

2015 IEEE International Conference on Plasma Sciences

(ICOPS 2015)

**Antalya, Turkey
24-28 May 2015**



IEEE Catalog Number: CFP15ICO-POD
ISBN: 978-1-4799-6975-3

TABLE OF CONTENTS

1A-1 - WEAK TURBULENCE IN RADIATION BELTS	1
<i>Ganguli, G. ; Crabtree, C. ; Mithaiwala, M. ; Rudakov, L.</i>	
1A-2 - ABSORPTION AND EMISSION SPECTROSCOPY REVEALING ASTROPHYSICAL PLASMA PROPERTIES IN AT-PARAMETER LABORATORY EXPERIMENTAL SIMULATIONS	2
<i>Koepke, M.E. ; Rochau, G.A. ; Loisel, G.P. ; Bailey, J.E. ; Liedahl, D. ; Nagayama, T. ; Mancini, R. ; Lane, T.S. ; Flaugh, M.K.</i>	
1A-3 - WHISTLER WAVES IN MAGNETOSHEATH WITH OBSERVED FLAT TOP DISTRIBUTIONS	3
<i>Qureshi, M.N.S.</i>	
1A-4 - IONSPHERIC MODIFICATIONS USING MOBILE, HIGH POWER HF TRANSMITTERS BASED ON TPM TECHNOLOGY	4
<i>Papadopoulos, K.</i>	
1A-5 - ASYMPTOTIC THEORY OF SOLAR WIND ELECTRONS	5
<i>Yoon, Peter H.</i>	
1B-1 - DRAMATIC REDUCTION OF MAGNETO-RAYLEIGH TAYLOR INSTABILITY GROWTH IN MAGNETICALLY DRIVEN Z-PINCH LINERS	6
<i>Peterson, K.J. ; Awe, T.J. ; Rosenthal, S.E. ; McBride, R.D. ; Sinars, D.B. ; Yu, E.P. ; Robertson, G.K. ; Cuneo, M.E. ; Savage, M.E. ; Knapp, P.F. ; Schmit, P.F. ; Slutz, S.A. ; Blue, B.E. ; Schroen, D. ; Tomlinson, K.</i>	
1B-2 - EXPERIMENTAL PROGRESS IN MAGNETIZED LINER INERTIAL FUSION (MAGLIF)	7
<i>Gomez, M.R. ; Slutz, S.A. ; Sefkow, A.B. ; Geissel, M. ; Harvey-Thompson, A.J. ; Peterson, K.J. ; Hansen, S.B. ; Hahn, K.D. ; Knapp, P.F. ; Schmit, P.F. ; Ruiz, C.L. ; Sinars, D.B. ; Awe, T.J. ; Harding, E.C. ; Jennings, C.A. ; Smith, I.C. ; Rovang, D.C. ; Chandler, G.A. ; Cuneo, M.E. ; Lamppa, D.C. ; Martin, M.R. ; McBride, R.D. ; Porter, J.L. ; Rochau, G.A.</i>	
1B-4 - STOPPING POWER AND TRANSPORT OF MULTI-KEV ELECTRONS INTO PRE-COMPRESSED TARGET	8
<i>Rezaei, Somayeh ; Farahbod, Amir H. ; Jafari, Mohammad J.</i>	
1B-5 - REDUCTION OF THE GROWTH RATE OF RAYLEIGH-TAYLOR INSTABILITY IN LASER ABLATION EXPERIMENTS	9
<i>Aliyari, Elahe ; Sobhanian, Samad</i>	
1B-6 - ON THE COMBINING SCHEMES FOR MAGNETO-INERTIAL FUSION SYSTEMS WITH HYBRID DRIVERS	10
<i>Ryzhkov, Sergei V. ; Kuzenov, Victor V. ; Frolov, Pavel A.</i>	
1B-7 - DETERMINATION OF THE ELECTRIC FIELD IN A TWO-DIMENSIONAL MODEL OF AN ELECTROTHERMAL PLASMA SOURCE	11
<i>Esmond, Micah J. ; Winfrey, A. Leigh</i>	
1C-1 - THZ BWO BASED ON PHOTONIC CRYSTAL CORRUGATED WAVEGUIDE	12
<i>Letizia, Rosa ; Mineo, Mauro ; Paoloni, Claudio</i>	
1C-2 - GOL-PET EXPERIMENTS ON THZ-EMISSION FROM DENSE PLASMA AT RELATIVISTIC ELECTRON BEAM RELAXATION	13
<i>Arzhanikov, A.V. ; Burdakov, A.V. ; Burmasov, V.S. ; Gavrilenko, D.E. ; Ivanov, I.A. ; Kasatov, A.A. ; Kuznetsov, S.A. ; Makarov, M.A. ; Mekler, K.I. ; Polosatkin, S.V. ; Postupaev, V.V. ; Rovenskikh, A.F. ; Snitsky, S.L. ; Sklyarov, V.F. ; Stepanov, V.D. ; Timofeev, I.V. ; Vyacheslavov, L.N.</i>	
1C-3 - EXPERIMENTAL INVESTIGATIONS OF 263 GHZ/1 KW GYROTRON BASED SYSTEM FOR DIAGNOSTIC OF VARIOUS MEDIA	14
<i>Glyavin, Mikhail Yu. ; Morozkin, Mikhail V. ; Tsvetkov, Alexander I. ; Lubyako, Lev V.</i>	
1C-4 - TERAHERTZ POLARIMETRIC EMISSION AND DETECTION USING A CUBIC CRYSTAL	15
<i>Gaborit, G. ; Bernier, M. ; Biciunas, A. ; Coutaz, J.-L.</i>	
1C-5 - THZ BACKWARD-WAVE OSCILLATORS FOR PLASMA DIAGNOSTIC IN NUCLEAR FUSION	16
<i>Paoloni, Claudio ; Yue, Lingna ; Tang, Xiaopin ; Zhang, Fuzhi ; Popovic, Branko ; Himes, Logan ; Barchfeld, Robert ; Gamzina, Diana ; Letizia, Rosa ; Mineo, Mauro ; Luhmann, Neville C.</i>	
1C-6 - MODELING OF A WAVEGUIDE MICROWAVE PULSE COMPRESSION SYSTEM USING TRANSMISSION LINE THEORY AND EQUIVALENT CIRCUITS	17
<i>Savaidis, S.P. ; Mitilinos, S.A. ; Stathopoulos, N.A. ; Ioannidis, Z.C.</i>	
1C-7 - METAMATERIAL-BASED PLANAR THZ SOURCES	18
<i>Duan, Zhaoyun ; Tang, Xianfeng ; Wang, Yanshuai ; Gong, Yubin ; Chen, Min</i>	
1D-1 - REFURBISHMENT AND ENHANCEMENT OF THE SATURN ACCELERATOR	19
<i>Struve, Kenneth W. ; Joseph, Nathan R. ; Thomas, Raymond D. ; Harper-Slaboszewicz, Victor</i>	
1D-2 - LOAD CURRENT PULSE SHAPING ON A NANOSECOND PFL-BASED ACCELERATOR USING DYNAMIC LCM TECHNIQUE	20
<i>Chuvatin, A.S. ; d'Almeida, T. ; Lassalle, F. ; Kantsyrev, V.L. ; Safronova, A.S. ; Shrestha, I. ; Shlyaptseva, V.V. ; Stafford, A. ; Weller, M.E.</i>	
1D-4 - ACCELERATOR URT-1M-300 FOR MOBILE INSTALLATION	21
<i>Sokovnin, S.Yu. ; Balezin, M.E. ; Scherbintin, S.V.</i>	
1D-5 - STUDY OF HIGH-CURRENT ARCS AND ITS INTERACTION WITH SIDE WALLS AND LAYERS	22
<i>Franke, Steffen ; Methling, Ralf ; Khakpour, Alireza ; Gorchakov, Sergej ; Bruser, Volker ; Uhrlandt, Dirk</i>	
1D-6 - X-RAY AND ENERGETIC ION GENERATIONS IN THE DIVERGENT GAS-PUFF Z PINCH	23
<i>Takasugi, Keiichi ; Nishio, Mineuki</i>	

1E-3 - SIMULATION OF SPOTS ON CU-CR CATHODES OF VACUUM ARCS AND OF THEIR STABILITY	24
<i>Benilov, Mikhail S. ; Cunha, Mario D. ; Hartmann, Werner ; Kosse, Sylvio ; Wenzel, Norbert ; Lawall, Andreas</i>	
1E-4 - DEVELOPMENT OF LOW GRADE COAL GASIFICATION TECHNOLOGY BY MEANS OF A HIGH POWER MICROWAVE STEAM PLASMA TORCH	25
<i>Lho, T. ; Shin, D-H ; Cho, C-H ; Ma, S-H ; Hong, Y-C</i>	
1E-5 - THE ROLE OF PHOTO-IONIZATION AND RESIDUAL ELECTRONS IN ATMOSPHERIC PRESSURE NON-EQUILIBRIUM PLASMA JETS	26
<i>Wu, S. ; Lu, X.</i>	
1E-6 - PLASMA PROPERTIES OF THE CYBELE NEGATIVE ION SOURCE FOR FUSION APPLICATIONS: PIC SIMULATIONS AND EXPERIMENTS	27
<i>Boeuf, J.P. ; Fubiani, G. ; Bechu, S. ; Garibaldi, P. ; Grand, C. ; Simonin, A.</i>	
1E-7 - EXOTIC PLASMA BULLETS INDUCED BY RESIDUAL ELECTRON CONTROL	28
<i>Xian, Y. ; Lu, X.</i>	
1E-8 - DENSE MEDIUM PLASMA TECHNOLOGY FOR SYNTHESIS CARBON NANOMATERIALS	29
<i>Cokeliler, Dilek ; Manolache, Sorin ; Denes, Ferencz S. ; Gunesakaran, Sundaram</i>	
1P-1 - CAN THE NEGATIVE GLOW PLASMA HAVE A NEGATIVE CHARGE?	30
<i>Bogdanov, Eugene A. ; Kudryavtsev, Anatoly A.</i>	
1P-4 - THE INFLUENCE OF ANNEALING ON FLUORENE-TYPE THIN FILM PRODUCED BY BIPHENYL AND METHANE RF PLASMA SYSTEM	31
<i>Mansuroglu, Dogan ; Bilikmen, Sinan</i>	
1P-6 - CHARACTERISTICS OF AN ARGON DC GLOW DISCHARGE AND EFFECT OF CATHODE MATERIAL ON PASCHEN CURVE AND CATHODE TEMPERATURE	32
<i>Satir, Mert ; Celik, Murat</i>	
1P-7 - CROSS SECTIONS FOR ELECTRON COLLISIONS WITH TETRAFLUOROETHANE ($C_2H_2F_4$)	33
<i>Sasic, Olivera ; Dupljanin, Snjezana ; Radenovic-Radmilovic, Marija ; Djuko, Sasa ; Petrovic, Zoran Lj. ; de Urquijo, Jaime</i>	
1P-9 - STUDY ON THE MEMRISTIVE NATURE OF DIELECTRIC BARRIER DISCHARGE	34
<i>Luo, Ling ; Dai, Dong ; Han, Yongxia ; Li, Licheng ; Shao, Tao</i>	
1P-12 - CURRENT FILAMENTATION IN A LONG SPARK IN AIR	35
<i>Agafonov, A.V. ; Oginov, A.V. ; Rodionov, A.A. ; Shpakov, K.V.</i>	
1P-13 - MULTIPACTOR BREAKDOWN MODELLING USING AN AVERAGED VERSION OF FURMAN'S SEY MODEL	36
<i>Rice, S. ; Verboncoeur, J.</i>	
1P-14 - GLOBAL MODEL CAPABILITY STUDY OF EEDF MODIFICATION OF RARE GAS METASTABLE LASER REACTION KINETICS	37
<i>Parsey, Guy ; Verboncoeur, John ; Christlieb, Andrew ; Guclu, Yaman</i>	
1P-16 - A NUMERICAL METHOD FOR THE CALCULATION OF THE MAGNETIC DIFFUSION EQUATION IN WIRE ARRAY Z-PINCH	38
<i>Shi, Yuanjie ; Shi, Zongqian ; Wang, Kun ; Wu, Jian ; Jia, Shenli ; Wang, Lijun</i>	
1P-17 - CONFINEMENT OF HIGHLY ENERGETIC ELECTRON BEAMS IN LOW PRESSURE CAPACITIVE DISCHARGES	39
<i>Wilczek, S. ; Trieschmann, J. ; Schulze, J. ; Schuengel, E. ; Brinkmann, R.P. ; Derzsi, A. ; Korolov, I. ; Donko, Z. ; Mussenbrock, T.</i>	
1P-18 - NUMERICAL STUDY ON HEATING GAS IN ATMOSPHERIC PRESSURE HELIUM DISCHARGE	40
<i>Eliseev, Stepan I. ; Kudryavtsev, Anatoly A. ; Stepanova, Olga M.</i>	
1P-19 - 2D NUMERICAL RESEARCH ON NEEDLE-TO-PLATE DISCHARGE IN ATMOSPHERIC PRESSURE HELIUM AND AIR MIXTURE	41
<i>Yao, Congwei ; Chang, Zhengshi ; Li, Ping ; Xu, Guimin ; Mu, Haibao ; Zhang, Guan-Jun</i>	
1P-20 - A NEW FULLY IMPLICIT FINITE-DIFFERENCE ALGORITHM FOR SIMULATION OF NONLINEAR ELECTRON HEAT CONDUCTION IN HIGH-TEMPERATURE PLASMAS INCLUDING BREMSSTRAHLUNG EMISSION	42
<i>Habibi, Mehdi ; Oloumi, Mohsen ; Khani, Hasan Hossein ; Magidi, Saeid ; Pouraram, Fatemeh</i>	
1P-21 - SEMI-CLASSICAL PARTICLE-IN-CELL SIMULATIONS OF QUANTUM SYSTEMS	43
<i>Dirkmann, Sven ; Mussenbrock, Thomas</i>	
1P-23 - DIFFUSE AND SPOT MODE OF CATHODE ARC ATTACHMENTS IN A AT MOSPHERIC MAGNETICALLY ROTATING ARGON ARC	44
<i>Chen, T. ; Zhang, X.-N. ; Wang, C. ; Liao, M.-R. ; Zhu, C.-A. ; Xia, W.-D. ; Ding, L.</i>	
1P-24 - PARTICLE-IN-CELL SIMULATION OF HIGH VOLTAGE BREAKDOWN OF LARGE GAP IN VACUUM	45
<i>Li, Yongdong ; Jiang, Ming ; Liu, Chunliang ; Cheng, Jie ; Zhao, Liang ; Shao, Hao ; Su, Jiancang</i>	
1P-25 - SIMULATION OF ION REDISTRIBUTION IN A VACUUM CHAMBER DURING MAGNETRON SPUTTERING OF COATINGS	46
<i>Saifullin, Elmira R.</i>	
1P-26 - MULTI-DIMENSIONAL KINETIC SIMULATIONS OF INSTABILITIES AND TRANSPORT IN EXB DEVICES	47
<i>Carlsson, Johan A. ; Kaganovich, Igor D. ; Khrabrov, Alexander V. ; Smolyakov, Andrei ; Sydorenko, Dmytro ; Raitses, Yevgeny</i>	
1P-27 - ELECTRO-DYNAMIC SPRAYING OF PLASMA BODIES ON PROTECTED SURFACES	48
<i>Chizhko, Oleg</i>	
1P-28 - VALIDATION AND PARALLELIZATION OF THE PARTICLE IN CELL/MONTE CARLO COLLISION NUMERICAL CODE FOR THE RF DISCHARGE SIMULATIONS	49
<i>Sarikaya, Cemre Kusoglu ; Rafatov, Ismail ; Cakir, Serhat</i>	

1P-29 - MODELING ELECTROMAGNETIC EFFECTS IN LARGE-AREA CAPACITIVELY COUPLED DISCHARGES.....	50
<i>Bae, Hyowon ; Hong, Jin Woo ; Lee, Hae June ; Lin, Ming-Chieh</i>	
1P-30 - NUMERICAL SIMULATION OF SPHERICAL PLASMA FOCUS DEVICE USING LEE MODEL	51
<i>Ismail, F.D. ; Ali, J. ; Saktioto, T.</i>	
1P-31 - RECENT DEVELOPMENT FOR A PLASMA DIAGNOSTIC WITH OPTICALLY TRAPPED MICROPARTICLES.....	52
<i>Schneider, Viktor ; Kersten, Holger</i>	
1P-32 - ELECTRICAL MEASUREMENTS FOR THE CONTROL OF NANOPARTICLE GROWTH IN AN ACETYLENE PLASMA	53
<i>von Wahl, Erik ; Kersten, Holger ; Hinz, Alexander ; Strunskus, Thomas</i>	
1P-33 - INFLUENCE OF INTERPARTICLE INTERACTION ANISOTROPY ON STRUCTURAL ND KINETIC PROPERTIES OF THE DUST SYSTEM IN PLASMA	54
<i>Lisina, Irina I. ; Vaulina, Olga S.</i>	
1P-34 - ON THE POSSIBILITY OF MEASURING THE FORCES OF ANISOTROPIC INTERACTION BETWEEN MACROPARTICLES IN A PLASMA WITH ION FLOW	55
<i>Lisin, Evgeny A. ; Vaulina, Olga S.</i>	
1P-35 - COEXISTENCE OF DA SHOCK AND SOLITARY WAVES IN DUSTY PLASMAS WITH TWO-TEMPERATURE IONS	56
<i>Hasin, K. ; Masud, M.M. ; Bhuiyan, A.H. ; Mamun, A.A.</i>	
1P-36 - TIME DEPENDENT NONPLANAR DIA SHOCK WAVES IN MULTI-COMPONENT DUSTY PLASMAS WITH DISTINCT TEMPERATURE SUPERTHERMAL ELECTRONS.....	57
<i>Masud, M.M.</i>	
1P-37 - MEASURING THE CHARGE OF MICROPARTICLES IN THE RADIOFREQUENCY PLASMA SHEATH BY COULOMB INTERACTION	58
<i>Trienekens, Dirk J.M. ; Beckers, J. ; Kroesen, Gerrit M.W.</i>	
1P-38 - DIELECTRIC FUNCTION OF DENSE PLASMAS AND SUM RULES	59
<i>Arkhipov, Yury V. ; Askaruly, Abdadiil ; Ashikbayeva, Assel B. ; Tkachenko, Igor M.</i>	
1P-39 - INFLUENCE OF POLARIZATION EFFECTS ON CHARGING OF DUST PARTICLES IN A PLASMA	60
<i>Davletov, A.E. ; Yerimbetova, L.T. ; Kissan, A.</i>	
1P-40 - AMPLIFICATION OF OUTPUT MICROWAVE POWER IN LOW-VOLTAGE VIRTUAL CATHODE OSCILLATOR UNDER EXTERNAL FORCE	61
<i>Frolov, Nikita S.</i>	
1P-42 - A TUNABLE MAGNETICALLY INSULATED TRANSMISSION LINE OSCILLATOR	62
<i>Fan, Yu-Wei ; Wang, Xiao-Yu ; He, Liang ; Zhong, Hui-Huang ; Zhang, Jian-De</i>	
1P-43 - SIMULATION INVESTIGATION OF A HIGH-EFFICIENCY X-BAND MAGNETICALLY INSULATED LINE OSCILLATOR	63
<i>Wang, Xiao-Yu ; Fan, Yu-Wei</i>	
1P-44 - STABILIZED OPERATION OF A MICROWAVE COMPRESSOR DRIVEN BY RELATIVISTIC S-BAND MAGNETRON	64
<i>Sayapin, A. ; Levin, A.L. ; Krasik, Ya.E. ; Dai, U.</i>	
1P-45 - RELATIVISTIC VIRCATOR WITH AN ELECTROMAGNETIC BANDGAP MEDIUM	65
<i>Elfregani, Ahmed ; Atmatzakis, Georgios ; Yurt, Sabahattin C. ; Christodoulou, Christos G. ; Schamiloglu, Edl</i>	
1P-49 - SPECTROSCOPY OF THE PLASMA FORMED IN THE VICINITY OF THE STRONG SHOCK WAVE IMPLOSION	66
<i>Antonov, O. ; Efimov, S. ; Gurovich, V.Tz. ; Krasik, Ya.E.</i>	
1P-50 - SHOCK WAVE IMPLOSION IN WATER WITH DIFFERENT BOUNDARY CONDITIONS	67
<i>Yanuka, D. ; Shafer, D. ; Krasik, Ya.</i>	
1P-52 - ANALYSIS OF WIRE EXPLOSION SYSTEM FOR GENERATING STRONG SHOCK WAVES IN WATER	68
<i>Chung, Kyoung-Jae ; Lee, Kern ; Hwang, Y.S. ; Kim, Doek-Kyu</i>	
1P-53 - SIMPLE MIXED EQUATION-OF-STATE MODEL OF NONIDEAL PLASMA FOR SIMULATION OF UNDERWATER WIRE EXPLOSION	69
<i>Kim, Deok-Kyu ; Baek, Sunghyun ; Jung, Jinkyung</i>	
1P-54 - DIFFERENT BREAKDOWN MODES OF ELECTRICAL EXPLoding ALUMINUM WIRES IN AIR	70
<i>Wu, Jian ; Li, Xingwen ; Yang, Zefeng ; Li, Yang ; Wang, Kun ; Shi, Zongqian ; Jia, Shenli ; Qiu, Aici</i>	
1P-55 - RESULT OF CURRENT FLOW WITH A LINEAR DENSITY OF 1-3 MA/CM AND DURATION OF 100 NS ACROSS STAINLESS STEEL ELECTRODES	71
<i>Branitskii, Alexandr V. ; Grabovskii, Eugeny V. ; Laukhin, Jan N. ; Oleinik, Georgy M. ; Sasorov, Pavel V. ; Frolov, Igor N. ; Tkachenko, Svetlana I. ; Khiryanova, Aleksandra I.</i>	
1P-58 - MODELING OF PLASMA CONDITIONS AND SPECTRAL PROPERTIES OF RADIATION-HEATED MATTER.....	72
<i>Golovkin, I.E. ; MacFarlane, J.J. ; Golovkina, V.N. ; Nagayama, T. ; Bailey, J.E. ; Rochau, G.A.</i>	
1P-59 - VISRAD, 3-D TARGET DESIGN AND RADIATION SIMULATION CODE	73
<i>Golovkina, V.N. ; Golovkin, I.E. ; MacFarlane, J.J.</i>	
1P-62 - EFFECT OF THE AXIAL MAGNETIC FIELD ON A RADIATING Z-PINCH PLASMA	74
<i>Bakht, Rina B. ; Roussikh, Alexander G. ; Zhigalin, Alexander S. ; Labetskaya, Nataly A. ; Chaikovskii, Stanislav A. ; Oreshkin, Vladimir I.</i>	

