

TABLE OF CONTENTS

PL-1 - STATUS AND PROSPECTS FOR BURNING PLASMAS VIA LASER FUSION	1
<i>Riccardo Betti</i>	
PL-2 - AURORAL CURRENT SYSTEMS AND ARC FORMATION: OBSERVATIONS AND THEORY	2
<i>David J. Knudsen</i>	
PL-3 - ELECTRODELESS DISCHARGE LIGHTING	3
<i>Graeme Lister</i>	
PL-4 - THE PHYSICS OF MULTI-KEV EMISSIONS FROM Z-PINCHES AT THE Z ACCELERATOR	4
<i>Christine A. Coverdale</i>	
PL-5 - FIR POLARIMETRY ON THE ALCATOR C-MOD TOKAMAK	5
<i>J. H. Irby</i>	
PL-6 - ENABLING TECHNOLOGY INNOVATION THROUGH PLASMA MODELING: BIOTECHNOLOGY AS THE NEXT FRONTIER	6
<i>Mark J. Kushner</i>	
PL-7 - CO₂ CONVERSION BY PLASMOLYSIS: A ROUTE TO SOLAR FUELS	7
<i>Gerard Van Rooij ; Dirk Van Den Bekerom ; Niek Den Harder ; Teofil Minea ; Waldo Bongers ; Richard Van De Sanden ; Giel Berden ; Richard Engeln</i>	
1A-1 - ON THE MECHANISM OF OH RADICAL FORMATION BY NANOSECOND PULSED CORONA DISCHARGE IN WATER	8
<i>P. Lukes ; M. Clupek ; V. Babicky ; B. Pongrac ; M. Simek ; J. F. Kolb</i>	
1A-2 - PHYSICAL PROPERTIES OF PLASMA STREAMERS PRODUCED ON WATER SURFACE	9
<i>Petr Hoffer ; Yuki Sugiyama ; S. Hamid ; R. Hosseini ; Hidenori Akiyama ; Masahiro Akiyama ; Petr Lukes</i>	
1A-3 - DEVELOPMENT AND PILOT TEST OF STERILIZATION SYSTEM USING DISCHARGE REACTOR FOR HYDROPONICS SOLUTION	10
<i>Takamasa Okumura ; Kohei Takano ; Yoshinori Saito ; Katsuyuki Takahashi ; Koichi Takaki ; Naoya Satta ; Takuya Fujio</i>	
1A-4 - IMPROVEMENT OF ENERGY EFFICIENCY FOR DE COLORIZATION OF ORGANIC DYE BY DISCHARGE INSIDE BUBBLE IN WATER	11
<i>Katsuyuki Takahashi ; Ryosuke Konno ; Masahiro Akiyama ; Koichi Takaki ; Naoya Satta</i>	
1A-7 - COMPARISON STUDIES OF ELECTRICAL EXPLOSION OF BARE AND COATED WIRES IN WATER	12
<i>Ruoyu Han ; Jiawei Wu ; Qiaojue Liu ; Haibin Zhou ; Jian Wu ; Xingwen Li ; Aici Qiu</i>	
1A-8 - ELECTROPERMEABILIZATION EFFECT OF NANO-ELECTROPULSE ON CANDIDA ALBICANS: AN IN VITRO STUDY	13
<i>Songjie Wu ; Jinsong Guo ; Jue Zhang ; Jing Fang ; Kaile Wang ; Xiaohui Yang ; Jue Zhang ; Jing Fang</i>	
1B-1 - THEORY AND SIMULATION OF A RELATIVISTIC HIGH POWER MICROWAVE METAMATERIAL-ENHANCED RESISTIVE WALL AMPLIFIER	14
<i>Tyler Rowe ; Nader Behdad ; John H. Booske</i>	
1B-2 - STUDY ON INFLUENCE OF DIFFERENT VALENCE STATE UNDER SAME PARTICLES ON ELECTROMAGNETIC RADIATION IN BEAM-PLASMA SYSTEM	15
<i>Qing Zhou ; Jianxin Jing ; Jin Xu ; Zhaoyun Duan ; Yubin Gong ; Shengpeng Yang ; Changjian Tang</i>	
1B-3 - ADDITIVELY MANUFACTURED STRUCTURES FOR HIGH POWER MICROWAVE DEVICES	16
<i>Nicholas M. Jordan ; Geoffrey B. Greening ; Steven C. Exelby ; Ronald M. Gilgenbach ; Brad W. Hoff ; Sabrina S. Maestas</i>	
1B-4 - HARMONIC FREQUENCY GENERATION IN THE MULTI-FREQUENCY RECIRCULATING PLANAR MAGNETRON	17
<i>Geoffrey B. Greening ; Nicholas M. Jordan ; Steven C. Exelby ; Ronald M. Gilgenbach ; David H. Simon ; Y. Y. Lau</i>	
1B-5 - STUDIES OF TRANSIENT PHENOMENA IN THE MAGNETRON INJECTION GUN OF HIGH POWER GYROTRONS USING THE ESRAY BEAM OPTICS CODE	18
<i>Stefan Illy ; Gerd Gantenbein ; Ioannis Gr. Pagonakis ; Tomasz Resznicki ; Jianghua Zhang ; John Jelonnek</i>	
1B-7 - DESIGN AND TESTING OF A DUAL-FREQUENCY 104/140 GHZ MEGAWATT-CLASS GYROTRON FOR FUSION PLASMA HEATING	19
<i>S. Cauffman ; M. Blank ; P. Borchard ; K. Felch</i>	

1C-1 - A STUDY ON PLASMA POLYMERIZED PYRROLE WITH SINGLE CRYSTALLINE CHARACTERISTICS USING NOVEL ATMOSPHERIC PRESURE PLASMA POLYMERIZATION DEVICE	20	1F-5 - AN EXPERIMENTAL INVESTIGATION ON DEGRADATION PERFORMANCE AND DECOMPOSITION BEHAVIOR OF POLYTETRAFLUOROETHYLENE INSULATOR MATERIALS	40
<i>Dong Ha Kim ; Choon-Sang Park ; Heung-Sik Tae ; Bhum Jae Shin ; Jeong Hyun Seo</i>		<i>Jiawei Wu ; Weidong Ding ; Ruoyu Han ; Qiaojue Liu ; Aici Qiu</i>	
1C-2 - MICRO-WATER DROPLETS IN NON-EQUILIBRIUM ATMOSPHERIC PRESSURE PLASMA: EVAPORATION AND OH INDUCED CHEMISTRY	21	1F-6 - INVESTIGATION OF AN ATMOSPHERIC PRESSURE 2D-ARRAY OF MICRODISCHARGES IN AIR USING CROSS-CORRELATION SPECTROSCOPY	41
<i>G. Oinuma ; G. Nayak ; P. Bruggeman</i>		<i>G. Nayak ; Y. Du ; R. Brandenburg ; P. J. Bruggeman</i>	
1C-3 - PRE-ELECTROSPINNING POLYMER SOLUTION TREATMENT BY ATMOSPHERIC-PRESSURE ARGON PLASMA JET	22	1F-7 - OPTICAL EMISSION SPECTROSCOPY MEASUREMENTS OF ATMOSPHERIC PLASMAS IN CROSS FLOW CREATED VIA DIELECTRIC BARRIER DISCHARGE ACTUATORS	42
<i>Fatemeh Rezaei ; Nathalie De Geyter ; Rino Morent</i>		<i>William C. Schneck ; Walter F. O'Brien ; Derrick C. Lam ; Anthony M. Ferrar ; A. Leigh Winfrey</i>	
1C-4 - TUNABLE C-H ACTIVATION VIA METAL-PLASMA INTERACTION AT ELEVATED TEMPERATURES	23	1P-14 - DYNAMICS OF LARGE AMPLITUDE WHISTLER WAVES AND PARTICLE ACCELERATION IN THE EARTH'S RADIATION BELTS	43
<i>Jongsik Kim ; Marshall S. Abbott ; David B. Go ; Jason C. Hicks</i>		<i>Scott Karbasheski ; Richard D. Sydora</i>	
1C-5 - MECHANISM OF SILVER NANOPARTICLES PRODUCTION AT THE PLASMA-LIQUID INTERFACE	24	1P-15 - THE EFFECTS OF ELECTRICAL CONDUCTIVITY ON IN-LIQUID PLASMA STREAMERS	44
<i>V.S. Santosh ; K. Kondeti ; Urvashi Gangal ; Peter J. Bruggeman</i>		<i>Abraham Dirnberger ; Scott D. Kovaleski ; Peter Norgard ; Selma Mededovic Thagard ; Joshua Franclemont</i>	
1C-6 - ADSORPTION DYNAMICS OF PLASMA-GENERATED N ATOMS ON GRAPHENE FILMS	25	1P-7 - SELF-ORGANIZATION IN DC GLOW MICRODISCHARGES IN THE CATHODE WELL CONFIGURATION	45
<i>Germain Robert-Bigras ; Leron Vandsburger ; Luc Stafford</i>		<i>M. S. Bieniek ; P. G. C. Almeida ; M. S. Benilov ; W. Zhu ; P. Niraula</i>	
1C-7 - ATMOSPHERIC PRESSURE PLASMA PRESS FOR IMPROVED ADHESION BETWEEN FLEXIBLE POLYMER(PREPREG) AND INORGANIC MATERIAL(BATIO3)	26	1P-17 - CHARACTERISTICS OF REACTIVE SPECIES PRODUCED BY AC PLASMA GENERATED IN GAS BUBBLES	46
<i>M. K. Mun ; D. S. Kim ; G. Y. Yeom</i>		<i>Tsuyoshi Sugiyama ; Nozomi Takeuchi</i>	
1D-1 - PLASMA INTERPENATRATION STUDY ON THE OMEGA LASER FACILITY	27	1P-20 - INVESTIGATION OF INDUCTIVELY COUPLED SF6 PLASMA ETCHING OF SI AND SIO2 THROUGH A GLOBAL MODEL COUPLED WITH LANGMUIR ADSORPTION KINETICS	47
<i>S. Le Pape ; L. Divol ; S. Ross ; S. Wilks ; P. Amendt ; L. Berzak Hopkins ; G. Huser ; J. Moody ; A. J. Mackinnon ; N. Meezan</i>		<i>David A. Toneli ; Rodrigo S. Pessoa ; Marisa Roberto</i>	
1D-2 - STUDY OF HOT ELECTRON GENERATION USING KILOJOULE-SCALE HIGH POWER LASERS IN SHOCK IGNITION RELEVANT CONDITIONS	28	1P-21 - EFFECTS OF ELECTRON BEAM FOCUSING ON VIRTUAL CATHODE FORMATION IN VIRTUAL CATHODE OSCILLATOR	48
<i>Mingsheng Wei ; Neil Alexander ; Christine M. Krauland ; Shu Zhang ; Jonathan Peebles ; Farhat N. Beg ; Wolfgang Theobald ; Dan Haberberger ; Riccardo Betti ; Chuang Ren ; Rui Yan ; Eli Borwick ; E. Michael</i>		<i>Se-Hoon Kim ; Chang-Jin Lee ; Jae-Ho Rhee ; Young-Maan Cho ; Ji-Eun Baek ; Kwang-Cheol Ko</i>	
1D-3 - TEMPORAL EVOLUTION OF THE TWO-SHOCK IMPLOSION ON THE NATIONAL IGNITION FACILITY	29	1P-22 - ELECTRON EXCURSION IN A COLLISIONAL CROSS-FIELD DIODE	49
<i>T. Ma ; S. Maclaren ; J. Salmonson ; S. Khan ; J. Pino ; J. Ralph ; R. Rygg ; J. Field ; R. Tommasini ; D. Turnbull ; A. Mackinnon ; K. Baker ; L. R. Benedetti ; P. Celliers ; E. Dewald ; T. Dittrich ; L. Berzak Hopkins ; N. Izumi ; P. Kervin ; S. Nagel ; A. Pak ; R. Tipton ; G. Kyrala ; J. Kline</i>		<i>Brooke S. Stutzman ; John P. Verboncoeur</i>	
1D-4 - ACOUSTICALLY DRIVEN MAGNETIZED TARGET FUSION AT GENERAL FUSION	30	1P-23 - HIGH POWER MICROWAVE GENERATION WITH NONLINEAR TRANSMISSION LINES	50
<i>Michel Laberge</i>		<i>Timothy M. Ziemba ; Kenneth E. Miller ; James R. Prager</i>	
1D-5 - COAXIAL GUNS FOR THE ARPA-E PLX- α PROJECT - DESIGN AND INITIAL EXPERIMENTAL RESULTS	31	1P-24 - 45 GHZ/20 KW GYROTRON-BASED SYSTEM FOR ECR ION SOURCE	51
<i>F. Douglas Witherspoon ; Andrew Case ; Samuel J. Brockington ; Edward J. Cruz ; Marco Luna ; Scott C. Hsu ; Samuel Langendorf ; John Dunn</i>		<i>Grigory G. Denisov ; Yury V. Bykov ; Mikhail Yu. Glyavin ; Alexander I. Tsvetkov ; Anatoly G. Ereemeev ; Vladislav V. Kholoptsev ; Mikhail V. Morozkin ; Mikhail Yu. Shmelev ; Dmitry I. Sobolev ; Alexey V. Chirkov ; Eugeny M. Tai ; Elena A. Soluyanova ; Mikhail I. Bakulin</i>	
1D-6 - AUTO-MAGNETIZING LINERS FOR MAGLIF EXPERIMENTS	32	1P-25 - A PHASE-CONTROLLED MAGNETRON USING A MODULATED ELECTRON SOURCE	52
<i>G. A. Shipley ; S. A. Slutz ; T. J. Awe ; D. C. Lamppa ; C. A. Jennings ; R. D. McBride</i>		<i>Jim Browning ; Vishal Saxena ; Don Plumlee ; Tayo Akinwande ; Mike Worthington ; Bob Hay</i>	
1D-7 - ORGANIZED STRUCTURES AND RECONNECTION OF MAGNETIC LINES IN DPF FUSION PLASMA	33	1P-26 - MAGIC3D SIMULATIONS ON OVERMODED W-BAND COUPLED-CAVITY TRAVELING-WAVE TUBE	53
<i>Pavel Kubes ; Marian Paduch ; Balzhima Cikhartova ; Jakub Cikhardt ; Daniel Klir ; Jozef Kravarik ; Karel Rezac ; Kristof Tomaszewski ; Ewa Zielinska</i>		<i>Yongjun Hong ; Joonho So ; Haejin Kim ; Richard J. Temkin</i>	
1D-8 - A TOKAMAK PILOT PLANT AT WALMART PRICES	34	1P-28 - THE DIFFUSION EFFECT OF TRANSVERSE MAGNETIC FIELD ON FILAMENTARY ATMOSPHERIC PRESSURE GLOW DISCHARGE SUSTAINED BY A RESONANT POWER SUPPLY	54
<i>J. Frcidberg ; A. Cerfon</i>		<i>Yongsheng Wang ; Weidong Ding ; Yanan Wang ; Jiaqi Yan ; Yang Gou ; Kaiyang Qiang</i>	
1E-1 - TURBULENCE AND STRUCTURES RELATED TO LOWER-HYBRID AND ION-SOUND INSTABILITIES IN HALL STRUCTURES	35	1P-29 - THE DIFFUSION EFFECT OF INPUT VOLTAGE ON FILAMENTARY ATMOSPHERIC PRESSURE GLOW DISCHARGE SUSTAINED BY A RESONANT POWER SUPPLY	55
<i>A. Smolyakov ; A. Koshkarov ; I. Romadanov ; A. Chapurin ; M. Umansky ; Y. Raitses ; I. Kaganovich</i>		<i>Yongsheng Wang ; Weidong Ding ; Jiaqi Yan ; Yanan Wang ; Yang Gou ; Kaiyang Qiang</i>	
1E-3 - MICRO-CATHODE ARC THRUSTER FOR SMALL SATELLITE PROPULSION	36	1P-30 - CHARACTERIZATION OF AN ELECTROTHERMAL PLASMA SOURCE WITH AN ELONGATED PULSE LENGTH	56
<i>Michael Keidar</i>		<i>T. E. Gebhart ; A. L. Winfrey ; L. R. Baylor ; T. Ha</i>	
1F-1 - NON-CONVENTIONAL DIAGNOSTICS OF ENERGY AND MOMENTUM TRANSFER AT PARTICLE-SURFACE INTERACTIONS	37	1P-32 - EFFECT OF ATOMIC NUMBER OF THE GAS ON ION BEAM EMISSION AND HARD X-ARY RADIATION IN A PLSMA FOCUS DEVICE	57
<i>Thomas Trottenberg ; Alexander Spethmann ; Holger Kersten</i>		<i>R. A. Behbahani ; D. McColl ; A. Hirose ; C. Xiao</i>	
1F-3 - OPTICAL EMISSION SPECTROSCOPY OF DIELECTRIC BARRIER DISCHARGES WITH MULTIPLE CURRENT PEAKS	38	1P-33 - ON ELECTRON DRIFT CURRENT IN HALL PLASMA DEVICES WITH INHOMOGENEOUS AND ANISOTROPIC PLASMAS	58
<i>Vincent P. Boudriau ; Luc Stafford</i>		<i>O. Chapurin ; A. Smolyakov</i>	
1F-4 - OPTICAL EMISSION SPECTROSCOPY MEASUREMENTS OF QUIESCENT ATMOSPHERIC PLASMAS CREATED VIA DIELECTRIC BARRIER DISCHARGE ACTUATORS	39		
<i>Derrick C. Lam ; William C. Schneck ; Anthony M. Ferrar ; A. Leigh Winfrey</i>			

