 DISTRIBUTION OF VAPOR DENSITY AFFECTED BY CATHODE SPOT AREA OF VACUUM ARC

S. Iwata, S. Yamamoto, T. Iwao

Electrical & Electronic Engineering, Tokyo City University, Setagaya-ku, Japan

TU Posters-33 LAMP EFFICIENCY OF WALL-STABILIZED ARGON PULSED ARC AFFECTED BY TRANSIENT CURRENT

Y. Asano, S. Yamamoto, T. Iwao

Electrical & Electronic Engineering, Tokyo City University, Setagaya-ku, Japan

TU Posters-34 CONDUCTANCE IN POST ARC DISCHARGE AFFECTED BY THE GAS BLUSTER ANGLE

Y. Ishikawa, K. Sato, S. Ono, S. Yamamoto, T. Iwao

Electrical & Electronic Engineering, Tokyo City University, Setagaya-ku, Japan

TU Posters-35 PROCESS OF ARC MOVING AFFECTED BY EXTERNAL MAGNETIC FIELD IN MAGNETIC DRIVEN ARC

Y. Inuzuka, T. Yamato, S. Yamamoto, T. Iwao

Tokyo City University, Tokyo, Japan

Session TU Posters: TU P8

Poster Session

Tuesday, May 23 14:30-16:00, Poster Room

Session Chair: Ken Hara, Texas A&M University

TU Posters-36 HIGH-THRUST ELECTRO-JET ENGINE USING HELICALLY CORRUGATED MAGNETIC FIELD

A. V. Arzhannikov^{1,2}, A. D. Beklemishev^{1,2}

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TU Posters-37 MICROPLASMA JET DEVICE FOR PLASMA THRUSTER

H. Seo¹, D. H. Kim¹, G. T. Bae¹, H. -S. Tae¹, C. -S. Park¹, W. H. Kim², B. J. Shin³, S. -O. Kim⁴

¹*School of Electronics Engineering, Kyungpook National University, Daegu, South Korea*

²*School of Mechanical Engineering, Kyungpook National University, Daegu, South Korea*

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⁴*Department of Electrical and Computer Engineering, New York Institute of Technology, Old Westbury, USA*

TU Posters-38 TRANSITION OF THERMODYNAMIC PROPERTY OF ELECTRON IN A MAGNETICALLY EXPANDING PLASMA

K. S. Chung, J. Y. Kim, K. -J. Chung, Y. S. Hwang

Nuclear Engineering, Seoul National University, Seoul, South Korea

TU Posters-39 AN APPROACH TO IMPROVE OVERALL EFFICIENCY OF PULSED PLASMA THRUSTER UTILIZING CAPILLARY STRUCTURE AND COAXIAL ACCELERATING RAIL

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

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

TU Posters-40 ANALYSIS OF PROCESSES IN INDUCTOR LOADED BY A PLASMA OF RF THRUSTER DISCHARGE

G. G. Shishkin¹, A. G. Shishkin², A. P. Plokhikh³

¹*Moscow Aviation Institute, Moscow, Russian Federation*

²*Moscow State University, Dept. of Computational Mathematics & Cybernetics, Moscow, Russian Federation*

³*RIAME of Moscow Aviation Institute, Moscow, Russian Federation*

TU Posters-41 PRELIMINARY STUDY ON PLUME CHARACTERISTICS OF A NOVEL PULSED PLASMA THRUSTER

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

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TU Posters-42 STUDY ON THE CHARACTERISTIC OF DEPOSITED ENERGY IN A CAPILLARY DISCHARGE BASED PULSED PLASMA THRUSTER

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

Xi'an Jiaotong University, Xi'an, China

TU Posters-43 EXPERIMENTAL RESEARCH ON ABLATION CHARACTERISTICS IN A LOW ENERGY CAPILLARY DISCHARGE BASED PULSED PLASMA THRUSTER