1P-63 - EXPERIMENTAL AND NUMERICAL INVESTIGATIONS ON THE FAST ELECTRICAL EXPLOSION OF SINGLE ALUMINUM WIRE IN VACUUM	75
Wang, Kun ; Shi, Zongqian ; Shi, Yuanjie ; Wu, Jian ; Jia, Shenli ; Wang, Lijun	
1P-64 - STUDY ON ELECTRICAL EXPLOSION OF BARE AND INSULATION COATED TUNGSTEN WIRES.....	76
Shi, H.T. ; Zou, X.B. ; Wang, X.X.	
1P-66 - NEON AND ARGON MULTI-NOZZLE GAS PUFF Z-PINCH STUDIES ON COBRA	77
Qi, N. ; De Grouchy, P. ; Potter, W. ; Banasek, J. ; Engelbrecht, J. ; Atoyan, L. ; Cahill, A.D. ; Greenly, J.B. ; Hoyt, C.L. ; Pikuz, S.A. ; Shelkovchenko, T.A. ; Hammer, D.A. ; Kusse, B.R. ; Chong, Y.K. ; Giuliani, J. ; Ouart, N. ; Thornhill, W. ; Kroupp, E. ; Fisher, A. ; Maron, Y.	
1P-68 - STUDY OF Z-PINCH X-RAY EMISSION IN THE IMPLOSION OF FIBER ARRAYS AT THE ANGARA-5-1 FACILITY	78
Aleksandrov, V.V. ; Grabovskiy, E.V. ; Gritsuk, A.N. ; Malutin, I.G. ; Mitrofanov, K.N. ; Oleinik, G.M. ; Volkov, G.S. ; Shevelko, A.P.	
1P-69 - EXPERIMENTAL INVESTIGATION OF THE EFFECTS OF AN AXIAL MAGNETIC FIELD ON THE MAGNETO RAYLEIGH-TAYLOR INSTABILITY IN ABLATING PLANAR FOIL PLASMAS	79
Yager-Elorriaga, D.A. ; Patel, S.G. ; Steiner, A.M. ; Jordan, N.M. ; Lau, Y.Y. ; Weis, M. ; Gilgenbach, R.M.	
1P-70 - STUDY OF THE HYBRID X-PINCH WITH AN EXTERNAL AXIAL MAGNETIC FIELD	80
Pikuz, Sergey A. ; Shelkovchenko, Tatiana A. ; Greenly, John B. ; Atoyan, Levon ; Hammer, David A. ; Tilikin, Ivan N. ; Mingaleev, Albert R. ; Ivanenkov, Georgiy V. ; Agafonov, Alexey V.	
1P-71 - STUDIES OF CYLINDRICAL LINER Z-PINCHES AT 1 MA ON COBRA	81
Atoyan, L. ; Byvank, T. ; Greenly, J.B. ; Pikuz, S.A. ; Shelkovchenko, T.A. ; Kusse, B.R. ; Hammer, D.A.	
1P-80 - EFFECT OF PLASMA CHANNEL PARAMETERS ON THE SHOCK-WAVE DYNAMICS AT BLAST-HOLE ELECTRO-FRACTURE OF CONCRETE LUMPS.....	82
Kuznetsova, Natalia S. ; Yudin, Artem S.	
1P-81 - SIMULATION OF LEADER INCEPTION FROM OVERHEAD TRANSMISSION LINES UNDER LIGHTNING BACKGROUND	83
Wei, Bengang ; Fu, Zhengcui	
1P-82 - CIRCUIT MODELS FOR BAND PASS FILTER OF RF FRONT-END SYSTEM DAMAGED BY HIGH POWER ELECTROMAGNETIC PULSE	84
Lee, Kun-A ; Cho, Young-Maan ; Ko, Kwang-Cheol	
1P-83 - ELEMENTAL COMPOSITION AND ELECTRIC PROPERTIES OF POLYCRYSTALLINE ALUMINA CERAMIC AFTER METAL ION BEAM TREATMENT	85
Oks, Efim M. ; Bugaev, Alexey S. ; Nikolaev, Alexey G. ; Savkin, Konstantin P. ; Yushkov, Georgy Yu. ; Shandrikov, Maxim V. ; Tuynkov, Andrey V.	
1P-84 - SCATTERING CROSS SECTIONS AND ELECTRON TRANSPORT COEFFICIENTS FOR ELECTRONS IN CF₃I.....	86
Miric, J. ; Bosnjakovic, D. ; Sasic, O. ; de Urquijo, J. ; Dujko, S. ; Petrovic, Z.Lj.	
1P-85 - NONSTATIONARY FLUID DYNAMICS IN INHOMOGENEOUS ELECTRIC FIELD	87
Vdovin, Vladimir A. ; Kornienko, Vladimir N. ; Andreev, Valeriy G.	
1P-86 - INITIATION OF BREAKDOWN IN STRINGS OF BUBBLES IMMERSED IN TRANSFORMER OIL: PASCHEN CURVES AND PROXIMITY OF BUBBLES	88
Babaeva, Natalia Yu. ; Tereshonok, Dmitry V. ; Naidis, George V.	
1P-87 - SURFACE MORPHOLOGY AND CHEMICAL CHARACTERISTICS OF GIS EPOXY INSULATORS UNDER MICROSECOND-PULSE EXCITATION	89
Liu, Xiong ; Shao, Tao ; Zhang, Cheng ; Wang, Ruixue	
1P-88 - STUDY ON ATMOSPHERIC-PRESSURE DIFFUSE DISCHARGE WITH A DOUBLE-PINS-TO-PLANE GAP IN REPETITIVE MODES	90
Gu, Jianwei ; Zhang, Cheng ; Wang, Ruixue ; Shao, Tao	
1P-89 - STRONG DISCHARGE PROCESSES BY ATMOSPHERIC PLASMA JET ARRAY WITHOUT EXTERNAL GROUND ELECTRODE	91
Kim, Jae Young ; Lee, Sun Young ; Shin, Mihyang ; Moon, Dae Won ; Tae, Heung-Sik	
1P-90 - LARGE VOLUME AIR PLASMA FOR FRUIT STERILIZATION	92
Mohamed, Abdel-Aleam H. ; Shariff, Samir M.A.I. ; Almashraqi, Ahmed A. ; Benghanem, Mohamed ; Basher, Abdulrahman H. ; Ouf, Salama A.	
1P-91 - DEVELOPPMENT OF A HYBRID MPI/OPENMP MASSIVELY PARALLEL 3D PARTICLE-IN-CELL MODEL OF A MAGNETIZED PLASMA SOURCE.....	93
Fubiani, G. ; Garrigues, L. ; Boeuf, J.P. ; Qiang, J.	
1P-92 - GRAPHENE SYNTHESIS BY ATMOSPHERIC PRESSURE MICROWAVE PLASMA	94
Bozduman, Ferhat ; Gulec, Ali ; Noree, Sabah ; Durmaz, Yakup ; Ismael, Mohammed ; Oksuz, Aysegul Uygun	
1P-93 - EXPERIMENTAL STUDIES ON ELECTRO-OPTICAL CHARACTERISTICS OF PULSED STREAMER DISCHARGE ON WATER SURFACE.....	95
Zhang, L. ; Huang, Y. ; Liu, Z. ; Yan, K.	
1P-94 - MASS SPECTROSCOPY AND ICCD ANALYSIS OF COUPLED AND UNCOUPLED MODE IN A GATLING-GUN LIKE PLASMA SOURCE	96
Stancampiano, Augusto ; Gherardi, Matteo ; Colombo, Vittorio ; Selakovic, Nenad ; Puac, Nevena ; Petrovic, Zoran Lj.	
1P-95 - PLASMA-ASSISTED IGNITION AND COMBUSTION OF METHANE-AIR MIXTURES USING DIELECTRIC BARRIER DISCHARGE	97
Li, P. ; Mu, H.B. ; Yu, L. ; Yao, C.W. ; Xu, G.M. ; Chang, Z.S. ; Shi, X.M. ; Zhang, G.J.	
1P-96 - INFLUENCE OF GAS FLOW ON DISCHARGE MODE IN COAXIAL ARGON DBD UNDER ATMOSPHERIC PRESSURE.....	98
Xu, Gui-Min ; Chang, Zheng-Shi ; Yao, Cong-Wei ; Li, Ping ; Chen, Si-Le ; Zhang, Guan-Jun	

1P-97 - A LOW-POWER MAGNETIC-FIELD-ASSISTED PLASMA JET GENERATED BY DIRECT-CURRENT GLOW DISCHARGE AT ATMOSPHERIC PRESSURE.....	99
<i>Tang, Jie ; Jiang, Weiman ; Li, Jing ; Wang, Yishan ; Zhao, Wei ; Duan, Yixiang</i>	
1P-98 - RESEARCH STATUS OF ELECTRON BEAM PLASMA FOR AERODYNAMIC APPLICATIONS IN CHINA	100
<i>Deng, Y.F. ; Tan, Y.H. ; Han, X.W.</i>	
1P-100 - THE EFFECT OF LOW-TEMPERATURE PLASMA TREATMENT ON THE PLANT SEEDS	101
<i>Zahoranova, Anna ; Kovacic, Dusan ; Cernak, Mirko ; Henselova, Maria ; Hudecova, Daniela ; Kalinakova, Barbora</i>	
1P-102 - INVESTIGATION OF BINDING PROPERTIES OF MICROCAPSULES ON LOW PRESSURE PLASMA TREATED TEXTILES.....	102
<i>Kutlu, Bengi ; Turkoglu, Gizem Ceylan ; Aksit, Aysun ; Sariisik, Merih</i>	
1P-103 - EFFECTS OF PLASMA TREATMENTS ON THE ADHESION BETWEEN POLYESTER FABRICS AND SILICONE RUBBER COATING.....	103
<i>Berrak Sari, Yildiz ; Kutlu, Bengi ; Mizrak, Berkan</i>	
1P-104 - NEW PLASMA PATTERNING OF AG NANOWIRE USING HIGH PRESSURE MICRO-DISCHARGE	104
<i>Kim, Hyun-Jin. ; Tae, Heung-Sik ; Lee, Seok-Hyun ; Shin, Blum Jae ; Seo, Jeong Hyun ; Pyo, Jae Hwack</i>	
1P-106 - INTERACTION BETWEEN PT CATALYST AND OZONE FOR CATALYTIC CARBON MONOXIDE OXIDATION.....	105
<i>Kim, Kwan-Tae ; Jo, Sungkwon ; Kang, Hee Seok ; Pyun, Sung Hyun ; Lee, Dae Hoon ; Song, Young-Hoon</i>	
1P-107 - CHARACTERISTICS OF HELIUM PLASMA JET DRIVEN BY MICROSECOND PULSES WITH DIFFERENT CONFIGURATIONS.....	106
<i>Shen, Yuan ; Wang, Ruixue ; Zhang, Cheng ; Shao, Tao</i>	
1P-108 - OPTIMIZATION OF LOW-PRESSURE PLASMA REACTOR FOR HIGH-SPEED SURFACE TREATMENT OF POLYIMIDE SUBSTRATE	107
<i>Lee, Jae-Ok ; Kang, Woo Seok ; Hur, Min ; Song, Young-Hoon</i>	
1P-109 - MEASUREMENT OF THE CHARGE ON DIELECTRIC SURFACE OF A DBD PLASMA ACTUATOR	108
<i>Paniel, Elodie ; Rabat, Herve ; Hong, Dunpin</i>	
1P-110 - MODIFICATION OF THE SURFACE LAYER OF METAL MATERIALS UNDER THE COMBINED INFLUENCE OF HIGH INTENSITY PULSED ION BEAM AND MAGNETRON SPUTTERING	109
<i>Remnev, G.E. ; Lebedynskiy, A.M. ; Legostaev, V.N. ; Pavlov, S.K. ; Petrov, A.V. ; Smolyanskiy, E.V. ; Stepanov, A.V.</i>	
1P-113 - OBTAINING USEFUL PROPERTIES OF DIFFERENT MATERIALS BY USING MAGNETRON SPUTTERING	110
<i>Senturk, Kenan ; Sen, Tuba ; Coruhlu, Turgay ; Varturk, Ipek ; Korachi, May ; Aslan, Necdet</i>	
1P-115 - THE PREPARATION OF MICROPOROUS PVDF MEMBRANES WITH DITHIPHOSPHATES AND MODIFICATION OF SURFACE PROPERTIES BY HELICON PLASMA	111
<i>Koseoglu, Tugba Sardohan ; Ilgaz, Figen ; Calis, Ozge ; Kir, Esengul ; Aydin, Ahmet ; Gulec, Ali</i>	
1P-116 - DRINKING WATER DISINFECTION BASED ON STRONG ELECTRIC FIELD DISCHARGE AND HYDRODYNAMIC CAVITATION	112
<i>Tian, Yiping ; Yuan, Xiaoli ; Xu, Shujing ; Zhou, Xinying ; Zhang, Zhitao</i>	
1P-117 - SOLID STATE BATTERY MANUFACTURING WITH THERMIONIC VACUUM ARC AND RF SPUTTERING	113
<i>Pat, Suat ; Ozen, Soner ; Senay, Volkan ; Korkmaz, Sadan ; Pat, Zerrin</i>	
1P-118 - CALCULATIONS OF ELECTRIC AND MAGNETIC FIELDS AND JOULE HEATING IN A VACUUM INTERRUPTER.....	114
<i>Garanin, Sergey F. ; Kuznetsov, Sergey D. ; Glazunov, Victor A. ; Yakubov, Valeriy B. ; Borisenkova, Victori N. ; Misyura, Pavel P.</i>	
1P-119 - AN ATMOSPHERIC-PRESSURE, ROOM-TEMPERATURE, COLD MICRO PLASMA	115
<i>Lu, XinPei ; Gou, JianMin</i>	
1P-120 - YIELD OF HYDROGEN PEROXIDE, OZONE AND NITRITE NITROGEN WITH DBD ARRAYS IN WATER MIST SPRAY	116
<i>Bingyan, Chen ; Yulin, Gan ; Yeqian, Wu ; Changping, Zhu ; Juntao, Fei ; Feng, Zhou ; Jingyi, Wang ; Jiankun, Wang</i>	
1P-121 - TREATMENT OF POLYTETRAFLUOROETHYLENE FILMS BY ATMOSPHERIC AR THREE-DIELECTRIC LAYERS BARRIER DISCHARGE PLASMA	117
<i>Li, X. ; Li, J. ; Dong, P. ; Zhang, L.W. ; Long, J.D. ; Xie, Y.T.</i>	
1P-122 - CHARACTERISTICS OF DISCHARGE CHANNEL AND ITS EFFECT ON CONCRETE MONOLITH SPLITTING OFF BY BOREHOLE ELECTRICAL DISCHARGE BLASTING	118
<i>Yudin, A.S. ; Kuznetsova, N.S.</i>	
2A-1 - HYBRID MODEL OF RUNAWAY ELECTRONS GENERATION PROCESS IN NANOSECOND HIGH PRESSURE GAS DISCHARGE	119
<i>Semeniuk, Natalia S. ; Kozhevnikov, Vasily Yu. ; Kozyrev, Andrey V.</i>	
2A-2 - EMISSION AND LEVEL POPULATION IN THE NUCLEAR-INDUCED PLASMAS OF GAS MIXTURES.....	120
<i>Khasenov, Mendykhан U.</i>	
2A-5 - STUDY ON THE PARAMETERS OF SPARK DISCHARGE PLASMA IN A GAS MIXTURE OF ATMOSPHERIC PRESSURE UNDER METAL TREATMENT.....	121
<i>Zhuravlev, Mikhail V. ; Remnev, Gennady E. ; Shubin, Boris G.</i>	
2A-6 - NUMERICAL STUDY OF ACTIVE SPECIES GENERATION AND DELIVERY TO A DIELECTRIC SURFACE FROM A HELIUM ATMOSPHERIC-PRESSURE PLASMA JET	122
<i>Hasan, M.I. ; Bradley, J.W.</i>	

