

12th International Conference "Gas Discharge Plasmas and Their Applications"

September 6–11, 2015

Tomsk, Russia

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Sections

Physical processes in generators of low-temperature plasma

Plasma sources and equipment

Application of low-temperature plasma

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The 12th International Conference "Gas Discharge Plasmas and Their Applications" (GDP 2015) will be held in Tomsk, Russia, on September 6–11, 2015.

It represents a continuation of the conferences on physics of gas discharge held in Russia since 1984 and seminars and conferences on the technological applications of low temperature plasmas traditionally organized in Tomsk.

The program of the Conference covers a wide range of technical areas and modern aspects of the physical processes in the generators of low-temperature plasma, the low and high-pressure discharges, the pulsed plasma sources, the surface modification, and other gas-discharge technologies

The six-day Conference will bring together the specialists from different countries and organizations and provide an excellent opportunity to exchange knowledge, make oral contributions and poster presentations, and initiate discussions on the topics that are of interest to the Conference participants.

We look forward to your participation and hope sincerely that you will enjoy the scientific program and that your stay in Tomsk will be memorable.

September 6, Sunday

10:00 – 12:30

17:00 – 21:00	Registration
19:00 – 22:00	Welcome Party

September 7, Monday

10:00 – 12:30

10:00 – 10:30	Opening Ceremony
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Plenary Session

10:30 – 11:10 Plenary	G1-O-018301 Pulse Volume Discharges in High Pressure Gases <u>V.A. Yamshchikov</u> <i>Institute for Electrophysics and Electric Power RAS, St.Petersburg, Russia</i>
11:10 – 11:50 Plenary	G3-O-014301 Pseudospark Switches in Triple-Pulse Modulator for 20-MeV, 2-KA Linear Induction Accelerator Power Supply <u>A. Akimov</u> , P. Bak, A. Eliseev, L. Fedorova, A. Korepanov, Ya. Kulenko, P. Logachev, A. Pachkov, A. Panov, O. Pavlov, D. Starostenko <i>Budker Institute of Nuclear Physics, Novosibirsk, Russia</i>
11:50 – 12:30 Plenary	G3-O-014501 Black Surface Coatings Deposited by Plasma Chemical Oxidation (PCO) <u>J. Schmidt</u> <i>Innovent, Jena, Germany</i>
12:30 – 14:00	Lunch
14:00	Start of 12th GDP Sessions

September 7, Monday

14:00 – 18:00

Oral Session 1.1

14:00 – 14:30 Invited	<p>G3-O-011103 Magnetron Discharge Sputtering for Fabrication of Nanogradient Optical Coatings</p> <p>O.D. Volpian*, <u>A.I. Kuzmichev</u>** , G.F. Ermakov*, A.I. Krikunov*, Yu.A. Obod*, N.V. Silin***, S.V. Shkatula*</p> <p><i>*Scientific-Manufacturing Enterprise "Fotron-Auto Ltd.", Moscow, Russia</i> <i>**National Technical University of Ukraine "Kiev Polytechnical Institute", Kiev, Ukraine</i> <i>***Far Eastern Federal University, Vladivostok, Russia</i></p>
14:30 – 14:50	<p>G3-O-007303 Processing-Texture Relations for RF-Magnetron Plasma Deposited Hydroxyapatite Coatings</p> <p><u>A.A. Ivanova</u>*, R.A. Surmenev*, M.A.Surmeneva*, D. Depla**</p> <p><i>*National Research Tomsk Polytechnic University, Tomsk, Russia</i> <i>**Ghent University, Ghent, Belgium</i></p>
14:50 – 15:10	<p>G3-O-013801 Composite Thin Films Made by Atmospheric Pressure Plasma Cvd for Bactericidal Applications</p> <p><u>A. Pfuch</u>*, O. Beier*, S. Spange*, S. Gerullis**, C. Wiegand***, K. Horn*, G.G. Volokitin****, B. Grünler*, A. Schimanski*</p> <p><i>*Innovent, Jena, Germany</i> <i>**University of Applied Science, Jena, Germany</i> <i>***University Medical Center Jena, Jena, Germany</i> <i>****Tomsk State University of Architecture and Building, Tomsk, Russia</i></p>
15:10 – 15:30	<p>G3-O-011401 The Gas-Discharge Device Based on the Vacuum Arc Discharge and Magnetron Discharge for the Nanostructured Composite TiN-Cu Layers Synthesis</p> <p><u>D. B-D. Tsyrenov</u>, A. P. Semenov, N. N. Smirnyagina, A. S. Milonov, I. A. Semenova</p> <p><i>Institute of Physical Materials Science SB RAS, Ulan-Ude, Russia</i></p>

15:30 – 15:50	<p>G3-O-008701 The Influence of the Central Electrode Material on the Synthesis Product in W-C System</p> <p><u>K.N. Shatrova</u>, A.A. Sivkov, A.Ya. Pak <i>National Research Tomsk Polytechnic University, Tomsk, Russia</i></p>
15:50 – 16:10	Coffee Break

Oral Session 1.2

16:10 – 16:30	<p>G2-O-016303 Investigation of the Stability of the Electron Source with Multiaperture Plasma Emitter Generating a Large Cross-Section Electron Beam</p> <p><u>M.S. Vorobyov</u>, N.N. Koval, S.A. Sulakshin, V.V. Shugurov <i>Institute of High Current Electronics SB RAS, Tomsk, Russia</i></p>
16:30 – 16:50	<p>G3-O-006803 Nitriding of Commercially Pure Titanium in a Low-Pressure Gas Discharge Plasma Using Plasma Generator «Pink»: Structure, Properties</p> <p><u>Yu.F. Ivanov</u>*, **, Yu.Kh. Akhmadeev*, I.V. Lopatin*, E.A. Petrikova*, **, O.V. Krysina*, **, N.N. Koval*, ** <i>*Institute of High Current Electronics SB RAS, Tomsk, Russia</i> <i>**National Research Tomsk Polytechnic University, Tomsk, Russia</i></p>
16:50 – 17:10	<p>G1-O-019602 Influence of Magnetic Field to Dc Corona Discharge</p> <p>Desheng Zhou, Yue Wang, Jingfeng Tang, Liqiu Wei, <u>Chaohai Zhang</u> <i>Harbin Institute of Technology, Harbin, China</i></p>
17:10 – 17:30	<p>G3-O-020601 Operating Experience of Pseudospark Switch in Pulse Power Applications</p> <p><u>N.V. Voitenko</u>*, A.S. Yudin, N.S. Kuznetsova <i>*National Research Tomsk Polytechnic University, Tomsk, Russia</i></p>
17:30 – 17:50	<p>G3-O-005401 Plasma Treatment of Heat-Resistant Materials</p> <p>V.A. Vlasov, <u>P.V. Kosmachev</u>, N.K. Skripnikova, K.A. Bezukhov <i>Tomsk State University of Architecture and Building, Tomsk, Russia</i></p>

September 8, Tuesday

9:00 – 15:50

Oral Session 2.1

9:00 – 9:30 Invited	<p>G1-O-010801 Research on the Electrical Characteristics of the Pulsed Discharge in Saline Solutions</p> <p><u>Yaohong Sun</u>*, Xuzhe Xu*, Chengyan Ren*, Ailong Fan*, Rongyao Fu*, Yinghui Gao*, Tao Shao*, Ping Yan*, I.A.Shemyakin**, V.S. Kasyanov**, Y.D. Korolev**</p> <p><i>*Institute of Electrical Engineering, Chinese Academy of Sciences, Beijing, China</i> <i>**Institute of High Current Electronics SB RAS, Tomsk, Russia</i></p>
9:30 – 9:50	<p>G1-P-011801 Initial Stages of the High-Current Pulsed Discharge in Saline Solutions</p> <p><u>I. A. Shemyakin</u>*, Y. D. Korolev**, V. S. Kasyanov*, V. G. Geyman*, A. V. Bolotov*, Y. Sun***, T. Shao***, Y. Gao***</p> <p><i>*Institute of High Current Electronics SB RAS, Tomsk, Russia</i> <i>**National Research Tomsk Polytechnic University, Tomsk, Russia</i> <i>***Institute of Electrical Engineering Chinese Academy of Sciences, Beijing, China</i></p>
9:50 – 10:10	<p>G3-O-918201 The Influence of Structure of the Different Modes of Deposition on Structure RF-Magnetron Calcium Phosphate Coating</p> <p>K.S. Kulyashova*, <u>Yu.P. Sharkeev</u>**, A.B. Sainova*, Yu.A. Glushko*</p> <p><i>*Institute of Strength Physics and Materials Science, TomskRussia,</i> <i>**National Research Tomsk Polytechnic University, Tomsk, Russia</i></p>
10:10 – 10:30	<p>G2-O-011601 Operating Features of the Plasma Electron Source Based on the Arc Discharge in the Forevacuum Pressure Range</p> <p><u>A.V. Kazakov</u>*, A.V. Medovnik*, V.A. Burdovitsin*, E.M. Oks**, **</p> <p><i>*Tomsk State University of Control Systems and Radioelectronics, Tomsk, Russia</i> <i>**Institute of High Current Electronics SB RAS, Tomsk, Russia</i></p>
10:30 – 10:50	Coffee Break