1P-35 - BENCHMARKING SIMULATIONS OF PLASMA-LINER-DRIVEN MAGNETO-INERTIAL FUSION WITH ADVANCED EQUATION OF STATE	59
<i>Peter H. Stoltz ; Madhusudan Kundrapu ; Kristian R. C. Beckwith ; Samuel Langendorf ; Scott C. Hsu</i>	
1P-36 - COAXIAL HELICITY INJECTION PLASMA START-UP AND MAGNETIC RECONNECTION ON HIST	60
<i>M. Nagata ; T. Kawai ; Y. Uesaka ; T. Matusi ; T. Hanao ; Y. Kikuchi ; N. Fukamoto</i>	
1P-37 - CONTROLLED FUSION REACTOR BASED ON STABILIZED LINER COMPRESSION OF MAGNETIZED PLASMA	61
<i>Peter J. Turchi ; Sherry D. Frese ; Michael H. Frese</i>	
1P-38 - STABILIZED LINER COMPRESSOR: 2½-D MULTIPHYSICS SIMULATIONS	62
<i>Sherry D. Frese ; Michael H. Frese ; Peter J. Turchi</i>	
1P-39 - SPECTROSCOPIC STUDY OF IMPURITY ION RADIAL DISTRIBUTION IN AN ADVANCED BEAM-DRIVEN FIELD REVERSED CONFIGURATION	63
<i>Dmitry Osin ; Kan Zhai ; Michael Beall ; Nathan Bolte ; Yuri Ralchenko</i>	
1P-3 - GENERALIZATION OF SCALING LAWS FOR GAS BREAKDOWN TO ACCOUNT FOR PRESSURE	64
<i>Amanda M. Loveless ; Allen L. Garner</i>	
1P-40 - X-RAY RADIATION FROM PUFF-ON-WIRE IMPLOSIONS ON THE COBRA GENERATOR	65
<i>N. D. Ouart ; J. L. Giuliani ; A. Dasgupta ; A. L. Velikovich ; J. Engelbrecht ; P. De Grouchy ; N. Qi ; T. Shelkovenko ; S. Pikuz ; B. Kusse ; D. Hammer ; J. P. Apruzese ; R. W. Clark</i>	
1P-41 - HOT SPOT FORMATION IN THE DIVERGENT GAS-PUFF Z PINCH	66
<i>Keiichi Takasugi ; Shun Hakamatsuka ; Veronica Shlyaptseva</i>	
1P-42 - INTERACTION OF A CONVERGING SHOCK WAVE WITH A PLASMA	67
<i>S. Efimov ; M. Nitishinsky ; O. Antonov ; D. Yanuka ; V. Tz. Gurovich ; Ya. E. Krasik ; V. Bernshtam ; V. Fisher</i>	
1P-43 - LABORATORY ASTROPHYSICS WITH SUPERSONIC MAGNETISED PLASMAS: EXPERIMENTS ON THE MAGPIE PULSED-POWER FACILITY	68
<i>G. C. Burdiak ; S. V. Lebedev ; T. Clayson ; J. D. Hare ; L. G. Suttle ; F. Suzuki-Vidal</i>	
1P-45 - SIO2-LIKE FILM DEPOSITION ON COPPER SURFACE BY ATMOSPHERIC PRESSURE DIFFUSE DISCHARGE	69
<i>Wenyao Li ; Chengyan Ren ; Cheng Zhang ; Ruixue Wang ; Jie Li ; Tao Shao</i>	
1P-46 - TEMPORAL EVOLUTION OF ATMOSPHERE PRESSURE DIFFUSE DISCHARGES SUSTAINED BY MICROS ECOND AND NANOSECOND PULSES IN A BLADE KNIFE-TO-PLATE GAP	70
<i>Xingmin Hou ; Cheng Zhang ; Ping Yan ; Tao Shao</i>	
1P-47 - DUAL PLASMA MODES OPERATION OF HOLLOW CATHODE ELECTRODE SYSTEM FOR REMOTE PLASMA REMOVALS FOR SEMICONDUCTOR MANUFACTURING	71
<i>Tae S Cho ; Soonam Park ; Dima Lubomirsky ; Shankar Venkataraman</i>	
1P-48 - INFLUENCE OF DRIVING METHOD ON DISCHARGE MODE OF DAMAGE FREE REMOTE PLASMA REMOVAL PROCESS FOR SEMICONDUCTOR MANUFACTURING	72
<i>Tae S Cho ; Qing Han ; Soonam Park ; Dima Lubomirsky ; Shankar Venkataraman</i>	
1P-4 - STABILITY AND OPERATION OF LARGE ANODE FIREBALL IN MAGNETICALLY CONSTRICTED ANODE	73
<i>S. Chauhan ; M. Ranjan ; M. Bandyopadhyay ; S. Mukherjee</i>	
1P-52 - GAS BREAKDOWN AND PLASMA GENERATION BY DIELECTRIC RESONATOR ARRAYS	74
<i>Jeffrey Hopwood ; Stephen Dennison ; Adam Chapman ; Wei Luo ; Michael Lanagan</i>	
1P-53 - TARGET INTERACTING WITH AN ATMOSHERIC PRESSURE HELIUM DBD	75
<i>Aboubakar Sidiki Koné ; Bruno Caillier ; Philippe Guillot</i>	
1P-58 - CONTRIBUTION TO EVALUATION OF THE INTERRUPTION CAPABILITY OF CF3I/METAL THERMAL PLASMAS: PRELIMINARY STUDY OF THE TRANSPORT COEFFICIENTS	76
<i>Yann Cressault ; Philippe Teulet ; Song Xiao ; Xiaoxing Zhang</i>	
1P-59 - HIGH-SPEED IMAGING AND ELECTRICAL DIAGNOSTICS OF INTERACTING ARCS IN DUAL-CATHODE ELECTRIC ARC FURNACE	77
<i>D. Burkat ; F. Aristizabal ; S. Coulombe</i>	
1P-61 - HEAT TRANSFER DECREMENT AFFECTED BY LATERAL GAS FLOW VELOCITY IN TIG ARC WELDING	78
<i>Yoshifumi Maeda ; Shinji Yamamoto ; Toru Iwao</i>	
1P-62 - TWO MODES OF ANODE OPERATION IN ARC WITH ABLATING ANODE	79
<i>V. Nemchinsky ; Y. Raitses</i>	

1P-63 - GENERAL COLOR RENDERING INDEX AS FUNCTION OF CURRENT CHANGE RATIO IN WALL-STABILIZED ARC OF WATER-COOLED VORTEX TYPE WITH SMALL CALIBER	80
<i>Yuta Shimizu ; Takaya Nakamura ; Kentaro Yanagi ; Shinji Yamamoto ; Toru Iwao</i>	
1P-64 - PERFORMANCE AND INITIAL INVESTIGATION OF CHANNEL INTERACTIONS ON NESTED-CHANNEL HALL THRUSTERS	81
<i>Sarah E. Cusson ; Scott J. Hall ; Ethan T. Dale ; Alec D. Gallimore</i>	
1P-65 - ACCELERATION REGION MEASUREMENTS IN A NESTED CHANNEL HALL THRUSTER	82
<i>Marcel P. Georjin ; Vira Dhaliwal ; Alec D. Gallimore</i>	
1P-66 - NONLOCAL REGIMES OF LARGE SCALE INSTABILITIES OF INHOMOGENEOUS HALL PLASMAS	83
<i>I. Romadanov ; A. Smolyakov ; A. Koshkarov ; Y. Raitses ; I. Kaganovich</i>	
1P-67 - NONLINEAR SIMULATIONS AND ANOMALOUS TRANSPORT IN HALL THRUSTER PLASMA	84
<i>O. Koshkarov ; W. Frias Pombo ; A. I. Smolyakov ; Y. Raitses ; I. D. Kaganovich ; M. V. Umansky</i>	
1P-69 - OPTICAL, ELECTRICAL, AND STRUCTURAL STUDIES OF ATMOSPHERIC PRESSURE PLASMA POLYMERIZED AND IODINE-DOPED NANO SIZE POLYANILINE	85
<i>Choon-Sang Park ; Dong Ha Kim ; Heung-Sik Tae ; Bhum Jae Shin</i>	
1P-70 - LASER TRIGGERED AIR GAP FOR APPLICATIONS IN THE FIELD OF POWER SYSTEM	86
<i>Qinxiao Dong ; Zefeng Yang ; Zhifang Liu ; Jiaxun Han ; Jian Wu ; Xingwen Li</i>	
1P-71 - CONVERSION OF METHANE TO METHANOL BY AN IMPULSE DISCHARGE ON THE SURFACE OF WATER	87
<i>Satoru Itzuka ; Masato Mukawa</i>	
1P-72 - OXIDES YIELD COMPARISON BETWEEN DBD AND APPJ IN WATER-GAS MIXTURE	88
<i>B. Y. Chen ; X. X. Gao ; W. Q. Cai ; Y. L. Gan ; C. P. Zhu ; Y. Wang ; X. He ; J. T. Fei ; Y. F. Jiang</i>	
1P-73 - ELECTRODE LENGTH EFFECT ON THE ABATEMENT EFFICIENCY OF N₂O IN LOW-PRESSURE PLASMA REACTOR	89
<i>J. O. Lee ; J. Y. Lee ; W. S. Kang ; M. Hur ; Y. -H. Song</i>	
1P-74 - THERMAL POWER PLANT BOILERS USING MICROWAVE IGNITION OF PULVERIZED COAL MIXTURE	90
<i>Anton Danilenko ; Ibragim Ibragimoglu ; Chegdem Dindar ; Beycan Ibragimoglu ; Vuslat Ibragimoglu</i>	
1P-75 - EFFECT OF HMDSO FLOW RATE IN NITROGEN ATMOSPHERIC PLASMA ON THE SUPERHYDROPHOBIC CHARACTERISTICS OF ORGANOSILICON-BASED COATINGS	91
<i>Siavash Asadollahi ; Reza Jafari ; Masoud Farzaneh</i>	
1P-76 - ISOLATED, HIGH VOLTAGE ARBIRTARY PULSE GENERATOR	92
<i>Kenneth E. Miller ; Timothy M. Ziemba ; James R. Prager ; Iliia Slobodov ; Julian Picard</i>	
1P-77 - PRELIMINARY STUDY FOR PLASMA-CATALYTIC DECOMPOSITION OF NITROGEN OXIDE	93
<i>Kwan-Tae Kim ; Sungkwon Jo ; Hee Seok Kang ; Daehoon Lee ; Young-Hoon Song</i>	
1P-79 - EXPERIMENTAL STUDY ON ELECTRICAL CHARACTERISTICS OF NANOSECOND SLIDING DISCHARGE WITH THREE ELECTRODES DRIVEN BY NEGTVIE DC AND NANOSECOND-PULSE POWER SUPPLIES	94
<i>Yang Wang ; Lei Han ; Cheng Zhang ; Ruixue Wang ; Ping Yan ; Tao Shao</i>	
1P-83 - HIGH-POWER GAAS PHOTOCONDUCTIVE SEMICONDUCTOR SWITCHES TRIGGERED BY A LASER DIODE	95
<i>Cheng Ma ; Wei Shi ; Hong Liu ; Yu Ji ; Ming Xu ; Lei Hou</i>	
1P-84 - SPREADING OF THE INITIAL PLASMA OF TRIGGERED VACUUM SWITCH	96
<i>Jinru Sun ; Xueling Yao ; Wenjun Xu ; Jingliang Chen ; Yi Wu</i>	
1P-85 - ELECTRON EMISSION CHARACTERISTICS OF BATIO₃ SURFACE FLASHOVER TRIGGER DEVICE OF PSEUDOSPARK SWITCH	97
<i>Zhongde Huang ; Xueling Yao ; Jingliang Chen ; Aici Qiu</i>	
1P-86 - THE SELF-BREAKDOWN CHARACTERISTICS OF THE MAGNETIC DELAYED PSEUDOSPARK SWITCH	98
<i>Jiaqi Yan ; Weidong Ding ; Yanan Wang ; Yongsheng Wang ; Yang Gou ; Kaiyang Qian</i>	
1P-87 - LIGHT EMISSION AND SPECTROSCOPY CHARACTERISTICS OF AN UNCONVENTIONAL GAS SPARK SWITCH	99
<i>Jiawei Wu ; Weidong Ding ; Ruoyu Han ; Qiaoju Liu ; Haibin Zhou ; Yanan Wang ; Yan Jing</i>	
1P-88 - HIGH GAIN OPERATION OF GAAS PHOTOCONDUCTIVE SEMICONDUCTOR SWITCH WITH DIFFERENT TEMPERATURE	100
<i>Ming Xu ; Hong Liu ; Lei Hou ; Cheng Ma ; Wei Shi</i>	