2A-7 - ASSESSMENT OF PHYSICAL CORRELATIONS IN A LARGE DC DISCHARGE TUBE FOR MULTIPLE GASES AND ELECTRODE MATERIALS	123
<i>Gebhart, T.E. ; Winfrey, A.L. ; Lam, D.C. ; Bean, I.A. ; Bourham, M.A.</i>	
2A-8 - EXPERIMENTAL VALIDATION OF SIMILARITY LAW FOR GLOW DISCHARGES IN ARGON AT LOW PRESSURE	124
<i>Fu, Yangyang ; Yang, Xinting ; Luo, Haiyun ; Zou, Xiaobing ; Wang, Xinxin</i>	
2A-9 - NUMERICAL STUDY OF MICROWAVE DIELECTRIC SURFACE BREAKDOWN AT ATMOSPHERIC CONDITION	125
<i>Zhou, Qianhong ; Dong, Ye ; Dong, Zhiwei</i>	
2B-1 - ERRORS AND UNCERTAINTY IN COMPLEX PLASMA CHEMISTRY MODELS.....	126
<i>Turner, Miles M.</i>	
2B-2 - INFLUENCE OF OXYGEN ADDITION ON DISCHARGE CHARACTERISTICS OF DIELECTRIC BARRIER DISCHARGE IN AR.....	127
<i>Fang, Z. ; Tan, J. ; Wu, W.J.</i>	
2B-3 - PLASMA-CATALYTIC CONVERSION OF CO₂ INTO VALUE-ADDED CHEMICALS: UNDERSTANDING THE SYNERGISTIC EFFECT AT LOW TEMPERATURES	128
<i>Mei, Danhua ; Yan, Joseph ; Tu, Xin</i>	
2B-4 - PRODUCTION OF ACTIVE OXYGEN SPECIES IN LOW PRESSURE CCP USED FOR STERILIZATION OF COMMERCIAL SEEDS	129
<i>Spasic, Kosta ; Skoro, Nikola ; Puac, Nevena ; Malovic, Gordana ; Petrovic, Zoran Lj.</i>	
2B-5 - AN EXPERIMENTAL INVESTIGATION ON THE RADIATION CHARACTERISTICS OF PLASMA JET IN THE PLASMA-PROPELLANT INTERACTION	130
<i>Hang, Yuhua ; Li, Xingwen ; Jia, Shenli</i>	
2C-1 - BACK-STREAMING ION BEAM MEASUREMENTS IN A SELF MAGNETIC PINCH (SMP) ELECTRON DIODE	131
<i>Mazarakis, Michael G. ; Cordova, Steven R. ; Johnston, Mark D. ; Kiefer, Mark L. ; Leckbee, Joshua J. ; Nielsen, Dan S. ; Oliver, Bryan V. ; Renk, Timothy J. ; Webb, Timothy J. ; Ziska, Derek ; Bennett, Nichelle ; Droemer, Darryl W. ; Cignac, Raymond E. ; Obregon, Robert J. ; Smith, Chase C. ; Wilkins, Frank L. ; Welch, Dale R. ; Romero, Tobias M.</i>	
2C-2 - THE NEAREST NEIGHBOURS APPROXIMATION AND THE ANALYSIS OF THE MELTING POINT OF 2D- AND 3D-YUKAWA SYSTEMS.....	132
<i>Koss, Xeniya G. ; Vaulina, Olga S.</i>	
2C-3 - A NOVEL COLD CATHODE SHEET-BEAM PLASMA CATHODE ELECTRON GUN AND ITS BEAM DIAGNOSTICS	133
<i>Kumar, Niraj ; Pal, Udit Narayan ; Prakash, Ram</i>	
2C-4 - ELECTRON SOURCE BASED ON THE LTD AND PLASMA-FILLED DIODE	134
<i>Zherlicyn, Andrei A. ; Kovalchuk, Boris M.</i>	
2C-5 - CURRENT DENSITIES EFFECTS IN THE FOCUSSING PHASE OF A PLASMA FOCUS DEVICE	135
<i>Nawi, N.Diana ; Ali, Jalil ; Tufail, Kashif ; Saktioto</i>	
2C-6 - SPECTROSCOPIC STUDY OF THE ANODE FLARE FORMATION DURING THE INITIAL STAGE OF VACUUM ARC DISCHARGE	136
<i>Popov, Sergey A. ; Batrakov, Alexander V. ; Methling, Ralf ; Uhrlandt, Dirk ; Weltmann, Klaus-Dieter</i>	
2C-7 - OPTIMIZATION BEAM CURRENT OF MULTICUSP ION SOURCE BY MODIFYING STRUCTURE	137
<i>Yeon, Yeong H. ; Lee, Jong C. ; Ghergherehchi, Mitra ; Chai, Jong S.</i>	
2D-1 - HIGH DYNAMIC RANGE LASER PULSE CONTRAST MEASUREMENT WITH A OPTICAL CLIPPING OF PLASMA	138
<i>Sun, Z.H. ; Xia, Y.W. ; Peng, Z.T. ; Dong, J.</i>	
2D-2 - EFFECTS OF NONTHERMAL ELECTRONS ON PLASMA EXPANSION INTO VACUUM	139
<i>Bennaceur-Doumazand Djemai Bara, Djamilia</i>	
2D-3 - OSCILLATIONS AND ELECTRON EMISSION FROM LASER PRODUCED CLUSTER NANOPLASMA	140
<i>Bystryi, Roman G. ; Morozov, Igor V.</i>	
2D-4 - STUDY OF X-RAY GENERATION FROM NOBLE GASES MIXTURE JETS IRRADIATED BY UNR FS-LEOPARD LASER WITH DIFFERENT PULSE CONTRAST	141
<i>Kantsyrev, V.L. ; Safronova, A.S. ; Schultz, K.A. ; Shlyapitseva, V.V. ; Shrestha, I. ; Cooper, M.C. ; Petkov, E.E. ; Stafford, A. ; Cline, W. ; Wiewior, P. ; Moschella, J.J. ; Chalyy, O.</i>	
2D-5 - STUDIES OF PLASMA DYNAMICS IN COLLIDING LASER PLASMA PLUMES	142
<i>Favre, M. ; Merello, F. ; Bhuyan, H. ; Veloso, F. ; Wyndham, E.S. ; Ruiz, H.M.</i>	
2D-6 - THE ROLE OF CORONA AND SPACE CHARGES DURING FEMTOSECOND LASER PULSE FILAMENT GUIDED HIGH VOLTAGE DISCHARGES IN AIR.....	143
<i>Schmitt-Sody, Andreas ; White, William ; Lucero, Adrian ; Hasson, Victor</i>	
2D-7 - A PROPOSED 100KHZ REPETITION RATE FEMTOSECOND LASER PLASMA HARD X-RAY SOURCE AT THE ELI-ALPS FACILITY	144
<i>Papp, Daniel ; Andreev, A.</i>	
2E-1 - COMBINATION OF TUMOR THERAPEUTICS AND COLD PLASMA TO FIGHT CANCER	145
<i>Masur, Kai ; von Behr, Magdalena ; Weltmann, Klaus-Dieter ; Partecke, Lars Ivo ; von Woedtke, Thomas</i>	
2E-2 - EFFECT OF NONTHERMAL ATMOSPHERIC PRESSURE PLASMA ON BREAST CANCER CELLS	146
<i>Mirpour, S. ; Ghomi, H.R. ; Farahani, N.Jalali ; Nikkhah, M. ; Soleimani, N. ; Piroozmand, S.</i>	

2E-3 - CHARACTERIZATION AND EVALUATION OF BACTERICIDAL EFFECT AND CYTOCOMPATIBILITY OF A LOW POWER ICP SOURCE FOR BIOMEDICAL APPLICATIONS	147
Colombo, Vittorio ; Barbieri, Daniela ; Boselli, Marco ; Cavrini, Francesca ; Gherardi, Matteo ; Landini, Maria Paola ; Laurita, Romolo ; Liguori, Anna ; Stancampiano, Augusto	
2E-4 - ELECTRIC FIELD MEASUREMENTS DURING PLASMA JET OPERATION ON/IN BIOLOGICAL SAMPLES AND TISSUES	148
Darny, Thibault ; Robert, Eric ; Dozias, Sebastien ; Pouvesle, JeanMichel	
2E-5 - INVESTIGATION OF BACTERIAL INACTIVATION BY VARIOUS GAS PLASMAS AND ELECTRON MICROSCOPIC OBSERVATION OF TREATED BACTERIA	149
Takamatsu, Toshihiro ; Azuma, Takeshi ; Kobayashi, Tomohiro ; Kawano, Hiroaki ; Sasaki, Yota ; Watanabe, Yosuke ; Matsumura, Yuriko ; Miyahara, Hidekazu ; Iwasawa, Atsuo ; Okino, Akitoshi	
2E-6 - STERILIZATION OF METHICILLIN-RESISTANT STAPHYLOCOCCUS AUREUS WITH DIELECTRIC BARRIER DISCHARGE	150
Ayan, Halim ; Sanaei, Niloofar	
2E-7 - SENSOR PROPERTIES OF RF-TITANIUM DIOXIDE PLASMA MODIFIED GRAPHENE	151
Kuralay, Filiz ; Tunc, Selma ; Bozduman, Ferhat ; Oksuz, Lutfi ; Oksuz, Aysegul Uygun	
2P-1 - ON THE ROLE OF THE QUANTUM IMAGE FORCES ON THE INITIAL STAGE OF A PICOSECOND GAS DISCHARGE	152
Barengolts, Yury A. ; Beril, Stepan I. ; Barengolts, Sergey A.	
2P-3 - NUMERICAL STUDY OF A 170-GHZ, GRADIENT-CAVITY GYROTRON	153
Ying-hui, Liu ; Liangyu, Xu ; Xinjian, Niu ; Hui, Wang ; Hong-fu, Li	
2P-5 - CHARACTERIZATION OF VO₂ FILMS GROWN BY MAGNETRON SPUTTERING	154
Yuce, Hurriyet ; Akgun, Gulnur ; Ozuyuer, Lutfi ; Koklu, Mehtap	
2P-6 - FOUR-CHANNEL SOURCE OF SYNCHRONOUSLY MODULATED SUBGIGAWATT VOLTAGE PULSES	155
Rostov, V.V. ; Rukin, S.N. ; Sharypov, K.A. ; Shpak, V.G. ; Shunailov, S.A. ; Ul'masculov, M.R. ; Yalandin, M.I.	
2P-8 - CHERENKOV MASER EXPERIMENTS BASED ON A 2D PERIODIC SURFACE LATTICE	156
Phipps, A.R. ; MacLachlan, A.J. ; Robertson, C.W. ; Konoplev, I.V. ; Ronald, K. ; Cross, A.W. ; Whyte, C.G. ; Phelps, A.D.R.	
2P-9 - SUB-THZ TRAVELING WAVE AMPLIFIERS BASED ON THE DOUBLE CORRUGATED WAVEGUIDE	157
Paoloni, Claudio ; Mineo, Mauro	
2P-11 - PIC-FDTD CODE FOR BEAM-WAVE INTERACTION ANALYSIS IN RIPPLED WALL SLOW WAVE STRUCTURE	158
Pareek, Nalini ; Prakash, Ram ; Pal, Udit Narayan ; Kumar, Niraj ; Sarkar, Niladri	
2P-12 - PARTICLE BEAM DYNAMICS IN A MAGNETICALLY INSULATED COAXIAL DIODE	159
Korenev, V.G. ; Magda, I.I. ; Sinitzin, V.G.	
2P-13 - A SIMPLIFIED GEOMETRIC APPROACH FOR SPACE CHARGE LIMITING CURRENT ANALYSIS IN INTERACTION REGION	160
Shukla, Prasoon ; Kumar, Niraj ; Pal, Udit Narayan ; Prakash, Ram	
2P-14 - COMPARISON OF A NUMERICAL AND ANALYTICAL MODEL FOR THE SIMULATION OF THE MODE PROPAGATION IN A MICROWAVE DRIVEN PLASMA DISCHARGES	161
Szeremley, Daniel ; Mussenbrock, Thomas ; Brinkmann, Ralf Peter ; Zimmermanns, Marc ; Rolfs, Ilona ; Eremin, Denis	
2P-15 - NUMERICAL SOLUTION OF EXACT AXIAL MAGNETIC FIELD FOR PLANAR AND CYLINDRICAL BEAM DRIVEN BACKWARD WAVE OSCILLATOR	162
Banerjee, T.S. ; Hadap, A. ; Reddy, K.T.V	
2P-16 - A SIMPLIFIED 2-D FLUID MODEL OF PLASMA FORMATION UNDER PULSED HIGH POWER MICROWAVES IN ATMOSPHERIC GASES	163
Lin, Shu ; Beeson, Sterling ; Li, Yongdong ; Liu, Chunliang ; Neuber, Andreas	
2P-17 - ENHANCED MICROWAVE ABSORPTION RATES IN STEALTH PLASMA	164
Bawaaneh, M.S. ; Al-Khateeb, Ahmed M.	
2P-20 - SELF-FOCUSING OF GAUSSIAN LASER BEAM IN WARM COLLISIONAL PLASMA WITH RAMP-UP DENSITY	165
Milani, M.R.Jafari ; Niknam, A.R.	
2P-21 - HIGH-SPEED SPECTRALLY-RESOLVED IMAGING OF THE LASER ABLATION PLASMA	166
Popov, Sergey A. ; Batrakov, Alexander V. ; Mataibaev, Vyacheslav V.	
2P-22 - SURFACE MODIFICATION OF LDPE FILM BY NANOSECOND-PULSE DIELECTRIC BARRIER DISCHARGE AT ATMOSPHERIC PRESSURE	167
Ma, Yunfei ; Zhang, Cheng ; Wang, Ruixue ; Shao, Tao	
2P-23 - MODIFICATION OF DIFFERENT AREAS OF COPPER SURFACE BY DIFFUSE DISCHARGES AT ATMOSPHERIC PRESSURE	168
Zhou, Zhongshen ; Zhang, Cheng ; Wang, Ruixue ; Fang, Zhi ; Shao, Tao	
2P-24 - CORROSION RESISTANCE OF SiO₂ THIN FILM COATED BIOMEDICAL Ti-13Nb-13Zr TITANUM ALLOY BY E-BEAM	169
Ozaltin, Kadir ; Bozduman, Ferhat ; Zwolinska, Marta ; Kulczyk, Mariusz ; Oksuz, Aysegul ; Oksuz, Lutfi ; Lewandowska, Malgorzata	
2P-25 - A STUDY ON CHARACTERIZATION OF POLYMER-COATED WOOL FABRICS USING PLASMA POLYMERIZATION	170
Eren, Esin ; Oksuz, Lutfi ; Komur, Ali Ihsan ; Bozduman, Ferhat ; Maslakci, Neslihan Nohut ; Oksuz, Aysegul Uygun	

2P-26 - DEPOSITION OF TRANSPARENT SIOXYN THIN FILM ON PET BY PLASMA ENHANCED CHEMICAL VAPOR DEPOSITION	171
Shahpanah, Marjan ; Firouzjah, Marzieh Abbasi ; Mehdikia, Hamed ; Shokri, Babak	
2P-27 - EFFECTS OF HYDROGEN FLUX AND PRESSURE ON THE STRUCTURAL PROPERTIES OF PECVD-SYNTHESIZED CARBON THIN FILMS	172
Rezaei, Fatemeh ; Abbasi-Firouzjah, Marzieh ; Shokri, Babak	
2P-28 - SYNTHESIS OF FEW-LAYER GRAPHENE FILMS BY CONTROLLABLE CR₄RFR₈R PLASMA ETCHING SIC	173
Jin, C. ; Huang, T. ; Zhuge, L. ; Wu, X.	
2P-29 - GRAPHENE SYNTHESIS BY PECVD	174
Noree, Sabah ; Bozduman, Ferhat ; Koc, I.Umran ; Gulec, Ali ; Ismael, Mohammed ; Durmaz, Yakup ; Oksuz, Lutfi	
2P-30 - VACUUM ARC EXPLOSIVE CELLS	175
Tsvetoukh, Mikhail M	
2P-31 - IMPROVING PHOTOVOLTAIC EFFICIENCY BY RF ROTATING PLASMA MODIFIED NANOTUBES	176
Ela, Sule Erten ; Varlek, Ana ; Bozduman, Ferhat ; Kiristi, Melek ; Remskar, Maja ; Oksuz, Lutfi ; Oksuz, Aysegul Uygun	
2P-32 - SYNTHESIS AND ANALYSIS OF TITANIUM NITRIDE THIN FILM IN ATMOSPHERIC THERMAL PLASMA TORCH	177
Fathi, J. ; Mohsenian, S. ; Shafie, M. ; Mehdikia, H. ; Shokri, B.	
2P-33 - NITRIDING OF SUPER-FERRITIC STAINLESS STEEL BY PLASMA IMMERSION ION IMPLANTATION IN RADIO FREQUENCY AND ECR-MICROWAVE PLASMA SYSTEM	178
Bhuyan, H. ; Favre, M. ; Cisternas, M. ; Henriquez, A. ; Wyndham, E. ; Mandl, S. ; Manova, D. ; Walczak, M.	
2P-35 - STUDIES OF PULSED PLASMA-ION STREAMS DURING THEIR FREE PROPAGATION AND INTERACTION WITH SiC-TARGETS	179
Skladnik-Sadowska, E. ; Kwiatkowski, R. ; Malinowski, K. ; Sadowski, M.J. ; Czaus, K. ; Zaloga, D. ; Zebrowski, J. ; Nowakowska-Langier, K.	
2P-36 - PARALLEL AND SEQUENTIAL TESTS OF RADIATION RESISTANCE OF DOUBLE FORGED TUNGSTEN IN VARIOUS PLASMA DEVICES	180
Demina, Elena V. ; Gribkov, Vladimir A. ; Prusakova, Marina D. ; Maslyayev, Sergej A. ; Pimenov, Valerij N. ; Voronin, Aleksandr V. ; Garuksha, Igor E. ; Makhlaj, Vadim A. ; Laas, Toniu ; Shirokova, Veronika	
2P-37 - IMPURITY ISSUES IN MATERIAL IRRADIATION STUDIES IN PLASMA FOCUS DEVICE	181
Tan, K.S. ; Lee, P. ; Springham, S.V. ; Tan, T.L. ; Rawat, R.S.	
2P-40 - STUDIES ON BIOCIDAL ACTIVITY OF AN UV-C DBD LAMP	182
Caillier, Bruno ; Muja, Cristina ; Kone, Aboubakar Sidiki ; Guillot, Philippe ; Dexpert-Ghys, Jeanette ; Caiut, Jose Mauricio Almeida	
2P-41 - RADIATION CALCULATION IN ELECTRODED AND MICROWAVE HID LAMPS	183
Hamady, Mohamad ; Lister, Graeme ; Ziisis, Georges	
2P-42 - THREE-DIMENSIONAL MODELLING OF SELF-ORGANIZATION PHENOMENA IN CATHODE BOUNDARY LAYER DISCHARGES USING COMSOL MULTIPHYSICS	184
Almeida, P.G.C. ; Benilov, M.S. ; Bieniek, M.S.	
2P-43 - EXPERIMENTAL STUDY ON LOW-FREQUENCY OSCILLATION OF THE PLUME DIVERGENCE ANGLE OF HALL THRUSTERS	185
Jing, Li ; Liqiu, Wei ; Liang, Han ; Daren, Yu	
2P-44 - FORMATION OF MULTIPLE AXIAL POTENTIAL STRUCTURES IN EXPANDING RF PLASMAS	186
Ghosh, Soumen ; Chattopadhyay, P.K. ; Ghosh, J. ; Bora, D.	
2P-45 - HOLLOW CATHODES FOR HALL THRUSTERS: MODELLING AND SCALING TRENDS	187
Sary, Gaetan ; Garrigues, Laurent ; Boeuf, Jean-Pierre	
2P-47 - EFFECTS OF AGED PAM ON CANCER CELLS	188
Mohades, S. ; Barekzi, N. ; Razavi, H. ; Laroussi, M.	
2P-48 - USING FLUORESCENCE TO MEASURE HYDROGEN PEROXIDE CONCENTRATIONS IN PLASMA ACTIVATED MEDIA	189
Sears, J. ; Mohades, S. ; Razavi, H. ; Laroussi, M.	
2P-49 - APPLICATION OF UNDERWATER ELECTRIC BARRIER DISCHARGE AS A WASHING SYSTEM TO INACTIVATE SALMONELLA TYPHIMURIUM ON PERILLAR LEAVES	190
Lee, Eun-Jung ; Kim, Joo-Sung ; Kim, Yun-Ji	
2P-50 - ATMOSPHERIC PEN PLASMA STERILIZING HELP PAPER SURFACE	191
Bozduman, Ferhat ; Komur, Ali Ihsan ; Ulusoy, Seyhan ; Oksuz, Lutfi ; Kiristi, Melek ; Oksuz, Aysegul Uygun	
2P-51 - INHIBITION BY LOW-TEMPERATURE PLASMA JET ON THE VIABILITY OF HEPATOMA CELLS AND ITS MECHANISM	192
Shi, Xing-Min ; Cai, Jing-Fen ; Xu, Gui-Min ; Chen, Si-Le ; Yao, Cong-Wei ; Liao, Wen-Long ; Zhang, Guan-Jun	
2P-52 - A BATTERY-OPERATED ATMOSPHERIC-PRESSURE PLASMA ROD FOR BIOMEDICAL APPLICATIONS	193
Pei, Xue Kai ; Lu, Xin Pei	
2P-53 - COLD ATMOSPHERIC PRESSURE PLASMA JET FOR TOOTH ROOT CANAL DISINFECTION	194
Shali, Parisa ; Asadi, Pegah ; Ashari, Mohammad Asna ; Shokri, Babak	
2P-54 - CHARACTERISTICS OF DIABETIC WOUND HEALING RATE AND ENZYMES ACTIVITY AFTER ATMOSPHERIC PRESSURE PLASMA TREATMENT	195
Asadi, Pegah ; Shali, Parisa ; Bigdeli, Mohammadreza ; Shokri, Babak	