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

Xi'an Jiaotong University, Xi'an, China

TU Posters-44 THREE-DIMENSIONAL AND SHEATH BOUNDARY EFFECTS ON THE INSTABILITIES IN EXB PLASMA DISCHARGES

V. Morin¹, O. Koshkarov¹, A. Smolyakov¹, Y. Raitsev², I. Kaganovich²

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Session TU Posters: TU P7

Poster Session

Tuesday, May 23 14:30-16:00, Poster Room

Session Chairs:

TU Posters-45 OXIDATIVE STRESS OF MELANOMA CANER CELLS INDUCED BY ATMOSPHERIC PRESSURE COLD PLASMA

G. -M. Xu¹, J. -R. Liu², S. -L. Chen¹, X. -M. Shi², G. -J. Zhang¹

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²*Environment and Genes Related to Diseases Key Laboratory of Education Ministry, Xi'an, Shaanxi, China*

TU Posters-46 THE SELECTIVE EFFECT OF PLASMA ACTIVATED MEDIA ON CELLS

S. Mohades¹, N. Barekzi^{1,2}, V. Maruthamuthu³, H. Razavi¹, M. Laroussi¹

¹*Plasma Engineering & Medicine Institute, Old Dominion University, Norfolk, VA, United States*

²*Department of Biological Sciences, Old Dominion University, Norfolk, VA, United States*

³*Mechanical & Aerospace Engineering Dept, Old Dominion University, Norfolk, VA, United States*

TU Posters-47 SYNERGISTIC EFFECTS OF COLD ATMOSPHERIC PLASMA AND ELECTRIC PULSES ON JURKAT CELLS

M. V. Lauria, P. Dieffenbach, A. Vadlamani, J. Firehammer, A. Shashurin, A. L. Garner
Nuclear Engineering, Purdue University, West Lafayette, IN, USA

TU Posters-48 MODELLING SYNERGISTIC EFFECTS OF COLD ATMOSPHERIC PLASMA AND PULSED ELECTRIC FIELD TREATMENTS IN PORE CREATION

C. Meert, N. Allen, A. L. Garner, J. N. Brooks
Nuclear Engineering, Purdue University, West Lafayette, IN, United States

TU Posters-49 REACTIVE MOLECULAR DYNAMICS SIMULATION ON PLASMA-INDUCED DESTRUCTION OF FUNGAL CELL WALL COMPONENTS

L. Shi, T. Zhao, Y. T. Zhang, L. Zou, L. Zhang
School of Electrical Engineering, Shandong University, Ji'nan, Shandong Province, China

TU Posters-50 THE EFFECT OF THE TYPE OF GAS ON UNDERWATER DISCHARGE

K. Kim, J. Y. Huh, S. H. Ma, Y. C. Hong
Plasma Technology Research Center, National Fusion Research Institute, Gunsan, South Korea

TU Posters-51 3D PRINTED MINI PLASMA JET: APPLICATION TO HEMOSTATIC TREATMENT FOR ENDOSCOPE

Y. Hayashi¹, H. Kawano¹, Y. Nomura², T. Takamatsu², H. Miyahara¹, S. Ota³, T. Azuma², A. Okino¹
¹*Tokyo Institute of Technology, Yokohama, Japan*
²*Kobe University, Kobe, Japan*
³*Kobe Design University, Kobe, Japan*

TU Posters-52 CHARACTERIZATION OF A PLASMA SOURCE USED TO ACCELERATE WOUND HEALING OF THE TADPOLE XENOPUS LAEVIS

K. Martus, J. Menon
William Paterson University, Wayne, NJ, United States

TU Posters-53 TREATMENT ON NEUROBLASTOMA CANCER CELLS USING ATMOSPHERIC COLD PLASMA

M. T. Rajan, K. Patel, S. Vemulapalli, N. Pokala
Plasma Engineering Research Lab (PERL), Texas A&M University - Corpus Christi, Corpus Christi, TX, United States