Oral Session 2.2

<p>10:50 – 11:20 Invited</p>	<p>G3-O-015501 Improvement of Surface Flashover Strength in Vacuum of Pmma by Surface Modification Using Low-Temperature Plasmas <u>Tao Shao</u>, Cheng Zhang, Ruixue Wang, Yaohong Sun, Ping Yan <i>Institute of Electrical Engineering, Chinese Academy of Sciences, Beijing China</i></p>
<p>11:20 – 11:40</p>	<p>G1-O-010101 The Features of Breakdown of High-Voltage Nanosecond Discharge Initiated with Runaway Electrons in a Nonuniform Electric Field <u>M.I. Lomaev</u>^{*,**}, D.V. Beloplotov^{*,**}, D.A. Sorokin[*], V.F. Tarasenko^{*,**} <i>*Institute of High Current Electronics SB RAS, Tomsk, Russia</i> <i>**National Research Tomsk Polytechnic University, Tomsk, Russia</i></p>
<p>11:40 – 12:00</p>	<p>G1-O-014202 The Formation and Transport of Large Cross-Section Beams in the Low-Pressure Gas <u>Nguyen Bao Hung</u>[*], T.V. Koval[*], M.S. Vorobyov^{**}, N.N. Koval^{***} <i>*National Research Tomsk Polytechnic University, Tomsk, Russia</i> <i>**Institute of High Current Electronics SB RAS, Tomsk, Russia</i></p>
<p>12:00 – 12:20</p>	<p>G1-O-921001 Influence of the System Z-Nonuniformity on Plasma Channel Formation When Transporting a Low-Energy High-Intensity Electron Beam in the Low-Pressure Gas <u>I.L. Zvigintsev</u>, V.P. Grigoriev <i>National Research Tomsk Polytechnic University, Tomsk, Russia</i></p>

12:20 – 12:40	<p>G3-O-015802 Improving the Operating Properties of Parts of Titanium Alloys by Surface Hardening in High Density Plasma of Glow Discharge</p> <p><u>K.N. Ramazanov</u>, I.V. Zolotov, Yu.G. Khusainov, R.F. Khusnutdinov</p> <p><i>Ufa State Aviation Technical University, Ufa, Russia</i></p>
12:40 – 14:00	Lunch

Oral Session 2.3

14:00 – 14:30 Invited	<p>G2-O-012701 Magnetron Sputtering System for Coatings Deposition with Activation of Working Gas Mixture by Low-Energy High-Current Electron Beam</p> <p><u>N.V. Gavrilov</u>, A.S. Kamenetskikh, A.I. Men'shakov, O.A. Bureyev</p> <p><i>Institute of Electrophysics UD RAS, Ekaterinburg, Russia</i></p>
14:30 – 14:50	<p>G3-O-922701 The Application of Assisting Gas Plasma Generator for Low-Temperature Magnetron Sputtering of Ti-C-Mo-S Anti-Friction Coatings on Titanium Alloys</p> <p>A.I. Potekaev*, <u>V.M. Savostikov</u>*, A.N. Tabachenko*, E.F. Dudarev*, E.A. Melnikova*, I.A. Shulepov**</p> <p><i>*Siberian Physical-Technical Institute of Tomsk State University, Tomsk, Russia</i> <i>**Physical-Technical Institute of Tomsk Polytechnic University, Tomsk, Russia</i></p>
14:50 – 15:10	<p>G2-O-019102 The Magnetron Sputtering System as the Source of the Ag Nanoparticles for Applications</p> <p><u>A.S. Zolkin</u></p> <p><i>Novosibirsk State University, Novosibirsk, Russia</i> <i>Institute of Laser Physics SB RAS, Novosibirsk, Russia</i></p>

15:10 – 15:30	<p>G2-O-002401 Features of Plasma Generation by Ribbon Electron Beam in Forvacuum Pressure Range</p> <p><u>A.S. Klimov</u>, E.M. Oks, A.A. Zenin <i>Tomsk State University of Control Systems and Radioelectronics, Tomsk, Russia</i></p>
15:30 – 15:50	<p>SP-O-003371 Vacuum Equipment and Glass Fittings which are Used in Plasma Technology</p> <p><u>V. Feofanov</u> <i>MILLAB Company, Moscow, Russia</i></p>
16:00 – 17:30	<p>Coffee Break & Poster Section</p>
	<p>Round Table</p> <p>TECHNOLOGICAL APPLICATIONS OF THE ATMOSPHERIC-PRESSURE DISCHARGES</p> <p>Chairman: Yu.D. Korolev</p>

September 8, Tuesday

15:30 – 17:00

Poster Session:

HIGH-PRESSURE DISCHARGES. APPLICATIONS

1	<p>G1-O-010102 The Optical Emission Spectroscopy of Pulsed and Pulse-Periodic Discharges Initiated with Runaway Electrons</p> <p><u>M.I. Lomaev</u>*,**, D.A. Sorokin*, V.F. Tarasenko*,**</p> <p><i>*Institute of High Current Electronics SB RAS, Tomsk, Russia</i> <i>**National Research Tomsk State University, Tomsk, Russia</i></p>
2	<p>G1-O-012901 Subnanosecond High-Voltage Gas Discharge in Sharply-Nonuniform Electric Field</p> <p><u>E.Kh. Baksh</u>t, S.Ya. Belomyttsev, A.G. Burachenko, A.A. Grishkov, V.A. Shklyaev, V.F. Tarasenko</p> <p><i>Institute of High Current Electronics SB RAS, Tomsk, Russia</i></p>
3	<p>G1-O-002801 Runaway Electrons Preionized Diffuse Discharges and their Application</p> <p><u>V.F. Tarasenko</u>, M.V. Erofeev, M.I. Lomaev, M.A. Shulepov</p> <p><i>Institute of High Current Electronics SB RAS, Tomsk, Russia</i></p>
4	<p>G1-O-002101 Inversion of the Polarity Effect in a Nanosecond Pulse Discharge Initiated by Runaway Electrons</p> <p><u>D.V. Beloplotov</u>*,**, M.I. Lomaev*,**, D.A. Sorokin*, V.F. Tarasenko*,**</p> <p><i>*Institute of High Current Electronics SB RAS, Tomsk, Russia</i> <i>**National Research Tomsk State University, Tomsk, Russia</i></p>
5	<p>G1-P-002104 Blue and Green Jets in Laboratory Discharges Initiated by Runaway Electrons</p> <p><u>D.V. Beloplotov</u>*,**, M.I. Lomaev*,**, D.A. Sorokin*, V.F. Tarasenko*,**</p> <p><i>*Institute of High Current Electronics SB RAS, Tomsk, Russia</i> <i>**National Research Tomsk State University, Tomsk, Russia</i></p>

6	<p>G1-P-010103 Bending of a Paths of a Cathode Streamer and Spark Leader in Runaway Electron Preionized Diffuse Discharges</p> <p><u>M.I. Lomaev</u>^{*,**}, C. Zhang^{***,****}, V.F. Tarasenko^{*,**}, T. Shao^{***,****}, D.V. Beloplotov^{*,**}, R. Wang^{***,****}, D.A. Sorokin[*], P. Yan^{***,****}</p> <p><i>*Institute of High Current Electronics SB RAS, Tomsk, Russia</i> <i>**National Research Tomsk State University, Tomsk, Russia</i> <i>***Institute of Electrical Engineering, Chinese Academy of Sciences, Beijing, China</i> <i>****Key Laboratory of Power Electronics and Electric Drive, Chinese Academy of Sciences, Beijing, China</i></p>
7	<p>G1-P-002103 High Energy Electrons Behind the Plane-Grid Cathode at Subnanosecond Discharge in Atmospheric Pressure Air</p> <p><u>D.V. Beloplotov</u>^{*,**}, I.D. Kostyrya[*], V.F. Tarasenko^{*,**}</p> <p><i>*Institute of High Current Electronics SB RAS, Tomsk, Russia</i> <i>**National Research Tomsk State University, Tomsk, Russia</i></p>
8	<p>G1-P-012902 Diffuse and Spark Discharges in Nonuniform Electric Field at Pulse Repetition Mode and Their Influence on the Anode</p> <p><u>E.Kh. Baksht</u>, A.G. Burachenko, M.V. Erofeev, V.F. Tarasenko</p> <p><i>Institute of High Current Electronics SB RAS, Tomsk, Russia</i></p>
9	<p>G1-P-012903 Pulse-Periodic Generation of X-Ray Emission and Supershort Avalanche Electron Beams in Nitrogen</p> <p><u>E.Kh. Baksht</u>, A.G. Burachenko, V.F. Tarasenko</p> <p><i>Institute of High Current Electronics SB RAS, Tomsk, Russia</i></p>
10	<p>G1-P-002802 Supershort Avalanche Electron Beams and X-Ray in SF₆</p> <p><u>V.F. Tarasenko</u>[*], Ch. Zhang^{**}, D.V. Beloplotov[*], T. Shao^{**}, M.I. Lomaev[*], P. Yan^{**}</p> <p><i>*Institute of High Current Electronics SB RAS, Tomsk, Russia</i> <i>**Institute of Electrical Engineering, Chinese Academy of Sciences, Beijing, China</i></p>
11	<p>G3-P-002803 Surface Hardening of Stainless Steel by Runaway Electrons Preionized Diffuse Discharge in Air Atmosphere</p> <p><u>V.F. Tarasenko</u>, M.V. Erofeev, K.V. Oskomov, M.A. Shulepov</p> <p><i>Institute of High Current Electronics SB RAS, Tomsk, Russia</i></p>