2P-55 - THE EFFECT OF ATMOSPHERIC PRESSURE PLASMA JET ON MACROPHAGE ACTIVATION	196
<i>Lee, Eun-Jung ; Kwon, Jae-Sung ; Om, Ji-Yeon ; Kim, Kyoung-Nam ; Kim, Kwang-Mahn ; Lee, Eun-Jung ; Kim, Kyoung-Nam ; Yu, Je-Wook ; Choi, Eun Ha</i>	
2P-56 - THE EFFECT OF NON-THERMAL ATMOSPHERIC PRESSURE MICROWAVE-PULSED PLASMA ON STAPHYLOCOCCUS AUREUS AND FIBROBLAST L929 CELLS.....	197
<i>Seo, Sang-Hee ; Uhm, Soo-Hyuk ; Kwon, Jae-Sung ; Kim, Kyoung-Nam ; Kim, Kwang-Mahn ; Seo, Sang-Hee ; Kim, Kyoung-Nam ; Choi, Jin Joo ; Choi, Eun Ha ; Park, Gyungsoon</i>	
2P-57 - APPLICATIONS OF NON-THERMAL ATMOSPHERIC PRESSURE PLASMA IN PREVENTION AND REGENERATION OF ORAL DISEASES	198
<i>Uhm, Soo-Hyuk ; Kwon, Jae-Sung ; Lee, Eun-Jung ; Lee, Jung-Hwan ; Kim, Kwang-Mahn ; Kim, Kyoung-Nam ; Lee, Eun-Jung ; Kim, Kyoung-Nam , Choi, Eun Ha</i>	
2P-58 - RF-TITANIUM DIOXIDE PLASMA MODIFIED GRAPHENE COATED ELECTRODES FOR PROTEIN SENSING	199
<i>Kuralay, Filiz ; Tunc, Selma ; Bozduman, Ferhat ; Oksuz, Lutfi ; Oksuz, Aysegul Uygur</i>	
2P-59 - MEASUREMENT OF STERILIZATION ABILITY AND REACTIVE SPECIES OF VARIOUS GAS PLASMA BUBBLED-UP WATER	200
<i>Kobayashi, Tomohiro ; Watanabe, Yosuke ; Oshita, Takaya ; Matsumura, Yuriko ; Miyahara, Hidekazu ; Iwasawa, Atsuo ; Okino, Akitoshi ; Matsubara, Hiroki ; Oshima, Satoru ; Kamiya, Tetsu ; Takamatsu, Toshihiro ; Azuma, Takeshi</i>	
2P-60 - THE TREATMENT WITH NON-THERMAL PLASMA ON HUMAN KERATINOCYTE CAN BLOCK TNF-A AND IFN-? MEDIATED PRO-INFLAMMATORY GENE EXPRESSIONS.....	201
<i>Choi, Jeong-Hae ; Lee, Hae-June ; Hong, Jin-Woo ; Kim, Gyoo-Cheon</i>	
2P-61 - EFFECTS OF GEOMETRY OF AUTO-EXPANSION VOLUME ON SF6 ARC BEHAVIOUR	202
<i>Zhang, Jinling</i>	
2P-63 - A METHOD TO REALIZE MULTIPOINT IGNITION WITH MICROWAVE PLASMA	203
<i>Hou, Lingyun ; Zhang, Guixin</i>	
2P-64 - AN EXPERIMENTAL AND COMPUTATIONAL STUDY OF THE INTERACTION BETWEEN THE JET OF AN ICP TORCH AND A CYLINDRICAL SUBSTRATE	204
<i>Boselli, Marco ; Colombo, Vittorio ; Fiorini, Massimo ; Ghedini, Emanuele ; Gherardi, Matteo ; Sanibondi, Paolo ; Stancampiano, Augusto ; Traldi, Enrico</i>	
2P-65 - A NOVEL STRAIN GAUGE APPLIED TO STRONG ELECTROMAGNETIC FIELD	205
<i>Liu, Qiaoju ; Ding, Weidong ; Wu, Jiawei ; Han, Ruoyu ; Zhou, Haibin ; Jing, Yan</i>	
2P-66 - STUDY OF ARC PLASMA JET EFFECTIVE PARAMETERS (POWER AND FLOW RATE)	206
<i>Kia, Hamed Mehdi ; Shafiae, Mojtaba ; Shahpanah, Marjan ; Khani, Mohammad Reza ; Shokri, Babak</i>	
2P-67 - THERMAL INSTABILITY IN NON-UNIFORMITIES ON THE SURFACE OF CATHODES OF VACUUM ARCS	207
<i>Benilov, Mikhail S. ; Cunha, Mario D. ; Hartmann, Werner ; Wenzel, Norbert</i>	
2P-69 - CLEANING AND MODIFICATION OF THE NEAR-SURFACE LAYERS OF METALS UNDER THE ACTION OF RUNAWAY ELECTRON PREIONIZED DIFFUSE DISCHARGE	208
<i>Tarasenko, Victor F. ; Erofeev, Mikhail V. ; Shulepov, Mikhail A.</i>	
2P-70 - PHYSICS OF SPOTLESS MODE ON CATHODES OF METAL VAPOR ARCS	209
<i>Benilov, Mikhail S. ; Benilova, Larissa G.</i>	
2P-71 - RUNAWAY ELECTRONS PREIONIZED DIFFUSE DISCHARGES IN SF6, ARGON, AIR AND NITROGEN	210
<i>Tarasenko, Victor F. ; Beloplotov, Dmitry V. ; Lomaev, Mikhail I. ; Sorokin, Dmitry A.</i>	
2P-73 - BOUNDARY CONDITIONS AT THE PLASMA-CATHODE INTERFACE IN HIGH-PRESSURE ARCS	211
<i>Almeida, Nelson A. ; Benilov, Mikhail S. ; Benilova, Larissa G. ; Baeva, Margarita</i>	
2P-75 - MODIFICATION OF PASCHEN'S LAW FOR THE NONUNIFORM ELECTRIC FIELD BETWEEN TWO PLANE-PARALLEL ELECTRODES	212
<i>Fu, Yangyang ; Luo, Haiyun ; Zou, Xiaobing ; Wang, Xinxin</i>	
2P-76 - THE INFLUENCE OF AMBIPOLEAR ELECTRIC FIELD ON THE EDF FORMATION AND THE ELECTRON PROCESSES IN PARTIALLY IONIZED PLASMAS	213
<i>Krasilnikov, Mikhail B. ; Kudryavtsev, Anatoly A. ; Kapustin, Kirill D.</i>	
2P-77 - CONTROL OF PARTICLES DISTRIBUTION FUNCTIONS BY MAGNETIC FIELD IN HELICON PLASMA DISCHARGE	214
<i>Huang, T. ; Jin, C. ; Yu, J. ; Zhuge, L. ; Wu, X.</i>	
2P-78 - STUDY ON THE PARAMETERS OF BARRIER DISCHARGE PLASMA IN A GAS PHASE HYDROCARBON MIXTURE OF ATMOSPHERIC PRESSURE UNDER EXTERNAL HEATING OF DISCHARGE AREA.....	215
<i>Zhuravlev, Mikhail V. ; Kovantsev, Alexander S. ; Remnev, Gennady E. ; Shubin, Boris G.</i>	
2P-79 - DYNAMIC BEHAVIORS OF HELIUM ATMOSPHERIC PRESSURE PLASMA JET INVESTIGATED BY STEAK IMAGES.....	216
<i>Ning, Wenjian ; Wang, Lijun ; Jia, Shenli ; Wu, Chen</i>	
2P-81 - EQUATION OF STATE OF DENSE KRYPTON PLASMA IN THE PARTIAL IONIZATION REGIME	217
<i>Chen, Q.F. ; Zheng, J. ; Gu, Y.J. ; Cai, L.C.</i>	
2P-82 - THE SAG OF THE POTENTIAL IN LOW PRESSURE REFLEX DISCHARGE	218
<i>Liziakin, G. ; Gavrikov, A. ; Smirnov, V. ; Usmanov, R. ; Samokhin, A.</i>	
2P-84 - ELECTROSTATIC EXCITATIONS IN NON-MAXWELLIAN SPACE PLASMAS.....	219
<i>Ali, Shahid</i>	
2P-86 - EFFECTS OF ELECTRON SUPRATHERMALLITY AND POSITRON DENSITY ON ION ACOUSTIC DRESSED SOLITONS IN AN ELECTRON-POSITRON-ION PLASMA.....	220
<i>Amour, Rabia ; Tribeche, Mouloud</i>	

2P-87 - PROPAGATION OF DUST ACOUSTIC WAVES IN A DUSTY PLASMA IN THE PRESENCE OF ION NONTHERMALITY AND BACKGROUND NONEXTENSIVITY	221
<i>Benzekka, Moulida ; Tribeche, Mouloud</i>	
2P-88 - DUST-ION-ACOUSTIC SOLITARY WAVES IN A DEGENERATE PAIR PLASMA	222
<i>Alimohamadi, Masoud</i>	
2P-90 - MAXIMUM MAGNETIC FIELD IN COSMIC OUTFLOWS SYSTEMS	223
<i>Hajisharifi, K. ; Mehdian, H. ; Hasanbeigi, A.</i>	
2P-92 - MULTI-WALL CARBON NANOTUBE FUNCTIONALIZED WITH CDS NANOPARTICLE BY PLASMADEPOSITION METHOD	224
<i>Akbarnejad, Elaheh ; Ghorannevis, Zohreh ; Ghoranneviss, Mahmood</i>	
2P-96 - RF ROTATING PLASMA MODIFIED OF CHITOSAN WITH 3,4-ETHYLENEDIOXYTHIOPHENE, THIOPHENE AND FURAN: INVESTIGATION OF NANOFIBERS IN-SITU WITH QUARTZ CRYSTAL MICROBALANCE (QCM) AND ELECTROSPINNING SYSTEM	225
<i>Maslakci, Neslihan Nohut ; Oksuz, Aysegul Uygun</i>	
2P-97 - ELECTROSPUN FIBERS COATED ONTO PLASMA MODIFIED AND NONMODIFIED WOOLS	226
<i>Maslakci, Neslihan Nohut ; Oksuz, Aysegul Uygun ; Oksuz, Lutfi ; Bozduman, Ferhat ; Eren, Esin</i>	
2P-99 - SYNTHESIS OF MOS₂ NANOTUBE/POLYTHIOPHENE COMPOSITE BY ATMOSPHERIC PRESSURE RF GLOW PLASMA	227
<i>Turkasan, Banu Esencan ; Dikmen, Sibel ; Oksuz, Aysegul Uygun ; Oksuz, Lutfi</i>	
2P-101 - PLASMA POLYMERIZED ELECTROSPUN PEDOT-S NANOFIBERS OBTAINED BY IN-SITU RADIO FREQUENCY PLASMA TREATMENT	228
<i>Dulgerbaki, Cigdem ; Kiristi, Melek ; Oksuz, Aysegul Uygun ; Bozduman, Ferhat ; Oksuz, Lutfi ; Ahmad, Shahzada</i>	
2P-103 - PLASMA-CATALYTIC OXIDATION OF DILUTED FORMALDEHYDE OVER CU-CE OXIDE CATALYSTS	229
<i>Zhu, Ximbo ; Tu, Xin ; Gao, Xiang</i>	
2P-104 - PLASMA-CATALYTIC DRY REFORMING OF METHANE OVER AL₂O₃ SUPPORTED METAL CATALYSTS	230
<i>Zeng, Yuxuan ; Liu, Shiyun ; Mei, Danhua ; Tu, Xin</i>	
2P-107 - PLASMA MODIFIED CHITOSAN/N-ACETYL-2-PYRAZOLINE DERIVATIVE NANOFIBERS	231
<i>Cin, Gunseli Turgut ; Demirel Topel, Seda ; Maslakci, Neslihan Nohut ; Eren, Esin ; Oksuz, Aysegul Uygun</i>	
2P-108 - STRUCTURAL, THERMAL AND MORPHOLOGICAL PROPERTIES OF PLASMA POLYMERIZED MnO₂/PP_y COMPOSITE	232
<i>Gursoy, Songul Sen ; Cogal, Gamze Celik ; Cogal, Sadik ; Bozduman, Ferhat</i>	
2P-109 - MODIFICATION OF CARBON NANOTUBE WITH POLY(3,4-ETHYLENEDIOXYTHIOPHENE) BY USING RF ROTATING PLASMA	233
<i>Cogal, Sadik ; Bozduman, Ferhat ; Yurdabak, Gozde ; Oksuz, Aysegul</i>	
2P-110 - MODIFICATION OF CARBON NANOTUBE WITH POLY(3-HEXYLTHIOPHENE) BY USING RF ROTATING PLASMA	234
<i>Cogal, Gamze Celik ; Cogal, Sadik ; Oksuz, Aysegul</i>	
2P-112 - EFFECT OF POLYMER BASED NANOCOMPOSITES ON THE ELECTRICAL ARCS IN AIR	235
<i>Doddapaneni, Venkatesh ; Bissal, Ara ; Magnusson, Jesper ; Edin, Hans ; Toprak, Muhammet S. ; Gati, Rudolf</i>	
2P-113 - SPATIAL DISTRIBUTION OF CHARGED PARTICLE EMISSION IN A COPPER-CHROMIUM HIGH-CURRENT VACUUM ARC	236
<i>Franke, Steffen ; Lisnyak, Marina ; Gorchakov, Sergey ; Khakpour, Alireza ; Methling, Ralf ; Pipa, Andrei ; Uhrlandt, Dirk ; Weltmann, KlausDieter</i>	
2P-114 - SMALL-SIZE CONTROLLED VACUUM SPARK-GAP IN AN EXTERNAL MAGNETIC FIELD	237
<i>Dolgov, A.N. ; Davydov, S.G. ; Yakubov, R.K.</i>	
2P-115 - LASER TRIGGERED DISCHARGE GAP	238
<i>Revazov, V.O. ; Davydov, S.G. ; Dolgov, A.N. ; Seleznev, V.P. ; Yakubov, R.K.</i>	
2P-116 - ELECTRODE EROSION CHARACTERISTICS OF REPETITIVE GAS SPARK SWITCH UNDER AIRTIGHT AND LARGE CURRENT CONDITIONS	239
<i>Wu, Jiawei ; Han, Ruoyu ; Liu, Yunfei ; Zhou, Haibin ; Qiu, Aici</i>	
2P-117 - EFFECT OF DIFFERENT ELECTRODE MATERIALS ON ELECTRODE EROSION CHARACTERISTICS AND FAILURE MODES OF GAS SPARK SWITCH	240
<i>Wu, Jiawei ; Han, Ruoyu ; Liu, Qiaoqie ; Jing, Yan ; Wang, Yanan ; Qiu, Aici</i>	
2P-118 - ELECTRICALLY EXPLODED OPENING SWITCHES FOR HIGH-CURRENT EXPLOSIVE MAGNETIC FLUX COMPRESSION GENERATORS	241
<i>Buyko, Anatoly M.</i>	
2P-119 - EXPERIMENTAL AND NUMERICAL STUDY OF A WIRE-EXPLOSION-POS DYNAMICS	242
<i>Tkachenko, Svetlana I. ; Gasilov, Vladimir A. ; Bagdasarov, Gennadiy A. ; Olkhovskaya, Olga G. ; Dolgachev, Georgiy I. ; Kalinin, Yuriy G. ; Shvedov, Alexander A.</i>	
2P-120 - CHARACTERISTICS OF MICROSECOND-PULSE GLIDING DISCHARGES IN AIR FLOW	243
<i>Niu, Zongtao ; Zhang, Cheng ; Wang, Ruixue ; Zhang, Kai ; Shao, Tao</i>	
2P-121 - LOW INDUCTANCE SWITCHES FOR PULSED MAGNETIZATION OF HOT PLASMAS	244
<i>Larour, Jean ; Auvray, Philippe ; Moustaijis, Stavros D. ; Lalouis, Paraskevas</i>	
2P-122 - DEVELOPMENT OF A HIGH PERFORMANCE TICKER GENERATOR WITH LOW JITTER, FAST RISE TIME	245
<i>Ding, Weidong ; Wang, Yanan ; Gou, Yang ; Zhong, Xu ; Han, Ruoyu ; Jing, Yan ; Xia, Jian</i>	
2P-123 - GENETIC ALGORITHM APPLIED TO PROGRAMMABLE CURRENT ADDER	246
<i>Ding, Weidong ; Gou, Yang ; Wang, Yanan ; Jing, Yan ; Ruoyu, Han ; Wang, Guiji ; Chen, Xuemiao</i>	

2P-124 - DEVELOPMENT ON ROGOWSKI COIL MEASURING NANoseconds RISETIME MEGAMPERE CURRENTS	247
Jing, Yan ; Ding, Weidong ; Han, Ruoyu ; Zhou, Haibin ; Liu, Qiaoju ; Wu, Jiawei ; Gou, Yang ; Wang, Yanan	
2P-125 - COMPARISON BETWEEN EXPERIMENT AND 3-DIMENTIONAL ELECTROMAGNETIC SIMULATION OF MONOLITHIC RADIAL TRANSMISSION LINES FOR Z-PINCH	248
Mao, Chongyang ; Zou, Xiaobing ; Wang, Xinxin	
2P-126 - COMPARATIVE RESEARCH OF BIG SIZE MC & MD CATHODES	249
Sokovnin, S.Yu. ; Balezin, M.E.	
2P-127 - FEW SECONDS AND -40KV COMPACT HIGH VOLTAGE PULSE POWER SUPPLY	250
Kim, S.C. ; Heo, H. ; Gong, H.S. ; Kim, S.H. ; Nam, S.H.	
2P-128 - A COMPACT HIGH-VOLTAGE, SPIRAL STRIP-LINE PFN TRIGGER GENERATOR	251
Koutsoubis, John M. ; Pourainis, Panagiotis G. ; Platis, Alexios P. ; Manasis, Christos X.	
2P-129 - ULTRAFAST OFF-THE-SHELF V-DOT PROBES: THEORY AND EXPERIMENTATION	252
Novac, B.M. ; Pecastaing, L. ; Wang, Meng ; de Ferron, A.	
2P-130 - PERFORMANCE OF THE TPS PULSE MAGNETS	253
Chu, Y.L. ; Yang, C.S. ; Lin, F.Y. ; Fann, C.S. ; Chen, C.L. ; Kou, C.Y. ; Jan, J.C. ; Chang, C.H. ; Hwang, C.S. ; Chen, C.T.	
2P-131 - ALL SOLID STATE PULSED POWER SOURCE BASED ON PHOTOCONDUCTIVE SWITCHES: FROM MODULE TO GENERATOR	254
Yuan, Jianqiang ; Xie, Weiping ; Liu, Hongwei ; Ma, Xun ; Jiang, Ping ; Wang, Lingyun ; Liu, Jinfeng ; Li, Hongtao	
2P-132 - STATUS OF MJ POWER CONDITIONING SYSTEM FOR HIGH POWER LASER FACILITY	255
Qi, Zhen ; Chen, Dehuai ; Lai, Guiyou ; Guo, Liangfu ; Tang, Haibo ; Luan, Yongping ; Li, Dongmei ; Zhou, Pizhang ; Li, Yizheng	
2P-133 - WIDEBAND ROGOWSKI COIL BASED ON LOW RESISTANCE INTEGRATING RESISTOR	256
Han, Ruoyu ; Wu, Jiawei ; Jing, Yan ; Liu, Qiaoju ; Zhou, Haibin ; Ding, Weidong	
2P-134 - COMPACT SEMICONDUCTOR-BASED MARX GENERATOR DESIGN FOR MICROSECOND PULSED ELECTRON BEAM DEVICES	257
Mueller, Georg ; Sack, Martin	
2P-135 - COMPACT EQUIPMENT USED FOR UNDERWATER ELECTRICAL WIRE EXPLOSION	258
Han, Ruoyu ; Wu, Jiawei ; Zhou, Haibin ; Chao, Youchuang ; Qiu, Aici ; Li, Xingwen	
3A-1 - COLLISIONLESS ELECTRON HEATING IN A SURFACE-WAVE DISCHARGE	259
Boeuf, J.P.	
3A-4 - PAST SUCCESSES AND FUTURE PROSPECTS FOR EXPERIMENTAL ELECTRON SCATTERING FROM FLUOROCARBON RADICALS	260
Buckman, Stephen J. ; Jones, Darryl B. ; da Silva, George B. ; Brunger, Michael J.	
3A-5 - THE LXCAT PROJECT: AN OVERVIEW AND A BRIEF PROGRESS REPORT	261
Pitchford, L.C.	
3A-6 - LOW FREQUENCY GLOBAL MODES IN INHOMOGENEOUS NON-MAXWELLIAN PLASMAS	262
Haque, Q.U. ; Ahmad, A.	
3A-7 - INFLUENCE OF FINITE LARMOR RADIUS CORRECTION ON MAGNETO GRAVITATIONAL INSTABILITY OF ANISOTROPIC QUANTUM PLASMA	263
Sharma, P.	
3A-8 - ANALYSIS OF THE STOCHASTIC PROCESS IN WIRE-PLATE NEGATIVE CORONA DISCHARGE USING STATISTICAL METHODS	264
Zhang, Kexin ; Wei, Ligu ; Tang, Jingfeng ; Yu, Daren ; Zhang, Chaohai	
3B-1 - VORTEX STRUCTURES FORMATION IN ULTRARELATIVISTIC ELECTRON BEAM WITH VIRTUAL CATHODE	265
Hramov, Alexander E. ; Kurkin, Semen A. ; Badarin, Artem A. ; Koronovskii, Alexey A.	
3B-2 - GENERATION OF HIGHER HARMONICS IN RELATIVISTIC ELECTRON BEAM WITH VIRTUAL CATHODE	266
Kurkin, Semen A. ; Badarin, Artem A. ; Koronovskii, Alexey A. ; Hramov, Alexander E.	
3B-3 - HIGH EFFICIENCY RELATIVISTIC MAGNETRON WITH DIFFRACTION OUTPUT OPERATING WITH A VIRTUAL CATHODE	267
Fuks, Mikhail I. ; Schamigolgu, Edl	
3B-4 - 4 MM WAVE GENERATION IN TWO-CHANNEL PLANAR FEM AT STRONG ELECTRODYNAMIC COUPLING OF CHANNELS	268
Arzhannikov, A.V. ; Ginzburg, N.S. ; Kalinin, P.V. ; Peskov, N.Yu. ; Sergeev, A.S. ; Sinitsky, S.L. ; Stepanov, V.D. ; Zaslavsky, V.Yu.	
3B-5 - A SERIES OF TUFTED CARBON FIBER CATHODE DESIGNED FOR DIFFERENT HIGH POWER MICROWAVE SOURCES	269
Liu, Lie ; Li, Zhi Qiang ; Fan, Yu Wei	
3B-6 - EXPERIMENTAL PROGRESS ON A PROTOTYPE MULTIFREQUENCY RECIRCULATING PLANAR MAGNETRON	270
Greening, Geoffrey B. ; Jordan, Nicholas ; Exelby, Steven C. ; Gilgenbach, Ronald M. ; Simon, David ; Lau, Y.Y.	
3B-7 - COMPACT REFLEX TRIODE OPERATION AT 10 Hz REPETITION RATE AND LONG PULSEWIDTHS	271
Rocha, E. ; Parson, J.M. ; Lynn, C. ; Dickens, J.C. ; Neuber, A. ; Mankowski, J. ; Queller, T. ; Gleizer, J.Z. ; Krasik, Y.E.	
3C-1 - RAYLEIGH-TAYLOR INSTABILITY AMPLIFICATION DUE TO RADIATIVE LOSSES	272
De Grouchy, P. ; Qi, N. ; Kusse, B.R. ; Atoyan, L. ; Banasek, J. ; Byvank, T. ; Cahill, A.D. ; Engelbrecht, J. ; Moore, H. ; Ransohoff, L. ; Tian, S. ; Hammer, D.A. ; Pikuz, S.A. ; Shelkovenko, T.A.	