TU Posters-54 ATMOSPHERIC PRESSURE COLD PLASMA APPLICATION FOR HOSPITAL STERILIZATION

M. T. Rajan, A. Wilkins, B. Phung
Plasma Engineering Research Lab (PERL), Texas A&M University - Corpus Christi, Corpus Christi, TX, United States

TU Posters-55 DISINFECTION OF REVERSE OSMOSIS WATER BY ATMOSPHERIC PLASMA RICH IN OH RADICAL

A. C. O. C. Doria, G. S. Liberato, F. R. Figueira, C. A. Carvalho, J. B. S. Lima, R. S. Pessoa, S. Khouri
Laboratory of Biotechnology and Electric Plasma, University of Vale do Paraiba, Sao Jose dos Campos, Sao Paulo, Brazil

TU Posters-56 ARGON/AIR AND HELIUM/AIR ATMOSPHERIC PLASMA JET INACTIVATION OF CANDIDA ALBICANS BIOFILM FORMED FROM CLINICAL STRAINS

F. R. Figueira, A. C. O. C. Doria, J. S. B. Lima, S. Khouri, R. S. Pessoa
Laboratory of Biotechnology and Electric Plasma, University of Vale do Paraiba, Sao Jose dos Campos, Sao Paulo, Brazil

TU Posters-57 INTRALUMINAL DISINFECTION OF CATHETER CONTAMINATED WITH STAPHYLOCOCCUS AUREUS BIOFILM USING ATMOSPHERIC PLASMA

A. C. O. C. Doria, R. R. N. R. Cruz, F. R. Figueira, A. C. Oliveira, J. B. S. Lima, R. S. Pessoa, S. Khouri
Laboratory of Biotechnology and Electric Plasma, University of Vale do Paraiba, Sao Jose dos Campos, Sao Paulo, Brazil

Session TU Posters: TU P6

Poster Session

Tuesday, May 23 14:30-16:00, Poster Room

Session Chairs:

TU Posters-58 NUMERICAL INVESTIGATION OF A HELIUM ATMOSPHERIC PRESSURE JET WITH VARIOUS AMOUNTS OF N2 ADMIXTURE

Y. Zheng, L. Wang, D. Wang, S. Jia

Xi'an Jiaotong University, Xi'an, China

TU Posters-59 NUMERICAL MODELLING OF IONIC WIND GENERATION BY NEGATIVE CORONA DISCHARGE IN AMBIENT AIR WITH EXPERIMENTAL VALIDATION

S. Chen^{1,2}, S. Nijdam¹

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²*Department of Electrical and Information Engineering, Hunan University, 410082 Changsha, China*

TU Posters-60 NUMERICAL SIMULATION OF MULTI-PEAK DISCHARGE AND ITS RADIAL STRUCTURES IN ATMOSPHERIC PRESSURE HELIUM DIELECTRIC BARRIER DISCHARGES

D. Dai, Y. Zhang, W. Ning, Q. Zhang

school of electric power, South China University of technology, Guangzhou, Guangdong, China

TU Posters-61 SIMULATION OF CH₄ DRY REFORMING BY NANOSECOND PULSE PLASMA-CATALYSIS

H. Cheng^{1,2}, X. Lu^{1,2}, D. Liu^{1,2,3}

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TU Posters-62 MICROWAVE PLASMA-ASSISTED IGNITION AND FLAMEHOLDING IN PREMIXED ETHYLENE/AIR MIXTURES

C. A. Fuh, W. Wu, C. Wang

Department of Physics and Astronomy, Mississippi State University, Starkville, Ms, United States

TU Posters-63 FLASHOVER CHARACTERISTICS OF EPOXY RESIN WITH HE₂/CF₄ ATMOSPHERIC PRESSURE PLASMA JET TREATMENT

S. -L. Chen, G. -M. Xu, C. -W. Yao, Z. -S. Chang, G. -J. Zhang

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TU Posters-64 A MODEL CONSIDERING VOLTAGE BREAKDOWN PROCESS TO SIMULATE CURRENT PAUSE PHENOMENA IN ELECTRICAL WIRE EXPLOSION