12	<p>G3-P-017101 Changes in the Electro-Physical Propertyies of Mct Epitaxial Films Affected by a Plasma Volume Discharge Induced by an Avalache Beam in Atmospheric-Pressure Air</p> <p><u>D.V. Grigoryev</u>*, A.V. Voitsekhovskii*, K.A. Lozovoy*, V.F. Tarasenko**, M.A. Shulepov**</p> <p><i>*National Research Tomsk State University, Tomsk, Russia</i> <i>**Institute of High Current Electronics SB RAS, Tomsk, Russia</i></p>
13	<p>G3-P-017102 The Impact of the Plasma Volume Discharge in the Atmospheric- Pressure Air on the Distribution of the Surface Potential in a V-Defect Region of Epitaxial HgCdTe Films</p> <p><u>D.V. Grigoryev</u>*, V.A. Novikov*, D.A. Bezrodnyy*, V.F. Tarasenko**, M.A. Shulepov**</p> <p><i>*National Research Tomsk State University, Tomsk, Russia</i> <i>**Institute of High Current Electronics SB RAS, Tomsk, Russia</i></p>
14	<p>G3-P-017201 Influence of Plasma Volume Discharge in Atmospheric-Pressure Air on the Admittance of MIS Structures Based on MBE p-HgCdTe</p> <p>A.V. Voitsekhovskii*, S.N. Nesmelov*, <u>S.M. Dzyadukh</u>*, D.V. Grigoryev*, **, V.F. Tarasenko**, M.A. Shulepov**</p> <p><i>*National Research Tomsk State University, Tomsk, Russia</i> <i>**Institute of High Current Electronics SB RAS, Tomsk, Russia</i></p>
15	<p>G3-O-017803 Application of Atmospheric Plasma with Runaway Electrons for Industrial Wastewater Treatment</p> <p><u>A.N. Maltsev</u>*, ***, A. A. Maltseva**, M. V. Martynov***, Z. Q. Jia***</p> <p><i>*Institute of Atmospheric Optics SB RAS, Tomsk, Russia</i> <i>**Siberian State Medical University, Tomsk, Russia</i> <i>***Laser Research Institute of SDAS, Jining, China</i></p>
16	<p>G1-O-017801 The Threshold Effect for Some Physical Parameters of Adre Plasma by Spore Bacteria Decontamination</p> <p><u>A.N. Maltsev</u>*, ***, A. A. Maltseva**</p> <p><i>*Institute of Atmospheric Optics SB RAS, Tomsk, Russia</i> <i>**Siberian State Medical University, Tomsk, Russia</i> <i>***Laser Research Institute of SDAS, Jining, China</i></p>

17	<p>G3-P-020401 Generation of Shock-Wave Disturbances at Pulsating Plasma-Vapor Bubble Oscillation</p> <p><u>N.S.Kuznetsova</u>, A.S. Yudin, N.V. Voitenko <i>*National Research Tomsk Polytechnic University, Tomsk, Russia</i></p>
18	<p>G2-P-010701 Development of Dielectric Barrier Discharging Power Supply</p> <p><u>Yinghui Gao*</u>, Kun Liu*, Rongyao Fu*, Yaohong Sun*, Ping Yan** <i>*Institute of Electrical Engineering, Chinese Academy of Sciences, Beijing, China</i> <i>**Key Laboratory of Power Electronics and Electric Drive, Beijing, China</i></p>
19	<p>G1-O-018902 The Mode Translation of Trichel Discharge</p> <p><u>Zhang Kexin*</u>, Piao Yongjun*, Tangmiao*, Tang Jingfeng*, Wei Liqiu*, Zhang Chaohai* <i>*Harbin Institute of Technology, Heilongjiang, China</i></p>
20	<p>G1-P-019201 Comparison of Dielectric Material on Ar Atmospheric Pressure nonequilibrium Plasma Jets with Heated Dielectric Wall</p> <p><u>Jian Song*</u>, Youyin Wang*, Jingfeng Tang**, Liqiu Wei**, Daren Yu* <i>*School of Energy Science and Engineering, Harbin Institute of Technology, Harbin, China</i> <i>**Academy of Fundamental and Interdisciplinary Sciences, Harbin Institute of Technology, Harbin, China</i></p>
21	<p>G2-P-013301 Jitter of the LTD Spark Gap Switches</p> <p><u>S.N. Volkov*</u>, V. A. Sinebryukhov*, V. M. Alexeenko*, S.S. Kondratiev*, S.V. Vasiliev*, A.A Kim*,**, M.G. Mazarakis*** <i>*Institute of High Current Electronics SB RAS, Tomsk, Russia</i> <i>**National Research Tomsk Polytechnic University, Tomsk, Russia</i> <i>***Sandia National Laboratories, Albuquerque, USA</i></p>
22	<p>G1-P-016702 Influence of the Electrodes Erosion on Arc Dynamics</p> <p><u>A.V. Kharlov</u> <i>Institute of High Current Electronics SB RAS, Tomsk, Russia</i></p>

23	<p>G1-P-916402 Diagnostics of Plasma Jet in Low-Current Nonsteady State Plasmatron</p> <p><u>V.O. Nekhoroshev</u>** , Y.D. Korolev** , O.B. Frants** , N.V. Landl** , A.V. Bolotov*</p> <p><i>*Institute of High Current Electronics SB RAS, Tomsk, Russia</i> <i>**National Research Tomsk State University, Tomsk, Russia</i></p>
24	<p>G3-P-016001 2D Modeling of KrF Laser with Nonuniform Pumping Discharge</p> <p>Yu.I. Bychkov, Yu.N. Panchenko, A.V. Pavlinsky, <u>S.A. Yampolskaya</u>, A.G.Yastremskii</p> <p><i>Institute of High Current Electronics SB RAS, Tomsk, Russia</i></p>
25	<p>G1-P-011503 The Emission Spectrum of the Radiation Kr₂F and Krf Molecules in the Discharge Plasma of Excimer Laser</p> <p><u>Yu.N. Panchenko</u>* , M.V. Andreev* , V.F.Losev* ,** , A.V. Puchikin*</p> <p><i>*Institute of High Current Electronics SB RAS, Tomsk, Russia</i> <i>**National Research Tomsk Polytechnic University, Tomsk, Russia</i></p>
26	<p>G2-P-016201 The Stability of the Volume Discharge with a High Specific Energy in the Chemical Non-Chain HF-Laser</p> <p><u>A.V. Puchikin</u>* , V.F. Losev* ,** , Yu. N. Panchenko*</p> <p><i>*Institute of High Current Electronics SB RAS, Tomsk, Russia</i> <i>**National Research Tomsk Polytechnic University, Tomsk, Russia</i></p>
27	<p>G1-P-003301 Electrodynamic Characteristics of Dusty Plasma of High Frequency Torch Discharge</p> <p><u>Y.Y. Lutsenko</u>* , V.A. Vlasov**</p> <p><i>*National Research Tomsk Polytechnic University, Tomsk, Russia</i> <i>**Tomsk State University of Architecture and Building, Tomsk, Russia</i></p>
28	<p>G2-P-000301 Improvement of a Blumlein Pulse Forming Line in Bipolar Pulse Mode</p> <p><u>A.I. Pushkarev</u>* , Yu.I. Isakova, I.P. Khaylov</p> <p><i>National Research Tomsk Polytechnic University, Tomsk, Russia</i></p>
29	<p>G3-O-006601 Optimization the Plasmadynamic Synthes of ϵ-Fe₂O₃</p> <p><u>A.A. Lomakina</u>, A.S. Ivashutenko, A.A. Sivkov</p> <p><i>National Research Tomsk Polytechnic University, Tomsk, Russia</i></p>

30	<p>G1-O-020901 The Glow Discharge with a Transverse Supersonic Flow in a Bounded Region of the Interelectrode Space</p> <p>B.A. Timerkaev, <u>D.I. Israphilov</u>, D.R. Amirzyanov <i>Kazan Federal University Naberezhnye Chelny Institute, Naberezhnye Chelny, Russia</i></p>
31	<p>G1-P-008603 A Study of High-Frequency Current Pulsations in the Gas Discharge with Contact to Liquid Electrolyte</p> <p><u>K.K. Tazmeev</u>*, B.A. Timerkaev**, G.K. Tazmeev** <i>*Kazan Federal University Naberezhnye Chelny Institute, Naberezhnye Chelny, Russian</i> <i>**Kazan National Research Technical University named after A.N.Tupolev, Kazan, Russia</i></p>
32	<p>G1-P-008604 Low-Current Electric Arc in the Open Air between the End of the Cathode and Long Vertical Anode</p> <p><u>K.K. Tazmeev</u>*, B.K. Tazmeev** <i>*Kazan Federal University Naberezhnye Chelny Institute, Naberezhnye Chelny, Russia</i> <i>**Kazan National Research Technical University named after A. N. Tupolev, Naberezhnye Chelny, Russia</i></p>
33	<p>G3-P-020205 Automatic Control System of High-Precision Welding of Preparations by the Laser Radiation at Influence of the Plasma Torch</p> <p>Zvezdin V.V., <u>Israfilov D.I.</u>, Portnov S.M, Saubanov R.R., Rakhimov R.R., Zvezdina N.M. <i>Kazan Federal University Naberezhnye Chelny Institute, Naberezhnye Chelny, Russia</i></p>
34	<p>G1-O-006202 Breakdown Formation Time of Subnanosecond Discharge in Hydrogen at High Pressures</p> <p><u>S.N. Ivanov</u>, K.A. Sharypov <i>Institute of Electrophysics UD RAS, Ekaterinburg, Russia</i></p>
35	<p>G1-O-006203 The Method of The Breakdown Speed Increasing in Subnanosecond Highpressure Gas Discharges</p> <p><u>S.N. Ivanov</u> <i>Institute of Electrophysics UD RAS, Ekaterinburg, Russia</i></p>

36	<p>G1-P-018801 Numerical Simulation of Runaway Electron Beam Generation in Non-Homogenous Gas Media with Tube Cathode</p> <p><u>V.V. Lisenkov</u>, V.A. Shklyayev*</p> <p><i>Institute of Electrophysics UD RAS, Ekaterinburg, Russia</i> <i>Institute of High Current Electronics SB RAS, Tomsk, Russia</i></p>
37	<p>G1-P-002502 Numerical Simulation of the Plasma Layer Near the Cathode Spot</p> <p><u>D.L. Shmelev</u>*</p> <p><i>*Institute of Electrophysics UD RAS, Ekaterinburg, Russia</i></p>
38	<p>G1-P-002501 On Plasma Jet Formation in Vacuum Arc with Composite Cathode</p> <p><u>D.L. Shmelev</u>*, S.A. Barenholts**, I.V. Uimanov*</p> <p><i>*Institute of Electrophysics UD RAS, Ekaterinburg, Russia</i> <i>**Prokhorov General Physics Institute RAS, Moscow, Russia</i></p>
39	<p>G2-P-004401 The Investigation of Methods for Increasing the Electrodes Lifetime and the Continuous Work Time of Electric Arc Ac Plasma Torches</p> <p><u>V.E.Kuznetsov</u>, S.D.Popov, V.A.Spodobin, R.V.Ovchinnikov, J.D.Dudnik, O.B.Vasilieva*</p> <p><i>*Institute for Electrophysics and Electric Power RAS, St.Petersburg, Russia</i></p>
40	<p>G3-P-009801 Factors Affecting the Efficiency of Carbon Disulphide Conversion by Streamer Corona Discharge in Atmospheric Pressure Gas Mixtures</p> <p><u>I.E. Filatov</u>, D.L. Kuznetsov, V.V. Uvarin, Yu.S. Surkov, S.A. Nikiforov, G.G. Ugodnikov</p> <p><i>Institute of Electrophysics UD RAS, Ekaterinburg, Russia</i></p>
41	<p>G3-P-009803 Study of Decomposition Regularities of Complex Mixtures of Organic Solvent Vapors in a Plasma Generated by a Pulsed Corona Discharge</p> <p><u>I.E. Filatov</u>, V.V. Uvarin. D.L. Kuznetsov, Yu.S. Surkov, S.A. Nikiforov</p> <p><i>Institute of Electrophysics UD RAS, Ekaterinburg, Russia</i></p>
42	<p>G1-P-010201 Research of Spiral Form of Arc Post of High-Frequency Arc Discharge</p> <p><u>A.F. Kokorin</u></p> <p><i>Ural Federal University, Ekaterinburg, Russia</i></p>