1P-89 - EXPERIMENTAL CHARACTERIZATION OF A LASER-TRIGGERED SPARK-GAP SWITCH	101	2D-1 - 3-D POROUS HIERARACHICAL NANOSTRUCTURED MATERIALS BY LOW TEMPERATURE GREEN PLASMA CHEMISTRY AND PLASMA-SURFACE INTERACTIONS FOR APPLICATIONS IN ENERGY STORAGE	123
<i>J. F. Camacho ; D. J. Brown ; E. L. Ruden ; M. T. Domonkos</i>		<i>Bo Ouyang ; Rajdeep S. Rawat</i>	
1P-90 - ARC-LESS COMMUTATION IN HYBRID DC CIRCUIT BREAKER	102	2D-2 - DYNAMICS OF NANOSECOND LASER PRODUCED PLASMA	124
<i>Koichi Yasuoka ; Kei Ikeda ; Yoshiki Tsuboi ; Tatsuya Hayakawa ; Nozomi Takeuchi</i>		<i>Jian Wu ; Xingwen Li ; Zefeng Yang ; Shenli Jia ; Aici Qiu</i>	
1P-91 - PULSED CHARACTERIZATION OF A UV LED FOR PULSED POWER APPLICATIONS	103	2D-3 - EMISSION SPECTRA OF BINARY PLASMA MIXTURES FROM VISIBLE TO X-RAY RANGE	125
<i>Nicholas A. Wilson ; Daniel L. Mauch ; James C. Dickens ; Andreas A. Neuber</i>		<i>Gennady Miloshevsky ; Ahmed Hassanein</i>	
1P-92 - ANALYSIS ON THE DISCHARGE PROCESS OF A PARTICLE BEAM TRIGGERED GAS SWITCH	104	2D-4 - EFFECT OF CHARGING ON THE SECONDARY ELECTRON EMISSION	126
<i>Weihao Tie ; Lixue Zhou ; Y. Zhang ; Q. Zhang ; R. Han</i>		<i>M. Belhaj ; K. Makasheva ; G. Teyssedre ; D. Payan</i>	
2A-4 - NUMERICAL INVESTIGATION ON NANOPARTICLE FORMATION AND INFLUENCE ON SIZE DISTRIBUTION IN WIRE EXPLOSION PROCESS	105	2D-5 - REALISTIC SURFACE REACTION MODELING FOR 3D FEATURE PROFILE SIMULATION OF FLUOROCARBON-BASED PLASMA ETCH PROCESS	127
<i>Jun Bai ; Zongqian Shi ; Shenli Jia ; Xingwen Li ; Lijun Wang</i>		<i>Yeong-Geun Yook ; Hae Sung You ; Yeon Ho Im ; Won-Seok Chang</i>	
2A-5 - NUMERICAL STUDIES OF SYNTHESIS OF SILICON NANOPARTICLES IN CAPACITIVELY-COUPLED RADIOFREQUENCY PLASMAS	106	2D-6 - LASER SURFACE MELTING OF STAINLESS STEEL ANODES FOR REDUCED HYDROGEN OUTGASSING	128
<i>Aram H. Markosyan ; Romain Le Picard ; David H. Porter ; Steven L. Girshick ; Mark J. Kushner</i>		<i>P. T. Murray ; S. B. Fairchild ; T. C. Back ; D. Gortat ; M. Sparkes ; G. J. Gruen ; N. P. Lockwood</i>	
2A-7 - PARAMETRIC STUDY OF THE ELECTRON TEMPERATURE AND DENSITY IN DUSTY LOW-PRESSURE RF PLASMAS WITH PULSED INJECTION OF HEXAMETHYLDISILOXANE	107	2D-7 - EFFECT OF PLASMA DENSITY ENHANCEMENT DURING PLASMA ION IMPLANTATION	129
<i>Vincent Garofano ; Luc Stafford ; Bernard Despax ; Richard Clergeraux ; Kremena Makasheva</i>		<i>Michael P. Bradley</i>	
2B-1 - FREQUENCY TUNABILITY OF A REFLEX-TRIODE VIRCATOR USING PARTICLE-IN-CELL MODELING	108	2D-8 - CAPACITIVELY COUPLED OXYZEN PLASMA TREATMENT OF GALLIUM ZINC OXIDE	130
<i>Patrick M. Kelly ; Curtis F. Lynn ; Jonathan M. Parson ; James Dickens ; Andreas Neuber ; John J. Mankowski</i>		<i>Jewon Lee ; Eunji Lee ; Howon Jin ; Guan Sik Cho ; Keun Yong Shon ; Young Yoo ; Stephen J. Pearton</i>	
2B-2 - PARTICLE-IN-CELL MODELING OF A REFLEX-TRIODE VIRCATOR USING ICEPIC	109	2E-1 - EXPERIMENTAL INVESTIGATION OF THE EFFECTS OF AN AXIAL MAGNETIC FIELD ON THE MAGNETO RAYLEIGH-TAYLOR, SAUSAGE AND KINK INSTABILITIES IN IMPLODING LINER-PLASMAS	131
<i>Patrick M. Kelly ; James Dickens ; Andreas Neuber ; John J. Mankowski</i>		<i>D. A. Yager-Elorriaga ; A. M. Steiner ; P. C. Campbell ; S. G. Patel ; N. M. Jordan ; P. Zhang ; Y. Y. Lau ; R. M. Gilgenbach</i>	
2B-3 - PIC-DSMC SIMULATIONS OF PLASMA PLUME EXPANSIONS WITH IONIZATION AND RECOMBINATION PROCESSES	110	2E-5 - PLASMA SHEATH DYNAMICS ON THE AXIAL PHASE OF A PLASMA FOCUS DEVICE	132
<i>Stephen Copplesstone ; Claus-Dieter Munz ; Marcel Pfeiffer</i>		<i>L. S. Caballero Bendixsen ; S. C. Bott-Suzuki ; S. W. Cordaro ; M. Krishnan ; S. Chapman ; P. Coleman ; J. Chittenden</i>	
2B-4 - AN ARBITRARY ORDER, FULLY IMPLICIT, HYBRID KINETIC SOLVER FOR RADIATIVE TRANSPORT USING INTEGRAL DEFERRED CORRECTION	111	2E-6 - ION JET PRODUCED BY ANOMALOUS RESISTANCE IN PLASMA FOCUS DISCHARGE	133
<i>Michael Crockatt ; Kris Garrett ; Oak Ridge</i>		<i>L. K. Lim ; S. L. Yap ; M. Z. Khan ; S. S. Yap</i>	
2B-5 - VALIDATION OF CONFORMAL FINITE DIFFERENCE TIME DOMAIN METHOD FOR ACCURATE HIGHER ORDER MODE SIMULATIONS	112	2E-7 - INITIAL BEHAVIORS OF THE PRECONDITIONED WIRE ARRAY Z-PINCHES	134
<i>M. C. Lin ; S. Illy ; M. Thumm ; J. Jelonnek</i>		<i>Jian Wu ; Xingwen Li ; Yang Li ; Zefeng Yang ; Yihan Lu ; Aici Qiu</i>	
2B-6 - AN IMPROVED FORM OF BESSEL FUNCTIONS FOR EFFICIENTLY AND ACCURATLY NUMERICAL COMPUTATION	113	2F-1 - DEVELOPMENT AND TESTING OF CORONA ARRAY AND NANOSECOND PULSED POWER SYSTEM FOR ELECTROPORATION	135
<i>M. C. Lin</i>		<i>Matthew L. Burnette ; David A. Staack</i>	
2B-7 - GLOBAL MODELLING OF CYLINDRICAL SURFACE-WAVE DISCHARGES: ARGON OR OXYGEN	114	2F-2 - PLASMA TREATMENT OF TOOTH ROOT CANAL FOR ENHANCEMENT OF BOND STRENGTH OF DENTAL ADHESIVE SYSTEM	136
<i>Efe H. Kemaneci ; Ralf Peter Brinkmann</i>		<i>Vittorio Colombo ; Diletta Forgiione ; Matteo Gherardi ; Romolo Laurita ; Emanuele Simoncelli ; Augusto Stancampiano ; Riccardo Tonini</i>	
2B-8 - A FAST IMPLICIT VARIABLE SPEED 2D WAVE EQUATION SOLVER	115	2F-3 - PLASMA TREATMENT INDUCES BLOOD CLOT FORMATION; PROTEIN AGGREGATION AND HEMOLYSIS	137
<i>M. Thavappiragasam ; A. Viswanathan ; A. Christlieb</i>		<i>Yuzuru Ikehara ; Sanae Ikehara ; Hajime Sakakita ; Takashi Yamaguchi ; Jaeho Kim ; Masahiro Yamagishi ; Yoshihiro Akimoto ; Kenji Ishikawa ; Masaru Hori ; Hayao Nakanishi ; Nobuyuki Shimizu ; Yuzuru Ikehara</i>	
2C-1 - STUDY OF THE ELECTRIC FIELD SCREENING EFFECT ON LOW NUMBER OF CARBON FIBER FIELD EMITTERS	116	2F-4 - RADIOSENSITIZATION OF ORAL TONGUE SQUAMOUS CELL CARCINOMA BY NANOSECOND PULSED ELECTRIC FIELDS	138
<i>W. Tang ; D. Shiffler ; M. Lacour ; K. Golby ; T. Knowles</i>		<i>Jiahui Liu ; Yu Wang ; Kaile Wang ; Jue Zhang ; Jing Fang ; Jinsong Guo ; Jue Zhang ; Jing Fang ; Jing Wang</i>	
2C-2 - ELECTRON EXTRACTION FROM AN EXPANDING LASER INDUCED PLASMA CATHODE	117	2F-5 - AN ARRAY OF ATMOSPHERIC PRESSURE PLASMA JETS FROM A SINGLE IONIZATION WAVE	139
<i>F. Gobet ; X. Raymond ; M. Versteegen ; F. Hannachi ; M. Tarisien</i>		<i>Amanda M. Lietz ; Mark J. Kushner</i>	
2C-3 - ROBUST, LONG-LIFE, HIGH QE PHOTOCATHODES	118	2F-7 - ENHANCED EFFICACY OF A NOVEL ATMOSPHERIC NON-THERMAL MICROPLASMA BRUSH FOR SURFACE STERILIZATION	140
<i>R. Lawrence Ives ; George Collins ; Lou Falce ; Rasul Karimov ; Eric Montgomery</i>		<i>Johanna Neuber ; Shutong Song ; Chunqi Jiang</i>	
2C-4 - THEORETICAL ANALYSIS OF RESONANT EFFECT IN ION-ENHANCED FIELD EMISSION ON MICROPLASMA CATHODE SURFACE	119	2F-9 - FULLY COUPLED SIMULATION OF PLASMA-LIQUID SYSTEMS: DEPENDENCE ON INTERFACIAL PROPERTIES	141
<i>Xi Tan ; Nathaniel Griggs ; Paul Rumbach ; David B. Go ; Kevin L. Jensen</i>		<i>Alex Lindsay ; David Graves ; Steven Shannon</i>	
2C-5 - ELECTRON DENSITY UNIFORMITY COMMENSURATE WITH B-DOT UNIFORMITY VERIFICATION MEASUREMENTS FOR A PHASE-LOCKED, RF DISTRIBUTED CURRENT SOURCE CONTROL SYSTEM	120	2P-10 - EVAPORATION SPEED AFFECTED BY MOVING SPEED OF VACUUM ARC CATHODE SPOT OF COPPER	142
<i>David J. Coumou ; Steven C. Shannon</i>		<i>Shiko Kaneda ; Shinji Yamamoto ; Toru Iwao</i>	
2C-6 - NOVEL HIGH-POWER RADIO-FREQUENCY SOURCES FOR MOBILE IONOSPHERIC HEATING	121		
<i>Brian L. Beaudoin ; Jayakrishnan A. Karakkad ; Charles Turner ; Amith H. Narayan ; Connor Thompson ; Nikhil Goyal ; Gregory S. Nusinovich ; Thomas M. Antonsen</i>			
2C-8 - CARBON NANOTUBE FIBER ARRAY FIELD EMISSION CATHODES	122		
<i>Steven B. Fairchild ; Mathew A. Lange ; Tyson C. Back ; Paul T. Murray ; Nathan P. Lockwood ; Daniel Marincel</i>			

2P-11 - NUMERICAL SIMULATION OF THE INITIAL EXPANSION PROCESS OF CATHODE SPOTS IN HIGH-CURRENT TRIGGERED VACUUM ARC	143	2P-42 - REGIMES OF SUPRATHERMAL ELECTRON TRANSPORT	164
<i>Cong Wang ; Zongqian Shi ; Bingzhou Wu ; Shenli Jia ; Lijun Wang</i>		<i>Michael E. Glinsky</i>	
2P-14 - MODELING OF NANOSECOND PULSED DBD PLASMA ACTUATOR FOR FLOW CONTROL	144	2P-43 - CONFIGURATION OF PLASMA WAVES UNDERGOING A WEAK LANDAU DAMPING IN TWO-PLASMON DECAY INSTABILITY OF AN ELECTROMANETIC WAVE IN A FLUID PLASMA	165
<i>Jeongheon Chae ; Sangjun Ahn ; Hyung-Jin Kim ; Kyu Hong Kim ; Suk Young Jung</i>		<i>Guan Sik Cho ; Jewon Lee ; Ying Y. Tsui</i>	
2P-18 - TEMPORAL AND SPATIAL DYNAMICS OF A BIPOLAR PULSED PLASMA AT AUDIO FREQUENCY	145	2P-44 - INVERSE FARADAY EFFECT MAGNETIC FIELD GENERATION IN LASER INDUCED PLASMA	166
<i>Ricky Tang ; Edward V Barnat ; Matthew M. Hopkins ; Paul A. Miller</i>		<i>Fatema Liza ; Laila Manzoor ; Andrew Longman ; Shaun Kerr ; Henry Tiedje ; Robert Fedosejevs</i>	
2P-1 - PLASMA DYNAMICS EXPERIMENTS AT VIRGINIA TECH	146	2P-47 - NEUTRON ANISOTROPY MEASUREMENTS IN DENSE PLASMA FOCUS DEVICE BY MEANS OF DEUTERON BEAM OBSTACLE	167
<i>Colin Adams ; Maximilian Schneider ; Marius Popescu ; Ian Bean ; Connor Bluhm ; Joshua Korsness ; Elexa Palacio ; Michael Sherburne</i>		<i>Alireza Talebitaher ; Stuart V Springham ; Paul Lee ; Rajdeep S. Rawat</i>	
2P-21 - DETECTING TERAHERTZ WAVES USING MICROPLASMA ARRAY	147	2P-48 - EFFECTS OF A XE DOPANT ON AN AR GAS-PUFF IMPLOSION ON Z	168
<i>Lei Hou ; Xiaowei Han ; Wei Shi ; Hong Liu ; Ming Xu ; Cheng Ma</i>		<i>J. P. Apruzese ; J. L. Giuliani ; N. D. Ouart ; V. Tangri ; A. J. Harvey-Thompson ; B. Jones ; C. A. Jennings</i>	
2P-22 - ONE DIMENSIONAL PARTICLE-IN-CELL SIMULATION OF RELATIVISTIC BUNEMAN INSTABILITY	148	2P-49 - EXPERIMENTAL INVESTIGATIONS ON ELECTRICAL EXPLOSION OF ALUMINUM WIRES IN VACUUM	169
<i>Roopendra Singh Rajawat ; Sudip Sengupta</i>		<i>Yuanjie Shi ; Zongqian Shi ; Kun Wang ; Jian Wu ; Shenli Jia ; Lijun Wang</i>	
2P-24 - DEVELOPMENT OF PIC-DSMC MODEL FOR LASER-TRIGGERED VACUUM SWITCH	149	2P-4 - NONLINEAR ELECTRON RESONANCE HEATING IN ASYMMETRIC CAPACITIVE DISCHARGES	170
<i>Laura B. Biedermann ; Chris H. Moore ; Stan G. Moore ; Andrew S. Fierro ; Matthew M. Hopkins ; Juan M. Elizando-Decanini</i>		<i>S. Wilczek ; R. P. Brinkmann ; T. Mussenbrock</i>	
2P-25 - REVIEW OF PAST, PRESENT, AND FUTURE PLASMA MODELS FOR ELECTROTHERMAL PLASMA DISCHARGE SIMULATION	150	2P-50 - EFFECT OF MEDIUM PRESSURE AND CHARGING VOLTAGE ON PLASMA CHARACTERISTICS DURING MICROSECOND EXPLOSION OF SINGLE METALLIC WIRE	171
<i>Micah J. Esmond ; A. Leigh Winfrey</i>		<i>Jun Bai ; Zongqian Shi ; Shenli Jia ; Xingwen Li ; Lijun Wang</i>	
2P-26 - MODELING PLASMA CHEMISTRY, SPUTTERING, AND RF SHEATH EFFECTS IN LOW-TEMPERATURE AND FUSION PLASMAS	151	2P-51 - THE INFLUENCE OF INSULATING COATINGS ON THE ENERGY DEPOSITION AND PLASMA MORPHOLOGY OF THE ELECTRICAL EXPLOSION OF ALUMINUM AND TUNGSTEN WIRE	172
<i>Thomas G. Jenkins ; John R. Cary ; Bradley D. Davidson ; Scott E. Kruger ; James M. McGugan ; Alexei Y. Pankin ; Christine M. Roark ; David N. Smithe ; Peter H. Stoltz</i>		<i>Kun Wang ; Zongqian Shi ; Yuanjie Shi ; Jian Wu ; Shenli Jia</i>	
2P-27 - THE FDTD SIMULATION FOR SCATTERING CHARACTERISTICS IN VACUUM TUBES	152	2P-52 - COMPARATIVE ANALYSIS OF X-RAY EMISSION AND DYNAMICS OF CU FOIL AND WIRE X-PINCHES	173
<i>Xiaoliang Gu ; Xiaolin Jin ; Bin Li</i>		<i>Gilbert W. Collins ; Julio C. Valenzuela-Ahumada ; Farhat N. Beg ; Mingsheng S. Wei ; Chris T. Reed ; Andrew C. Forsman</i>	
2P-29 - MAGIC3D FDTD EM-PIC CODE ANALYSIS OF A MANY-LOOP SERPENTINE WITH PARTIAL CELLS	153	2P-53 - HIGH VOLTAGE COAXIAL VACUUM GAP BREAKDOWN FOR PULSED POWER LINERS	174
<i>Andrew J. Woods ; Lars D. Ludeking</i>		<i>S. W. Cordaro ; S. C. Bott-Suzuki ; L. S. Caballero Bendixsen ; Levon Atoyian ; Tom Byvank ; William Potter ; B. R. Kusse ; J. B. Greenly ; C. A. Jennings</i>	
2P-2 - THE INFLUENCE OF AIR PRESSURE ON GLOW DISCHARGE IN A PIN-TO-PLATE GAP SUSTAINED BY A RESONANT POWER SUPPLY	154	2P-55 - CHARACTERIZATION OF A COMPACT GAS-PUFF NOZZLE AND PLASMA GUN ASSEMBLY FOR STAGED Z-PINCH EXPERIMENTS	175
<i>Yongsheng Wang ; Weidong Ding ; Yanan Wang ; Jiaqi Yan ; Yang Gou ; Kaiyang Qiang</i>		<i>F. Conti ; J. C. Valenzuela ; I. S. Krasheninnikov ; V. A. Fadeev ; J. Narkis ; F. N. Beg ; F. Wessel ; H. Rahman ; P. Ney ; E. McKee ; T. Darling ; A. Covington</i>	
2P-30 - EMITTED ELECTRON BEAMS FROM VELVET CATHODES	155	2P-56 - DESIGN AND OPTIMIZATION OF A LINER-ON-TARGET INJECTOR FOR STAGED Z-PINCH EXPERIMENTS USING COMPUTATIONAL FLUID DYNAMICS AND MHD SIMULATIONS	176
<i>Laurent Courtois ; Jacques Gardelle ; Eric Pasini</i>		<i>J. C. Valenzuela ; J. Narkis ; F. Conti ; I. Krasheninnikov ; V. Fadeev ; F. N. Beg ; F. J. Wessel ; H. U. Rahman ; P. Ney ; E. McKee ; T. Darling ; A. Covington</i>	
2P-31 - NUMERICAL INVESTIGATIONS OF RADIALLY CONVERGING ELECTRON BEAM GENERATED IN CYLINDRICAL GESA IV FACILITY	156	2P-57 - MAGNETIC FLUX AND HEAT LOSS BY DIFFUSIVE, ADVECTIVE, AND THERMOELECTRIC EFFECTS	177
<i>Renate Fetzer ; Wladimir An ; Alfons Weisenburger ; Georg Mueller</i>		<i>J. L. Giuliani ; A. L. Velikovich ; S. T. Zalesak</i>	
2P-32 - MEASUREMENTS OF MAGNETIC AND ELECTRIC FIELDS IN HIGH ENERGY ELECTRON BEAM DIODES	157	2P-58 - EFFECTS OF TEMPERATURE DEPENDENCE OF ELECTRICAL AND THERMAL CONDUCTIVITIES ON THE HEATING OF A ONE DIMENSIONAL CONDUCTOR	178
<i>Mark D. Johnston ; Sonal G. Patel ; Mark L. Kiefer ; S. Biswas ; R. Doron ; V. Bernshtam ; E. Stambulchik ; Y. Maron</i>		<i>F. Antoulinakis ; D. Chemin ; Peng Zhang ; Y. Y. Lau</i>	
2P-33 - MODELING NITROGEN PLASMAS PRODUCED BY INTENSE ELECTRON BEAMS	158	2P-59 - DISTRIBUTION OF AR ARC CONTAMINATED WITH NITROGEN IN PULSED TIG WELDING	179
<i>J. R. Angus ; S. B. Swanekamp ; J. W. Schumer ; D. Mosher ; P. F. Ottinger</i>		<i>Hiroki Takahashi ; Shinji Yamamoto ; Toru Iwao</i>	
2P-36 - KINETIC SIMULATION OF DIRECT-DRIVE CAPSULE IMPLOSIONS AND EXPERIMENT COMPARISONS	159	2P-5 - VOLUME MODE EXCITATION IN SUBMERGED BUBBLES: TOWARDS REDUCING BREAKDOWN VOLTAGE FOR PLASMA GENERATION IN LIQUIDS	180
<i>Thomas J. T. Kwan ; Ari Y. Le ; Mark J. Schmitt ; Hans W. Herrmann ; Steve H. Batha</i>		<i>Joseph R. Groele ; John E. Foster</i>	
2P-37 - A MODEL OF THE FUEL TARGET IMPLOSION IN THE EXTERNAL MAGNETIC FIELD	160	2P-60 - CONSTRUCTION, CHARACTERIZATION AND OPTIMIZATION OF A PLASMA WINDOW BASED ON A CASCADE ARC DESIGN FOR FAIR AT THE GSI HEMHOLTZ CENTER	181
<i>Sergei V. Ryzhkov ; Victor V Kuzenov ; Pavel A. Frolko</i>		<i>Bernhard F. Bohlender ; Jörg Wiechula ; Marcus Iberler ; Oliver Kester ; Joachim Jacoby</i>	
2P-39 - ELECTROMAGNETIC ELECTRON TEMPERATURE GRADIENT MODE AND ANOMALOUS ELECTRON ENERGY TRANSPORT	161	2P-61 - USING EXTERNAL MAGNETIC FIELDS FOR HIGH-PRESSURE ARC MOTION OVER ELECTRODE SURFACES	182
<i>Jeffery Zielinski ; Andrei Smolyakov ; Maxim Umansky</i>		<i>Vladimir I. Kolobov ; Robert R. Arslanbekov ; Alexander Rabinovich ; Alexander Fridman</i>	
2P-3 - DIELECTRIC-DIRECTED SURFACE FLASHOVER UNDER ATMOSPHERIC CONDITIONS	162		
<i>Paul G. Clem ; Laura B. Biedermann ; Harrold P. Hjalmanson ; Chris H. Moore ; Rebecca S. Coats</i>			
2P-40 - LASER PLASMAS FROM PICOSECOND LASER FILAMENTATION IN THE ATMOSPHERE AND ITS APPLICATION ON GUIDED HIGH VOLTAGE DISCHARGES	163		
<i>Andreas Schmitt-Sody ; Jennifer A. Elle ; Matthew T. Domonkos ; Adrian Lucero ; Antonio C. Ting ; Victor Hasson</i>			