3C-2 - CYLINDRICAL AND QUASI-SPHERICAL WIRE ARRAYS INVESTIGATION ON ANGARA-5-1 AND BAIKAL PROJECT	273
<i>Grabovski, E.V. ; Smirnov, V.P. ; Aleksandrov, V.V. ; Gritsuk, A.N. ; Mitrofanov, K.N. ; Oleinik, G.M. ; Zaitsev, V.I. ; Volkov, G.S. ; Lototsky, A.P. ; Grivob, A.N. ; Djangobegov, V.V. ; Schishlov, A.O. ; Medovschikov, S.F. ; Branitskii, A.V. ; Gasilov, V.A. ; Olkhovskay, O.G. ; Sasorov, P.V. ; Shevelko, A.P. ; Tkachenko, S.I.</i>	
3C-3 - HIGH ENERGY DENSITY PHYSICS RESEARCHES ON THE JULONG-I (PTS)	274
<i>Deng, Jianjun ; Xie, Weiping ; Huang, Xianbin</i>	
3C-4 - Z-PINCH PLASMA INSTABILITY EXPERIMENTS ON THE UM LINEAR TRANSFORMER DRIVER	275
<i>Jordan, N.M. ; Patel, S.G. ; Yager-Elorriaga, D.A. ; Steiner, A.M. ; Lau, Y.Y. ; Gilgenbach, R.M.</i>	
3C-5 - PLANAR WIRE ARRAY Z-PINCHES ON QIANGGUANG-I FACILITY	276
<i>Li, M. ; Sheng, L. ; Wang, L.P. ; Li, Y. ; Yuan, Y. ; Zhang, X.J. ; Zhang, M. ; Zhao, C. ; Peng, B.D. ; Zhang, J.H.</i>	
3C-6 - DOUBLE AND SINGLE PLANAR WIRE ARRAYS AT HIGH AND LOW IMPEDANCE UNIVERSITY-SCALE GENERATORS	277
<i>Safronova, A.S. ; Kantsyrev, V.L. ; Weller, M.E. ; Shlyapitseva, V.V. ; Shrestha, I. ; Stafford, A. ; Lorance, M. ; Cooper, M. ; Patel, S.G. ; Steiner, A.M. ; Yager-Elorriaga, D.A. ; Jordan, N.M. ; Gilgenbach, R.M. ; Coverdale, C.A. ; Jones, B. ; Williamson, K.M. ; Chuvatin, A.S.</i>	
3C-7 - METAL-PUFF Z-PINCH IMPLOSIONS ON GENERATOR MIG WITH CURRENT LEVEL UP TO 2.3 MA	278
<i>Roussikh, Alexander G. ; Zhigalin, Alexander S. ; Labetskaya, Natalya A. ; Chaikovaskii, Stanislav A. ; Baksht, Rina B. ; Oreshkin, Vladimir I.</i>	
3C-8 - STRUCTURAL TRANSFORMATIONS OF PINCHED COLUMN IN PLASMA FOCUS DEVICE	279
<i>Kubes, Pavel ; Paduch, Marian ; Cikhardt, Jakub ; Kortanek, Jiri ; Cikhardtova, Balzhima ; Rezac, Karel ; Klir, Daniel ; Kravarik, Jozef ; Zielinska, Ewa</i>	
3D-1 - ANALYTIC DESCRIPTION OF THE RESONANCE FREQUENCIES OF CURLING PROBE	280
<i>Arshadi, Ali ; Brinkmann, Ralf Peter</i>	
3D-2 - INVESTIGATION ON THE SPATIAL DISTRIBUTION OF ACTIVE SPECIES IN ATMOSPHERIC-PRESSURE PLASMA JET USING OPTICAL EMISSION SPECTROSCOPY AND FLUID SIMULATION	281
<i>Seo, Kwon-Sang ; Cha, Ju-Hong ; Kim, Dong-Hyun ; Lee, Hae June ; Lee, Ho-Jun</i>	
3D-3 - DIAGNOSTICS OF BENT X-RAY DIAGNOSTIC CRYSTALS	282
<i>Pereira, N.R. ; Macrander, A.T. ; Stoupin, S. ; Baronova, E.O.</i>	
3D-4 - TWO-COLOR INTERFEROMETRY FOR THE STUDY OF LASER FILAMENTATION TRIGGERED DISCHARGES IN AIR	283
<i>Point, Guillaume ; Brelet, Yohann ; Arantchouk, Leonid ; Carbonnel, Jerome ; Prade, Bernard ; Mysyrowicz, Andre ; Houard, Aurelien</i>	
3D-5 - FAST-FRAME OPTICAL IMAGING AND TIME-RESOLVED SPECTROSCOPY OF PLASMA IN A GAS DISCHARGE-BASED SWITCH OF A MICROWAVE PULSE COMPRESSOR	284
<i>Shlapakowski, Anatoli ; Beilin, Leonid ; Krasik, Yakov E.</i>	
3D-6 - MICROWAVE DIAGNOSTICS OF PLASMA FILAMENTS LEFT IN THE WAKE OF HIGH POWER FEMTOSECOND LASER PULSE	285
<i>Papeer, J. ; Henis, Z. ; Botton, M. ; Zigler, A. ; Gordon, D.</i>	
3D-7 - MODE TRANSITIONS IN LOW-PRESSURE NITROGEN RF-CCP AT DIFFERENT FREQUENCIES	286
<i>Erozbek-Gungor, Ummugul ; Bilikmen, Sinan Kadri</i>	
3D-8 - STUDIES OF PLASMA FOCUS FUSION ZONE GEOMETRY USING PROTON CODED APERTURE IMAGING	287
<i>Springham, S.V. ; Talebitaher, A. ; Shutler, P.M.E. ; Rawat, R.S. ; Lee, P.</i>	
3D-9 - IMPORTANT ISSUES FROM X-RAY STUDIES OF HIGH-CURRENT PULSE DISCHARGES OF THE PLASMA-FOCUS TYPE	288
<i>Sadowski, M.J. ; Paduch, M. ; Skladnik-Sadowska, E. ; Surala, W. ; Zaloga, D. ; Miklaszewski, R. ; Zielinska, E. ; Tomaszewski, K.</i>	
3E-1 - SPATIAL DIAGNOSIS OF ATMOSPHERIC PRESSURE HELIUM PLASMA JET	289
<i>Wang, Ruixue ; Shen, Yuan ; Zhang, Cheng ; Shao, Tao</i>	
3E-3 - A STUDY ON THE MECHANISM OF RING-SHAPE STRUCTURE IN THE ATMOSPHERIC PRESSURE PLASMA JETS	290
<i>Fu, Yuan ; YuBin, Yue ; Lu, Xian X.</i>	
3E-4 - REACTION OF CCL3F (CFC-11) WITH CH₄ IN A DIELECTRIC BARRIER DISCHARGE REACTOR	291
<i>Kundu, Sazal K. ; Kennedy, Eric M. ; Mackie, John C. ; Molloy, Thomas S. ; Gaikwad, Vaibhav V. ; Dlugogorski, Bogdan Z. ; Holdsworth, Clovia I.</i>	
3E-6 - SECONDARY ARCING IN SPACE ENVIRONMENT	292
<i>Batrakov, A.V. ; Dubrovskaya, E.L. ; Karlik, K.V. ; Schneider, A.V.</i>	
3E-7 - OPTICAL SENSOR FOR THE VECTORIAL ANALYSIS OF THE PLASMA INDUCED ELECTRIC FIELD	293
<i>Gaborit, Gwenael ; Dahdah, Jean ; Lecoche, Frederic ; Treve, Thibaud ; Jarrige, Pierre ; Gillette, Laurane ; Piquet, Jerome ; Duvillaret, Lionel</i>	
3E-8 - CONVERSION OF METHANE INTO HYDROGEN AND C₂ HYDROCARBONS IN A DIELECTRIC BARRIER DISCHARGE REACTOR	294
<i>Liu, Shiyun ; Mei, Danhua ; Tu, Xin</i>	
3E-9 - HYDROPHOBIC AND WEAR-RESISTIBLE SURFACE COATING OF CARBON STEEL USING LINEAR MICROWAVE PLASMA WITH TE-TEM MODE POWER COUPLING	295
<i>Han, Moon-Ki ; Cha, Ju-Hong ; Kim, Taehwan ; Kim, Dong-Hyun ; Lee, Hae June ; Lee, Ho-Jun ; Kim, Min Wook</i>	
3P-2 - THE GENERATION AND CHARACTERISTICS OF ATMOSPHERIC PRESSURE PLASMA JET ARRAY IN ARGON	296
<i>Fang, Z. ; Wu, W.J. ; Ding, Z.F.</i>	

3P-7 - SCATTERING CROSS SECTION SET FOR ELECTRONS IN CH₃OCH₃	297
Sasic, Olivera ; Dupljamin, Snjezana ; Petrovic, Zoran Lj.	
3P-13 - INDUCTIVELY COUPLED PLASMA FOR GRAPHENE PRODUCTION	298
Durmaz, Yakup ; Bozduman, Ferhat ; Koc, I.Umrar ; Ismael, Mohammed ; Nore, Sabah ; Gulec, Ali ; Oksuz, Lutfi	
3P-14 - PENNING ELECTRONS ENERGY SPECTRA IN DC HE-AR MICRODISCHARGE	299
Stefanova, Margarita S. ; Pramatarov, Petko M. ; Kudryavtsev, Anatoly A. ; Saifutdinov, Almaz I.	
3P-15 - STREPTAVIDIN COATING ON THE SURFACE OF POLYSTYRENE MICROPLATES BY PLASMA TECHNIQUE AND DEVELOPMENT OF ELISA SYSTEMS FOR HUMAN PAPILLOMA VIRUS (HPV)	300
Kose, Kose S.O. ; Yildiz, E. ; Say, R.B. ; Ersoz, A.	
3P-16 - PROTEIN A COATING ON THE SURFACE OF POLYSTYRENE MICROPLATES BY PLASMA TECHNIQUE AND DEVELOPMENT OF ELISA SYSTEMS FOR HEAT SHOCK PROTEIN 70 (HSP70)	301
Yildiz, B. ; Kose, E. ; Ozgun, Kose S. ; Say, R. ; Ersoz, A.	
3P-17 - VIBRATIONAL AND ROTATIONAL TEMPERATURES OF NO A ²S⁺ METASTABLE STATE IN N₂-O₂ MIXTURE MICROWAVE DISCHARGE	302
Tan, Hao ; Nezu, Atsushi ; Akatsuka, Hiroshi	
3P-18 - PLASMA CHEMICAL COMPLEX PROCESSING OF SOLID FUEL	303
Messerle, V.E. ; Lavrichshev, O.A. ; Ustimenko, A.B.	
3P-19 - STUDY OF THE MULTI-MODES BEHAVIOUR IN A HIGH HARMONIC LARGE ORBIT GYROTRON	304
Li, Xiang ; Alfadhl, Yasir ; Chen, Xiaodong	
3P-20 - OPTIMIZATION OF STARTING CONDITIONS OF TERAHERTZ RANGE GYROTONS BY INCREASING OF ELECTRON INTERACTION TIME IN THE "DEPRESSED" RESONATOR	305
Ginzburg, N.S. ; Glyavin, M.Yu. ; Zotova, I.V. ; Zhelezov, I.V.	
3P-21 - HIGH POWER W-BAND GYRO-BWO EXPERIMENTS	306
Donaldson, C.R. ; Zhang, L. ; He, W. ; McElhinney, P. ; Ronald, K. ; Cross, A.W. ; Phelps, A.D.R.	
3P-23 - INVESTIGATION OF THE EFFECT OF HELIX TAPE-THICKNESS ON THE PERFORMANCE OF PLASMA-FILLED HELIX TRAVELING-WAVE TUBES	307
Mahmoudi, Ali	
3P-24 - NON-RESONANT METAMATERIALS FOR HIGH POWER VACUUM ELECTRONICS APPLICATIONS	308
Hopper, Aimee ; Seviour, Rebecca	
3P-25 - DESIGN AND SIMULATION OF AN S-BAND CLOVERLEAF AMPLIFIER USING ICEPIC	309
Gensheimer, Paul D. ; Watrous, John J. ; Ziolkowski, Richard W.	
3P-26 - HIGH POWER MICROWAVE SOURCE LOADED BY A TWO-SPIRAL METAMATERIAL STRUCTURE FOR CHERENKOV RADIATION	310
Yurt, Sabahattin C. ; Elfregani, Ahmed ; Schamiloglu, Edl	
3P-27 - EVOLUTION OF WAVE DISPERSION IN PERIODIC STRUCTURES WITH INCREASING AMPLITUDE OF CORRUGATION	311
Yurt, Sabahattin C. ; Elfregani, Ahmed ; Ilyenkov, Kostyantyn ; Fuks, Mikhail I. ; Schamiloglu, Edl	
3P-28 - TESTING OF THE A6 MAGNETRON WITH RADIAL EXTRACTION ON THE PULSERAD ELECTRON BEAM ACCELERATOR	312
Prasad, Sarita ; McConaha, Jeremy ; Leach, Chris ; Buchenauer, C.Jerald ; Fuks, Mikhail ; Schamiloglu, Edl	
3P-29 - EXPERIMENTAL RESEARCH ON MAGNETICALLY INSULATED TRANSMISSION LINE OSCILLATOR WITH METAL ARRAY CATHODE	313
Qin, Fen ; Wang, Dong ; Xu, Sha ; Wu, Yong ; Fan, Zhikai	
3P-30 - TEST OF A HIGH EFFICIENCY RELATIVISTIC MAGNETRON WITH DIFFRACTION OUTPUT (MDO) AND SPHERICAL CATHODE ENDCAP	314
Leach, Chris ; Prasad, Sarita ; Fuks, Mikhail ; Buchenauer, Jerald ; McConaha, Jeremy ; Schamiloglu, Edl	
3P-31 - COMPACT A6 MAGNETRON WITH A NEODYMIUM PERMANENT MAGNET	315
McConaha, Jeremy ; Sarita ; Leach, Prasad Chris ; Fuks, Mikhail ; Schamiloglu, Edl	
3P-32 - EMITTANCE GROWTH ANALYSIS OF ELECTON BEAMS DUE TO NONLINEAR FOCUSING FIELDS OF PPM MAGNETS	316
Nichols, Kimberley E. ; Carlsten, Bruce C.	
3P-33 - VARIATION OF RELATIVISTIC BWO GENERATION MODE CONSIDERING THE FEATURES OF PULSED GUIDING MAGNETIC FIELD	317
Rostov, V V ; Sharypov, K.A. ; Shpak, V G. ; Shunailov, S.A. ; Ul'masulov, M.R. ; Yalandin, M.I.	
3P-34 - MODELING OF INDUCTIVELY COUPLED PLASMA SOURCE WITH ARGON/OXYGEN GAS MIXTURE FOR ETCHING	318
Baluza, Samah M. ; Abou-Gabal, Hanaa H. ; Abdelrazek, Amr M.	
3P-35 - BUMBLEBEE: A 1D3V RELATIVISTIC PIC/MCC SOF TWARE FOR LASER-PLASMA INTERACTION	319
Jin, Xiaolin ; Huang, Tao ; Chen, Wenlong ; Li, Jianqing ; Ling, Hualiang ; Li, Bin ; Yang, Zhonghai	
3P-36 - THREE-DIMENSIONAL FINITE-ELEMENT SIMULATION OF ION THRUSTER OPTICS SYSTEM	320
Huang, Tao ; Jin, Xiaolin ; Hu, Quan ; Li, Bin ; Yang, Zhonghai	
3P-37 - TOROIDAL FIELD RIPPLE ESTIMATION USING THE COMSOL MULTIPHYSICS SOFTWARE IN CIRCULAR CROSS SECTION TOKAMAKS	321
Mahdavipour, B. ; Elahi, A.Salar ; Ghoranneviss, M.	