43	<p>G1-P-006401 Airflow Effect on Dbd Uniformity in Atmospheric Air</p> <p>M.V. Malashin*, S.I. Moshkunov*, <u>E.A. Shershunova*</u></p> <p><i>*Institute for Electrophysics and Electric Power RAS, St.Petersburg, Russia</i></p>
44	<p>G3-P-020501 The Plasma Torch Working on a Mixture of Steam and Other Gases for the Petrochemical Applications</p> <p>A.V. Surov*,**, S.D. Popov*,**, <u>D.I. Subbotin*</u>, E.O. Serba*, V.A. Spodobin*, G.V. Nakonechny*, A.V. Nikonov*</p> <p><i>*Institute for Electrophysics and Electric Power RAS, St.Petersburg, Russia</i> <i>**St.Petersburg State Polytechnical University, St.Petersburg, Russia</i></p>
45	<p>G1-P-003701 The Study of the Electric Field Arc Column in the Channel Ac Arc Plasma Torch</p> <p><u>S.A. Shabalin</u>, G.V. Nakonechny, A.V. Nikonov, A.V. Gnedovski*</p> <p><i>*Institute for Problems of Electroenergy RAS, St.Petersburg, Russia</i></p>
46	<p>G1-P-018701 The Runaway Electron Beam Formed in a Discharge at Atmospheric Pressure</p> <p><u>E. V. Oreshkin*</u>, S. A. Barengolts*, S. A. Chaikovskyy**, V. I. Oreshkin**</p> <p><i>*Lebedev Physical Institute RAS, Moscow, Russia</i> <i>**Institute of High Current Electronics SB RAS, Tomsk, Russia</i></p>
47	<p>G3-P-011201 Decomposition Kinetics of Sulfonol in Its Aqueous Solutions Under the Action of a Dielectric Barrier Discharge of Atmospheric Pressure in Oxygen</p> <p><u>A.I. Shishkina</u>, V.V. Rybkin, E.S. Bobkova</p> <p><i>Ivanovo State University of Chemistry and Technology, Ivanovo, Russia</i></p>
48	<p>G3-P-018401 Destruction of Organic Dyes in Water Solutions Under the Action of Low-Temperature Plasma Jet</p> <p><u>P.L. Pleskunov</u>, P.V. Bogdanov, D.A. Shutov</p> <p><i>Ivanovo State University of Chemistry and Technology, Ivanovo, Russia</i></p>
49	<p>G1-P-018601 Electrophysical Parameters of the Discharge Under Trimethylstearylammonium Chloride Aqueous Solution in Air at Atmospheric Pressure</p> <p><u>Pravidov A.V.</u>, Konovalov A.S., Shutov D.A.</p> <p><i>Ivanovo State University of Chemistry and Technology, Ivanovo, Russia</i></p>

50	<p>G3-O-018102 Plasma Ebg Structures at High Microwave Power</p> <p>V.I. Arkhipenko, <u>L.V. Simonchik</u>, M.S. Usachonak <i>Institute of Physics of NAS of Belarus, Minsk, Belarus</i></p>
51	<p>G1-P-002001 Plasma Effects at Irradiation of LiF and NaF Crystals by Femtosecond Laser Pulses</p> <p><u>L.I. Bryukvina</u>*, S.V. Lipko** <i>*Institute of Laser Physics SB RAS, Irkutsk, Russia</i> <i>**Vinogradov Institute of Geochemistry SB RAS, Irkutsk, Russia</i></p>
52	<p>G2-P-014801 Powerful Nanosecond Vuv Volumetric Gas Discharge</p> <p><u>V.I. Baryshnikov</u>*,**, V.Y. Chirkov**, A.P. Kurbaka*, S.V. Dorohov**, I.V. Shipaev* <i>*Irkutsk State Railway University, Irkutsk, Russia.</i> <i>**Irkutsk State University, Irkutsk, Russia</i></p>
53	<p>G3-O-015102 Plasma Actuators Characteristics for Boundary Layer Control</p> <p>Chernyshev S.L.* , <u>M.D. Gamirullin</u>*, Kuryachii A.P.* , Rebrov I.E.** <i>*Central Aerohydrodynamic Institute, Zhukovsky, Russia</i> <i>**Institute for Electrophysics and Electric Power RAS, St. Petersburg, Russia</i></p>
54	<p>G1-P-921501 Effect of the Discharge Circuit and Spark Gap Parameters on Energy Loss in a Nanosecond Spark Gap Switch</p> <p>I.V.Lavrinovich, V.I.Oreshkin, S.A.Chaykovskiy, A.S.Loshkarev <i>Institute of High Current Electronics SB RAS, Tomsk, Russia</i></p>
55	<p>G1-P-923501 Investigation of Electrooptical Breakdown Threshold in Gas Mixtures of Complex Chemical Composition</p> <p>E.Yu. Loktionov, A.V.Pavlov, N.A. Pasechnikov, Yu.S. Protasov, <u>V.D.Telekh</u> <i>Bauman Moscow State Technical University, Moscow, Russia</i></p>
56	<p>G3-P-923901 Destruction of Molecular Compounds in Gaseous and Liquid Medium in Microwave Discharge Plasma</p> <p><u>A.G. Zherlitsyn</u>, V.P. Shiyon, L.N. Shiyon, S.O. Magomadova <i>National Research Tomsk Polytechnic University, Tomsk, Russia</i></p>

57	<p>G3-P-901802 The Structure and Properties of TiOx and ZrOx Coatings on Technically Pure Titanium Alloy</p> <p>E.V. Berezneeva*, I.P. Chernov*, <u>V.A. Vlasov</u>*,**, V.N. Kudiiarov*, N.S. Pushilina*, A.N. Nikolayeva*, O.V. Krysina***</p> <p><i>*National Research Tomsk Polytechnic University, Tomsk, Russia</i> <i>**National Research Tomsk State University, Tomsk, Russia</i> <i>***Institute of High-Current Electronics SB RAS, Tomsk, Russia</i></p>
58	<p>G3-P-901803 Investigation of Hydrogenation Parameters Influence on Hydrogen Sorption Rate by Zr-1%Nb Alloy with Nickel Layer</p> <p>V.N. Kudiiarov*, E.B. Kashkarov*, M.S. Syrtanov*, M.N. Babikhina*, <u>V.A. Vlasov</u>**</p> <p><i>*National research Tomsk polytechnic university Tomsk, Russia</i> <i>**National research Tomsk state university Tomsk, Russia</i></p>
59	<p>G3-P-923601 Synthesis of Glass-Ceramic Material Melt Produced Using Highly Concentrated Heat Sources</p> <p><u>A. Lutsenko</u>, V.A. Vlasov, O.G. Volokitin, I.Yu. Yur'ev, M.A. Semenovkyh</p> <p><i>Tomsk State University of Architecture and Building, Tomsk, Russia</i></p>

September 9, Wednesday

9:00 – 15:30

Oral Session 3.1

9:00 – 9:30 Invited	G3-O-015902 Improving the Quality of Asphalt Coating with Fullerenes A.P. Semenov*, L.A.Urghanova**, N.I. Shestakov**, <u>N.N. Smirnyagina*</u> , B.O. Tsyrenov*, D.E. Dasheev*, Z.M. Khaltarov* <i>*Institute of Physical Materials Science SB RAS, Ulan-Ude, Russia, **East-Siberian state university of Technologies and Management, Ulan-Ude, Russia</i>
19:30 – 9:50	G3-O-008301 Characterization of Conductive Surface Alloys Formed with an E-Beam Cladding <u>E.V. Yakovlev</u> , A.B. Markov, V.I. Petrov <i>Institute of High Current Electronics SB RAS, Tomsk, Russia</i>
9:50 – 10:10	G1-O-001601 Plasma Technology of Silicate Melts Obtaining <u>G.G. Volokitin</u> , N.K. Skripnikova, O.G. Volokitin, V.V. Shekhovtsov <i>Tomsk State University of Architecture and Building, Tomsk, Russia</i>
10:10 – 10:30	G3-O-014401 Morphology of Ceramic Particles Produced by Plasma-Chemical Synthesis <u>V.A. Arkhipov*</u> , S.S.Bondarchuk**, V.D. Gol'din*, I.K. Zharova*, A.S. Zhukov* <i>*Research Institute of Applied Mathematics and Mechanics of Tomsk State University, Tomsk, Russia **Tomsk State Pedagogical University, Tomsk, Russia</i>
10:30 – 10:50	Coffee Break