2P-62 - AXIAL MOTION OF MAGNETICALLY DRIVEN ROTATING ARC	183
<i>Valerian A. Nemchinsky ; Vladimir I. Kolobov ; Robert R. Arslanbekov</i>	
2P-63 - ARC CONDUCTANCE AND FLOW VELOCITY AFFECTED BY WALL RADIUS OF WALL-STABILIZED ARC	184
<i>Seisui Ono ; Daichi Suzuki ; Ken Sato ; Toru Iwao ; Shinji Yamamoto</i>	
2P-65 - PLASMA MEDICAL INNOVATION USING NON-THERMAL ATMOSPHERIC PRESSURE PLASMA	185
<i>Masara Hori</i>	
2P-66 - MAIN BACTERICIDAL FACTORS OF ESCHERICHIA COLI IN SOLUTIONS TREATED WITH NEUTRAL OXYGEN RADICALS	186
<i>Masafumi Ito ; Tsuyoshi Kobayashi ; Takayuki Ohta ; Hiroshi Hashizume ; Kenji Ishikawa ; Masaru Hori</i>	
2P-67 - MECHANISM OF BACTERIA INACTIVATION BY AN ATMOSPHERIC PRESSURE PLASMA JET	187
<i>V. S. Santosh K. Kondeti ; Kristián Wende ; Urvashi Gangal ; Peter J. Bruggeman ; Chi Phan ; Ryan C. Hunter ; Alexandria Schauer ; Jennifer Granick</i>	
2P-68 - ATMOSPHERIC PRESSURE AIR PLASMA JET ENHANCING NITIC OXIDE GENERATION	188
<i>Jamal Q. M. Almarashi ; Ali A. Alhazime ; Mostafa A. Ellabban ; Abdel-Aleam H. Mohamed</i>	
2P-69 - INCREASE IN GALECTIN EXPRESSION IN HEALING WOUNDED SKIN TREATED WITH LOW-TEMPERATURE PLASMA: COMPARISON WITH TREATMENT BY ELECTRONICAL COAGULATION	189
<i>Y. Akimoto ; S. Ikehara ; T. Yamaguchi ; J. Kim ; H. Kawakami ; N. Shimizu ; M. Hori ; H. Sakakita ; Y. Ikehara</i>	
2P-6 - MODELING THE CHEMICAL KINETICS OF DUAL PULSED PLASMA SOURCES FOR REDUCTION OF NOX EMISSION	190
<i>Ho Young Kim ; Hae June Lee</i>	
2P-70 - AERIAL OZONE CONCENTRATION IN THE PENCIL-TYPE ATMOSPHERIC PLASMA JETS WITH THE VARIOUS WORKING GASES	191
<i>Hyun Cho ; Yunjung Kim ; Gook-Hee Han ; Seung-Ho Yi ; Guangsup Cho</i>	
2P-71 - PLASMA IRRADIATION EFFECTS IN THE ABDOMINAL ADHESION MOUSE MODEL	192
<i>Keita Soda ; Takao Hamakubo ; Hiroharu Yamashita ; Kyungho Chang ; Nobuyuki Shimizu</i>	
2P-72 - ATMOSPHERIC-PRESSURE PLASMA-INDUCED CELLULAR RESPONSES IN HUMAN COLORECTAL ADENOCARCINOMA CACO-2 CELLS: A STUDY OF COMPREHENSIVE QUANTITATIVE PROTEOMICS	193
<i>Masanori Tachikawa ; Daichi Sano ; Shota Sasaki ; Makoto Kanzaki ; Tetsuya Terasaki ; Toshiro Kaneko</i>	
2P-73 - TREATMENT WITH LOW-TEMPERATURE ATMOSPHERIC PRESSURE PLASMA ENHANCES CUTANEOUS DELIVERY OF EPIDERMAL GROWTH FACTOR BY REGULATING E-CADHERIN-MEDIATED CELL JUNCTIONS	194
<i>Jin-Woo Hong ; Hae-June Lee ; Jeong-Hae Choi ; Gyoo-Cheon Kim</i>	
2P-74 - EFFECTS OF NANOSECOND PULSED ELECTROMAGNETIC FIELD ON MITOCHONDRIAL MEMBRANE POTENTIAL*	195
<i>Wenjun Xu ; Xueling Yao ; Jingliang Chen</i>	
2P-76 - CHARACTERIZATION OF A SPARK DISCHARGE OF SPARK PLUGS BY SPECTRAL LINE BROADENING	196
<i>Sven Gröger ; Peter Awakowicz</i>	
2P-77 - COMPARISON BETWEEN MEASURED AND SIMULATED ELECTRON DENSITY OF AIR PLASMA GENERATED AT ATMOSPHERIC PRESSURE BY MULTI-MEV PULSED X-RAY	197
<i>M. Maulois ; M. Ribière ; O. Eichwald ; M. Yousfi ; B. Azaïs ; R. Pouzalgues ; A. Garrigues ; C. Delbos</i>	
2P-7 - EFFECT OF ELECTRON KINETICS ON GLOBAL SIMULATIONS FOR INDUCTIVELY COUPLED PLASMA SOURCES	198
<i>Deuk-Chul Kwon ; Mi-Young Song ; Jung-Sik Yoon</i>	
2P-80 - OPTICAL MEASUREMENT OF PLASMA-FLUID INTERACTIONS IN DIELECTRIC BARRIER DISCHARGES IN LOW REYNOLDS FLOWS	199
<i>Derrick C. Lam ; William C. Schneck ; Walter F. O'Brien ; A. Leigh Winfrey</i>	
2P-82 - TIME-RESOLVED IMAGING OF ELECTRICAL DISCHARGE DEVELOPMENT IN UNDERWATER BUBBLES	200
<i>Yalong Tu ; Yong Yang ; Hualei Xia ; Xinpei Lu</i>	
2P-83 - USING PLASMA PROPAGATION SPEED MODEL FOR INVESTIGATION OF ELECTRON TEMPERATURE OF AR/N2 IN NON-THERMAL ATMOSPHERIC PRESSURE INDIRECT-PLASMA JET	201
<i>Pradoong Suanpoot ; Jirapong Sornsakdanuphap ; Han Sup Uhm ; Guangsup Cho ; Eun Ha Choi</i>	

2P-84 - ON THE OH DENSITY OPTIMIZATION IN COLD ATMOSPHERIC-PRESSURE PLASMA	202
<i>Yuan Fu ; Yue Xuekai Pei ; Xinpei. Lu</i>	
2P-87 - FOURIER SERIES ANALYSIS AND SYNTHESIS OF TYPE-E PFNS FOR TIME-VARYING LOADS	203
<i>C. R. Rose</i>	
2P-88 - GENERATION AND MEASUREMENT OF STRONG PULSED MAGNETIC FIELDS OF MICROSECOND TIMESCALE	204
<i>David Yanuka ; Sergey Efimov ; Michael Nitishinskiy ; Alexander Rososhek ; Yakov E. Krasik</i>	
2P-89 - SHOCK WAVE CHARACTERISTICS GENERATED BY ELECTRICAL EXPLOSION OF DIFFERENT WIRES IN WATER	205
<i>Ruoyu Han ; Haibin Zhou ; Jiawei Wu ; Qiaojue Liu ; Yan Jing ; Yongmin Zhang ; Aici Qiu</i>	
2P-90 - DEVELOPMENT OF HIGH STEP-UP CONVERTER BASED ON ELECTRIC DOUBLE-LAYER CAPACITORS FOR DC PLASMA POWER SUPPLY	206
<i>Jong-Hong Hwang ; Ji-Eun Baek ; Kwang-Cheol Ko</i>	
2P-91 - SPLIT-POST DIELECTRIC RESONATOR PLASMA GENERATORS	207
<i>Zane Cohick ; Wei Luo ; Douglas Wolfe ; Michael Lanagan ; Jeffrey Hopwood</i>	
2P-92 - PULSE POWER SYSTEMS FOR PLASMA EXPERIMENTS AT GENERAL FUSION	208
<i>Blake Rablah ; Michel Laberge ; Wade Zawalski ; James Wilkie</i>	
2P-93 - INVESTIGATION ON THE CHARACTERISTICS OF DIELECTRIC BARRIER DISCHARGE IN METHANE WITH PARALLEL-PLATE AND MULTI NEEDLE-PLATE ELECTRODE IN LOW PRESSURE	209
<i>P. Li ; H. B. Mu ; C. Y. Yu ; C. W. Yao ; G. M. Xu ; S. L. Chen ; G. J. Zhang</i>	
2P-95 - NUMERICAL SIMULATION OF EXPLODING WIRES DRIVEN BY PULSED CAPACITIVE DISCHARGE	210
<i>Kyoung-Jae Chung ; Kern Lee ; Y. S. Hwang ; Deok-Kyu Kim</i>	
2P-96 - SIMULATIONS OF A 1MV LINEAR TRANSFORMER DRIVER FOR FLASH X-RAY RADIOGRAPHY	211
<i>R. Maisonnny ; M. Toury ; M. Caron ; M. Ribière ; G. Auriel ; T. D'Almeida</i>	
2P-97 - EXPERIMENTS AND DIAGNOSTICS FOR INVESTIGATION OF SHOCK FORMATION IN COLLIDING HYPERSONIC MAGNETIZED PLASMA FLOWS	212
<i>A. Hamilton ; J. Caplinger ; V. Sotnikov</i>	
2P-9 - PHYSICS-BASED PRECONDITIONERS FOR MULTI-FLUID PLASMA SIMULATIONS	213
<i>Kris Beckwith ; Peter H. Stoltz ; Madhusudhan Kundrapu</i>	
3A-1 - IDENTIFICATION OF ANOMALOUS IONIZATION IN AN ULTRASHORT PULSE LASER-GENERATED XENON PLASMA	214
<i>Jennifer Elle ; Enrique Iglesias ; Jared Wahlstrand ; Sina Zahedpour ; Howard Milchberg</i>	
3A-2 - OBSERVATION OF STREAMER PROGRESS, BUBBLE PRODUCTION, REPETITIVE PLASMAS AND MOVING ELECTRODE IN UNDERWATER DISCHARGES	215
<i>M. Akiyama ; M. Fue ; T. Oikawa ; H. Akiyama</i>	
3A-3 - STREAMER BRANCHING CHARACTERISTICS IN TRANSFORMER OIL	216
<i>Yuan Li ; Jia-Ye Wen ; Guo-Qiang Su ; Guan-Jun Zhang</i>	
3A-4 - START-UP OF A PULSED PLASMA JET: FROM BRANCHING TO GUIDED STREAMERS	217
<i>Marc Van Der Schans ; Rick G. J. Jongen ; Sander Nijdam ; Wilbert L. Ijzerman</i>	
3A-5 - MATCHED ASYMPTOTIC ANALYSIS OF ATMOSPHERIC PRESSURE GAS BREAKDOWN FROM NANOSCALE TO MICROSACLE	218
<i>Amanda M. Loveless ; Allen L. Garner</i>	
3A-6 - PHOTOIONIZATION IN DEVELOPING LOW TEMPERATURE PLASMA STREAMER DISCHARGES IN AIR	219
<i>J. Stephens ; A. Neuber</i>	
3A-8 - LENGTH SCALES OF THE ELECTRON SHEATH AND PRESHEATH	220
<i>Benjamin T. Yee ; Edward V Barnat ; Matthew M. Hopkins ; Brett Scheiner ; Scott D. Baalrud</i>	
3B-1 - PHYSICS-BASED STANDARD FOR RF BREAKDOWN PREVENTION IN SPACECRAFT COMPONENTS	221
<i>Timothy P. Graves ; Aimee A. Hubble ; Preston T. Partridge</i>	
3B-2 - RF BREAKDOWN ANALYSIS ACCORDING TO INTERNATIONAL STANDARDS	222
<i>S. Anza ; C. Vicente ; Jordi Gil</i>	
3B-3 - MULTIPACTOR CHAOS	223
<i>Rami A. Kishek</i>	

3B-4 - REDUCTION IN MULTIPACTOR BREAKDOWN THRESHOLD DUE TO A PARALLEL MAGNETIC FIELD	224
<i>V. H. Chaplin ; A. A. Hubble ; R. Spektor ; P. T. Partridge ; T. Bhattacharjee ; T. P. Graves</i>	
3B-5 - HANDBOOK FOR RF IONIZATION BREAKDOWN PREVENTION IN SPACECRAFT COMPONENTS	225
<i>Jeffrey P. Tate</i>	
3B-6 - CNES - CHALMERS - IAP - ONERA ACTIVITIES IN THE DOMAIN OF HIGH RF POWER BREAKDOWN PHENOMENA	226
<i>J. Puech ; V. E. Semenov ; E. I. Rakova ; D. Anderson ; M. Belhaj</i>	
3B-7 - INNOVATIONS IN RADIO FREQUENCY BREAKDOWN DETECTION METHODS	227
<i>James T. Farrell ; Thomas E. Musselman ; Aimee A. Hubble</i>	
3B-8 - DESIGN, MANUFACTURE AND TEST TECHNIQUES FOR MULTIPACTOR FREE RF DEVICES	228
<i>Troy Rodriguez ; Khosro Shamsaifar ; James Haas</i>	
3C-1 - NUMERICAL AND EXPERIMENTAL INVESTIGATION OF THE ELECTRICAL EXPLOSION OF AULMINUM WIRE	229
<i>Zongqian Shi ; Kun Wang ; Yuanjie Shi ; Shenli Jia</i>	
3C-3 - ELECTROTHERMAL INSTABILITY EVOLUTION ON Z-PINCH RODS AND IMPLODING LINERS PULSED WITH INTENSE CURRENT	230
<i>T. J. Awe ; E. P. Yu ; W. G. Yelton ; K. J. Peterson ; R. D. McBride ; D. B. Sinars ; M. R. Gomez ; C. A. Jennings ; M. R. Martin ; S. E. Rosenthal ; A. B. Sefkow ; S. A. Slutz ; R. A. Vesey ; K. C. Yates ; B. S. Bauer ; T. M. Hutchinson ; S. Fuelling</i>	
3C-4 - NUMERICAL INVESTIGATIONS ON ELECTRICAL EXPLOSION OF THIN ALUMINUM WIRES IN VACUUM	231
<i>Yuanjie Shi ; Zongqian Shi ; Kun Wang ; Shenli Jia ; Lijun Wang</i>	
3C-5 - 10 KEV TO 100 KEV NON-THERMAL RADIATION FROM HIGH-Z EXPLODING WIRES	232
<i>B. V. Weber ; R. J. Comisso ; S. L. Jackson ; D. Mosher</i>	
3D-1 - FAST ELECTRON TRANSPORT IN DIFFERENT ALLOTROPES OF SHOCK-HEATED CARBON	233
<i>Christine M. Krawland ; S. Zhang ; F. Beg ; Mingsheng Wei ; Wolfgang Theobald ; Joao J. Santos</i>	
3D-2 - ROLE OF IONIZATION DYNAMICS ON COPPER ION ACCELERATION DRIVEN BY INTENSE SHORT PULSE LASER AND ULTRA-THIN FILM INTERACTION	234
<i>Jinqing Yu ; C. McGuffey ; F. N. Beg</i>	
3D-4 - DEFLECTION OF LASER ACCELERATED PROTONS FROM CRYOGENIC HYDROGEN JETS DUE TO SELF-GENERATED MAGNETIC FIELDS	235
<i>C. B. Curry ; M. Gauthier ; S. Goede ; J. B. Kim ; R. Mishra ; A. Propp ; C. Roedel ; C. Ruyer ; F. Fiuza ; S. H. Glenzer ; B. Aurand ; F. Brack ; R. Gebhardt ; C. Goyon ; U. Helbig ; S. Kerr ; J. Metzkes ; L. Obst ; A. E. Pak ; B. Ramakrishna ; M. Rehwald ; J. Ruby ; H. -P. Schlenvoigt ; P. Sommer ; G. J. Williams ; K. Zeil ; T. Cowen ; U. Schramm ; Y. Y. Tsui ; O. Willi</i>	
3D-5 - EFFECT OF ION SPACE CHARGE FIELD ON ELECTRON ACCELERATION IN A MAGNETIC PLASMA CHANNEL	236
<i>Maninder Kaur ; Krishna Gopal ; Devki N. Gupta ; H. Suk</i>	
3E-2 - OPTICAL EMISSION SPECTROSCOPY OF HIGH VOLTAGE, COLD ATMOSPHERIC PRESSURE PLASMAS	237
<i>Russell S. Brayfield ; Abhijit Jassem ; Michael Lauria ; Andrew Fairbanks ; Allen L. Garner ; Kevin M. Keener</i>	
3E-3 - PLASMA BASED WATER TREATMENT: DESIGN GUIDELINES FOR CONTROLLING INTERFACE DYNAMICS	238
<i>Gunnar R. Stratton ; Selma Mededovic Thagard ; Fei Dai ; Thomas M. Holsen ; Christopher L. Bellona</i>	
3E-4 - PROPERTIES OF ATMOSPHERIC PRESSURE PLASMAS IN PACKED BED REACTORS	239
<i>Juliusz A. Kruszelnicki ; W. Kenneth ; Engeling ; John E. Foster ; Mark J. Kushner</i>	
3E-5 - NANOSECOND PULSED PLASMA DISCHARGE OVER A FLOWING WATER FILM: PLASMA CHARACTERIZATION, HYDRODYNAMIC ANALYSIS, AND HYDROGEN PEROXIDE GENERATION	240
<i>Robert J. Wandell ; Huihui Wang ; Patrick Breslend ; Bruce R. Locke</i>	
3E-6 - DESTRUCTION OF TOLUENE BY ROTATING GLIDING ARC DISCHARGE	241
<i>Fengsen Zhu ; Xiaodong Li ; Hao Zhang ; Jianhua Yan ; Mingjiang Ni</i>	
3E-7 - COMPARATIVE INVESTIGATION OF WASTE RAPSEED OIL DERIVED CARBON MATERIAL FABRICATED BY ROTATING GLIDING ARC AND AEROSOL FAST PYROLYSIS	242
<i>A. J. Wu ; X. D. Li ; Z. F. Sen ; J. H. Yan</i>	
3F-1 - DIAGNOSTICS OF NON-EQUILIBRIUM ATMOSPHERIC PLASMA JETS FOR CANCER THERAPY	243
<i>Michael Keidar</i>	