G. Yin, X. Li, J. Wu, S. Jia, A. Qiu

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

TU Posters-65 STRUCTURAL CHARACTERISTICS OF ALUMINUM NANOPARTICLES PRODUCED BY ELECTRICAL EXPLOSION IN ARGON

X. Li, Y. Wang, J. Wu, X. Li, A. Qiu

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TU Posters-66 RF MAGNETRON SPUTTERED MAGNETIC NANOWIRE

G. Yurdabak Karaca¹, E. Uygun², A. Uygun Oksuz¹, L. Oksuz^{2,3}

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TU Posters-67 ELECTROCHROMIC CHARACTERISTICS AS A FUNCTION OF ELECTROLYTE ON PERFORMANCE OF ELECTROCHROMIC FILMS INCLUDING PLASMA MODIFIED V₂O₅ HYBRIDS

E. Eren¹, G. Cogal², A. Yildiz³

¹*Chemistry, Suleyman Demirel University, Isparta, Turkey*

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³*Chemistry, Mehmet Akif Ersoy University, Burdur, Turkey*

TU Posters-68 EFFECT OF NANOPOROUS DIELECTRIC ON DISCHARGE MODE TRANSITION IN A RF DIELECTRIC BARRIER DISCHARGE AND ITS APPLICATION IN METHANE REFORMING

H. Mu¹, A. Rouso², C. Yu¹, P. Li¹, G. Zhang¹, Y. Ju²

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TU Posters-69 MODELING OF AN ELECTRON-BEAM PUMPED ARF EXCIMER LASER

T. B. Petrova, G. M. Petrov, M. F. Wolford, A. J. Schmitt, J. L. Giuliani, S. P. Obenschain

Plasma Physics Division, NRL, Washington, DC, United States

TU Posters-70 ATMOSPHERIC PRESSURE COLD PLASMA APPLICATION FOR FOOD SAFETY

M. T. Rajan, J. Turner, L. Pinnell, J. Tallman, E. Moreno

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

TU Posters-71 OVERVIEW OF EXPERIMENTAL STUDIES OF PLASMA IN LIQUID WATER AT THE UNIVERSITY OF MICHIGAN AND PROGRESS TOWARDS A PRACTICAL PLASMA WATER REACTOR

J. E. Foster¹, J. Lai¹, S. Mujovic¹, J. Groele¹, Y. Kovach¹, M. C. Garcia²

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²Grupo De Espectroscopia de Plasmas, Universidad de Cordoba, Cordoba, Spain

TU Posters-72 THE EFFECT OF SEED ELECTRONS ON THE REPEATABILITY OF APPJ PROPAGATION

X. Lu, L. Nie, J. Chang, Y. Xian

Huazhong University of Science and Technology, China, Wuhan, China

TU Posters-73 CONTROLLABLE VOLTAGE STABILIZATION BY MEANS OF LIGHT INERT GASES

E. Lomakina, A. Egorova, A. Mustafaev

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

TU Posters-74 ATMOSPHERIC PRESSURE PLASMA SOURCES FOR PLASMA POLYMERIZATION AND LARGE AREA TREATMENT

D. H. Kim¹, C. -S. Park¹, D. Kim¹, H. -S. Tae¹, B. J. Shin², J. H. Seo³

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TU Posters-75 PLASMA-ENHANCED ATOMIC LAYER DEPOSITION OF AL₂O₃ THIN FILM ON TiO₂ NANOTUBES

R. C. Goncalves, A. C. O. C. Doria, J. S. B. Lima, R. S. Pessoa, H. S. Maciel

Laboratory of Biotechnology and Electric Plasma, University of Vale do Paraiba, Sao Jose dos Campos, Sao Paulo, Brazil

TU Posters-76 CHARACTERIZATION OF THE OPERATIONAL MODES OF A NON-THERMAL ATMOSPHERIC PRESSURE PLASMA JET

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TU Posters-77 THE STANDARDIZATION AND REPRODUCIBILITY OF DIELECTRIC BARRIER DISCHARGE REACTORS