Oral Session 3.2

10:50 – 11:10	<p>G3-O-018001 Temperature Measurement of Thermal Peaks in Pure Metals and Al-Mg-Li-Zn Alloy Under Argon Ion Irradiation (E = 5–20 KeV) <u>V.V. Ovchinnikov*</u>, V.I. Solomonov*, F.F. Makhinko* <i>*Institute of Electrophysics UD RAS, Ekaterinburg, Russia</i></p>
11:10 – 11:30	<p>G1-O-020206 The Experimental Studies of the Electro-Erosion Processes on Plasmatron Electrode with a Moving Electric Arc A.T. Gabdrakhmanov, <u>I.H. Israphilov</u>, A.T. Galiakbarov <i>Kazan Federal University, Naberezhnye Chelny, Russia</i></p>
11:30 – 11:50	<p>G2-O-014901 Helium Permeation Through Materials for Gas Discharge Plasmas Devices <u>M.L. Vinogradov</u>, V.T. Barchenko <i>Saint Petersburg State Electrotechnical University "LETI", St.Petersburg, Russia</i></p>
11:50 – 12:10	<p>G1-O-011001 Power and Resource Characteristics of the Steam-Water Plasmatron <u>A.S. Anshakov*</u>, **, E.K. Urbakh*, and V.A. Faleev* <i>*Kutateladze Institute of Thermophysics SB RAS, Novosibirsk, Russia</i> <i>**Novosibirsk State Technical University, Novosibirsk, Russia</i></p>
12:10 – 12:30	<p>G3-O-011301 Boriding of Carbon Steels by the Electron Beam Treatment in Vacuum <u>D.E. Dasheev*</u>, N.N. Smirnyagina, V.M. Khaltanova, A.P. Semenov <i>Institute of Physical Materials Science SB RAS, Ulan-Ude, Russia</i></p>
12:30 – 14:00	<p>Lunch</p>

Oral Session 3.3

<p>14:00 – 14:30 Invited</p>	<p>G1-O-921201 Streamer Discharges Operating Along Thin Liquid Surface <u>Yu.S. Akishev</u>^{*,**}, A.V. Petryakov[*], N.I. Trushkin <i>*RF SRC Troitsk Institute for Innovation and Fusion Research, Moscow, Russia</i> <i>**National Research Nuclear University MEPhI (Moscow Engineering Physics Institute), Moscow, Russia</i></p>
<p>14:30 – 14:50</p>	<p>G1-O-016401 Features of Plasma Sustaining in the Positive Column of Gliding Glow Discharge in Air Flow Y.D. Korolev^{*,**}, O.B. Frants^{*,**}, <u>V.O. Nekhoroshev</u>^{*,**}, V.G. Geyman[*], <i>*Institute of High Current Electronics SB RAS, Tomsk, Russia</i> <i>**National Research Tomsk State University, Tomsk,</i></p>
<p>14:50 – 15:10</p>	<p>G1-O-014601 Uniform and Filamentary Modes of Pulsed Dbd in Air V.Yu. Khomich, <u>M.V. Malashin</u>, S.I. Moshkunov <i>Institute for Electrophysics and Electric Power RAS, St.Petersburg, Russia</i></p>
<p>15:10 – 15:30</p>	<p>G1-O-010401 Calculation of the Helium Spectrum Emitted by Plasma of Current Sheets <u>E.V. Koryukina</u> <i>National Research Tomsk Polytechnic University, Tomsk, Russia</i></p>
<p>15:30 – 17:00</p>	<p>Coffee Break & Poster Section</p>
	<p>Round Table THEORETICAL MODELING OF THE PROCESSES IN THE PULSED DISCHARGES Chairman: A.V. Kozyrev</p>
<p>19:00</p>	<p>Banquet</p>

September 9, Wednesday

15:30 – 17:00

Poster Session:

PLASMA SOURCES. POWER SUPPLIES.
THEORETICAL MODELING.

1	<p>G1-P-010402 A Theoretical Study of Spectral Line Intensities of the He Atom in an Alternating Circular Electric Field</p> <p><u>E.V. Koryukina*</u>, V.I. Koryukin**</p> <p><i>*National Research Tomsk State University, Tomsk, Russia</i> <i>**Siberian State Medical University, Tomsk, Russia</i></p>
2	<p>G1-P-014101 Simulation of the Crater and Liquid-Metal Jet Formation on the Cathode in a Vacuum Arc</p> <p><u>V. Uimanov*</u>, G. A. Mesyats**</p> <p><i>*Institute of Electrophysics UD RAS, Ekaterinburg, Russia</i> <i>**Lebedev Physical Institute RAS, Moscow, Russia</i></p>
3	<p>G3-P-014705 Simulation of Intense Electrohydrodynamic Flow Based on Dielectric Barrier Discharge</p> <p><u>I.E. Rebrov*</u>, V.Yu. Khomich*, V.A. Yamshchikov*</p> <p><i>Institute for Electrophysics and Electric Power RAS, St.Petersburg, Russia</i></p>
4	<p>G1-P-011102 Modeling of Pulsed Plasma Movement in Conical Inductor</p> <p><u>A.I. Kuzmichev</u>, L.Yu. Tsybulskiy</p> <p><i>NTUU "Kiev Polytechnical Institute", Kiev, Ukraine</i></p>
5	<p>G3-P-003401 Simulation of the Polymerization on Silicon in CF₄/H₂ Plasma</p> <p><u>A.G. Gorobchuk</u></p> <p><i>Institute of Computational Technologies SB RAS, Novosibirsk, Russia</i> <i>Novosibirsk State University, Novosibirsk, Russia</i></p>
6	<p>G2-P-020801 Numerical Simulation of Turbulent Gas Flow Circulation Inside Vortex Camera of Electric Plasmotron</p> <p><u>A.M. Belousov</u>, A.V. Boldyrev, I.K. Israphilov</p> <p><i>Kazan Federal University Naberezhnye Chelny Institute, Naberezhnye Chelny, Russia</i></p>

7	<p>G3-P-005501 Signal From Plasma Antenna in Different Operation Modes</p> <p><u>N.N. Bogachev</u>*, **, S.E. Andreev*, **, P.Yu. Goncharov**</p> <p><i>*Prokhorov General Physics Institute RAS, Moscow, Russia</i> <i>**Moscow State Technical University of Radio engineering, Electronics and Automation, Moscow, Russia</i></p>
8	<p>G3-P-012601 Change of the Relief of the Surface of Magnesium under Action of Pulse Power Ions (C+) Beams</p> <p>G.V. Potemkin*, <u>A. E. Ligachev</u>**, M.V. Zhidkov***, Y. R. Kolobov***, G. E. Remnev*, M .Y. Gazizova***, S.A. Bozhko***</p> <p><i>*National Research Tomsk Polytechnic University, Tomsk, Russia</i> <i>**Prokhorov General Physics Institute RAS, Moscow, Russia</i> <i>***Belgorod state national research university, Belgorod Russia</i></p>
9	<p>G3-P-008302 Surface Cratering of Stainless Steel and TiNi Irradiated by a Low-Energy, High-Current Electron Beam: Morphology and Topography of Treated Substrates</p> <p><u>A.B. Markov</u>*, L. Meisner**, E. Yakovlev***, S. Meisner**, E. Gudimova**, V.Petrov***</p> <p><i>*Tomsk Scientific Center SB RAS, Tomsk, Russia</i> <i>**Institute of Strength Physics and Materials Science SB RAS, Tomsk, Russia</i> <i>***Institute of High Current Electronics SB RAS, Tomsk, Russia</i></p>
10	<p>G1-P-017301 Estimation of Electron Energy in the Electron Beam Formed in the 95-KV 5-Ns Discharge at the Low Vacuum Condition and the Atmospheric Pressure</p> <p><u>Yu.A. Zemskov</u>, I.V. Uimanov</p> <p><i>*Institute of Electrophysics UD RAS, Ekaterinburg, Russia</i></p>
11	<p>G2-P-005701 High-Voltage Electrode Optimization Towards Uniform Surface Treatment by a Pulsed Volume Discharge</p> <p><u>A.V. Ponomarev</u>*, M.S. Pedos*, S.V. Scherbinin*, Y.I. Mamontov**, S.V. Ponomarev***</p> <p><i>*Institute of Electrophysics UD RAS, Ekaterinburg, Russia</i> <i>**Ural Federal University, Ekaterinburg, Russia</i> <i>***National Research Tomsk Polytechnic University, Tomsk, Russia</i></p>

12	<p>G3-O-019305 The Effect of Electron Component in Ion Beam on the Structure of Hydrogenated Amorphous Carbon Films Deposited on the End-Hall Ion Source</p> <p><u>N.V.Nagirny</u>, A.S.Zolkin Novosibirsk State University, Novosibirsk, Russia</p>
13	<p>G3-P-020301 Optical Characterization and Raman Spectroscopy of Amorphous Hydrogenated Carbon Films Prepared by DC Discharge</p> <p><u>S.Yu. Chepkasov</u>, A.S. Zolkin Novosibirsk State University, Novosibirsk, Russia</p>
14	<p>G3-P-019101 The Influence of the Length of the Hollow Cathode in the Current-Voltage Characteristic of a Gas Discharge</p> <p><u>A.S. Zolkin</u>*, **, A.V. Petrenko*, A.V. Yurchenko* *Novosibirsk State University, Novosibirsk, Russia **Institute of Laser Physics SB of RAS, Novosibirsk, Russia</p>
15	<p>G3-P-003901 Ionic Enlightenment of Nonlinear Optical Crystals Type Ktp</p> <p><u>L.N. Orlikov</u>, S.I. Arestov, S. M. Shandarov, K.M. Mambetova Tomsk State University of Control Systems and Radioelectronics, Tomsk, Russia</p>
16	<p>G3-P-008901 Plasma-Chemical Method for Producing Metal Oxide Powders and Their Application</p> <p><u>I. Zhukov</u>, S.Bondarchuk, A.Zhukov, V.Promakhov, S.Vorozhtsov, A.Vorozhtsov National Research Tomsk State University, Tomsk, Russia</p>
17	<p>G3-P-017504 Nitriding of 40Cr Steel in Different Operating Modes of Non-Self-Sustained Glow Discharge with Hollow Cathode</p> <p><u>V.V. Denisov</u>, D.Yu. Ignatov, I.V. Lopatin, Yu.H. Akhmadeev, P.M. S Hanin, N.N. Koval Institute of High Current Electronics SB RAS, Tomsk, Russia</p>
18	<p>G2-P-020101 Vacuum Arc Power Supply with Wide Range of Working Currents</p> <p><u>V.V. Yakovlev</u>, V.V. Denisov, V.V. Shugurov Institute of High Current Electronics SB RAS, Tomsk, Russia</p>