3P-38 - DEVELOPING CHEMISTRY, VISUALIZATION, AND RF SHEATH MODELING TOOLS FOR FUSION AND LOW-TEMPERATURE PLASMA SIMULATIONS	322
Jenkins, Thomas G. ; Beckwith, Kris ; Smith, Jonathan D. ; Kruger, Scott E. ; Pankin, Alexei Y. ; Roark, Christine M. ; Smithe, David N. ; Stoltz, Peter H. ; Zhou, Sean C.-D.	
3P-39 - RF ION SOURCE MODELING USING FLUID-BASED PLASMA MODELS	323
Beckwith, Kris ; Veitzer, Seth ; Stoltz, Peter H.	
3P-40 - PLASMA LENS CLEARING OF THE MICRODROPLETS IN CATHODIC ARC PLASMA FLOW	324
Gushenets, Vasily I. ; Bugaev, Alexey S. ; Oks, Efim M. ; Goncharov, Alexey A. ; Dobrovolsky, Andrey N.	
3P-41 - STUDY OF THE ELECTRIC FIELD SCREENING EFFECT ON LOW NUMBER OF CARBON FIBER FIELD EMITTERS	325
Tang, W. ; Shiffner, D. ; LaCour, M. ; Golby, K. ; Knowles, T.	
3P-43 - THE BEAM PLASMA PRODUCED BY ELECTRON BEAM IN DIELECTRIC CAVITY	326
Zolotukhin, Denis B. ; Burdovitsin, Viktor A. ; Oks, Efim M.	
3P-44 - PARAMETERS OF VACUUM ARC PLASMA WITH DEUTERIUM AND HYDROGEN SATURATED ZIRCONIUM CATHODE	327
Barengolts, Sergey A. ; Nikolaev, Alexey G. ; Savkin, Konstantin P. ; Oks, Efim M. ; Frolova, Valeria P. ; Yushkov, Georgy Yu. ; Shmelev, Dmitry L. ; Uimanov, Igor V. ; Karnaukhov, Denis Yu.	
3P-46 - MAGNETIC THIN FILMS DEPOSITION USING DC GRID-ATTACHED MAGNETRON	328
Shandrikov, Maxim V. ; Vizir, Alexey V. ; Savkin, Konstantin P. ; Oks, Efim M. ; Tuynkov, Andrey V.	
3P-47 - STUDY OF EXPLOSIVE ELECTRON EMISSION FROM A PIN CATHODE USING HIGH RESOLUTION POINT-PROJECTION X-RAY RADIOGRAPHY	329
Tilikin, Ivan N. ; Parkevich, Egor V. ; Shelkovenko, Tatiana A. ; Mingaleev, Albert R. ; Agafonov, Alexey V. ; Pikuz, Sergey A.	
3P-49 - OPTICAL INVESTIGATIONS OF CATHODE PLASMA DYNAMICS OF LONG PULSE ELECTRON ACCELERATOR GESA	330
An, Wladimir ; Mueller, Georg ; Fetzer, Renate ; Weisenburger, Alfons ; Engelko, Vladimir	
3P-50 - COMPUTATIONAL CHARACTERIZATION OF THE ELECTROTHERMAL ENERGETIC PLASMA SOURCE (ETEPS) CONCEPT FOR HIGH-ENTHALPY FLOW	331
Mittal, Shawn ; Winfrey, Leigh	
3P-51 - ELECTROSTATIC PROBE MEASUREMENT OF THE PIEZOELECTRIC TRANSFORMER PLASMA SOURCE	332
Baxter, Emily A. ; Kovaleski, Scott D. ; Norgard, Peter	
3P-52 - THREE-DIMENSIONAL NUMERICAL SIMULATION OF A LARGE-SCALE RECTANGULAR SURFACE WAVE PLASMA SOURCE	333
Lan, Chaohui ; Zheng, Le ; Long, Jidong ; Peng, Yufei ; Li, Jie ; Yang, Zhen ; Dong, Pan	
3P-53 - HIGH CHARGE STATES METAL ION BEAM BASED ON VACUUM SPARK DISCHARGE	334
Oks, Efim M. ; Frolova, Valeria P. ; Yushkov, Georgy Yu. ; Nikolaev, Alexey G. ; Savkin, Konstantin P.	
3P-54 - FIELD ASSISTED PHOTOEMISSION DC-PULSED CATHODE FOR 5TH GENERATION LIGHT SOURCES AND ACCELERATORS THEORETICAL STUDY	335
Babigeon, Jean-Luc ; El Khaldi, Mohamed ; Holtzer, Nicolas	
3P-55 - COMPUTATIONAL STUDY OF REAL TIME MODIFICATION FOR PURE ELECTROTHERMAL GUN BALLISTICS	336
Mittal, Shawn ; Winfrey, Leigh	
3P-56 - SIMULATION OF THE PROCESSES ACCOMPANYING THE FORMATION AND TRANSPORTATION OF AN ELECTRON BEAM IN A GAS-FILLED ELECTRON-OPTICAL SYSTEM WITH A PLASMA Emitter	337
Kornilov, Sergey ; Rempe, Nikolay ; Grishkov, Anton	
3P-57 - EVALUATION AND ANALYSIS OF SOURCE LINERS AND EJECTED MATERIALS FROM AN ELECTROTHERMAL PLASMA DISCHARGE	338
Echols, J.R. ; Hamer, M.D. ; Gebhart, T.E. ; Winfrey, A.L.	
3P-58 - METAL AND GAS ION SOURCE FOR MODIFICATION OF ORGANIC POLYMERS SURFACES	339
Oks, Efim M. ; Savkin, Konstantin P. ; Puhova, Irina V. ; Yushkov, Georgy Yu. ; Shandrikov, Maxim V. ; Vizir, Alexey V. ; Kurzina, Irina A.	
3P-59 - DEVELOPMENT OF A HYBRID HELICON-ECR PLASMA SOURCE	340
Hala, A.M.	
3P-60 - RUNAWAY ELECTRON BEAM GENERATION AND DISRUPTION AT PULSED GAS DISCHARGE	341
Tsventoukh, Mikhail M	
3P-61 - PRIMARY EXPERIMENT ON HIGH CURRENT HOLLOW CATHODE ION SOURCE	342
Dong, Pan ; Long, Jidong ; Li, Jie ; Lan, Chaohui ; Zheng, Le ; Peng, Yufei ; Shi, Jinshui	
3P-62 - STABLE PLASMA AT CONVEX-CONCAVE FIELD LINES	343
Tsventoukh, Mikhail M ; Krashevskaya, Galina V ; Prishvitsyn, Alexander S	
3P-63 - KINETIC SIMULATION OF DIRECT X-B MODE CONVERSION FOR HIGH-β SPHERICAL TORUS NSTX IN THE NONLINEAR REGIME USING PARTICLE IN CELL METHOD	344
Asgarian, M.Ali ; Abbasi, M.	
3P-64 - INVESTIGATION OF LARGE AMPLITUDE UHR LOCALIZED OSCILLATION AND ITS INFLUENCE ON REDUCTION OF DIRECT X-B MODE CONVERSION EFFICIENCY FOR HIGH-β NSTX IN NONLINEAR REGIME	345
Abbasi, M. ; Asgarian, M.Ali ; Sadeghi, Y. ; Sobhanian, S.	
3P-65 - ANALYSIS OF WAVE INSTABILITIES EVOLUTION IN PLASMA AND TURBULENT PROCESSES IN FLUID	346
Karbushev, Dmitry N. ; Khvesyuk, Vladimir I. ; Polozova, Tatiana N.	

3P-66 - DETERMINATION OF ELECTRON ENERGY DISTRIBUTION FUNCTION IN TOKAMAK PLASMA	347
<i>Roudaki, F.S.M M A ; Elahi, A.Salar ; Ghoranneviss, M.</i>	
3P-67 - SIMULATION OF MAGNETIC FIELD PERTURBATION COILS ON IR-T1 TOKAMAK	348
<i>Adltalab, Y. ; Khorshid, P. ; Abizimoghadam, E.</i>	
3P-69 - PERFORMANCE OF THE PULSE FLASH LAMP IN THE LASER INERTIAL CONFINEMENT FUSION	349
<i>Yang, Zefeng ; Jia, Shenli ; Li, Xingwen ; Wu, Jian</i>	
3P-70 - TIME INTEGRATED STUDY OF X-RAY EMISSION BY APF PLASMA FOCUS DEVICE.....	350
<i>Habibi, Morteza</i>	
3P-71 - INCREASING PERFORMANCE OF THE FRCHX PLASMA INJECTOR SYSTEM	351
<i>Grabowski, C. ; Degnan, J.H. ; Domonkos, M. ; Ruden, E.L. ; Wurden, G.A.</i>	
3P-72 - MODELING EXPERIMENTS OF NEW COMPACT HOHLRAUM CONFIGURATION WITH MULTIPLE PARALLEL-DRIVEN X-RAY SOURCES WITH APPLICATION OF VISRAD CODE	352
<i>Shlyaptseva, V.V. ; Kantisyrev, V.L. ; Safranova, A.S. ; Shrestha, I. ; Cooper, M.C. ; Stafford, A. ; Chuvatin, A.S.</i>	
3P-73 - THERMAL DAMAGE MECHANISM OF PULSED XENON LAMP SILICA ENVELOPE DURING HIGH-POWER DISCHARGE	353
<i>Jianjun, Liu ; Haibing, Li ; Xiangchao, Guo ; Ruihua, Wu ; Ruoyan, Shao ; Hairong, Liang ; Wenzheng, Lin ; Lili, Hu</i>	
3P-74 - NUMERICAL MODELING OF DROPLETS GROWTH AND THEIR THERMAL RADIATION FROM METALLIC TARGETS HEATED BY HEAVY ION BEAMS.....	354
<i>Ostrik, A.V.</i>	
3P-75 - MAGNETICALLY INSULATED COAXIAL DIODE NON-LINEAR PROPERTIES.....	355
<i>Rostov, V.V. ; Sharypov, K.A. ; Shpak, V.G. ; Shunailo, S.A. ; Ul'masculov, M.R. ; Yalandin, M.I.</i>	
3P-76 - INFRARED-IMAGE DIAGNOSTICS OF A LOW-ENERGY, HIGH-CURRENT ELECTRON BEAM TRANSPORTED THROUGH A PLASMA CHANNEL IN A GUIDE MAGNETIC FIELD	356
<i>Batrakov, A.V. ; Kiziridi, P.P. ; Ozur, G.E.</i>	
3P-77 - HYBRID SIMULATION OF INTERACTION BETWEEN ELECTRON-BEAM-GENERATED PLASMAS AND AIR FLOW.....	357
<i>Zou, D. ; Lu, X. ; Pei, X. ; Yang, Y.</i>	
3P-78 - STUDY OF ELECTRON BEAM DYNAMICS IN A PLANAR DIODE WITH EXPLOSIVE EMISSION CATHODE	358
<i>Anishchenko, S. ; Baryshevsky, V. ; Gurinovich, A. ; Gurinovich, E. ; Gurnevich, E. ; Molchanov, P. ; Rovba, A.</i>	
3P-79 - ELECTRON BEAM TEST SYSTEM OF COMPACT ELECTRON GUN FOR X-RAY SOURCE	359
<i>Lee, Jongchul ; Yeon, Youngheum ; Kim, Huisu ; Lee, Seunghyun ; Chai, Jongseo</i>	
3P-80 - FORMATION OF HIGH-BRIGHTNESS REB TO GENERATE THZ RADIATION IN BEAM-PLASMA SYSTEM.....	360
<i>Arzhannikov, A.V. ; Astrelin, V.T. ; Makarov, M.A. ; Sinitsky, S.L. ; Stepanov, V.D.</i>	
3P-81 - SPECTROSCOPIC DETERMINATION OF MAGNETIC FIELDS IN HIGH ENERGY ELECTRON BEAM DIODES	361
<i>Johnston, M.D. ; Patel, S.G. ; Muron, D.J. ; Kiefer, M.L. ; Maron, Yitzhak</i>	
3P-82 - MAGNETIC FIELD MEASUREMENTS ON THE SELF MAGNETIC PINCH DIODE AT SNL USING ZEEMAN SPLITTING.....	362
<i>Patel, S.G. ; Johnston, M.D. ; Muron, D.J. ; Webb, T.J. ; Kiefer, M.L. ; Gilgenbach, R.M.</i>	
3P-83 - TRANSPORTATION OF A PULSED ION BEAM FORMED BY A SELF-MAGNETICALLY INSULATED DIODE	363
<i>Isakova, Yulia I. ; Pushkarev, Alexander I. ; Khaylov, Ilya P.</i>	
3P-84 - ROD-PINCH DIODE EXPERIMENTS AT A 1.2 MV PULSED POWER GENERATOR	364
<i>Yuan, Jianqiang ; Xie, Weiping ; Li, Hongtao ; Feng, Shuping ; Wei, Bing ; Liu, Hongwei ; Wang, Lingyun ; Ma, Xun ; Qing, Yanling ; Huang, Yupeng ; Ding, Sheng</i>	
3P-85 - CAIRNS-GUREVICH EQUATION FOR SOLITON IN PLASMA EXPANSION INTO VACCUM	365
<i>Annou, K. ; Bara, D. ; Bennaceur-Doumaz, D.</i>	
3P-86 - OPTIMUM TRAPPING CONDITION FOR LASER WAKEFIELD ACCELERATION OF ELECTRONS IN AN INHOMOGENIOUS PLASMA.....	366
<i>Gopal, K. ; Nam, I.H. ; Gupta, D.N. ; Suk, H.</i>	
3P-87 - IMPULSE ION IMPLANTER	367
<i>Stepanov, A.V. ; Shamanin, V.I. ; Remnev, G.E. ; Petrov, A.V.</i>	
3P-89 - OPTIMIZATION STUDIES ON CSRR LOADED WAVEGUIDE FOR PARTICLE ACCELERATOR APPLICATIONS	368
<i>Sharples, Emmy ; Letizia, Rosa</i>	
3P-91 - ENHANCED BETATRON RADIATION BY OFF-AXIS LASER INJECTION IN A CAPILLARY PLASMA SOURCE.....	369
<i>Lee, Seungwoo ; Lee, Tae-hee ; Nam, Inhyuk ; Suk, Hyeyong ; Uhm, Han S.</i>	
3P-92 - MONOENERGETIC ION ACCELERATION BY COLLISIONLESS SHOCKS IN LASER PLASMA INTERACTIONS	370
<i>Nindrayog, Anritpal Singh ; Macchi, Andrea ; Pegoraro, Francesco</i>	
3P-93 - PCA MODELING OF THE L-SHELL COPPER X-PINCH PLASMA PRODUCED BY THE COMPACT GENERATOR OF ECOLE POLYTECHNIQUE.....	371
<i>Larour, Jean ; Aranchuk, Leonid E. ; Yilmaz, M.Fatih ; Eleyan, Alaa ; Danisman, Yusuf</i>	

3P-94 - LINEAR DISCRIMINANT ANALYSIS OF ELECTRON BEAM EFFECTS ON THE RELATIVISTIC LASER-PRODUCED K-SHELL AL PLASMAS	372
Yilmaz, M.Fatih ; Danisman, Yusuf ; Safranova, A.S. ; Kantsyrev, V.L. ; Wiewior, P. ; Stafford, A. ; Shrestha, I.K. ; Shlyaptseva, V.V. ; Faenov, A.Y.	
3P-95 - EXPERIMENTAL STUDY OF NEON SOFT X-RAY AT SAHAND PLASMA FOCUS	373
Mohammadi, M.A. ; Piri, A. ; Naghshara, H. ; Rawat, R.S.	
3P-96 - A NOVEL METHOD TO GENERATE X-RAY CONTINUOUSLY BY TRIBOLUMINESCENCE	374
Furuya, Seizo	
3P-97 - INFLUENCE OF PREIONIZATION ON IRRADIATION CHARACTERISTICS OF PULSED XENON LAMP.....	375
Haibing, Li ; Ruihua, Wu ; Ruoyan, Shao ; Jianjun, Liu ; Hairong, Liang ; Wenzheng, Lin	
3P-98 - COMBINING CATALYSIS WITH NON-THERMAL PLASMA FOR VOLATILE ORGANIC COMPOUNDS ABATEMENT	376
Xiao, Zehua ; Liu, Kefu	
3P-99 - EXACT ION ENERGY IN PLASMA IMMERSION ION IMPLANTATION	377
Sakudo, N. ; Ikenaga, N. ; Matsui, K. ; Sakumoto, N.	
3P-100 - MO DOPED GAN THIN FILM GROWTH USING THERMIONIC VACUUM ARC (TVA)	378
Ozen, Soner ; Pat, Suat ; Korkmaz, Sadan ; Senay, Volkan	
3P-101 - STERILIZATION OF MICROORGANISM SPORES WITH PLASMA-EXCITED NEUTRAL GAS AT ATMOSPHERIC PRESSURE	379
Matsui, Kei ; Ikenaga, Noriaki ; Sakudo, Noriyuki	
3P-102 - ON THE PLASMA SYSTEM FOR CO₂ DISSOCIATION	380
Chang, H.Y.	
3P-103 - PLASMA TREATMENT FOR THE INACTIVATION OF ESCHERICHIA COLI IN WATER	381
Ismael, Mohammed ; Bozduman, Ferhat ; Koc, Ali Gulec ; Noree, Sabah ; Al-Mamoori, Mohammed ; Durmaz, Yakup ; Koc, I.Umrان ; Ulusoy, Seyhan	
3P-104 - PLASMA HELP PREPARATION OF ELECTROSPUN CARBON NANOFIBERS	382
Uygun, Emre ; Bozduman, Ferhat ; Nohut, Neslihan ; Oksuz, Aysegul Uygun ; Oksuz, Lutfi	
3P-105 - CONTINUOUS PLASMA-CHEMICAL PROCESSING OF FABRICS AT ATMOSPHERIC PRESSURE	383
Kovacic, Dusan ; Stahel, Pavel ; Cernak, Mirko ; Krumpolec, Richard ; Kovacic, Dusan ; Cernak, Mirko	
3P-106 - HUMAN HEALTH IMPACT OF MULTIFUNCTIONAL TEXTILES OBTAINED BY USING PLASMA TECHNOLOGY	384
Aileni, Raluca M. ; Surdu, Lilioara ; Oksuz, Lutfi	
3P-107 - LIFE CYCLE AND ENVIRONMENT IMPACT FOR TEXTILE MATERIALS FUNCTIONALIZED BY USING PLASMA TECHNOLOGY	385
Aileni, Raluca M. ; Surdu, Lilioara ; Oksuz, Lutfi	
3P-109 - WATER AND GAS TREATMENT BY USING PULSED CORONA DISCHARGE TECHNIQUE	386
Kebraei, Mohammad ; Ketabi, Abbas ; Halvaei, Abolfazl	
3P-110 - OPTIMIZATION OF A LABORATORY SCALE BIOMASS PLASMA GASIFICATION REACTOR	387
Walt, I.J.v.d. ; Makaringe, N.P.	
3P-111 - DIRECT AND FAST GROWTH OF A SI:GAAS THIN FILM BY MEANS OF THERMIONIC VACUUM ARC (TVA)	388
Senay, Volkan ; Ozen, Soner ; Pat, Suat ; Korkmaz, Sadan	
3P-112 - INVESTIGATION OF THE SHEATH EFFECT ON THE RESONANCE FREQUENCIES OF A CURLING PROBE	389
Arshadi, Ali ; Brinkmann, Ralf Peter	
3P-113 - FINITE PLASMA SHEATH CORRECTIONS APPLIED TO ELECTROSTATIC PROBES	390
Ribeiro, Celso	
3P-115 - SPECTROSCOPIC STUDY ON THE TEMPERATURE EVOLUTION OF EXPLODING WIRES IN UNDERWATER DISCHARGES	391
Lee, Kern ; Chung, Kyoungh-Jae ; Hwang, Y.S. ; Kim, Doek-Kyu	
3P-119 - ARI LASER INDUCED FLUORESCENCE SYSTEM FOR MEASUREMENT OF NEUTRAL DYNAMICS IN A LARGE SCALE HELICON PLASMA	392
Gilmore, M. ; Kelly, R. ; Lynn, A.G. ; Desjardins, T.R.	
4A-1 - ISSUE OF PARTICLE FORMATION IN THE HIGH RATE FILM DEPOSITION BY PLASMA ASSISTED DEPOSITION PROCESSES	393
Han, Jeon G. ; Sahu, B.B. ; Shin, Kyung S. ; Lee, J.S. ; Jin, Su B.	
4A-2 - DUST CHARGING UNDER SURFACE ELECTRON EMISSION	394
Taccogna, Francesco ; Mizzi, Giovanni	
4A-5 - LIGHT SCATTERING ON DUSTY PLASMAS: HOW TO IMPROVE THE QUALITY OF WHITE LEDS?	395
Schepers, L.P.T. ; Beckers, J. ; Tukker, T.W. ; IJzerman, W.L.	
4B-1 - APPLICATION OF A PSEUDOSPARK-GENERATED ELECTRON BEAM TO A 200 GHZ BACKWARD WAVE OSCILLATOR	396
Yin, H. ; Bowes, D. ; Cross, A.W. ; He, W. ; Ronald, K. ; Liu, G. ; Yin, Y. ; Zhang, L. ; Speirs, D.C. ; Robertson, C.W. ; Phelps, A.D.R.	
4B-2 - ADVANCES IN BEAM OPTICS ANALYZER	397
Bui, T. ; Read, M. ; Lin, M.C. ; Ives, L. ; Tallis, B. ; Tran, H.	