3F-2 - THEORETICAL CALCULATION AND SIMULATION STUDIES FOR SIDEWAYS FORCE ON VACUUM VESSEL DURING VDES IN EAST	244
<i>Shahab Ud-Din Khan ; Song Yuntao ; Salah Ud-Din Khan</i>	
3F-3 - LEVERAGING SMALL SCALE ELECTRON DENSITY OSCILLATIONS IN RF PLASMAS TO SIMPLIFY HAIRPIN RESONATOR PROBE MEASUREMENTS	245
<i>Steven Shannon ; David Coumou</i>	
3F-4 - MEASUREMENTS OF ELECTRON DENSITY IN DIFFERENT LOW PRESSURE PLASMAS USING THE MULTIPOLE RESONANCE PROBE, LANGMUIR PROBE AND OPTICAL EMISSION SPECTROSCOPY	246
<i>Moritz Oberberg ; Stefan Ries ; Nikita Bibinov ; Peter Awakowicz</i>	
3F-5 - PLASMA ASSISTED COMBUSTION OF LEAN PREMIXED FLAMES: HIGH-SPEED IMAGING OF STREAMER AND FLAME DYNAMICS	247
<i>M. D. G. Evans ; J. M. Bergthorson ; S. Coulombe</i>	
3F-7 - HIGH SPEED IMAGING OF PROPAGATING BRUSH DISCHARGES	248
<i>Dejan Nikic ; Arthur C. Day</i>	
3P-11 - DEVELOPMENT OF PIC-DSMC AIR BREAKDOWN MODEL IN THE PRESENCE OF A DIELECTRIC: BREAKDOWN TIME SENSITIVITY TO SELF-ABSORPTION AND PHOTOEMISSION	249
<i>Chris H. Moore ; Andrew S. Fierro ; Harold P. Hjalmarsen ; Roy E. Jorgenson ; Matthew M. Hopkins ; Laura B. Biedermann</i>	
3P-12 - SIMULATIONS OF THE NEON DC DISCHARGE WITH DUST-VOID	250
<i>Valeria V. Shumova ; Dmitry N. Polyakov ; Leonid M. Vasilyak</i>	
3P-14 - HOW THE EMISSION SPECTROSCOPY CAN DETERMINE THE EFFECTS OF DUST PARTICLES ON THE PLASMA	251
<i>Safa Labidi ; Erik Von Wahl ; Jean-François Lagrange ; Thomas Lecas ; Holger Kersten ; Titaina Gibert ; Maxime Mikikian</i>	
3P-15 - DIFFUSION IN SINGLE LAYER QUASI-MAGNETIZED STRONGLY COUPLED DUSTY PLASMAS	252
<i>Peter Hartmann ; Jorge C. Reyes ; Lorin S. Mathews ; Truell W. Hyde</i>	
3P-17 - MASS SPECTROMETRY TO CONTROL DUST PARTICLE GROWTH IN AN ACETYLENE PLASMA	253
<i>Safa Labidi ; Erik Von Wahl ; Thomas Lecas ; Holger Kersten ; Titaina Gibert ; Maxime Mikikian</i>	
3P-18 - MODELING OF REDUCED AIR PLASMA REACTIONS FOR NANOSECOND-PULSE DIELECTRIC BARRIER DISCHARGE	254
<i>Sangjun Ahn ; Jeongheon Chae ; Hyung-Jin Kim ; Kyu Hong Kim ; Suk Young Jung</i>	
3P-19 - INDUCTIVELY COUPLED PLASMA ETCHING OF GAAS IN CL₂/AR/O₂ CHEMISTRY WITH PHOTO RESIST MASK	255
<i>K. Liu ; X. M. Ren ; Y. Q. Huang ; Sh. W. Cai ; X. F. Duan ; Q. Wang ; Ch. Kang ; J. Sh. Li ; Q. T. Chen ; J. R. Fei</i>	
3P-1 - NUMERICAL THERMALIZATION IN ONE- AND TWO-DIMENSIONAL PARTICLE-IN-CELL SIMULATIONS WITH MONTE-CARLO COLLISIONS	256
<i>P. Y. Lai ; Y. R. Lin-Liu ; L. Chen ; S. H. Chen</i>	
3P-20 - EFFECT OF THE IRON PRECURSOR ON THE INSITU FUNCTIONALIZATION OF DEPOSITED GRAPHENE NANOFLEAKS FOR CATALYST APPLICATIONS	257
<i>Ulrich Legrand ; Jean-Luc Meunier ; Dimitrios Berk</i>	
3P-21 - PLASMA CRACKING METHANE FOR HYDROGEN PRODUCTION IN A PULSED DIELECTRIC BARRIER DISCHARGE	258
<i>Yuan Gao ; Shuai Zhang ; Ruixue Wang ; Chengyan Ren ; Xin Tu ; Tao Shao</i>	
3P-22 - KINETIC MODELLING OF NON-EQUILIBRIUM AIR PLASMA GENERATED BY ENERGETIC PHOTON AND ELECTRON BEAM	259
<i>M. Maulois ; M. Ribière ; O. Eichwald ; M. Youssi ; B. Azais</i>	
3P-24 - NEXT GENERATION IONOSPHERIC HEATER ANTENNA	260
<i>B. Esser ; J. Dickens ; J. Mankowski ; A. Neuber</i>	
3P-25 - EXPERIMENTAL ANALYSIS ON HAZARDNESS OF RF FRONT-END SYSTEM DAMAGED BY HIGH POWER ELECTROMAGNETIC PULSE	261
<i>Young-Maan Cho ; Jae-Ho Rhee ; Ji-Eun Baek ; Se-Hoon Kim ; Chang-Jin Lee ; Kwang-Cheol Ko</i>	
3P-26 - ATTENUATION OF ELECTROMAGNETIC WAVES BY PLASMA-COVERED CAVITY	262
<i>X. He ; Y. C. Zhang</i>	
3P-27 - LOW DENSITY, LOW TEMPERATURE PLASMAS GENERATED AND SUSTAINED INDEFINITELY USING A FOCUSED MICROWAVE BEAM	263
<i>Remington Reid ; Brad Hoff ; David French ; Paul Lepell</i>	

3P-29 - A TUNABLE MICROSTRIP PHOTONIC CRYSTAL BANDGAP DEVICE WITH PLASMA ELEMENTS	264
<i>Benjamin Wang ; Mark Cappelli</i>	
3P-2 - A PARALLEL ELECTROSTATIC SOLVER FOR XOOPIE CODE	265
<i>Yongjun Choi ; John P. Verboncoeur</i>	
3P-30 - RESEARCH ON TRANSMISSION CHARACTERISTIC OF TERAHERTZ WAVES IN HOMOGENEOUS PLASMA GENERATED BY DC GLOW DISCHARGE	266
<i>Wei Shi ; Suguo Chen ; Lei Hou ; Hong Liu ; Ming Xu ; Cheng Ma</i>	
3P-32 - DEPHASING LENGTH OPTIMIZATION BY CONTROLLING PLASMA DENSITY IN LASER WAKEFIELD ACCELERATORS	267
<i>Maninder Kaur ; Devki N. Gupta</i>	
3P-34 - EFFECT OF PREPLASMA ON DOUBLE PULSE IRRADIATION OF TARGETS FOR PROTON ACCELERATION	268
<i>Shaun Kerr ; Mianzhen Z. Mo ; Raj Masud ; Xiaolin Jin ; Laila Manzoor ; Henry F. Tiedje ; Ying Tsui ; Robert Fedosejevs ; Anthony Link ; Prav Patel ; Harry S. McLean ; Andy Hazi ; Hui Chen ; Luke Ceurvorst ; Peter Norreys</i>	
3P-35 - 1-D NON-LTE K- AND L-SHELL SPECTROSCOPIC SIMULATION OF KR GAS PUFF ON Z	269
<i>A. Dasgupta ; J. Giuliani ; N. Ouart ; R. W. Clark ; J. P. Apruzese ; D. J. Ampleford ; S. B. Hansen</i>	
3P-36 - PULSED LASER PRODUCED PLASMA FOR SELF-ASSEMBLED GROWTH OF AL-DOPED ZNO NANOSTRUCTURES AT ROOM TEMPERATURE	270
<i>Reeson Kek ; Boon Kiat Lee ; Seong Ling Yap ; Abdul Kariem Bin Hj Mohd Arof ; Chen Hon Nee ; Teck Yong Tou ; Seong Shan Yap</i>	
3P-37 - APPLICATION OF LASER INDUCED BREAKDOWN SPECTROSCOPY (LIBS) FOR DETECTION OF LEAD CONTAMINANTS IN WATER USING WOOD SAMPLE SUBSTRATES	271
<i>Tadelech Keyata ; Henry Tiedje ; Robert Fedosejevs</i>	
3P-38 - INTERFEROMETRIC CHARACTERIZATION OF PREPLASMA DENSITY FOR HIGH INTENSITY LASER PLASMA INTERACTION STUDIES	272
<i>Laila Nawsheen Manzoor ; Andrew Longman ; Chandra Curry ; Fatema Liza ; Henry Tiedje ; Robert Fedosejevs</i>	
3P-39 - GENERATION OF INTENSE MAGNETIC FIELDS USING ORBITAL ANGULAR MOMENTUM MODES OF LIGHT IN PLASMAS	273
<i>Andrew Longman ; Fatema Liza ; Robert Fedosejevs</i>	
3P-3 - INCORPORATING RADIATION TRANSPORT INTO PARTICLE-BASED PLASMA SIMULATIONS	274
<i>Andrew Fierro ; Chris Moore ; Ben Yee ; Matt Hopkins ; Brett Scheiner</i>	
3P-43 - SYNTHESIS OF FREE-STANDING CARBON NANOTUBE ELECTRODES USING PLASMA-ENHANCED CHEMICAL VAPOR DEPOSITION	275
<i>Won Seok Chang</i>	
3P-44 - GREEN PLASMA ROUTE FOR NITROGEN FUNCTIONALIZED VERTICAL GRAPHENE SYNTHESIS USING SUSTAINABLE RESOURCES	276
<i>Woo Yan Lin ; Bo Ouyang ; Sabpreet Bhatti ; Rajdeep S. Rawat ; Zhang Zheng</i>	
3P-45 - EFFECT OF TARGET POISONING ON THE GROWTH OF INTERFACIAL LAYER DURING THE INITIAL STAGE OF DC MAGNETRON SPUTTERING DEPOSITION	277
<i>Jin Young Lee ; Woo Seok Kang ; Min Hur ; Jae-Ok Lee ; Young-Hoon Song</i>	
3P-4 - NOVEL TECHNIQUES FOR MODELING OF LASER-PLASMA INTERACTIONS IN PARTICLE-IN-CELL CODES FOR USE IN HOHLRAUM SIMULATIONS	278
<i>Carsten H. Thoma ; Dale R. Welch ; Robert E. Clark ; David V Rose</i>	
3P-50 - SIMULATIONS OF PLASMA SHEATHS USING CONTINUUM KINETIC MODELS	279
<i>Bhuvana Srinivasan ; Petr Cagas ; Ammar H. Hakim</i>	
3P-51 - EXPERIMENTAL EVALUATION OF ANODE SURFACE COOLING ON SELF-ORGANIZATION PATTERN FORMATION IN ATMOSPHERIC DC GLOWS	280
<i>Yao E. Kovach ; John E. Foster</i>	
3P-52 - STUDY OF THE LASER PRODUCED PLASMAS USING THE DUAL-WAVELENGTHS INTERFEROMETRY	281
<i>Zefeng Yang ; Xinwen Li ; Jian Wu ; Jiayun Han ; Shenli Jia ; Aici Qiu ; Wang Qian</i>	
3P-54 - DEVELOPMENT OF A HIGHLY POROUS ALUMINA-BASED STRUCTURE ON AN ALUMINUM SURFACE USING APPJ TREATMENT	282
<i>Siavash Asadollahi ; Masoud Farzaneh ; Luc Stafford</i>	
3P-55 - NONEQUILIBRIUM HIGH PRESSURE HELIUM PLASMA PRODUCED BY PIEZOELECTRIC TRANSFORMER	283
<i>Peter Norgard ; Scott D. Kovaleski</i>	
3P-56 - THE EFFECT OF SEED ELECTRONS ON THE REPEATABILITY OF FAST IONIZATION WAVE	284
<i>Lanlan Nie ; Yunhao Qiu ; Xinpei Lu</i>	
3P-57 - MICROWAVE PLASMA-ASSISTED DEPOSITION OF BORON DOPED SINGLE CRYSTAL DIAMOND	285
<i>Timothy A. Grotjohn ; Ayan Bhattacharya ; Steven Zajac</i>	
3P-58 - THE INFLUENCE OF GAS PRESSURE, VOLTAGE AND FREQUENCY ON PLASMA PROPAGATION IN TUBE	286
<i>Yunhao Qiu ; Lanlan Nie ; Xinpei Lu</i>	
3P-59 - THE EFFECT OF MIXING OXYGEN TO ARGON COLD ATMOSPHERIC PRESSURE PLASMA JET	287
<i>Abdulrahman H. Basher ; Jamal Qernas M. Almarashi ; Abdel-Aleam H. Mohamed ; Salama A. Ouf</i>	
3P-5 - STUDY OF THE DISSIPATION OF RESIDUAL PLASMA WITH A ONE-DIMENSIONAL PARTICLE-IN-CELL MODEL IN A VACUUM CIRCUIT BREAKER	288
<i>Yongpeng Mo ; Zongqian Shi ; Shenli Jia ; Lijun Wang</i>	
3P-61 - A MULTI-ELECTRODE RF CAPACITIVELY COUPLED HE/O₂ PLASMA JET - EXPERIMENTAL AND SIMULATION STUDY	289
<i>Kun-Pei Lin ; Keh-Chyang Leou ; Chia-Hao Chang</i>	
3P-62 - NON-LTE TIME-DEPENDENT PLASMA CHEMISTRY MODEL OF E-BEAM NOX REMEDIATION FROM SURROGATE FLUE GAS MIXTURES	290
<i>Tz. B. Petrova ; M. F. Wolford ; G M. Petrov ; J. L. Giuliani ; F. Hegeler ; M. C. Myers ; J. D. Sethian ; B. T. Fisher ; H. D. Ladouceur</i>	
3P-64 - RESEARCH OF DEPOSITING SiO₂-LIKE FILM ON EPOXY RESIN SURFACE USING ATMOSPHERIC PRESSURE PLASMA JET	291
<i>Bin Hai ; Cheng Zhang ; Ruixue Wang ; Chengyan Ren ; Tao Shao</i>	
3P-65 - RF TEST AND THERMAL ANALYSIS ON HIGH POWER WATERLOAD FOR 30 KW MICROWAVE OF 2450 MHZ APPLICATIONS	292
<i>Haejin Kim ; Hyunho Wi ; Suyeon Park ; Sangwon Seon ; Yongchul Hong ; Jaenam Kim ; Seungwook Choi</i>	
3P-66 - PLASMA ENHANCED ATOMIC LAYER DEPOSITION AND LASER PLASMA DEPOSITION OF ULTRA-THIN ZNO FILMS FOR SCHOTTKY BARRIER DEVICES	293
<i>Mei Shen ; Triratna P. Muneshwar ; Ken Cadien ; Ying Y. Tsui ; Doug Barlage ; Triratna P. Muneshwar ; Ken Cadien</i>	
3P-67 - ASSESSMENT OF EFFICACY AND REACTIVE GAS SPECIES GENERATION FOR ORANGE JUICE DECONTAMINATION USING HIGH VOLTAGE ATMOSPHERIC COLD PLASMA	294
<i>Lei Xu ; Sara M. Sanders ; Bernard Tao ; Allen L. Garner ; Kevin M. Keener</i>	
3P-68 - OPTICAL ABSORPTION SPECTROSCOPY OF HIGH VOLTAGE, COLD ATMOSPHERIC PRESSURE PLASMAS	295
<i>Russell S. Brayfield ; Sara M. Sanders ; Abhijit Jassem ; Michael Lauria ; Allen L. Garner ; Kevin M. Keener</i>	
3P-69 - EFFECTS OF LOW TEMPERATURE ATMOSPHERIC PRESSURE PLASMA ON SKIN WOUND HEALING OF MICE IN VIVO	296
<i>Guimin Xu ; Jingfen Cai ; Sile Chen ; Congwei Yao ; Ping Li ; Xingmin Shi ; Guan-Jun Zhang</i>	
3P-6 - LANDAU-FLUID CLOSURES AND THEIR IMPLEMENTATION IN BOUT ++ WITH NON-FOURIER METHODS	297
<i>O. Chapurin ; A. Smolyakov ; M. Umansky</i>	
3P-71 - SURFACE MODIFICATION OF STARCH BY A DBD DISCHARGE WITH THE AID OF A FLUIDIZED BED	298
<i>E. García-Guerrero ; G. Lopez Echavarría ; M. Nieto-Perez ; J. Huerta Ruelas ; M. G. Mendez-Montealvo ; G. Velazquez De La Cruz</i>	
3P-72 - PLASMA-ACTIVATED MEDIUM AND ITS MEDICAL AND BIOLOGICAL APPLICATIONS	299
<i>Hiromasa Tanaka ; Masaaki Mizuno ; Fumitaka Kikkawa ; Masara Hori</i>	
3P-73 - ANALYSIS OF DNA STRAND BREAKS INDUCED BY EXPOSURE TO AN ATMOSPHERIC PRESSURE PLASMA JET	300
<i>Hirofumi Kurita ; Saki Miyachika ; Hachiro Yasuda ; Kazunori Takashima ; Akira Mizuno</i>	
3P-74 - IMPACT OF SYNERGISM OF NITRITE AND HYDROGEN PEROXIDE ON CELL SURVIVALS IN PLASMA-ACTIVATED-MEDIUM (PAM)	301
<i>Naoyuki Kurake ; Hiromasa Tanaka ; Kenji Ishikawa ; Kae Nakamura ; Hiroaki Kajiyama ; Fumiaki Kikkawa ; Takashi Kondo ; Masaaki Mizuno ; Keigo Takeda ; Hiroki Kondo ; Makoto Sekine ; Masaru Hori</i>	
3P-77 - EFFECTIVE DECONTAMINATION OF SOFT RELINE-BASED ORAL CANCER OBTURATORS BY MEANS OF COLD ATMOSPHERIC PLASMA	302
<i>Vittorio Colombo ; Matteo Gherardi ; Romolo Laurita ; Anna Liguori ; Augusto Stancampiano ; Barbara Azzimonti ; Andrea Cochis ; Marta Petri ; Rita Sorrentino ; Lia Rimondini</i>	