19	<p>G2-P-019801 Investigation of Influence of Filament Current on Plasma Parameters of "Pink" Plasmagenerator</p> <p><u>S.S. Kovalsky*</u>, **, V.V. Denisov*, N.N. Koval*, **, I.V. Lopatin*.</p> <p><i>*Institute of High Current Electronics SB RAS, Tomsk, Russia</i> <i>**National Research Tomsk State University, Tomsk, Russia</i></p>
20	<p>G1-P-019701 A Facility and Experimental Procedures for Secondary Arc Tests of Spacecraft Equipment</p> <p><u>A.V. Batrakov*</u>, **, E.L. Dubrovskaya*, K.V. Karlik*, E.V. Nefyodtsev*, ***, A.G. Padey*, S.A. Popov*, **, A.V. Schneider*</p> <p><i>*Institute of High Current Electronics SB RAS, Tomsk, Russia</i> <i>**National Research Tomsk Polytechnic University, Tomsk, Russia</i> <i>***National Research Tomsk State University, Tomsk, Russia</i></p>
21	<p>G1-P-900701 Particle-In-Cell Simulation of the Runaway Electrons Avalanches in Experimental Set-Up</p> <p>V.V. Ryzhov, V.A. Shklyaeв</p> <p><i>Institute of High Current Electronics SB RAS, Tomsk, Russia</i> <i>National Research Tomsk Polytechnic University, Tomsk, Russia</i></p>
22	<p>G3-P-006801 Phase Formation in the Titanium-Yttrium System Formed by Concentrated Energy Fluxes</p> <p>Yu.F. Ivanov*, **, E.A. Petrikova*, **, A.A. Klopotov**, ***, K.V. Sosnin****, A.D. Teresov*, **, E.A. Budovskih****, V.E. Gromov****</p> <p><i>*Institute of High Current Electronics SB RAS, Tomsk, Russia</i> <i>**National Research Tomsk State University, Tomsk, Russia</i> <i>***Tomsk State University of Architecture and Building, Tomsk, Russia</i> <i>****Siberian State Industrial University. Novokuznetsk, Russia</i></p>
23	<p>G3-P-006802 Features of Formation of Structural-Phase States on the Surface of Titanium Alloy Vt1-0 after Electron-Ion-Plasma Treatment</p> <p><u>Yu.F. Ivanov*</u>, **, ***, A.D. Teresov*, O.V. Ivanova****, V.E. Gromov*****, E.A. Budovskikh*****, V.A. Vlasov**, ***, A.A. Klopotov***, ****</p> <p><i>*Institute of High Current Electronics SB RAS, Tomsk, Russia</i> <i>**National Research Tomsk Polytechnic University, Tomsk, Russia</i> <i>***National Research Tomsk State University, Tomsk, Russia</i> <i>****Tomsk State University of Architecture and Building, Tomsk, Russia</i> <i>*****Siberian State Industrial University. Novokuznetsk, Russia</i></p>

24	<p>G2-P-005301 Power Supply for Symmetric and Asymmetric Dual Magnetron Sputtering</p> <p><u>V.O.Oskirko</u>, A.P.Pavlov, V.A.Semenov</p> <p><i>Institute of High Current Electronics SB RAS, Tomsk, Russia</i> <i>OOO Prikladnaya Elektronika, Tomsk, Russia</i></p>
25	<p>G3-P-000901 The Effect of Doping on the Electrical Properties of Polycrystalline Diamond Films Deposited From Abnormal Glow Discharge</p> <p>A.V. Kabyshev, <u>F.V. Konusov</u>, S.A. Linnik, G.E. Remnev, A.V. Gaydaychuk</p> <p><i>National Research Tomsk Polytechnic University, Tomsk, Russia</i></p>
26	<p>G3-P-006901 Producing Ultra Composition TiN-Cu Using Magneto-Plasma Accelerator Erosion Type Combined Accelerator Channel</p> <p>A.A. Sivkov, D. Yu. Gerasimov, <u>A.A. Evdokimov</u></p> <p><i>National Research Tomsk Polytechnic University, Tomsk, Russia</i></p>
27	<p>G3-P-006902 Influence Dispersion the Raw Powder on the Properties of Sps-Ceramics</p> <p>A.A. Sivkov, D. Yu. Gerasimov, <u>A.A. Evdokimov</u></p> <p><i>National Research Tomsk Polytechnic University, Tomsk, Russia</i></p>
28	<p>G3-P-006903 Influence Nanopowder Impurities in the Raw Materials on the Parameters of Sps-Ceramics</p> <p>A.A. Sivkov, D. Yu. Gerasimov, <u>A.A. Evdokimov</u></p> <p><i>National Research Tomsk Polytechnic University, Tomsk, Russia</i></p>
29	<p>G3-P-009002 Copper Oxides Synthesis by Using Coaxial Magnetoplasma Accelerator</p> <p><u>Yu. L. Shanenkova</u>, A.A. Sivkov, A.S. Saigash, I.I. Shanenkov, A.S. Ivashutenko</p> <p><i>National Research Tomsk Polytechnic University, Tomsk, Russia</i></p>
30	<p>G3-P-013901 The Plasma Dynamic Synthesis of Aluminum Nitride with Using of Coaxial Magneto Plasma Accelerator</p> <p><u>I. Shanenkov</u>, A.A. Sivkov, Yu.L. Shanenkova, A.S. Ivashutenko</p> <p><i>National Research Tomsk Polytechnic University, Tomsk, Russia</i></p>

31	<p>G3-P-013902 Plasmodynamic Synthesis of Powdered Ferrum Oxide with a High Content of E-Fe₂O₃ <u>I. Shanenkov</u>, A.A. Sivkov, Yu.L. Shanenkova, A.S. Ivashutenko, A.A. Lomakina <i>National Research Tomsk Polytechnic University, Tomsk, Russia</i></p>
32	<p>G3-P-012501 Possibility of Nanodispersed Silicon Carbide Synthesis by a Free Space Hypervelocity Plasma Jet <u>D.S. Nikitin</u>, A.A. Sivkov <i>National Research Tomsk Polytechnic University, Tomsk, Russia</i></p>
33	<p>G3-P-012502 On the Possibility of Nanodispersed Silicon Dioxide Synthesis by a Coaxial Magnetoplasma Accelerator <u>D.S. Nikitin</u>, A.A. Sivkov <i>National Research Tomsk Polytechnic University, Tomsk, Russia</i></p>
34	<p>G3-P-008501 Cubic Tungsten Carbides: Synthesis and Lattice Constant Control <u>A.Ya. Pak</u>, A.A. Sivkov, K.N. Shatrova, I.I. Shanenkov <i>National Research Tomsk Polytechnic University, Tomsk, Russia</i></p>
35	<p>G1-P-000201 Research of Diffusion and Mechanical Waves Interaction Under Conditions of Metal Surface Treatment with Particle Fluxes <u>E.S. Parfenova</u>*, A.G. Knyazeva*,** <i>*National Research Tomsk Polytechnic University, Tomsk, Russia</i> <i>**Institute of Strength Physics and Materials Science SB RAS, Tomsk, Russia</i></p>
36	<p>G2-O-002902 Analysis of Microwave Interference Switches with Distributed Power of Switched Wave and Plasma Gas-Discharge Swiching <u>S.N.Artemenko</u>*, V.A.Avgustinovich*, S.A.Gorev*, V.S.Igumnov* <i>National Research Tomsk Polytechnic University, Tomsk, Russia</i></p>
37	<p>G2-O-020204 Improvement of Combined Laser-Plasma Welding <u>Zvezdin V.V.</u>, Zamorskiy V.V., Pesoshin V. A., Aleev R.M., Saubanov Ruz. R. <i>Kazan Federal University Naberezhnye Chelny Institute, Naberezhnye Chelny, Russia</i></p>

38	<p>G3-P-018002 Effect of Irradiation with Accelerated Ar⁺ Ions on the Structure, Phase Composition, and Mechanical Properties of the 1960 Alloy (Al-Zn-Mg-Cu) After Its Natural Aging</p> <p>S.M. Mozharovsky*, <u>V.V. Ovchinnikov*</u>, N.V. Gushchina*, F.F. Makhinko*, L.I. Kaigorodova**</p> <p><i>*Institute of Electrophysics UD RAS, Ekaterinburg, Russia</i> <i>**Institute of Metal Physics UD RAS, Ekaterinburg, Russia</i></p>
39	<p>G1-P-016101 Laser Shadow Imaging of the Initiation of Vacuum Arc Cathode Spot Fragment</p> <p><u>M.B. Bochkarev</u>, E.V. Koulyashov</p> <p><i>Institute of Electrophysics UD RAS, Ekaterinburg, Russia</i></p>
40	<p>G2-P-012001 Investigation of Nitrogen-Argon Plasma Composition Produced by Electron Beam of Plasma Source with Self-Heated Hollow Cathode</p> <p>N.V. Gavrilov, <u>O.A. Bureyev</u>, A.I. Menshakov</p> <p><i>Institute of Electrophysics UD RAS, Ekaterinburg, Russia</i></p>
41	<p>G2-P-012202 Diagnostics of Anodic and Electron Beam Generated Plasmas of Electron Source Based on a Discharge with Self-Heated Hollow Cathode</p> <p>N.V. Gavrilov, <u>A.I. Menshakov</u>, A.I. Lipchak, V.I. Solomonov*</p> <p><i>Institute of Electrophysics UD RAS, Ekaterinburg, Russia</i></p>
42	<p>G3-P-013701 Magnetron Sputtering of Al in the Ar/O₂ Mixture Under Electron Beam Injection: Discharge Characteristics and Property of Deposited Alox Coatings</p> <p><u>A.S. Kamenetskikh*</u>, N.V. Gavrilov*, A.V. Chukin**</p> <p><i>*Institute of Electrophysics UD RAS, Ekaterinburg, Russia</i> <i>**Ural Federal University, Institute of Physics and Technology, Ekaterinburg, Russia</i></p>
43	<p>G2-P-003601 Synthesis of Fe and Al Oxide Nanopowders by Spark Discharge</p> <p><u>D. S. Portnov</u>, I. V. Beketov, A. V. Bagazeev, E. I. Azarkevich, A. I. Medvedev, M. Murzakaev</p> <p><i>Institute of Electrophysics UD RAS, Ekaterinburg, Russia</i></p>