4B-3 - VERIFICATION OF PARTICLE-IN-CELL SIMULATIONS WITH MONTE CARLO COLLISIONS AGAINST EXACT SOLUTIONS OF THE BOLTZMANN-POISSON EQUATIONS	398
<i>Turner, Miles M.</i>	
4B-4 - MODELLING OF TRIDIMENSIONAL PLASMA ENHANCED CHEMICAL VAPOR DEOSITION REACTOR AT 2.45GHZ	399
<i>Bouherine, Keltoum ; Tibouche, Ammar ; Mokhtar, Labioye ; Ichlef, Nabil ; Leroy, Olivier Gallian, Sara ; Trieschmann, Jan ; Mussenbrock, Thomas ; Hitchon, William N.G. ; Brinkmann, Ralf Peter</i>	
4B-5 - ANALYTIC MODEL OF THE ENERGY DISTRIBUTION FOR ENERGETIC ELECTRONS IN HIPIMS	400
<i>Gallian, Sara ; Trieschmann, Jan ; Mussenbrock, Thomas ; Hitchon, William N.G. ; Brinkmann, Ralf Peter</i>	
4B-6 - SIMULATION OF NANOCOLUMN FORMATION IN A PLASMA ENVIRONMENT	401
<i>Abraham, Jan Willem ; Strunskus, Thomas ; Faupel, Franz ; Bonitz, Michael</i>	
4B-7 - CHERENKOV RADIATION IN DIELECTRIC-LOADED WAVEGUIDES AND CAVITIES	402
<i>Abdel-Rahmanand, Ahmed F. ; Abuelfadl, Tamer M.</i>	
4C-1 - PLASMA CONTROL FOR ITER AND FUTURE FUSION POWER PLANTS	403
<i>Kolemen, Egemen ; Gates, David A. ; Humphreys, David A. ; Walker, Michael L.</i>	
4C-2 - ORIGIN AND DYNAMICS OF PLASMA BLOB.....	404
<i>Sahoo, G. ; Paikaray, R. ; Samantaray, S. ; Das, P. ; Ghosh, J. ; Chowdhuri, M.B. ; Sanyasi, A.K.</i>	
4C-3 - EFFECTIVE PARAMETERS OF RADIAL ELECTRIC FIELD IN IR-T1 TOKAMAK	405
<i>Noori, K. ; Khorshid, P.</i>	
4C-4 - CONTROL OF TRIBOLIUM CASTANEUM IN STORED WHEAT BY CORONA DISCHARGE TREATMENT	406
<i>Amini, Maryam ; Ghoranneviss, Mahmood ; Nikmaram, Hamed</i>	
4C-5 - ORIGIN AND EVOLUTION OF SPONTANEOUS ROTATION IN PLASMA UNDER DIFFERENT MAGNETIC FIELD GEOMETRY IN TOKAMAK QUEST	407
<i>Mishra, Kishore ; Zushi, H. ; Idei, H. ; Onchi, T. ; Hasegawa, M. ; Hanada, K.</i>	
4C-6 - SEMI ANALYTIC DETERMINATION OF EQUILIBRIUM PLASMA PARAMETER OF DAMAVAND TOKAMAK	408
<i>Noori, Ehsanallah ; Sadeghi, Yahya</i>	
4D-1 - ABOUT INTERNATIONALS STANDARDS IN PLASMA MEDICINE	409
<i>Mann, M. ; Tiede, R. ; Ahmed, R. ; Wurster, S. ; Weltmann, K.-D. ; Daeschlein, G. ; Emmert, S. ; Von Woedtke, Th.</i>	
4D-2 - COMBINATION OF PULSED ELECTRIC FIELDS AND NON-THERMAL PLASMA JET FOR MORE EFFECTIVE BACTERIAL DECONTAMINATION.....	410
<i>Zhang, Qian ; Zhuang, Jie ; von Woedtke, Thomas ; Kolb, Juergen F. ; Weltmann, Klaus-Dieter ; Zhang, Jue ; Fang, Jing</i>	
4D-3 - INVESTIGATION OF ANTIBACTERIAL EFFICACY OF A PLASMA GUN SOURCE FOR ENDODONTIC APPLICATIONS	411
<i>Boselli, Marco ; Cavrini, Francesca ; Colombo, Vittorio ; Gherardi, Matteo ; Laurita, Romolo ; Liguori, Anna ; Simoncelli, Emanuele ; Stancampiano, Augusto</i>	
4D-4 - A BATTERY-OPERATED ATMOSPHERIC-PRESSURE PLASMA WAND FOR BIOMEDICAL APPLICATIONS	412
<i>Pei, Xuekai ; Lu, XinPei</i>	
4D-5 - CHARACTERISTICS OF COLD ATMOSPHERIC PRESSURE PLASMA JET AND ITS ANTIMICROBIAL ACTIVITY	413
<i>Basher, Abdulrahman H. ; Ouf, Salama A. ; Shariff, Samir M.Al ; Benghanem, Mohamed ; Almashraqi, Ahmed A. ; Mohamed, Abdel-Aleam H.</i>	
4D-6 - CHARACTERISTICS OF A SURFATRON-PRODUCED ATMOSPHERIC-PRESSURE PLASMA JET AT LOW PLASMA TEMPERATURES	414
<i>Doll, Timo ; Ogun, Celal Mohan ; Kling, Rainer</i>	
4E-1 - DC BREAKDOWN IN VAPOURS OF LIQUIDS	415
<i>Sivos, Jelena ; Maric, Dragana ; Skoro, Nikola ; Malovic, Gordana ; Petrovic, Zoran Lj.</i>	
4E-2 - PREBREAKDOWN PROCESSES IN WATER WITH SCREENED ELECTRODES AND POSSIBILITY OF PULSE ELECTRICAL STRENGTH INCREASE	416
<i>Korobeynikov, S.M. ; Melekhov, A.V.</i>	
4E-3 - TWO-DIMENSIONAL SIMULATIONS OF GAS DISCHARGE IGNITION IN SHORT GAPS AT VOLTAGE VALUES BELOW PASCHEN MINIMUM	417
<i>Kozhevnikov, Vasily Yu. ; Kozyrev, Andrey V. ; Zjulkova, Larisa A. ; Semeniuk, Natalia S.</i>	
4E-4 - DIELECTRIC WITHSTAND OF MULTI BARRIER ARRANGEMENTS IN AIR SUBJECT TO A LIGHTNING IMPULSE VOLTAGE PULSE	418
<i>Ekeberg, Jonas</i>	
4E-5 - STUDY ON SPOTS ON ELECTRODES AND POLARITY EFFECT INVERSION IN A NANOSECOND-PULSE GAS BREAKDOWN	419
<i>Zhang, Cheng ; Tarasenko, V.F. ; Wang, Ruixue ; Shao, Tao</i>	
4E-6 - NANOSECOND HIGH POWER MICROWAVE WINDOW BREAKDOWN DIAGNOSTIC AND ITS MECHANISM	420
<i>Chang, C. ; Verboncoeur, J. ; Chen, C.H.</i>	
4E-8 - POLARITY EFFECTS ON BREAKDOWN STRENGTH FOR HIGH ENERGY STORAGE LIQUID DIELECTRICS IN MICROSECOND REGIME	421
<i>Wang, Zhen ; Zhang, Zicheng ; Zhang, Jiande ; Song, Zuyin</i>	
5A-1 - A NUMERICAL APPROACH FOR SIMULATIONS OF THE MODE PROPAGATION IN A MICROWAVE DRIVEN PLASMA DISCHARGE	422
<i>Szeremley, Daniel ; Mussenbrock, Thomas ; Brinkmann, Ralf Peter ; Zimmermanns, Marc ; Rolfs, Ilona ; Eremin, Denis</i>	

5A-3 - THREE-DIMENSIONAL, HIGH-ORDER SEMI-IMPLICIT PARTICLE-IN-CELL SOLVER BASED ON A DISCONTINUOUS GALERKIN SPECTRAL ELEMENT METHOD	.....	423
<i>Ortwein, Philip ; Keller, Serena ; Munz, Claus-Dieter</i>		
5A-4 - COMPLEX-FREQUENCY SHIFTED PERFECTLY MATCHED LAYERS WITH RESPECT TO PARTICLE TREATMENT IN A PARTICLE-IN-CELL SCHEME	.....	424
<i>Copplestone, Stephen M. ; Munz, Claus-Dieter</i>		
5A-6 - PHYSICS-BASED PRECONDITIONERS FOR FLUID-PLASMA SIMULATIONS WITH ELECTROMAGNETICS	.....	425
<i>Beckwith, Kris ; Stoltz, Peter H. ; McCormick, Stephen F. ; Ruge, John W.</i>		
5A-7 - MINI-PIC — A PARTICLE-IN-CELL (PIC) CODE ON UNSTRUCTURED GRIDS FOR NEXT GENERATION PLATFORMS	.....	426
<i>Bettencourt, M.T.</i>		
5A-8 - RELATIVISTIC MODELING CAPABILITIES IN PERSEUS EXTENDED MHD SIMULATION CODE FOR HED PLASMAS	.....	427
<i>Hamlin, Nathaniel D. ; Seyler, Charles E.</i>		
5A-9 - FIELD-ALIGNED SEMI-LAGRANGIAN METHODS FOR TURBULENCE SIMULATIONS OF STRONGLY MAGNETIZED PLASMAS	.....	428
<i>Guclu, Yaman ; Sonnendrucker, Eric ; Mehrenberger, Michel</i>		
5A-10 - COMPUTING DC DISCHARGES IN A WIDE RANGE OF CURRENTS WITH COMSOL MULTIPHYSICS: TIME-DEPENDENT SOLVERS VS. STATIONARY SOLVERS	.....	429
<i>Almeida, Pedro G.C. ; Benilov, Mikhail S. ; Cunha, Mario D. ; Gomes, Jose G.L. ; Tereshonok, Dmitry</i>		
5B-2 - STUDY OF SUB-TERAHERTZ HIGH POWER GYROTRON FOR ECH&CD SYSTEM OF DEMO	.....	430
<i>Sakamoto, Keishi ; Kariya, Tsuyoshi ; Oda, Yasuhisa ; Minami, Ryutaro ; Ikeda, Ryosuke ; Kajiwara, Ken ; Kobayashi, Takayuki ; Takahashi, Koji ; Moriyama, Shinichi ; Imai, Tsuyoshi</i>		
5B-3 - SUMMATION OF EMISSION FROM SUPERRADIANT SOURCES AS A WAY TO OBTAIN EXTREME POWER DENSITY MICROWAVES.	.....	431
<i>Ginzburg, N.S. ; Cross, A.W. ; Golovanov, A.A. ; Phelps, A.D.R. ; Romanchenko, I.V. ; Rostov, V.V. ; Sharypov, K.A. ; Shpak, V.G. ; Shunailov, S.A. ; Ul'masulov, M.R. ; Yalandin, M.I. ; Zotova, I.V.</i>		
5B-4 - A COMPACT MAGNETICALLY INSULATED TRANSMISSION LINE OSCILLATOR WITH TE11 MODE OUTPUT	.....	432
<i>Wang, Dong ; Qin, Fen ; Xu, Sha</i>		
5B-5 - DEVELOPMENT AND MODELING OF A G-BAND SHEET-BEAM TRAVELING WAVE TUBE AMPLIFIER WITH GRATING SLOW-WAVE STRUCTURE	.....	433
<i>Karetnikova, T.A. ; Ryskin, N.M. ; Rozhnev, A.G. ; Torgashov, G.V. ; Sinitsyn, N.I. ; Shalaev, P.D. ; Burtsev, A.A.</i>		
5B-6 - INVESTIGATING THE POWER FLOW IN A RELATIVISTIC MAGNETRON WITH RADIAL OUTPUT	.....	434
<i>Leopold, J.G. ; Shlapakovski, A. ; Sayapin, A. ; Krasik, Ya.E.</i>		
5B-7 - MULTI-GW RELATIVISTIC BACKWARD WAVE OSCILLATOR WITH TM₀₂ OPERATING MODE	.....	435
<i>Rostov, V.V. ; Tsygankov, R.V. ; Gunin, A.V. ; Elchaninov, A.A. ; Ju, J.C. ; Li, W. ; Yang, H.W. ; Zhang, J.</i>		
5B-8 - SIMULATIONS OF A 100 KW CW, 650 MHZ GRIDDED MAGNETRON	.....	436
<i>Read, Michael E. ; Lin, Ming-Chieh ; Bui, Thuc ; Ives, R.Lawrence</i>		
5B-9 - ADVANCED COATINGS FOR RF SOURCES	.....	437
<i>Ives, R.L. ; Collins, George ; Falce, Lou ; Flannery, Matt ; Desai, Tappan</i>		
5C-1 - EXPERIMENTAL STUDY OF VACUUM ARC WITH LOW CATHODE CURRENT DENSITY AS A SOURCE OF METAL PLASMA	.....	438
<i>Amirov, R.Kh. ; Vorona, N.A. ; Gavrikov, A.V. ; Liziakin, G.D. ; Politschok, V.P. ; Samoylov, I.S. ; Smirnov, V.P. ; Usmanov, R.A. ; Yartsev, I.M.</i>		
5C-2 - SPECIAL FEATURES OF PLASMA GENERATION AND BEAM FORMATION FOR FORE-VACUUM PLASMA ELECTRON SOURCES	.....	439
<i>Oks, E.M.</i>		
5C-3 - LONG-LIFE, HIGH QE PHOTOCATHODES	.....	440
<i>Ives, R.L. ; Collins, George ; Falce, Lou ; Marsden, David ; Karimov, Rasul ; Montgomery, Eric</i>		
5C-4 - THE ELECTRON ENERGY DISTRIBUTION IN A LOW-PRESSURE SYSTEM COMBINED INDUCTIVE AND CAPACITIVE DISCHARGE	.....	441
<i>Kim, Jin Seok ; Kim, Gyo Cheon ; Lee, Ho-Jun ; Lee, Hae June</i>		
5C-5 - CHARACTERIZATION OF AN ELECTROTHERMAL PLASMA WITH POLYMER AND METAL SOURCE MATERIALS	.....	442
<i>Gebhart, T.E. ; Echols, J.R. ; Winfrey, A.L.</i>		
5C-6 - A NOVEL PLASMA SOURCE FOR PLASMA WAKEFIELD ACCELERATORS	.....	443
<i>Oz, E. ; Moody, J. ; Batsch, F. ; Muggli, P.</i>		
5C-7 - CHARACTERIZATION OF NEGATIVE ION BEAM EXTRACTED FROM A NEGATIVE ION SOURCE WITH A PARTICLE-IN-CELL MODEL	.....	444
<i>Garrigues, Laurent ; Fubiani, Gwenael ; Boeuf, Jean-Pierre</i>		
5C-8 - EXPERIMENTAL RESULTS FOR UNIFORMITY AND IEDF CONTROL WITH PHASE-LOCKED RF SOURCE AND BIAS ON AN INDUCTIVELY COUPLED PLASMA SYSTEM	.....	445
<i>Coumou, David J. ; Shannon, Steven C.</i>		
5C-9 - A SELF-MAGNETIC FIELD PENNING-LIKE VACUUM ARC ION SOURCE DESIGN	.....	446
<i>Long, Jidong ; Dong, Pan ; Peng, Yufei</i>		

5D-1 - THREE MODES IN THE ARRAY OF SURFACE MICRODISCHARGE IN ATMOSPHERIC PRESSURE HE+N₂ MIXTURE	447
<i>Li, Dong ; He, Tongtong ; Liu, Dingxin ; Kong, Michael G</i>	
5D-2 - BIFURCATIONS OF STEADY-STATE SOLUTIONS IN DC GLOW MICRODISCHARGES	448
<i>Almeida, Pedro G.C. ; Benilov, Mikhail S. ; Santos, Diego F.N.</i>	
5D-3 - STREAMER INHIBITION CHARACTERISTICS OF SURFACE DIELECTRIC BARRIER DISCHARGE IN DIFFERENT ELECTRODE CONFIGURATIONS	449
<i>Zhang, Ying ; Li, Jie ; Lu, Na ; Shang, Kefeng ; Wu, Yan</i>	
5D-4 - NANOSECOND, PULSED MICRODISCHARGE UV AND VUV SOURCES	450
<i>Stephens, J. ; Mauch, D. ; Feathers, S. ; Mankowski, J. ; Dickens, J. ; Neuber, A.</i>	
5D-5 - SPATIOTEMPORAL EVOLUTION OF A SINGLE-ELECTRODE NANOSECOND PULSED MICROPLASMA JET OVER WATER.....	451
<i>Song, Shutong ; Lane, Jamie L. ; Jiang, Chunqi</i>	
5D-6 - ENHANCED EFFICIENCY OF ATOMIC OXYGEN GENERATION IN A SINGLE-ELECTRODE, 5NS PULSED MICROPLASMA JET.....	452
<i>Lane, Jamie ; Song, Shutong ; Neuber, Johanna ; Jiang, Chunqi ; Sanders, Jason ; Kuthi, Andras ; Gundersen, Martin A.</i>	
5D-7 - MINI SPRITES AND MINI BLUE JETS IN RUNAWAY ELECTRONS PREIONIZED DIFFUSE DISCHARGES.....	453
<i>Tarasenko, Victor F.</i>	
5D-8 - EXPERIMENTAL STUDY AND SIMULATION OF DISCHARGES EVOLOVEMENT OF AN ARRAY MICRO-HOLLOW CATHODE (MHC) TRIGGERED BY NANOSECOND PULSES AT AN ATMOSPHERIC PRESSURE	454
<i>Zhang, Chengbo ; Liu, Kefu</i>	
5D-9 - FULLY KINETIC SIMULATION OF ATMOSPHERIC PRESSURE MICROCAVITY DISCHARGE DEVICE.....	455
<i>Hopkins, Matthew M. ; Manginell, Ronald P. ; Boerner, Jeremiah J. ; Moore, Christopher H. ; Moorman, Matthew W.</i>	
5E-1 - SURFACE DIELECTRIC BARRIER DISCHARGE ACTUATOR: ELECTRICAL, OPTICAL AND MECHANICAL CHARACTERIZATION	456
<i>Moreau, E. ; Benard, N.</i>	
5E-2 - CHARACTERIZATION OF A COLD ATMOSPHERIC PRESSURE PLASMA JET DRIVEN BY NANOSECOND HIGH-VOLTAGE PULSES	457
<i>Boselli, Marco ; Colombo, Vittorio ; Gherardi, Matteo ; Laurita, Romolo ; Liguori, Anna ; Sanibaldi, Paolo ; Simoncelli, Emanuele ; Stancampiano, Augusto</i>	
5E-3 - IMPROVEMENT OF DYNAMIC RANGE OF ELECTRON ENERGY PROBABILITY FUNCTION FROM TWO ASYMMETRICAL COLLECTING AREA PROBE DATA FILTERED BY SAVITZKY-GOLAY AND BLACKMAN WINDOW METHODS	458
<i>Roh, Hyun-Joo ; Kim, Nam-Kyun ; Ryu, Sangwon ; Lee, Seok-Hwan ; Huh, Sung-Ryul ; Kim, Gon-Ho</i>	
5E-4 - INFLUENCES OF MICROPLASMA GENERATED MICROBUBBLE BY MODERATE ENVIRONMENTAL PRESSURE	459
<i>Xiao, Peng ; Burnette, Matthew ; Staack, David</i>	
5E-5 - ELECTRON PROPERTIES OF RADIO-FREQUENCY CAPACITIVE DISCHARGE AT ATMOSPHERIC PRESSURE	460
<i>Park, S. ; Choe, Wonho ; Kim, K. ; Park, J.Y. ; Moon, S.Y.</i>	
5E-7 - HIGH VOLTAGE ATMOSPHERIC COLD PLASMA TREATMENT OF FRESH CANTALOUPES TO IMPROVE SAFETY AND QUALITY	461
<i>Jensen, Jeanette ; Lim, Trevor ; Applegate, Bruce ; Keener, Kevin M.</i>	
5E-8 - HIGH-SPEED LOW-COST SURFACE TREATMENTS USING A NOVEL ATMOSPHERIC-PRESSURE PLASMA SOURCE.....	462
<i>Kovacic, Dusan ; Stahel, Pavel ; Rahel, Jozef ; Cernak, Mirko</i>	
5E-9 - PREPARATION OF ANTIBACTERIAL NON-WOVEN FABRIC VIA ATMOSPHERIC PRESSURE PLASMA PROCESS.....	463
<i>Denga, Xiaolong ; Nikiforova, Anton ; Leys, Christophe ; Vujosevich, Danijela ; Vuksanovic, Vineta</i>	
6A-1 - GAS HEATING AND SHOCKWAVE EFFECTS ON MICROWAVE STREAMER DEVELOPMENT IN ATMOSPHERIC PRESSURE AIR	464
<i>Kourtzanidis, K. ; Rogier, F. ; Bœuf, J.P.</i>	
6A-2 - NUMERICAL STUDY ON HIGH POWER MICROWAVE FLASHOVER AND BREAKDOWN ON OUTPUT-WINDOW BY EM-FLUID SIMULATION	465
<i>Ye, Dong ; Qian-Hong, Zhou ; Wen-Yuan, Yang ; Zhi-Wei, Dong ; Hai-Jing, Zhou</i>	
6A-4 - SELF-CONSISTENT PLASMA DENSITY EVOLUTION DURING RF ENERGY EXTRACTION FROM A MICROWAVE PULSE COMPRESSOR	466
<i>Shlapakovsky, Anatoli ; Beilin, Leonid ; Donskoy, Moshe ; Krasik, Yakov E. ; Schamiloglu, Edl</i>	
6A-5 - SWITCHING OF CIRCULAR WAVEGUIDE H11 MODE BY PLASMA OF GAS MICROWAVE DISCHARGE	467
<i>Artemenko, Sergey N. ; Avgustinovich, Vladimir A. ; Gorev, Stanislav A. ; Igumnov, Vladislav S. ; Novikov, Sergey A. ; Yushkov, Yurii G.</i>	
6A-6 - DECOMPOSITION OF P-XYLENE BY MICROWAVE PLASMA GENERATED AT ATMOSPHERIC PRESSURE	468
<i>Liu, C. ; Zhang, G. ; Hou, L. ; Zhang, B. ; Wang, Q.</i>	