3P-78 - EFFECTS OF LOW TEMPERATURE ATMOSPHERIC PRESSURE PLASMA ON CELL VIABILITY AND COLLAGEN SYNTHESIS OF FIBROBLASTS	303
<i>Xingmin Shi ; Hongbin Ren ; Jinren Liu ; Jingfen Cai ; Guimin Xu ; Sile Chen ; Guanjun Zhang</i>	
3P-79 - SELECTIVE PLASMA ACTIVATION OF SURFACES FOR BIOSENSING APPLICATION	304
<i>S. S. Rezaie ; U. Rengarajan ; H. Hoi ; C. Montemagno ; M. Gupta</i>	
3P-7 - BENCHMARKING MULTI-FLUID PLASMA-ELECTROMAGNETIC MODELS	305
<i>Kristián R. C. Beckwith ; Madhusudhan Kundrapu ; Peter H. Stoltz ; John W. Luginsland</i>	
3P-82 - PLASMA ELECTRON SPECTROSCOPY IN MICROHOLLOW DISCHARGE WITH INTEGRATED WALLPROBE	306
<i>Steven F. Adams ; Jared A. Miles ; Vladimir I. Demidov ; Boyd A. Tolson ; Amber L. Hensley</i>	
3P-83 - INVESTIGATION OF PLASMA PARAMETERS IN DUAL ANTENNA CF4/AR/O2 INDUCTIVELY COUPLED PLASMA	307
<i>Sangho Park ; Duksun Han ; Se Youn Moon</i>	
3P-84 - ELECTRIC PROBE DIAGNOSTICS OF DC ARC STREAM-ARGON PLASMA JET IN ATMOSPHERIC PRESSURE	308
<i>Oleksiy Hurba ; Milan Hrabovský</i>	
3P-85 - PHOTOELECTRIC CHARACTERISTICS OF VOLUME DIFFUSE DBD IN AIR AND WATER MIST	309
<i>Y. L. Gan ; B. Y. Chen ; L. Wang ; C. P. Zhu ; W. Q. Cai ; X. X. Gao ; J. T. Fei ; X. He ; Y. F. Jiang</i>	
3P-86 - A FAST METHOD FOR OBTAINING ELECTRON ENERGY DISTRIBUTION FUNCTION BY USING SAVITZKY GOLAY TECHNIQUE	310
<i>Dong-Hwan Kim ; Il-Seo Park ; Hyun-Ju Kang ; Kyung-Hyun Kim ; Chin-Wook Chung</i>	
3P-87 - TRIPLE PROBE MESUREMENTS IN HIPIMS PLASMA	311
<i>Francis Lockwood Estrin ; James W. Bradley</i>	
3P-89 - DESIGN OF MAGNETIC SWITCH RESET CIRCUIT USING CIRCUIT ELEMENTS IN MPC SYSTEMS	312
<i>Jong-Hong Hwang ; Jae-Ho Rhee ; Kwang-Cheol Ko</i>	
3P-8 - NERNST EFFECT IN HYDRA	313
<i>Joseph Koning ; Marty Marinak</i>	
3P-90 - FRACTURING EFFECT OF UNDERWATER SHOCK WAVES GENERATED BY PLASMA-IGNITED ENERGY MATERIALS EXPLOSION	314
<i>Qiaojue Liu ; Haibin Zhou ; Jiawei Wu ; Ruoyu Han ; Yan Jing ; Yongmin Zhang ; Aici Qiu</i>	
3P-91 - INFLUENCE OF ELECTRICAL CONDUCTIVITY AND PH ON HYDROGEN PRODUCTION USING PULSED DISCHARGE OVER THE WATER SURFACE	315
<i>Takeshi Ihara ; Yusuke Ide ; Hideo Nagata ; Yoshihito Yagyu ; Tamiko Ohshima ; Hiroharu Kawasaki ; Yoshiaki Suda</i>	
3P-94 - TRIBOLUMINESCENCE X-RAY SOURCE BY CONTACTING DIFFERENT MATERIALS AND ROTATING IT	316
<i>Seizo Furuya</i>	
3P-95 - HIGH VOLTAGE, FAST RISE NANOSECOND PULSERS	317
<i>Timothy M. Ziemba ; Kenneth E. Miller ; James R. Prager ; Ilia Slobodov ; Julian Picard</i>	
3P-9 - GPU BATEMAN SOLVER FOR NUCLEAR BURN UP CALCULATIONS	318
<i>Joanne C. Chorley ; Nigel A. Dipper ; Ray M. Sharpies ; Rob J. Akers ; Lee Morgan</i>	
4A-1 - CATHODE PLASMA AS ELECTRON SOURCE IN LONG PULSE ACCELERATOR GESA	319
<i>Wladimir An ; Renate Fetzter ; Alfons Weisenburger ; Georg Mueller</i>	
4A-2 - PULSED, INTENSE ELECTRON BEAMS FOR MATERIAL RESPONSE STUDIES WITHOUT THE USE OF EXTERNAL MAGNETIC FIELDS	320
<i>R. J. Commisso ; J. R. Angus ; D. D. Hinshelwood ; S. L. Jackson ; D. Mosher ; P. F. Ottinger ; A. S. Richardson ; J. W. Schumer ; B. V. Weber ; N. R. Barnes ; J. S. Neal ; M. Sinclair</i>	
4A-3 - AN EXACT THEORY OF ULTRAFAST ELECTRON EMISSION ON A BIASED METAL SURFACE	321
<i>Peng Zhang ; Y. Y. Lau</i>	
4A-4 - CURRENT DENSITY SCALING EXPRESSIONS FOR A BIPOLAR SPACE-CHARGE-LIMITED CYLINDRICAL DIODE	322
<i>Ian M. Rittersdorf ; Paul F. Ottinger ; Raymond J. Allen ; Joseph W. Schumer</i>	
4A-5 - CONTRIBUTION OF THE BACKSTREAMING IONS TO THE SELF-MAGNETIC PINCH (SMP) DIODE CURRENT	323
<i>Michael G. Mazarakis ; Michael E. Cuneo ; Sean D. Fournier ; Mark D. Johnston ; Mark L. Kiefer ; Joshua J. Leckbee ; Dan S. Nielsen ; Bryan V. Oliver ; Sean Simpson ; Timothy J. Renk ; Timothy J. Webb ; Derek Ziska ; Nichelle Bennett ; Darryl W. Droemer ; Raymond E. Cignac ; Robert J. Obregon ; Chase C. Smith ; Frank L. Wilkins ; Dale R. Welch</i>	

4A-6 - MAGNETIC FIELD MEASUREMENTS ON THE SELF MAGNETIC PINCH DIODE AT SNL USING ZEEMAN SPLITTING	324
<i>S. G. Patel ; M. D. Johnston ; T. J. Webb ; D. J. Muron ; N. L. Bennett ; M. L. Kiefer ; Y. Maron ; R. M. Gilgenbach</i>	
4A-7 - EFFECTS OF PULSED ANODE HEATING ON SELF-MAGNETIC-PINCH RADIOGRAPHIC PERFORMANCE USING NRL'S MERCURY IVA	325
<i>J. C. Zier ; B. V. Weber ; C. Boyer ; G. Cooperstein ; D. D. Hinshelwood ; A. S. Richardson ; I. M. Rittersdorf ; J. W. Schumer ; S. B. Swanekamp</i>	
4A-9 - IN-SITU ANODE HEATING AND PLASMA GLOW DISCHARGE CLEANING AND ITS EFFECTS ON ATOMIC CONSTITUENTS IN THE A-K GAP IN SELF-MAGNETIC PINCH (SMP) EXPERIMENTS	326
<i>Sean C. Simpson ; Mark D. Johnston ; Michael G. Mazarakis ; Timothy J. Renk ; Ricky Tang ; Timothy J. Webb ; Dan S. Nielsen ; Derek R. Ziska ; Mark L. Kiefer ; Sonal Patel ; Jacob C. Zier ; Bruce V. Weber</i>	
4B-1 - DEVELOPMENTS IN PARALLELIZATION AND THE USER ENVIRONMENT OF THE MICHELLE CHARGED PARTICLE BEAM OPTICS CODE	327
<i>John Petillo ; Serguei Ovtchinnikov ; Chris Kostas ; Dimitrios Panagos ; Alex Burke ; Eric Nelson ; George Stantchev ; Simon Cooke ; Ben Held ; Alan Nichols ; Sreeram Ayala</i>	
4B-2 - A HIGH-PERFORMANCE DISTRIBUTED COMPUTING FRAMEWORK FOR PARAMETRIC DESIGN OPTIMIZATION OF RF DEVICES	328
<i>George M. Stantchev ; Simon J. Cooke ; John J. Petillo ; Serguei Ovtchinnikov ; Alex Burke ; Chris Kostas ; Dimitrios Panagos ; Thomas M. Antonsen</i>	
4B-3 - ACCURATE, TIME-DOMAIN, ELECTROMAGNETIC SIMULATION OF EMBEDDED DIELECTRIC INTERFACES IN NEPTUNE	329
<i>Simon J. Cooke ; George M. Stantchev ; Thomas M. Antonsen</i>	
4B-4 - ADVANCED LARGE SIGNAL MODELING OF VACUUM ELECTRONIC DEVICES BASED ON IMPEDANCE CHARACTERIZATION OF SLOW-WAVE STRUCTURES	330
<i>Igor A. Chernyavskiy ; John C. Rodgers ; Alexander N. Vlasov ; Baruch Levush ; Thomas M. Antonsen</i>	
4B-5 - DEVELOPMENT OF LARGE SIGNAL CODES FOR MODELING OF MULTIPLE BEAM FOLDED WAVEGUIDE TWTS	331
<i>Alexander N. Vlasov ; Igor A. Chernyavskiy ; John C. Rodgers ; Simon J. Cooke ; John Pasour ; Thomas M. Antonsen ; David Chernin</i>	
4B-6 - WIDEBAND MATCHING OF FDTD-PIC USING A MULTI-PHASE VELOCITY OPERATOR	332
<i>Larry D Ludeking</i>	
4C-1 - PERFORMANCE ENHANCEMENT OF A DIELECTRIC BARRIER DISCHARGE VACUUM-ULTRAVIOLET PHOTON SOURCE USING SHORT-PULSED ELECTRICAL EXCITATION	333
<i>Robert J. Carman ; Noah Goldberg ; Stuart C. Hansen ; Nigel Gore</i>	
4C-2 - IMPROVEMENT OF CERAMIC-HALIDE HIGH INTENSITY DISCHARGE LAMPS: STUDY OF THE UV RADIATION THAT COULD BE CONVERTED INTO VISIBLE LIGHT	334
<i>Yann Cressault ; Philippe Teulet ; Georges Zissis</i>	
4C-3 - MICROCAVITY PLASMA UV LAMPS: EFFICIENT VUV, UV-C AND UV-B GENERATION WITH FLAT FORM FACTOR	335
<i>Sung-Jin Park ; Cyrus M. Herring ; J. Gary Eden</i>	
4C-4 - CHARACTERISTICS OF KRYPTON DIELECTRIC BARRIER DISCHARGE LAMP	336
<i>Bruno Caillier ; Philippe Guillot ; Ikram Zineb Ait Menguellat ; Nadjet Larbi Daho Bachir ; Ahmed Belasri</i>	
4C-5 - SPATIAL AND TEMPORAL EVOLUTION OF A DBD PLASMA LAMP	337
<i>Bruno Caillier ; Philippe Guillot ; Imène Medjahed ; Sid Ahmed Beldjilali ; Ahmed Belasri</i>	
4C-6 - SPECTRAL VARIATIONS OF METAL HALIDE LAMPS DURING ACOUSTIC RESONANCE	338
<i>Fang Lei ; Pascal Dupuis ; Georges Zissis ; Pascal Maussion</i>	
4D-1 - LATTICE STABILITY IN ULTRAFAST LASER EXCITED GOLD	339
<i>Z. Chen ; Y. Tsui ; V. Recoules ; M. Mo ; P. Hering ; S. Glenzer ; A. Ng</i>	
4D-2 - ULTRAFAST PUMP-PROBE MEASUREMENTS OF DENSE PLASMA CONDITIONS USING AN ULTRA-BRIGHT X-RAY LASER	340
<i>Siegfried H. Glenzer</i>	
4D-3 - CHARACTERIZATION AND STUDY OF SUPERSONIC PURE AND MIXED NOBLE GAS JETS AS A TARGET FOR A SUB-PS LASER	341
<i>K. A. Schultz ; V. L. Kantsyrev ; V. V. Shlyaptseva ; I. K. Shrestha ; E. E. Petkov ; A. S. Safronova ; J. J. Moschella ; A. Stafford ; M. C. Cooper ; G. M. Petrov</i>	
4D-4 - EXTREME STATES OF WATER OBTAINED BY GENERATING CONVERGING SHOCK WAVES BY UNDERWATER ELECTRICAL EXPLOSIONS OF WIRE ARRAYS	342
<i>David Yanuka ; Sergey Efimov ; Maxim Kozlov ; Hodaya Zinowits ; Daniel Shafer ; Yakov E. Krasik</i>	