44	<p>G2-P-017701 Influence of the Initiating Electrode Polarity on the Ion Current of Plasma Bunch Generated by Vacuum Surface Flashover</p> <p><u>Morozov P.A</u>, Punanov I.F. Emlin R.V. <i>Institute of Electrophysics UD RAS, Ekaterinburg, Russia</i></p>
45	<p>G2-P-015701 The Methods of Decrease Operating Pressure of Fast Neutrals Source</p> <p><u>V.T. Barchenko*</u>, A.E. Komlev**, N.A. Babinov** <i>*Saint Petersburg Electrotechnical University "LETI", St. Petersburg, Russia</i></p>
46	<p>G3-P-015001 Influence of Previous Compression Plasma Flows Impact on Nitriding of Titanium</p> <p><u>V.I. Shymanski*</u>, A.G. Kononov**, N.N. Cherenda*, V.V. Uglov*, V.M. Astashynski*** <i>*Belarusian State University, Minsk, Belarus</i> <i>**The Joint Institute of Mechanical Engineering of the National Academy of Science of Belarus, Minsk, Belarus</i> <i>***A.V. Luikov Heat and Mass Transfer Institute NAS, Minsk, Belarus</i></p>
47	<p>G3-P-010501 Mechanism of Metals Surface Erosion Under Compression Plasma Flow Impact</p> <p><u>N.N. Cherenda*</u>, V.V. Uglov*, V.M. Astashynski**, A.M. Kuzmitski**, A.Ya. Leyvi***, A.P. Yalovets***, A.V. Basalai****, <i>*Belarusian State University, Minsk, Belarus</i> <i>**A.V. Luikov Heat and Mass Transfer Institute NAS, Minsk, Belarus</i> <i>***South-Ural State University, Chelyabinsk, Russia</i> <i>**Physical Technical Institute of the National Academy of sciences of Belarus, Minsk, Belarus</i></p>
48	<p>G3-P-013401 Protective Chromium Comprising Layers on the Stainless Steel Produced by the Use of Deposition From Gas and Vacuum Discharge Plasmas</p> <p><u>V.V. Poplavsky*</u>, V. G. Matys*, I.P. Smyaglikov**, S O. Selifanov** <i>*Belarusian State Technological University, Minsk, Belarus</i> <i>**Physical-Technical Institute of National Academy of Sciences of Belarus, Minsk, Belarus</i></p>
49	<p>G3-O-015201 The Use of Pulsed Power Source for Disinfection of Water Diaphragm Electric Discharge</p> <p><u>S.V. Kakaurov*</u>, I. F. Suvorov*, A.S. Judin**, T.L. Solovyova***, N.S. Kuznetsova* <i>*Transbaikal state university, Chita, Russian Federation.</i> <i>**National Research Tomsk Polytechnic University, Tomsk, Russia</i> <i>***Chita state medical academy, Chita, Russian Federation.</i></p>

50	<p>G3-P-009201 The Vacuum System for Technological Unit Development and Design</p> <p><u>A.M. Zhukeshov</u>, A. Gabdullina, A. Amrenova, A. Kaibar, K. Fermakhan, T. Sundetov, A. Aman, G. Mahat, J. Rysbekova <i>Kazakh National university named al-Farabi, Almaty , Kazakhstan</i></p>
51	<p>G3-P-013501 Using the Low-Temperature Plasma in Cement Production</p> <p><u>N.A.Sazonova</u>*, N.K. Skripnikova** <i>*Angarsk State Technical Academy, Angarsk, Russia</i> <i>**Tomsk State University of Architecture and Building, Tomsk, Russia</i></p>
52	<p>G3-P-004801 Influence of the Surface Treatment Compression Plasma Flows on the Adhesive Properties of the Film-Substrate System</p> <p><u>A.Ya. Leyvi</u>*, A.P. Yalovets*, N.N. Cherenda**, V.V. Uglov**, V.M. Astashynski*** <i>*South-Ural State University, Physical Department, Chelyabinsk, Russia</i> <i>**Belarusian State University, Minsk, Belarus</i> <i>***A.V. Luikov Heat and Mass Transfer Institute NAS, Minsk, Belarus</i></p>
53	<p>G1-P-900501 Stable Plasma Pressure Profile Peaking at Convex-Concave Magnetic Field Lines</p> <p>M.M. Tsvetoukh*, G.V. Krashevskaya**, A.S. Prishvitsyn** <i>*Lebedev Physical Institute RAS, Moscow, Russia</i> <i>**National Research Nuclear University MEPhI (Moscow Engineering Physics Institute), Moscow, Russia</i></p>
54	<p>G1-P-919001 Electron Beam Injection Into a Long Air Gap Powered by 0.8 MV Voltage Pulse</p> <p>S.A. Chaikovsky***, A. V. Oginov**, K. V. Shpakov**, V. A. Bogachenkov**, V. I. Oreshkin* <i>*Institute of High Current Electronics SB RAS, Tomsk, Russia</i> <i>**Lebedev Physical Institute RAS, Moscow, Russia</i></p>
55	<p>G1-P-919002 Operation of an Oil-Filled Marx Generator with an Oil-Air Output Insulator for Athmosphere Long Spark Investigations</p> <p>S.A. Chaikovsky***, A. V. Oginov**, K. V. Shpakov**, V. A. Bogachenkov**. E.N. Volkov*, Yu.A Sukovatitsin* <i>*Institute of High Current Electronics SB RAS, Tomsk, Russia</i> <i>**Lebedev Physical Institute RAS, Moscow, Russia</i></p>

56	<p>G3-P-903201 Monitoring of the Mass-Charge Composition of Beam Plasma at the Residual Gas Pressures Up to 10 Pa</p> <p>D.B. Zolotukhin*, A.S. Klimov*, K.P. Savkin**, A.V. Tunkov*, <u>Yu. G. Yushkov*</u></p> <p><i>*Tomsk State University of Control Systems and Radioelectronics, Tomsk, Russia</i> <i>**Institute of High Current Electronics SB RAS, Tomsk, Russia</i></p>
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September 10, Thursday

9:00 – 15:30

Oral Session 4.1

9:00 – 9:30 Invited	G2-O-019501 Subnanosecond Switching of High-Voltage Pulses in the “Open Discharge” P.A. Bokhan, <u>Dm.E. Zakrevsky</u> <i>Rzhanov Institute of Semiconductor Physics SB RA Sciences, Novosibirsk, Russia</i>
19:30 – 9:50 Invited	G1-O-006201 Breakdown Strength of Hydrogen in Subnanosecond Scale <u>S.N. Ivanov</u> , K.A. Sharypov <i>Institute of Electrophysics UD RAS, Ekaterinburg, Russia</i>
9:50 – 10:10	G2-O-007501 Prolongation of Guided Discharge Initiated by Femtosecond Laser Filamentation in Air From 1-mks Scale Up to 1-ms <u>L. Arantchouk</u> *, B. Honnorat**, E. Thouin**, G. Point**, J. Carbonnel**, A. Mysyrowicz**, A. Houard** * <i>University of Paris XI, Palaiseau, France</i> ** <i>Superior National School of Advanced Techniques, Palaiseau, France</i>
10:10 – 10:30	G2-O-017802 Industrial Multichannel Atmospheric Discharge Plasma Sources System <u>A.N. Maltsev</u> *, ***, A. Yu. Ivanov***, A. A. Maltseva**, V. G. Podkovyrov*, * <i>Institute of Atmospheric Optics SB RAS, Tomsk, Russia</i> ** <i>Siberian State Medical University, Tomsk, Russia</i> *** <i>Laser Research Institute of SDAS, Jining, China</i>
10:30 – 10:50	Coffee Break

Oral Session 4.2

10:50 – 11:10	<p>G2-O-010601 Experimental Studies of High-Voltage Subnanosecond Switches Based on Open Discharge with Opposite Electron Beams</p> <p>P. A. Bokhan, P. P. Gugin, <u>M. A. Lavrukhin</u>, Dm. E. Zakrevsky</p> <p><i>Institute of Semiconductor Physic SB RAS, Novosibirsk, Russia</i></p>
11:10 – 11:30	<p>G3-O-004901 Industrial Testing and Analysis of Activated Carbons Derived From Plasma Arc</p> <p><u>S.L. Buyantuev</u>*, A.S. Kondratenko**, I.V. Starinsky*, A.B. Khmelev*</p> <p><i>*East Siberia State University of Technology and Management, Ulan-Ude, Russia</i> <i>**Buryat State University, Ulan-Ude, Russia</i></p>
11:30 – 11:50	<p>G3-O-011901 Synthesis of Transition Metal Borides Layers under Pulsed Electron-Beams Treatment in a Vacuum for Surface Hardening of Instrumental Steels</p> <p><u>A.S. Milonov</u>, B.A. Danzheev, N.N. Smirnyagina, D.E. Dasheev, T.B. Kim, A.P. Semenov</p> <p><i>Institute of Physical Materials Science SB RAS, Ulan-Ude, Russia</i></p>
11:50 – 12:10	<p>G3-O-005502 Operation Modes of Plasma Antenna: Theory and Simulation</p> <p><u>N.N. Bogachev</u>*, **, I.L. Bogdankevich*, **, N.G. Gusein-Zade*, **</p> <p><i>*Prokhorov General Physics RAS, Moscow, Russia</i> <i>**Moscow State Technical University of Radio engineering, Electronics and Automation, Moscow, Russia</i></p>
12:10 – 12:30	<p>G3-O-004301 Receiving of Tool Materials with the Surface Modified by the Synthesized Combinations on the Example of the Zirconium Microalloying of the Nitrated High-Speed Steel</p> <p><u>S.V. Fedorov</u>, N.Yu. Cherkasova, A.P. Shevchukov*</p> <p><i>Moscow State University of Technology «STANKIN» Moscow, Russia</i> <i>*National University of Science and Technology "MISIS", Moscow, Russia</i></p>
12:30 – 14:00	<p>Lunch</p>