6A-8 - THE CONCEPT OF EQUIPMENT THERMAL POWER PLANT BOILERS INSTALLATIONS MICROWAVE IGNITION PULVERIZED COAL MIXTURE	.....469
<i>Danylenko, A.M. ; Danylenko, N.V. ; Ibrahimoglu, S.B. ; Ibrahimoglu, I.</i>	
6B-3 - INITIATED PLASMA ENHANCED CHEMICAL VAPOR DEPOSITION (I-PECVD) OF POLY(ALKYL ACRYLATES)	.....470
<i>Karaman, Mustafa ; Gursoy, Mehmet ; Ucar, Tuba ; Demir, Emrah ; Yenice, Ezgi</i>	
6B-4 - INFRARED SPECTROSCOPY OF CH₄/N₂ AND C₂H_M/N₂ (M=2,4,6) GAS MIXTURES AND DEPOSITION OF NITROGEN-CONTAINING POLYMER FILMS IN A DIELECTRIC BARRIER DISCHARGE	.....471
<i>Thejaswini, H.C. ; Sushkov, V. ; Hippler, R.</i>	
6B-5 - MASS TRANSFER AND CHEMICAL PROCESSES IN THE INTERACTION BETWEEN SURFACE MICRODISCHARGE AND DEIONIZED WATER	.....472
<i>Liu, Dingxin ; Liu, Zhichao ; Li, Dong ; Kong, Michael G</i>	
6B-8 - PLASMA-CATALYTIC DESTRUCTION OF BENZENE IN A HYBRID SURFACE/PACKED-BED DISCHARGE OVER AG_xCE_{1-x}/y-Al₂O₃ CATALYST	.....473
<i>Jiang, Nan ; Li, Jie ; Lu, Na ; Shang, Kefeng ; Wu, Yan</i>	
6C-1 - PLASMA-MATERIAL INTERACTION IN IR-T1 TOKAMAK	.....474
<i>Ghoranneviss, Mahmood ; Meshkani, Sakineh ; Jafari, Azadeh</i>	
6C-2 - SMALL PARTICLE TRANSPORT EXPERIMENTS IN VACUUM AND GAS USING PULSED-POWER Z-PINCH LINER-ON-TARGET DRIVE AND DIAGNOSED WITH PROTON RADIOGRAPHIC IMAGING	.....475
<i>Rousculp, C.L. ; Reass, W.A. ; Oro, D.M. ; Griego, J.R. ; Turchi, P.J. ; Reinovsky, R.E. ; Saunders, A. ; Marian, F.G. ; Morris, C.</i>	
6C-3 - INVESTIGATION OF NON-THERMAL ATMOSPHERIC PRESSURE PLASMA JET IN CONTACT WITH LIQUIDS-USING ICCD CAMERA	.....476
<i>Adress, Wameedh ; Abe, Yusuki ; Graham, Bill</i>	
6C-4 - CROSSLINKING OF WATER-SOLUBLE PULLULAN NANOFIBROUS MATS THROUGH ATMOSPHERIC PLASMA TREATMENT	.....477
<i>Colombo, Vittorio ; Focarete, Maria Letizia ; Gherardi, Matteo ; Gualandi, Chiara ; Laurita, Romolo ; Liguori, Anna ; Paltrinieri, Laura ; Stancampiano, Augusto</i>	
6C-5 - ATMOSPHERIC PRESSURE NON-THERMAL PLASMA FOR THE PRODUCTION OF COMPOSITE MATERIALS	.....478
<i>Bloise, Nora ; Sampaolesi, Maurilio ; Visai, Livia ; Colombo, V. ; Gherardi, M. ; Focarete, M.L. ; Gualandi, C. ; Laurita, R. ; Liguori, A. ; Mauro, Nicolo ; Manfredi, Amedea ; Ferruti, Paolo ; Ranucci, Elisabetta</i>	
6C-6 - STRUCTURAL AND ELECTRICAL CHARACTERIZATION OF MAGNETRON SPUTTERED MOO_x THIN FILMS	.....479
<i>Ghorannevis, Z. ; Akbarnejad, E. ; Ghoranneviss, M.</i>	
6C-7 - COAXIAL ELECTROSPUN PCL/PVA-CHITOSAN NANOFIBERS: A NOVEL NON-VIRAL GENE DELIVERY SCAFFOLD	.....480
<i>Sultanova, Zahida ; Kabay, Gozde ; Kaleli, Gizem ; Mutlu, Mehmet</i>	
6D-1 - STUDY OF THE FEASIBILITY OF WARM DENSE MATTER GENERATION USING METAL FOIL ELECTRIC EXPLOSION UNDER MEGAAMPERE CURRENT DRIVE	.....481
<i>Garanin, Sergey F. ; Kuznetsov, Sergey D. ; Reinovsky, Robert E.</i>	
6D-2 - GENERATION OF FAST CUMULATIVE WATER JETS BY UNDERWATER ELECTRICAL EXPLOSION OF CONICAL WIRE ARRAYS	.....482
<i>Shafer, D. ; Gurovich, V.T. ; Yanuka, D. ; Zvulun, E. ; Gleizer, S. ; Toker, G.R. ; Krasik, Y.E.</i>	
6D-3 - NONLINEAR MAGNETIC DIFFUSION AND THE SURFACE EXPLOSION OF METALS IN FAST RISING MEGAGAUSS MAGNETIC FIELD	.....483
<i>Chaikovsky, Stanislav A. ; Oreshkin, Vladimir I. ; Labetskaya, Natalia A. ; Datsko, Igor M. ; Ratakhin, Nicolai A.</i>	
6D-4 - RESONANT ABSORPTION EFFECTS IN NEON INTERACTION WITH ULTRA INTENSIVE (SOFT) X-RAY LASER PULSES WITH PHOTON ENERGY FROM 800 TO 1300 EV	.....484
<i>Zeng, Jiaolong ; Yuan, Jianmin</i>	
6D-5 - MULTIPHASE EQUATIONS OF STATE FOR METALS UNDER PULSED POWER INFLUENCES	.....485
<i>Khishchenko, Konstantin V.</i>	
6D-6 - INVERSE PROBLEM OF THE CURRENT PULSE RECONSTRUCTION ACCORDING TO THE PENETRATION RATE OF ELECTRIC FIELD INDUCED INSIDE THE TUBULAR ELECTRODE	.....486
<i>Khiryanova, Aleksandra I. ; Tkachenko, Svetlana I. ; Grabovskii, Evguenii V. ; Oleinik, George M. ; Sasorov, Pavel V.</i>	
6D-7 - HEAT WAVES AND IONIZATION FRONTS	.....487
<i>Drake, R.P. ; Keiter, P.A. ; Davis, J.S.</i>	
6E-1 - HYBRID SIMULATION OF WEAKLY-IONIZED RAREFIED ARC-JET FLOWING SUPPERSONICALLY ALONG DIVERGING MAGNETIC FIELD	.....488
<i>Laosunthara, Ampan ; Tsuno, Satoshi ; Nakahagi, Takeshi ; Akatsuka, Hiroshi</i>	
6E-2 - INITIAL OPERATION OF THE CUBESAT AMBIPOLAR THRUSTER	.....489
<i>Sheehan, J.P. ; Collard, Timothy A. ; Ostermann, Meghan E. ; Dale, Ethan T. ; Wachs, Benjamin N. ; Longmier, Benjamin W.</i>	
6E-3 - AZIMUTHAL MICRO-INSTABILITY INSIDE A WALL-LESS HALL THRUSTER	.....490
<i>Garrigues, Laurent ; Mazouffre, Stephane ; Vaudolon, Julien ; Tsikata, Sedina</i>	
6E-4 - INSTABILITIES AND TRANSPORT IN PLASMAS WITH EXB DRIFT	.....491
<i>Smolyakov, A. ; Romadanov, I. ; Frias, W. ; Koshkarov, A. ; Raitses, A.Y. ; Kaganovich, I.</i>	
6E-5 - MULTIPLY CHARGED IONS IN HALL THRUSTER PLASMAS	.....492
<i>Kim, Holak ; Lim, Youbong ; Choe, Wonho ; Seon, Jongho</i>	
6E-6 - PLASMA PHYSICS OF STARSHIPS	.....493
<i>Benford, James</i>	

7A-1 - THEORETICAL INVESTIGATION OF ANODE SPOT FORMATION AND ITS CHARACTERISTICS BY THE APPLICATION OF KAPPA DISTRIBUTION FUNCTION AS A TOOL FOR NON-EQUILIBRIUM STEADY STATE (NESS) PLASMAS.....	494
Jahanbakhsh, Sina ; Celik, Murat	
7A-2 - EFFECT OF DIELECTRIC TEMPERATURE ON AR ATMOSPHERIC PRESSURE NONEQUILIBRIUM PLASMA JET WITH DIFFERENT DIELECTRIC MATERIALS.....	495
Song, Jian ; Wang, Youyin ; Piao, Yongjun ; Tang, Jingfeng ; Yu, Daren	
7A-3 - IMAGING STUDIES OF PLASMA STREAMERS IN LIQUIDS FOR THE PRODUCTION OF HYDROGEN-RICH GAS	496
Dirnberger, Abraham ; Kovaleski, Scott D. ; Norgard, Peter ; Thagard, Selma Mededovic ; Franclemont, Joshua	
7A-4 - OBSERVATION OF TWO-ION-STREAM INSTABILITY IN SHEATH-PRESHEATH TRANSITION REGION BY LIF MEASUREMENT	497
Kimand, Nam-Kyun ; Kim, Gon-Ho	
7A-5 - INTERFEROMETRIC STUDY ON THE SHOCK WAVE COLLISIONS DURING DOUBLE LASER PRODUCED PLASMAS.....	498
Wei, Wenfu ; Yang, Zefeng ; Wu, Jian ; Li, Xinwen ; Wang, Qian	
7A-6 - PHOTOIONIZATION RELEVANT EXTREME ULTRAVIOLET EMISSION FROM DEVELOPING LOW TEMPERATURE PLASMAS IN AIR.....	499
Stephens, J. ; Fierro, A. ; Beeson, S. ; Dickens, J. ; Neuber, A.	
7A-7 - EFFECT OF MAGNETIC FIELD ON THE PROPAGATION OF AR ATMOSPHERIC PRESSURE NONTHERMAL PLASMA JETS.....	500
Zhou, Desheng ; Piao, Yongjun ; Wang, Yue ; Tang, Jingfeng ; Zhang, Chaohai	
7A-8 - SELF-ORGANIZED PATTERN FORMATION IN AN ATMOSPHERIC-PRESSURE SINGLE DIELECTRIC BARRIER DISCHARGE.....	501
Zhang, Jiao ; Wang, Yanhui ; Wang, Dezhen	
7A-9 - THERMAL CONDUCTIVITY OF 3D COMPLEX (DUSTY) PLASMAS USING HOMOGENOUS NONEQUILIBRIUM MOLECULAR DYNAMICS COMPUTER EXPERIMENT	502
Shahzad, Aamir ; He, Mao-Gang	
7A-10 - MICROSTRUCTURE EVOLUTION AND MAGNETIC PROPERTIES OF NANOCRYSTALLINE NI₇₅FE₂₅ THIN FILMS: EFFECTS OF SUBSTRATE AND THICKNESS	503
Kaibi, A. ; Guittoum, A. ; Oksuzoglu, R.M. ; Yavru, C. ; Ozgun, S. ; Boudissa, M. ; Kechouane, M.	
7B-1 - OPTIMIZATION OF LASER TRIGGERED PROTON SOURCE AND NEW MECHANISMS OF ION ACCELERATION: FROM THIN SOLID-DENSE FOILS TO LOW-DENSE TARGET	504
Brantov, A.V. ; Ksenofontov, P.A. ; Bychenkov, V.Yu.	
7B-2 - FEMTOSECOND SOFT X-RAY LASER BY TEMPORAL IONIZATION GATING.....	505
Sebban, S. ; Depresseux, A. ; Gautier, J. ; Tissandier, F. ; Lifschitz, A. ; Kim, H.T. ; Zeitoun, P. ; Oliva, E. ; Maynard, G. ; Nejdl, J. ; Kozlova, M. ; Kim, H.T. ; Jacquemot, S.	
7B-3 - DESIGN AND PRIMARY RESULTS OF X-RAY HEATING ALUMINUM FOIL EXPERIMENTS AT PTS FACILITY	506
Li, Jing ; Huang, Xianbin ; Cai, Hongchun ; Duan, Shuchao ; Zhang, Siquan ; Ren, Xiaodong ; Wang, Kunlun ; Dan, Jiakun ; Zhou, Shaotong ; Xu, Qiang ; Ji, Ce ; Feng, Shuping ; Wang, Meng ; Xie, Weiping ; Deng, Jianjun	
7B-4 - HIGH-ENERGY ELECTRON GENERATIONS BY A HIGH POWER LASER AND A DENSITY-TAPERED GAS CELL.....	507
Suk, Hyeyong ; Nam, Inhyuk ; Kim, Minseok ; Lee, Seungwoo	
7B-5 - ASYMMETRIC LASER-PULSE BASED MAGNETIC FIELD ENHANCEMENT IN A PLASMA	508
Gopal, K. ; Singh, M. ; Gupta, D.N.	
7B-6 - DESIGN AND SIMULATION OF A NOVEL KLYNAC DEVICE FOR GENERATION OF BREMSSTRAHLUNG RADIATION	509
Nichols, Kimberley E. ; Carlsten, Bruce C. ; Malyzhenkov, Alexander	
7B-7 - THE ELECTRON DYNAMICS IN AN ION CHANNEL IN PRESENCE OF AN INHOMOGENEOUS BACKGROUND MAGNETIC FIELD	510
Kargaryan, A. ; Sadighzadeh, A.	
7C-1 - DESIGN AND CHARACTERIZATION OF A MARX GENERATOR FOR LOW IMPEDANCE HPM AND RADIOGRAPHIC LOADS	511
Kuskov, Artem ; Elshafiey, Ahmed ; Horne, Sydney ; Portillo, Salvador	
7C-2 - COMPARING A DES TO A BREECH FED RAILGUN USING A SPICE SIMULATION	512
Hundertmark, S.	
7C-3 - EVOLUTION OF A LASER FILAMENTATION TRIGGERED ELECTRIC DISCHARGE IN AIR.....	513
Point, Guillaume ; Arantchouk, Leonid ; Carbonnel, Jerome ; Mysyrowicz, Andre ; Houard, Aurelien	
7C-4 - CAPACITIVE ENERGY STORES WITH NANOSECOND ENERGY TRANSFER.....	514
Lavrinovich, Ivan V. ; Artyomov, Anton P. ; Zhigalin, Alexander S. ; Oreshkin, Vladimir I. ; Ratakhin, Nikolay A. ; Roussikh, Alexander G. ; Fedynin, Anatoly V. ; Chaikovsky, Stanislav A. ; Erfort, Alexander A. ; Feduschak, Vladimir F.	
7C-5 - EXPERIMENTS WITH TWO STAGES OF THE AUGMENTED ELECTROMAGNETIC LAUNCHER (MASEL)	515
Roch, M. ; Hundertmark, S.	
7C-6 - COMPACT LTD FOR PULSED POWER APPLICATIONS	516
Jiang, Weihua ; Tokuchi, Akira	
7C-7 - A COMPACT REPETITIVE PFN-MARX GENERATOR	517
Li, Zhiqiang ; Yang, Jianhua ; Liu, Lie	

7C-8 - NON-THERMAL PLASMA EXCITED BY COMPACT NANOSECOND SOLID-STATE PULSE FORMING LINE IN ATMOSPHERIC AIR	518
<i>Li, Jie ; Liu, Yi ; Wang, Wei ; Li, Xi ; Dong, Pan ; Xie, Yu T. ; Long, Ji D. ; Xia, Lian S. ; Zhang, Lin W.</i>	
7D-2 - THE RESEARCH AND APPLICATION AN X-PINCH ON COMPACT PULSED POWER GENERATORS	519
<i>Artyomov, Anton P. ; Chaikovsky, Stanislav A. ; Oreshkin, Vladimir I. ; Ratakhin, Nikolay A. ; Fedunin, Anatoly V. ; Lavrinovich, Ivan V. ; Roussikh, Alexander G. ; Zhilalin, Alexander S.</i>	
7D-3 - INVESTIGATION OF A SPHERICAL PLASMA FOCUS CONCEPT AS A NEUTRON AND BREMSSTRAHLUNG RADIATION SOURCE	520
<i>Ay, Yasar ; Al-Halim, Mohamed A.Abd ; Bourham, Mohamed</i>	
7D-4 - EXPERIMENTS AND SIMULATIONS OF MAGNETICALLY DRIVEN IMPLOSIONS IN HIGH REPETITION RATE DENSE PLASMA FOCUS.....	521
<i>Bendixsen, L.S.Caballero ; Bott-Suzuki, S.C. ; Cordaro, S.W. ; Krishnan, M. ; Chapman, S. ; Coleman, P.</i>	
7D-5 - 3D MHD SIMULATION OF CAPILLARY DISCHARGE FOR THE BELLA PROJECT.....	522
<i>Bagdasarov, G.A. ; Sasorov, P.V. ; Olkhovskaya, O.G. ; Boldarev, A.S. ; Gasilov, V.A. ; Bulanov, S.S. ; Geddes, C.G.R. ; Mao, H.S. ; Schroeder, C.B. ; Esarey, E. ; Leemans, W.P.</i>	
7D-6 - EXTENDED MHD PLASMA JETS WITH EXTERNAL MAGNETIC FIELDS	523
<i>Byvank, Tom ; Schrafel, Peter C. ; Seyler, Charles E. ; Kusse, Bruce R.</i>	
7D-7 - MEASUREMENTS OF THE MAGNETIC FIELD DISTRIBUTION IN A Z-PINCH PLASMA DURING AND NEAR STAGNATION, USING POLARIZATION SPECTROSCOPY	524
<i>Rosenzweig, Guy ; Kroupp, Eyal ; Starobinets, Alexander ; Fisher, Amnon ; Maron, Yitzhak ; Strauss, Henry R. ; Giuliani, John L. ; Thornhill, J.Ward ; Velikovich, Alexander L</i>	
7D-8 - NUMERICAL INVESTIGATION ON PLASMA FORMATION AND CURRENT TRANSFER IN ELECTRICAL EXPLOSION OF SINGLE WIRE.....	525
<i>Wang, Kun ; Shi, Zongqian ; Shi, Yuanjie ; Wu, Jian ; Jia, Shenli ; Wang, Lijun</i>	
7E-1 - EXPERIMENTAL AND NUMERICAL STUDY OF SHOCK WAVE PROPAGATION PRODUCED BY UNDERWATER ELECTRICAL WIRE EXPLOSION	526
<i>Chao, Youchuang ; Zhou, Haibin ; Han, Ruoyu ; Li, Xingwen</i>	
7E-2 - TEMPORAL EVOLUTION OF PLASMA SUSTAINED IN SINGLE BUBBLES IN LIQUID WATER	527
<i>Yang, Yong ; Tu, Yalong ; Xia, Hualei ; Lu, XinPei</i>	
7E-3 - INVESTIGATION OF THE DECOLORIZATION EFFICIENCY OF PIN-TO-PLATE CORONA DISCHARGE PLASMA SYSTEM FOR INDUSTRIAL WASTEWATER TREATMENT	528
<i>El-Tayeb, A. ; El-Shazly, A.H. ; El-kady, M.F. ; Abdel-Rahman, A.B.</i>	
7E-4 - DEGRADATION OF PHARMACEUTICAL RESIDUES IN WATER BY PULSED CORONA DISCHARGES — INVESTIGATION OF REACTION MECHANISM	529
<i>Banaschik, Robert ; Kolb, Juergen F. ; Miron, Camelia ; Weltmann, KlausDieter ; Lukes, Petr ; Bednarski, Patrick ; Yu, Shuang ; Zhang, Jue ; Fang, Jing</i>	
7E-5 - DIELECTRIC BARRIER DISCHARGE GENERATED FROM THE LIQUID ELECTROLYTE	530
<i>Pavlinaček, David ; Galimiz, Oleksandr ; Žemanek, Miroslav ; Černák, Mirko</i>	
7E-6 - TREATMENTS OF DYE WASTEWATER BY WATER SPOUT IN THE PULSED DBD.....	531
<i>Jiang, Song ; Wen, Yiyong ; Liu, Kefu</i>	
7E-7 - INVESTIGATION ON ATMOSPHERIC PLASMA SURFACE TREATMENT FOR STRUCTURAL BONDING ON TITANIUM AND CFRP	532
<i>Haag, J. ; Mertens, T. ; Kotte, L. ; Kaskel, S.</i>	
7E-8 - INVESTIGATION ON THE PULSE-MODULATED RATIO FREQUENCY DISCHARGE AND ITS APPLICATION ON THE NOX REMOVAL	533
<i>Wang, Qi ; Wang, Dezheng</i>	
PL1-1 - MAGNETO-INERTIAL FUSION RESEARCH IN THE UNITED STATES: A PROMISING PROSPECT	534
<i>Sinars, Daniel B.</i>	
PL2-1 - UNDERWATER ELECTRICAL EXPLOSION OF WIRES: PHYSICS AND APPLICATIONS	535
<i>Krasik, Yakov E.</i>	
PL3-1 - ON EXCITATION OF ALFVEN WAVES BY ENERGETIC PARTICLES IN FUSION AND SPACE PLASMAS	536
<i>Chen, Liu</i>	
PL4-1 - 43 YEARS OF FUN BASIC PLASMA EXPERIMENTS	537
<i>Hershkowitz, Noah</i>	
PL5-1 - MITIGATION OF RAYLEIGH-TAYLOR INSTABILITY IN HIGH-ENERGY-DENSITY PLASMAS	538
<i>Velikovich, A.L.</i>	
PL6-1 - LIGHTNING-DRIVEN PHENOMENA IN NEAR-EARTH SPACE	539
<i>Inan, Umran</i>	
PL7-1 - PLASMA SOURCES FOR BIOMEDICAL APPLICATIONS: PAST, PRESENT, AND FUTURE.....	540
<i>Lu, XinPei</i>	
Author Index	