4D-5 - HIGH FIELD ASSISTED X-RAY SOURCE	343
<i>P. -A. Gourdain ; M. Adams ; D. Barnak ; R. Betti ; J. C. Davies ; S. Regan ; G. Rochau ; D. D. Meyerhofer</i>	
4D-6 - EXPERIMENTS ON ELECTROTHERMAL INSTABILITY AS A SEED FOR MAGNETO-RAYLEIGH-TAYLOR INSTABILITY ON ACCELERATING, ABLATING FOILS	344
<i>A. M. Steiner ; D. A. Yager-Elorriaga ; P. C. Campbell ; S. G. Patel ; N. M. Jordan ; Y. Y. Lau ; R. M. Gilgenbach</i>	
4D-7 - RELATIVISTIC MODELING CAPABILITIES IN PERSEUS EXTENDED-MHD SIMULATION CODE FOR HED PLASMAS	345
<i>Nathaniel D. Hamlin ; Charles E. Seyler</i>	
4D-8 - WARM DENSE MATTER EXPERIMENTS ON DARHT	346
<i>J. E. Coleman ; T. J. Burris-Mog ; J. E. Coleman ; T. J. Burris-Mog ; Mike Berninger</i>	
4E-1 - SUPPRESSING WINDOW MULTIPACTOR UNDER ARBITRARY ELECTROMAGNETIC MODE BY PERIODIC WAVY PROFILE	347
<i>Chao Chang ; Changhua Chen ; John Verboncoeur ; Yansheng Liu</i>	
4E-2 - HIGH ELECTRIC FIELD ATMOSPHERIC BREAKDOWN OF AIR AT HIGH FREQUENCY FOR LARGE GAPS	348
<i>Animesh R. Chowdhury ; Hieu K. Nguyen ; Ravindra P. Joshi ; James C. Dickens ; John J. Mankowski ; Andreas A. Neuber</i>	
4E-3 - WHEN AND WHY ARE STREAMERS ATTRACTED TO DIELECTRIC SURFACES?	349
<i>Dirk Trienekens ; Sander Nijdam ; Gijs Akkermans ; Ilian Plompen ; Marc Merkx ; Thomas Christen ; Ute Ebert</i>	
4E-6 - SPECTRAL ANALYSIS OF THE PLASMA PRODUCED BY COMPOSITE METAL BRIDGE FOIL EXPLODING	350
<i>Junying Wu ; Zhao Yan ; Long Wang ; Hongxin Yu ; Lang Chen</i>	
4F-1 - SPATIO-TEMPORAL BEHAVIORS OF ATMOSPHERIC-PRESSURE PLASMA JETS FOR INVESTIGATION OF REACTIVE-SPECIES PRODUCTION IN LIQUID	351
<i>Y. Setsuhara ; A. Nakajima ; G. Uchida ; T. Ito ; K. Takenaka ; J. Ikeda</i>	
4F-2 - WEARABLE PLASMA-PADS FOR HEALTHCARE APPLICATIONS: PLASMA PATCH, PLASMA BANDAGE, PLASMA SOCKS, AND PLASMA CAP	352
<i>Yeon-Jeong Kim ; Hyun Cho ; Jung-Gill Kim ; Yunjung Kim ; Gook-Hee Han ; Eun-Ha Choi ; Guangsup Cho</i>	
4F-3 - PLASMA-IRRADIATED SOLUTION AS DRUG PERMEATION ENHANCER	353
<i>Toshiro Kaneko ; Kei Kikuchi ; Shota Sasaki ; Makoto Kanzaki</i>	
4F-4 - BACTERICIDAL AND PHYSICO-CHEMICAL PROPERTIES OF PLASMA ACTIVATED WATER STORED AT DIFFERENT TEMPERATURES	354
<i>Ying Tian ; Kaile Wang ; Songjie Wu ; Ruonan Ma ; Qian Zhang ; Jue Zhang ; Jing Fang</i>	
4F-5 - COLD PLASMA APPLICATION IN CANCER THERAPY	355
<i>Michael Keidar</i>	
4F-6 - REACTIVE SPECIES GENERATION AND BIOCIDAL EFFICIENCY OF AN ASYMMETRIC DBD APPJ	356
<i>Florent P. Sainct ; Cristina Muja ; Aboubakar S. Kone ; Bruno Caillier ; Philippe Guillot</i>	
4F-7 - GENERATION AND TRANSPORT OF LIQUID-PHASE REACTIVE SPECIES DUE TO PLASMA-LIQUID INTERACTION	357
<i>Kazumasa Ikuse ; Tomoko Ito ; Satoshi Hamaguchi</i>	
4F-8 - INACTIVATION OF FELINE CALICIVIRUS BY AN ATMOSPHERIC PRESSURE 2D MICRODISCHARGE ARRAY IN AIR	358
<i>G. Nayak ; H. A. Aboubakr ; S. M. Goyal ; P. J. Bruggeman</i>	
4F-9 - ENDODONTIC PLASMA-JETS FOR ROOT-CANAL DISINFECTION	359
<i>Jung-Gil Kim ; Yeon-Jeong Kim ; Yunjung Kim ; Junghyun Kim ; Ku Youn Baik ; Guangsup Cho ; Jaekwan Lim ; Yeon-Su Kim ; Byeong-Hoon Cho</i>	
5A-1 - TO THE ROLE OF SURFACE WAVES IN THE PHYSICS OF A LARGE CCP REACTOR	360
<i>Denis Eremin</i>	
5A-2 - IMPLICIT TIME INTEGRATION FOR PARTICLE TREATMENT WITHIN A PARTICLE-IN-CELL SOLVER	361
<i>Philip Ortwein ; Claus-Dieter Munz</i>	
5A-3 - NUMERICAL THERMALIZATION TIME SCALING OF 2D ELECTROMAGNETIC COLLISIONAL PLASMAS	362
<i>W. S. Koh ; W. J. Ding</i>	
5A-4 - VARIATIONAL FORMULATION OF PARTICLE ALGORITHMS FOR KINETIC E&M PLASMA SIMULATIONS	363
<i>Alexander B. Stamm ; Bradley A. Shadwick</i>	
5A-5 - SPEED-LIMITED PARTICLE-IN-CELL (SLPIC) METHOD	364
<i>Gregory R. Werner ; John R. Cary</i>	
5A-6 - NOVEL APPROACHES TO SUPPRESS THE NUMERICAL CHERENKOV INSTABILITY IN PSEUDO-SPECTRAL PARTICLE-IN-CELL PLASMA SIMULATION CODES	365
<i>Brendan B. Godfrey ; Manuel Kirchen ; Remi Lehe ; Jean-Luc Vay</i>	
5A-7 - A HIGH ORDER MOL TRANSPORT APPROACH FOR VLASOV SIMULATION WITH WENO METHODOLOGY	366
<i>Yan Jiang ; Andrew Christlieb ; Wei Guo</i>	
5A-8 - NUMERICAL SOLUTION OF THE QUANTUM LENARD-BALESCU EQUATION	367
<i>Christian R. Scullard ; Frank R. Graziani ; Andrew Belt ; Susan Fennell ; Marija Jankovic ; Nathan Ng ; Susana Serna</i>	
5B-1 - ECH/EBW HEATING OF PROTO-MPEX PLASMAS	368
<i>T. S. Bigelow ; J. B. Caughman ; S. J. Diem ; R. H. Goulding ; T. M. Biewer ; J. Rapp</i>	
5B-2 - A PHOTONIC BAND GAP MULTI-BEAM BASED KLYSTRON	369
<i>Rebecca Seviour ; Yiming Xu</i>	
5B-3 - REFLEX TRIODE VIRCATOR DESIGN FOR EXTENDED FREQUENCY TUNING CAPABILITIES	370
<i>Curtis Lynn ; David Barnett ; Kirk Rainwater ; Andreas Neuber ; James Dickens ; John Mankowski</i>	
5B-4 - COMPACT REFLEX TRIODE WITH MULTI CAVITY ADJUSTMENT	371
<i>D. H. Barnett ; K. Rainwater ; C. F. Lynn ; J. C. Dickens ; A. A. Neuber ; J. J. Mankowski</i>	
5B-6 - RADIOFREQUENCY ELECTROMAGNETIC PULSES GENERATED BY ULTRAFAST LASER FILAMENTS	372
<i>Alexander Englesbe ; Jennifer Elle ; Adrian Lucero ; Kaitlin Poole ; Matt Domonkos ; Andreas Schmitt-Sody ; Karl Krushelnick</i>	
5B-7 - OPTIMIZING OPERATION OF A 220 GHZ FOLDED WAVEGUIDE TRAVELING WAVE TUBE USING A 3-D EM PIC SIMULATION	373
<i>M. C. Lin ; H. Song ; J. Shin ; J. So</i>	
5B-8 - ON THE USE OF PLASMA METASURFACES AS TUNABLE THZ WAVE REFLECTORS	374
<i>Roberto A. Colon Quinones ; Thomas C. Underwood ; Mark A. Cappelli</i>	
5B-9 - SMITH-PURCELL TERAHERTZ SOURCES	375
<i>Jacques Gardelle ; Patrick Modin ; Hans P. Bluem ; Robert H. Jackson ; Jonathan D. Jarvis ; Alan M. M. Todd ; John T. Donohue</i>	
5C-1 - KAERI LASER FACILITY FOR HIGH ENERGY DENSITY PLASMA RESEARCH	376
<i>Changhwan Lim ; Sung-Mo Nam ; Jae-Min. Han ; Min-Seok Kim ; Seong-Young Ha</i>	
5C-2 - INTENSE UNDERWATER LASER PROPAGATION, IONIZATION AND HEATING FOR REMOTE SHAPED PLASMA GENERATION	377
<i>T. G. Jones ; D. Kaganovich ; M. H. Helle ; R. Fischer ; A. Ting ; J. Palastro ; L. Johnson ; B. Hafizi ; D. Gordon ; J. Peñano ; Y. -H. Chen</i>	
5C-3 - PROGRESS IN LASER PRODUCED PAIR PLASMA JETS FOR LABORATORY ASTROPHYSICS ON THE NATIONAL IGNITION FACILITY	378
<i>Hui Chen</i>	
5C-4 - TRAJECTORY CONTROL OF SMALL ROTATING PROJECTILES BY LASER DISCHARGES	379
<i>Andrey Starikovskiy ; Christopher Limbach ; Richard Miles</i>	
5C-5 - TRANSIENT PLASMA PHOTONIC CRYSTALS FOR HIGH-POWER LASERS	380
<i>Goetz Lehmann ; Karl-Heinz Spatschek</i>	
5C-6 - DYNAMICS OF ATOMIC AND MOLECULAR EMISSION FEATURES FROM NANOSECOND, FEMTOSECOND LASER AND FILAMENT PRODUCED PLASMAS	381
<i>S. S. Harilal ; J. Yeak ; B. E. Brumfield ; M. C. Phillips</i>	
5C-7 - MULTI-BEAM LASER-PLASMA INTERACTIONS: FROM ICF TO "PLASMA PHOTONICS" APPLICATIONS	382
<i>P. Michel ; D. Turnbull ; C. Goyon ; L. Divol ; T. Chapman ; B. B. Pollock ; J. S. Ross ; D. Mariscal ; J. D. Moody</i>	
5C-8 - APPLICATIONS OF LASER PLASMA DEPOSITION	383
<i>M. Gupta ; M. Shen ; Z. Tchir ; Y. Y. Tsui</i>	
5C-9 - ENHANCEMENT OF BETATRON X-RAYS IN A LASER PLASMA ACCELERATOR	384
<i>Liming Chen</i>	
5D-1 - ORIGIN AND EARLY HISTORY OF THE SHIVA PROGRAM FOR HIGH-POWER SOFT X-RAY GENERATION	385
<i>Peter J. Turchi ; William L. Baker</i>	
5D-2 - RESULTS FROM COMPRESSION OF FIELD REVERSED CONFIGURATION USING IMPLoding SOLID LINER	386
<i>J. H. Degnan ; C. Grabowski ; M. Domonkos ; E. L. Ruden ; D. J. Amdahl ; M. H. Frese ; S. D. Frese ; G. A. Wurden ; T. E. Weber</i>	
5D-3 - THE FIELD-REVERSED CONFIGURATION HEATING EXPERIMENT ON SHIVA STAR	387
<i>C. Grabowski ; J. H. Degnan ; M. Domonkos ; D. Amdahl ; E. L. Ruden ; G. A. Wurden ; T. E. Weber</i>	

5D-4 - SHIVA STAR: PIONEERING MEGAGAUSS SCIENCE AND TECHNOLOGY	388
<i>Matthew T. Domonkos ; James H. Degnan ; William Baker ; T. Chris Grabowski ; Peter J. Turchi</i>	
5E-1 - DIRECT CONVERSION OF METHANE BY AN ATMOSPHERIC-PRESSURE DIELECTRIC BARRIER DISCHARGE MICROPLASMA	389
<i>Joseph R. Toth ; Daniel J. Lacks ; R. Mohan Sankaran</i>	
5E-2 - OPTIMIZING REMOTE PLASMA SOURCES FOR SELECTIVE ETCHING	390
<i>Shuo Huang ; Mark J. Kushner ; Vladimir Volynets ; Sangheon Lee ; In-Cheol Song ; Siqing Lu ; James R. Hamilton ; Jonathan Tennyson</i>	
5E-3 - THE CURRENT WAVEFORM IN REACTIVE HIGH POWER IMPULSE MAGNETRON SPUTTERING	391
<i>J. T. Gudmundsson ; D. Lundin ; M. A. Raadu ; T. Minea ; N. Brenning</i>	
5E-6 - PLASMA KINETICS OF A NANOSECOND PULSED HUMID ATMOSPHERIC PRESSURE PLASMA JET	392
<i>S. Yatom ; Y. Luo ; Q. Xiong ; P. Bruggeman</i>	
5E-7 - EFFECT OF TRANSLATIONAL NONEQUILIBRIUM AND "HOT" ATOMS REACTIONS ON ACTIVE SPECIES PRODUCTION IN HIGH-VOLTAGE PULSED DISCHARGES	393
<i>Nickolay L. Aleksandrov ; Alexander A. Ponomarev ; Andrey Yu. Starikovskiy</i>	
5E-8 - THE ROLE OF THE SINGLET METASTABLES IN CAPACITIVELY COUPLED OXYGEN DISCHARGES	394
<i>J. T. Gudmundsson ; H. Hannesdottir</i>	
5E-9 - ZERO DIMENSIONAL MODEL OF ATMOSPHERIC SMD DISCHARGE AND AFTERGLOW IN HUMID AIR	395
<i>Ryan T. Smith ; Efe Kemaneci ; Björn Offerhaus ; Katharina Stapelmann ; Ralf-Peter Brinkmann</i>	
5F-1 - DEVELOPMENT OF AN ISOELECTRONIC LINE RATIO TECHNIQUE FOR IMPROVED DIAGNOSING OF TEMPERATURE AND TEMPERATURE GRADIENTS IN PHOTOIONIZED PLASMA	396
<i>Theodore Lane ; Matthew Flaugh ; Mark Koepke ; Thomas Steinberger ; Guillaume Loisel ; James Bailey ; Gregory Rochau</i>	
5F-2 - DEVELOPMENT OF CAVITY ENHANCED RAMAN AND THOMSON SCATTERING DIAGNOSTICS	397
<i>Adam J. Friss ; Christopher M. Limbach ; Azer P. Yalin</i>	
5F-3 - DEVELOPMENT AND CALIBRATION OF ELECTRON DENSITY MEASUREMENTS IN ARGON PLASMA USING LASER COLLISION-INDUCED FLUORESCENCE	398
<i>Edward V. Barnat</i>	
5F-4 - TEMPERATURE AND ABSOLUTE OH DENSITY MEASUREMENT BY THE RELATIVE EMISSION SPECTROSCOPY IN DIFFUSE ATMOSPHERIC-PRESSURE RF GLOW DISCHARGES	399
<i>Yanjun Du ; Zhimin Peng ; Yanjun Ding ; Nader Sadeghi ; Peter Bruggeman</i>	
5F-5 - A COMPUTATIONALLY ASSISTED SPECTROSCOPIC TECHNIQUE TO MEASURE SECONDARY ELECTRON EMISSION COEFFICIENTS IN TECHNOLOGICAL RF PLASMAS	400
<i>Manaswi Daksha ; Birk Berger ; Edmund Schuengel ; Mark Koepke ; Julian Schulze ; Ihor Korolov ; Aranka Derzsi ; Zoltán Donkó</i>	
5F-6 - EXPERIMENTAL STUDY OF ULTRA-FAST ELECTRIC FIELD IN AN ATMOSPHERIC PRESSURE DISCHARGE IN A PIN-TO-PLATE GEOMETRY	401
<i>Sylvain Iséni ; Sébastien Dozias ; Jean-Michel Pouvesle ; Éric Robert</i>	
5F-7 - THE DIFFERENTIAL ABSORPTION HARD X-RAY (DAHx) SPECTROMETER AT THE Z FACILITY	402
<i>K. S. Bell ; C. A. Coverdale ; D. J. Ampleford ; J. E. Bailey ; G. Loisel ; V. Harper-Slaboszewicz ; J. Schwarz ; E. Christener ; C. Turner ; L. A. McPherson ; C. Bourdon ; M. Kernaghan ; M. Sullivan ; C. Kirtley ; M. E. Cuneo</i>	
6A-1 - NONLINEAR CONVECTIVE HEAT TRANSPORT IN MULTIPLE INTERACTING MAGNETIZED ELECTRON TEMPERATURE FILAMENTS	403
<i>Richard D. Sydora ; Scott Karbasheski ; Bart Van Compernelle ; George Morales ; James Maggs</i>	
6A-2 - THEORY OF SHEATHS NEAR POSITIVELY BIASED ELECTRODES	404
<i>Brett Scheiner ; Scott D. Baalrud ; Benjamin T. Yee ; Matthew M. Hopkins ; Edward V. Barnat</i>	
6A-3 - HYSTERESIS EFFECTS AND CONFINEMENT OF BEAM ELECTRONS IN CAPACITIVE DISCHARGES	405
<i>S. Wilczek ; J. Trieschmann ; R. P. Brinkmann ; T. Mussenbrock ; J. Schulze ; E. Schüngel ; A. Derzsi ; I. Korolov ; P. Hartmann ; Z. Donkó</i>	
6A-5 - PLASMA POTENTIAL LOCKING	406
<i>Matthew M. Hopkins ; Benjamin T. Yee ; Edward V. Barnat ; Scott D. Baalrud ; Brett Scheiner</i>	
6A-6 - 2D SIMULATIONS OF HALL-DRIVEN MAGNETIC FIELD PENETRATION IN ELECTRON-MAGNETOHYDRODYNAMICS	407
<i>A. S. Richardson ; J. R. Angus ; S. B. Swanekamp ; J. W. Schumer ; P. F. Ottinger</i>	