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TU Posters-78 NUMERICAL STUDIES ON THE NONLINEAR COUPLING IN ATMOSPHERIC DUAL RADIO-FREQUENCY DIELECTRIC BARRIER DISCHARGE

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TU Posters-79 NEGATIVE DC CORONA DISCHARGE FOR NITRIC OXIDE REMOVAL IN PIN-TO-WATER ELECTRODE CONFIGURATION

L. Zhou, T. Wang, S. Macgregor, M. Wilson, I. Timoshkin, M. Given

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TU Posters-80 POSITIVE STREAMER MECHANISM IN GASES

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Session TU Posters: TU P9

Poster Session

Tuesday, May 23 14:30-16:00, Poster Room

Session Chair: Scott Kovaleski, U Missouri

TU Posters-81 Laser effects on the stopping power for ion traveling through plasmas

G. Wang, H. Yi, Y. Wang, D. Liu

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TU Posters-82 EXPERIMENTAL MEASUREMENTS OF POWER EXTRACTION CIRCUITS FOR MOBILE IONOSPHERIC HEATING

B. L. Beaudoin, A. Ting, S. Gold, J. A. Karakkad, A. H. Narayan, G. S. Nusinovich, C. Turner, T. M. Antonsen Jr.
IREAP, University of Maryland, College Park, MD, USA

TU Posters-83 SIMULATIONS OF POWER EXTRACTION CIRCUITS FOR MOBILE IONOSPHERIC HEATING

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TU Posters-84 DC AND PULSED BORON PLASMA AND ION BEAM GENERATION BY PLANAR MAGNETRON DISCHARGE

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TU Posters-85 POTENTIAL DISTRIBUTION OVER A DIELECTRIC SURFACE IRRADIATED BY AN ELECTRON BEAM AT FOREVACUUM PRESSURES

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TU Posters-86 DISCHARGE CHARACTERISTICS OF THREE BRUSH-SHAPED PLASMA PLUME OPERATED IN ATMOSPHERIC PRESSURE ARGON

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TU Posters-87 VACUUM ARC PLASMA PRODUCED WITH COPPER-CHROMIUM CATHODES IN A MAGNETIC FIELD

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TU Posters-88 GENERATION OF DEUTERIUM ION BEAMS BY VACUUM ARC ION SOURCE WITH DEUTERIUM-SATURATED ZIRCONIUM CATHODE

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TU Posters-89 EXPERIMENTAL INVESTIGATION OF HIGH EFFICIENT INDUCTIVELY COUPLED PLASMA BY SPLITTING EXTERNAL ANTENNA COIL

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TU Posters-90 INVESTIGATION OF VARYING END-CAPACITANCE IN EXTERNAL ANTENNA FOR INDUCTIVELY COUPLED PLASMA

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TU Posters-91 EXPERIMENTAL MEASUREMENT OF E TO H MODE TRANSITION IN O₂, N₂ AND O₂-N₂ GASES IN CYLINDRICAL ICP SOURCE FOR PHOTORESIST DRY-STRIP APPLICATIONS

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TU Posters-92 SPECIFIC FEATURES OF A PULSED VACUUM ARC WITH A BORON CATHODE

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TU Posters-93 EXTENDING THE VOLUME AND PROCESSING AREA OF ATMOSPHERIC PRESSURE PLASMA JETS

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TU Posters-94 MOLECULAR DYNAMICS BASED INVESTIGATION OF CONTRIBUTION OF DISCRETE PARTICLE EFFECTS NEAR CATHODE TO BEAM EMITTANCE.

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TU Posters-95 PLASMA INDUCED BY A CARBON NANOTUBE (CNT) GENERATED ELECTRON BEAM

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TU Posters-96 ARC SUPPRESSION IN ELECTRON GUNS

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TU Posters-97 SPECTROSCOPIC MEASUREMENT OF A PIEZOELECTRIC TRANSFORMER DRIVEN ATMOSPHERIC PRESSURE PLASMA

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