6B-1 - MICROWAVE INTERACTIONS WITH LASER-GENERATED AIR PLASMA FILAMENTS AND ACOUSTIC SHOCKS	408
<i>J. Peñano ; M. H. Helle ; B. Rock ; D. F. Gordon ; J. P. Palastro ; A. Ting</i>	
6B-2 - GENERATING MICROWAVE PULSES WITH PLASMA	409
<i>David Biggs ; Mark Cappelli</i>	
6B-3 - LASER IGNITION OF PLASMA INTERFERENCE SWITCH FOR MICROWAVE PULSE EXTRACTION FROM A RESONANT CAVITY	410
<i>Anatoli Shlapakovski ; Yakov E. Krasik ; Stanislav Gorev</i>	
6B-5 - TUNABLE RF ELECTRONICS BASED ON LOW TEMPERATURE PLASMA	411
<i>Abbas Semnani ; Sergey O. Macheret ; Dimitrios Peroulis</i>	
6B-6 - PLASMA PHOTONIC CRYSTALS WITH TUNABLE BANDGAP AND CONFIGURABLE TRANSMISSION MODES	412
<i>Benjamin Wang ; Mark Cappelli</i>	
6C-1 - CUSTOMIZING ARRAYS OF MICROPLASMAS FOR CONTROLLING PROPERTIES OF ELECTROMAGNETIC WAVES	413
<i>Chenhui Qu ; Peng Tian ; Mark J. Kushner</i>	
6C-2 - CHIRPED PULSED BIAS POWER IN INDUCTIVELY COUPLED PLASMA REACTORS	414
<i>Steven J. Lanham ; Mark J. Kushner</i>	
6C-3 - TRANSVERSE 2D GLIDING ARC MODELING	415
<i>Alexander F. Gutsol ; Shailesh Gangoli</i>	
6C-4 - ELECTRON POWER ABSORPTION DYNAMICS AND ION ENERGY DISTRIBUTIONS IN CAPACITIVE DISCHARGES DRIVEN BY CUSTOMIZED VOLTAGE WAVEFORMS IN ARGON AND CF₄	416
<i>Birk Berger ; Steven Brandt ; James Franek ; Edmund Schuengel ; Mark Koepke ; Julian Schulze ; Thomas Mussenbrock ; Bastien Bruneau ; Erik Johnson ; Trevor Lafleur ; Jean-Paul Booth ; Deborah O'Connell ; Timo Gans ; Ihor Korolov ; Aranka Derzsi ; Zoltán Donkó</i>	
6C-5 - INVESTIGATION OF ION ENERGY DISTRIBUTION FUNCTIONS IN EUV-INDUCED PLASMAS BY ION MASS SPECTROMETRY	417
<i>Tijn H. M. Van De Ven ; Pim Reefman ; Edgar A. Osorio ; Vadim Y. Banine ; Job Beckers</i>	
6D-1 - MO X-PINCH PERFORMANCE FROM A NEW COMPACT AND PORTABLE 1-KA/NS 2-LTD-BRICK DRIVER	418
<i>Roman V Shapovalov ; Rick B. Spielman</i>	
6D-2 - LINE EMISSION FROM MOLYBDENUM HIGH ENERGY DENSITY PLASMA BENCHMARKED WITH EBIT EXPERIMENTS	419
<i>Alla S. Safronova ; Victor L. Kantsyrev ; Emil E. Petkov ; Veronica V. Shlyaptseva ; Ulyana I. Safronova ; Ishor K. Shrestha ; Michael E. Weller ; Kimberly A. Schultz ; Matthew C. Cooper ; Austin Stafford ; Peter Beiersdorfer ; Natalie Hell ; Greg Brown</i>	
6D-3 - RESULTS OF INTERACTION OF XUV LASER PULSES OF NANOSECOND DURATION WITH DIFFICULT-ABLATED-MATERIALS	420
<i>Karel Kolacek ; Jiri Schmidt ; Oleksandr Frolov ; Jaroslav Straus ; Jiri Matejcek ; Monika Vilémova ; Andrey Choukourou ; Koichi Kasuya</i>	
6D-5 - SUB GV/CM TERAHERTZ RADIATION BY COHERENT TRANSITION RADIATION IN ULTRASHORT LASER-SOLID INTERACTION	421
<i>W. J. Ding ; Z. M. Sheng</i>	
6D-7 - SCALING OF KA LINE EMISSION IN Z PINCHES FROM 2-60 KEV	422
<i>David J. Ampleford ; Guillaume P. Loisel ; Stephanie B. Hansen ; Christine A. Coverdale ; Christopher A. Jennings ; Gregory A. Rochau</i>	
6E-1 - MIGRATION OF MULTIPACTOR TRAJECTORIES VIA HIGHER-ORDER MODE PERTURBATIONS	423
<i>S. Rice ; J. Verboncoeur</i>	
6E-2 - PREDICTION OF MULTIPACTOR BREAKDOWN THRESHOLD FOR ANGLED DIELECTRIC GAPS	424
<i>Preston T. Partridge ; Vernon H. Chaplin ; Aimee A. Hubble ; Timothy P. Graves</i>	
6E-3 - FRACTIONAL MODEL OF SPACE CHARGE LIMITED CURRENT	425
<i>L. K. Ang ; Muhammad Zubair</i>	
6E-4 - FAST COMPUTATION OF THRESHOLD OF MULTIPACTOR DISCHARGE IN FERRITE CIRCULATOR	426
<i>Yongdong Li ; Yonggui Zhai ; Hongguang Wang ; Chunliang Liu ; Rui Wang ; Yun Li ; Wanzhao Cui</i>	
6E-5 - ENHANCED STATISTICAL MODELLING FOR MULTIPACTOR SUSCEPTIBILITY CHART	427
<i>Shu Lin ; Yongdong Li ; Hongguang Wang ; Chunliang Liu</i>	

6F-1 - ORIGINS OF ASPECT RATIO DEPENDENT ETCHING IN PLASMA MATERIALS PROCESSING	428
<i>Chad M. Huard ; Mark J. Kushner ; Yiting Zhang ; Saravanapriyan Sriraman ; Jun R. Belen ; Alex Paterson</i>	
6F-3 - PLASMA FORMATION DURING OPERATION OF DIODE (DPAL) AND EXCIMER (XPAL) PUMPED ALKALI LASERS	429
<i>Aram H. Markosyan ; Mark J. Kushner</i>	
6F-4 - CHARACTERIZATION OF A UV DISCHARGE SOURCE FOR PULSED POWER APPLICATIONS	430
<i>S. Feathers ; J. Stephens ; A. Neuber</i>	
6F-5 - COMPARATIVE STUDY OF NONEQUILIBRIUM PLASMA GENERATION AND PLASMA-ASSISTED IGNITION FOR DIFFERENT C2 HYDROCARBONS	431
<i>I. N. Kosarev ; S. V. Kindysheva ; R. M. Momot ; E. A. Plastinin ; N. L. Aleksandrov ; A. Yu. Starikovskiy</i>	
6F-7 - NUMERICAL STUDY ON A COLD ATOMPERIC HELIUM PLASMA JET INTERACTION WITH DIELECTRIC MATERIAL	432
<i>Yashuang Zheng ; Lijun Wang ; Shenli Jia</i>	
7A-1 - DISCHARGE INCEPTION NEAR DIELECTRIC BODIES: THE MEEK CRITERION REVISITED	433
<i>Anna Dubinova ; Casper Rutjes ; Ute Ebert</i>	
7A-2 - AN ELECTRIC FIELD MODEL DEVELOPED FOR MULTI-PHYSICS PLASMA-FLUID SIMULATION FOR ATMOSPHERIC DIELECTRIC BARRIER DISCHARGE ACTUATORS	434
<i>William C. Schneck ; Derrick C. Lam ; A. Leigh Winfrey</i>	
7A-3 - TIME-DEPENDENT COLLISIONAL RADIATIVE MODEL FOR HELIUM	435
<i>Charlotte Boukandou-Mombo ; Jonathan Claustre ; Rhanem Jbilat ; Jean-Pierre Matte ; François Vidal</i>	
7A-4 - REDUCTION OF A COLLISIONAL-RADIATIVE ARGON MODEL COMPARING A MODIFIED BINNING METHOD WITH PRINCIPAL COMPONENT ANALYSIS	436
<i>Aurélie Bellemans ; Alessandro Parente ; Marc Massot ; Thierry Magin</i>	
7A-5 - MODELING AND SIMULATIONS OF HIGH-PRESSURE CATHODIC ARCS WITH ADAPTIVE CARTHESIAN MESH	437
<i>Vladimir I. Kolobov ; Robert R. Arslanbekov ; Valerian A. Nemchinsky</i>	
7A-6 - HIGH ORDER FINITE DIFFERENCE WENO SCHEME FOR IDEAL MAGNETOHYDRODYNAMICS ON CURVILINEAR MESHES	438
<i>Andrew Christlieb ; Xiao Feng ; Yan Jiang</i>	
7A-7 - AN ASYMPTOTIC PRESERVING MAXWELL SOLVER RESULTING IN THE DARWIN LIMIT OF ELECTRODYNAMICS	439
<i>Wei Quo ; Yingda Cheng ; Andrew Christlieb ; Ben Ong</i>	
7A-8 - NUMERICAL SIMULATIONS OF A MICROWAVE DRIVEN LOW PRESSURE PLASMA	440
<i>Daniel Szeremley ; Thomas Mussenbrock ; Ralf Peter Brinkmann ; Denis Eremin ; Felix Mitschker ; Simon Steves ; Peter Awakowicz ; Mark Kushner</i>	
7A-9 - AN EFFICIENT METHOD TO MODEL THERMAL-VELOCITY EFFECTS IN BEAM OPTICS ANALYZER	441
<i>Thuc Bui ; R. Lawrence Ives ; Mike Read ; Chris McKenzie</i>	
7B-1 - RECENT ADVANCES IN THEORY AND EXPERIMENT OF METAMATERIAL-BASED HIGH POWER RADIATION SOURCES	442
<i>Zhaoyun Duan ; Yanshuai Wang ; Xianfeng Tang ; Zhanliang Wang ; Yubin Gong</i>	
7B-2 - REVISITING THE RELATIVISTIC A6 MAGNETRON	443
<i>Anatoli S. Shlapakovski ; John G Leopold ; Arkady Sayapin ; Yakov E. Krasik</i>	
7C-1 - A SMOOTH TRANSITION FROM FIELD EMISSION TO A SELF-SUSTAINED PLASMA IN MICROSCALE ELECTRODE GAPS AT ATMOSPHERIC PRESSURE	444
<i>Mihai A. Bilici ; Calvin R. Boyle ; R. Mohan Sankaran ; John R. Haase ; David B. Go</i>	
7C-2 - FIELD EMISSION EXCITATION OF A HIGH PRESSURE NOBLE GAS	445
<i>Nathaniel P. Lockwood ; Greg A. Pitz ; Steven B. Fairchild ; Matthew A. Lange</i>	
7C-3 - DISCUSSION ON THE INFLUENCES OF TOWNSEND IONIZATION COEFFICIENT α AND SECONDARY ELECTRON EMISSION COEFFICIENT γ ON THE CHARACTERISTICS OF DBD	446
<i>Congwei Yao ; Zhengshi Chang ; Hengchi Ma ; Ping Li ; Guimin Xu ; Haibao Mu ; Guan-Jun Zhang</i>	
7C-4 - SUPPRESSION OF LASER BREAKDOWN BY PULSED NONEQUILIBRIUM NS DISCHARGE	447
<i>I. E. Semenov ; A. Yu. Starikovskiy ; M. N. Shneider</i>	
7C-5 - ACCURATE QUANTIFICATION OF HYDROXYL RADICALS PRODUCED BY PLASMA USING DISODIUM TEREPHTHALATE SOLUTION	448
<i>Daichi Shiraki ; Nozomi Takeuchi</i>	
7C-6 - PROPERTIES OF ULTRAVIOLET AND NEAR-INFRARED LASER INDUCED AIR PLASMAS AND THEIR APPLICATION FOR SPARK IGNITION	449
<i>Ciprian Dumitrache ; Christopher M. Limbach ; Azer P. Yalin</i>	
7C-7 - STUDY OF NITROGEN REACTION KINETICS IN AN INDUSTRIAL OZONE GENERATOR	450
<i>Daniel E. Guerrero ; Matthew T. Feurer ; Alfred Freilich ; Jose L. Lopez ; Luca Ramoino ; Sieghard Seyrling</i>	
7D-1 - AZIMUTHAL CURRENT DENSITY DISTRIBUTION RESULTING FROM A POWER FEED VACUUM GAP IN METALLIC LINER EXPERIMENTS AT 1 MA	451
<i>S. C. Bott-Suzuki ; S. W. Cordaro ; L. S. Caballero Bendixsen ; Levon Atoyan ; Tom Byvank ; William Potter ; B. R. Kusse ; J. B. Greenly ; D. A. Hammer ; C. A. Jennings</i>	
7D-4 - LABORATORY PLASMA JET DISRUPTION ABOVE A CRITICAL AXIAL MAGNETIC FIELD	452
<i>Tom Byvank ; Nathaniel Hamlin ; Adam D. Cahill ; Charles E. Seyler ; Bruce R. Kusse</i>	
7D-5 - THE EFFECT OF MAGNETIC FIELD ORIENTATION ON THE STRUCTURE AND INTERACTION OF MAGNETISED BOW SHOCKS IN PULSED-POWER DRIVEN EXPERIMENTS	453
<i>G. C. Burdiak ; S. V. Lebedev ; T. Clayson ; J. D. Hare ; L. G. Suttle ; F. Suzuki-Vidal ; J. P. Chittenden ; D. C. Garcia ; N. Niasse ; T. Lane</i>	
7D-6 - MIXED DOUBLE PLANAR WIRE ARRAYS ON MICHIGAN'S LTD GENERATOR	454
<i>V. L. Kantsyrev ; A. S. Safronova ; V. V. Shlyaptseva ; I. Shrestha ; M. Schmidt-Petersen ; A. Stafford ; M. Lorange ; M. Cooper ; A. M. Steiner ; D. A. Yager-Elorriaga ; N. M. Jordan ; R. M. Gilgenbach ; A. S. Chuvatin</i>	
7E-1 - STEAM PLASMA METHANE REFORMING	455
<i>Milan Hrabovský ; Michal Hlina ; Vladimír Kopecký ; Alan Maslani ; Anton Serov</i>	
7E-2 - ROLES OF METALIONS AND PLASMA RADIATION IN THE INTERACTIONS BETWEEN A CAPILLARY DISCHARGE PLASMA AND PROPELLANTS	456
<i>Xingwen Li ; Yuhua Hang ; Jian Wu ; Shenli Jia ; Anthony B. Murphy</i>	
7E-3 - STUDY OF PLASMA PROPERTIES IN PULSED PLASMA SPRAYING OF LIQUID FEEDSTOCK	457
<i>F. Mavier ; V. Rat ; M. Bienia ; M. Lejeune ; J. F. Coudert</i>	
7E-4 - DESIGN ORIENTED MODELLING FOR THE SYNTHESIS OF COPPER NANOPARTICLES BY A RADIO-FREQUENCY INDUCTION THERMAL PLASMA	458
<i>Simone Bianconi ; Marco Boselli ; Vittorio Colombo ; Matteo Gherardi</i>	
7E-5 - A PHYSICALLY BASED MODEL FOR THERMAL PLASMA ARC ATTACHMENT ON A W-THO2 CATHODE	459
<i>Isabelle Choquet ; Alireza Javidi Shirvan ; Hakan Nilsson</i>	
7E-6 - INVESTIGATION OF MIXING OF PLASMA SPECIES IN ARGON-WATER ARC DISCHARGE	460
<i>Jiri Jeništa ; Hidemasa Takana ; Satoshi Uehara ; Hideya Nishiyama ; Anthony B. Murphy ; Milada Bartlová ; Vladimír Aubrecht</i>	
7E-7 - DEVELOPMENT OF WALL-STABILIZED ARC OF WATER-COOLED VORTEX TYPE WITH SMALL CALIBER FOR HIGH INTENSE RADIATION	461
<i>Toru Iwao ; Yuta Shimizu ; Kazuki Sone ; Yoshifumi Maeda ; Shinji Yamamoto</i>	
7E-8 - EXPERIMENTS AND SIMULATION RESEARCH OF VACUUM ARC WITH TMF-AMF CONTACT	462
<i>Lijun Wang ; Jie Deng ; Kang Qin ; Shenli Jia ; Zongqian Shi</i>	
7E-9 - EXPERIMENTAL INVESTIGATION OF PLASMA IN ARC-ANODE AREA	463
<i>Peter Ondáč ; Alan Mašláni ; Milan Hrabovský</i>	
7F-1 - THE PATH TO A TRANSPORTABLE IONOSPHERIC HEATER	464
<i>Andreas A. Neuber ; Daniel L. Mauch ; Vincent E. Meyers ; Benedikt Esser ; Ravi P. Joshi ; James C. Dickens ; John J. Mankowski ; Thomas M. Antonsen</i>	
7F-2 - HIGH-VOLTAGE, HIGH REPETITION RATE NANOSECOND PULSE GENERATOR FOR HIGH-PRESSURE NON-THERMAL PLASMA GENERATION	465
<i>M. D. G. Evans ; J. M. Berthorson ; S. Coulombe</i>	
7F-4 - MICROWAVE PULSE COMPRESSION EXPERIMENTS IN A WAVEGUIDE CAVITY WITH RF BREAKDOWN TRIGGERED SWITCH	466
<i>S. P. Savaidis ; S. A. Mútilneos ; Z. C. Ioannidis ; N. A. Stathopoulos</i>	
7F-5 - LIMITATIONS OF BULK SIC PHOTOCONDUCTIVE SEMICONDUCTOR SWITCHES, AND EVALUATION OF PIN SIC PHOTOCONDUCTIVE SEMICONDUCTOR SWITCHES	467
<i>Daniel L. Mauch ; Vincent E. Meyers ; Ravi P. Joshi ; Andreas A. Neuber ; James C. Dickens</i>	
7F-6 - OPTICAL NONLINEAR ABSORPTION CHARACTERIZATION OF BULK SEMI-INSULATING 4H-SIC AT AND ABOVE THE BAND EDGE	468
<i>Vincent Meyers ; Daniel Mauch ; John Mankowski ; James Dickens ; R. Joshi ; Andreas Neuber</i>	

7F-7 - BREAKDOWN CHARACTERISTICS OF A SILICON CARBIDE PHOTOCONDUCTIVE SEMICONDUCTOR SWITCH TRIGGERED SPARK GAP	469
<i>Takeshi Ihara ; Daniel Mauch ; James Dickens ; Andreas Neuber</i>	
7F-8 - REPLACEABLE ELECTRODES TRIGGERED VACUUM SWITCH AND ITS APPLICATION IN LIGHTNING CURRENT COMPONENT A GENERATOR.....	470
<i>Jinru Sun ; Xueling Yao ; Wenjun Xu ; Jingliang Chen</i>	
Author Index	