Oral Session 4.3

<p>14:00 – 14:30 Invited</p>	<p>G1-O-900502 Non-Stationary Plasma Processes at Vacuum Discharge in Dependence on Surface Properties and External Action S.A. Barengolts*, D.L. Shmelev**, I.V. Uimanov**, <u>M.M. Tsventoukh***</u> <i>*Prokhorov General Physics Institute RAS, Moscow, Russia</i> <i>**Institute of Electrophysics UD RAS, Ekaterinburg, Russia</i> <i>***Lebedev Physical Institute RAS, Moscow, Russia</i></p>
<p>14:30 – 14:50</p>	<p>G1-O-000701 Particle-In-Cell Simulation of Breakdown Dynamic in Gas-Filled Diode with Highly Nonuniform Electric Field V.V. Ryzhov, <u>V.A. Shklyayev</u> <i>Institute of High Current Electronics SB RAS, Tomsk, Russia</i> <i>National Research Tomsk Polytechnic University, Tomsk, Russia</i></p>
<p>14:50 – 15:10</p>	<p>G3-O-916501 Modelling of Underground Bed Geomechanical Characteristic for Electrophysical Conversion of Oil Shale <u>A.A. Bukharkin</u>, S.M. Martemyanov, I.A. Koryashov, A.A. Ivanov <i>National Research Tomsk Polytechnic University, Tomsk, Russia</i></p>
<p>15:10 – 15:30</p>	<p>G1-O-009301 Calculation of a Radial Distribution Parameters of a Glow Discharge in a Field of an Acoustic Wave <u>S.A. Fadeev</u>, N.F. Kashapov, A.I. Saifutdinov <i>Kazan Federal University, Kazan, Russia</i></p>
<p>15:30 – 17:00</p>	<p>Coffee Break & Poster Section</p>
	<p>Round Table PLASMA OF THE LOW-PRESSURE DISCHARGES IN LARGE VOLUMES Chairman: N.N. Koval</p>
<p>17:00</p>	<p>City-Tour</p>

September 10, Thursday

15:30 – 17:00

Poster Session:

LOW-PRESSURE DISCHARGES. APPLICATIONS.

1	<p>G1-P-012806 Effect of the Cathode Emissivity on the Regimes of Hollow-Cathode Glow Discharge</p> <p><u>N.V. Landl</u>*,**, Y.D. Korolev**, O.B. Frants**, V.G. Geyman*, A.V. Bolotov*, V.Y. Kozhevnikov*, N.S. Semenyuk*</p> <p><i>*Institute of High Current Electronics SB RAS, Tomsk, Russia</i> <i>**National Research Tomsk State University, Tomsk, Russia</i></p>
2	<p>G2-O-012101 Constricted Arc Plasma Source</p> <p><u>I. Lopatin</u>, V.V. Denisov, V.V. Yakovlev</p> <p><i>Institute of High Current Electronics SB RAS, Tomsk, Russia</i></p>
3	<p>G3-P-011701 Nitriding of A7 Aluminum Alloy in Plasma of Arc Non-Self-Sustained Discharge with Thermionic Cathode</p> <p><u>Yu.H. Akhmadeev</u>, I.V. Lopatin, Yu.F. Ivanov, E.A. Petrikova, D.Yu. Ignatov</p> <p><i>Institute of High Current Electronics SB RAS, Tomsk, Russia</i></p>
4	<p>G2-P-017503 Plasma Parameters of Non-Self-Sustained Glow Discharge with Hollow Cathode Under Separate Substrate Bias Voltage</p> <p><u>V.V. Denisov</u>, S.S. Kovalskiy, I.V. Lopatin, V.V. Yakovlev, Yu.H. Akhmadeev, P.M. S Hanin, N.N. Koval</p> <p><i>Institute of High Current Electronics SB RAS, Tomsk, Russia</i></p>
5	<p>G1-O-009603 Regularities of Mutual Influence of Vacuum and Gas Arc Discharges on Its Main Characteristics at Joint Generation of Plasma in Large Vacuum Volumes</p> <p><u>V.V. Shugurov</u>*, N. N. Koval*, N.A. Prokopenko*</p> <p><i>*Institute of High Current Electronics SB RAS, Tomsk, Russia</i></p>

6	<p>G1-P-020702 Investigation of Stationary and Pulse Type Low Pressure Arc Discharge in Axial Magnetic Field</p> <p><u>S.V. Grigoriev</u>, N.N. Koval, A.V. Kozyrev, P.V. Moskvina <i>*Institute of High Current Electronics SB RAS, Tomsk, Russia</i></p>
7	<p>G1-O-004102 Gas-Discharge Plasma Dynamics Under High Current Pulse</p> <p><u>S.V. Loginov</u> <i>Institute of High Current Electronics SB RAS, Tomsk, Russia</i></p>
8	<p>G2-P-010001 High-Current Discharge Initiation in a Vacuum Diode</p> <p><u>A.A. Zherlitsyn</u>, B.M. Kovalchuk <i>Institute of High Current Electronics SB RAS, Tomsk, Russia</i></p>
9	<p>G1-P-012804 Recovery of the Electric Strength in a Cold Cathode Thyatron</p> <p><u>N.V. Landl</u>*, **, Y.D. Korolev*, **, O.B. Frants*, **, V.G. Geyman*, A.V. Bolotov* <i>*Institute of High Current Electronics SB RAS, Tomsk, Russia</i> <i>**National Research Tomsk State University, Tomsk, Russia</i></p>
10	<p>G1-P-017001 Ion Charge State Distribution for Plasma of Vacuum Arc with Composite Cathode of Alloy of Lead and TiN</p> <p><u>V.P. Frolova</u>*, A.G. Nikolaev*, E.M. Oks*, **, G.Yu. Yushkov* <i>*Institute of High Current Electronics SB RAS, Tomsk, Russia</i> <i>**Tomsk State University of Control Systems and Radioelectronics, Tomsk, Russia</i></p>
11	<p>G2-P-002201 Pulsed Magnetron Discharge for Boron Plasma and Ion Beam Generation</p> <p><u>A.V. Vizir</u>*, A.S. Bugaev*, V.I. Gushenets*, E.M. Oks*, ** <i>*Institute of High Current Electronics SB RAS, Tomsk, Russia</i> <i>**Tomsk State University of Control Systems and Radioelectronics, Tomsk, Russia</i></p>
12	<p>G2-P-007901 Electrostatic Plasma Optic Devices: New Applications</p> <p><u>V.I. Gushenets</u>*, A.S. Bugaev*, E.M. Oks*, A.A. Goncharov**, A.N. Dobrovolsky**, I.V. Litovko*** <i>*Institute of High Current Electronics SB RAS, Tomsk, Russia</i> <i>**Institute of Physics NAS of Ukraine, Kiev, Ukraine</i> <i>***Institute for Nuclear Research NAS of Ukraine, Kiev, Ukraine</i></p>

13	<p>G2-P-007002 Elemental Composition of Vacuum Arc Discharge Plasma with Compound Film Cathode During a Pulse</p> <p><u>K.P. Savkin*</u>, A.G. Nikolaev*, E.M. Oks*, V.P. Frolova*, G.Yu. Yushkov*, S.A. Barenholts**</p> <p><i>*Institute of High Current Electronics SB RAS, Tomsk, Russia</i> <i>**Prokhorov General Physics Institute RAS, Moscow, Russia</i></p>
14	<p>G2-P-006703 Reduction of Operating Pressure of Planar Magnetron by an Additional Electron Injection</p> <p>A.S. Bugaev*, A.V. Vizir*, E.M. Oks*,**, <u>M.V. Shandrikov*</u></p> <p><i>*Institute of High Current Electronics SB RAS, Tomsk, Russia</i> <i>**Tomsk State University of Control Systems and Radioelectronics, Tomsk, Russia</i></p>
15	<p>G1-P-016601 Using of Two X-Pinh Systems for Fine Foils Explosion Investigation</p> <p><u>A.S. Zhigalin*</u>, A.G. Rousskikh*, V.I. Oreshkin*,**, S.A. Chaikovsky*, N.A. Ratakhin*</p> <p><i>*Institute of High Current Electronics SB RAS, Tomsk, Russia</i> <i>**National Research Tomsk Polytechnic University, Tomsk, Russia</i></p>
16	<p>G1-P-016602 Experimental Study of Strata Formation During of Foil Electrical Explosions in Vacuum</p> <p><u>A.S. Zhigalin*</u>, A.G. Rousskikh*, V.I. Oreshkin*,**, S.A. Chaikovsky*, N.A. Ratakhin*, K.V. Khishchenko***, R.B. Baksht*</p> <p><i>*Institute of High Current Electronics SB RAS, Tomsk, Russia</i> <i>**National Research Tomsk Polytechnic University, Tomsk, Russia</i> <i>***Joint Institute for High Temperatures RAS, Moscow, Russia</i></p>
17	<p>G1-P-016901 Influence of a Dense Low-Temperature Plasma on B-Dot Measurements</p> <p><u>A.G. Rousskikh</u>, A.S. Zhigalin, V.I. Oreshkin</p> <p><i>Institute of High Current Electronics SB RAS, Tomsk, Russia</i></p>
18	<p>G2-P-016902 Investigation of Metal Puff Z-Pinch Based on Multichannel Vacuum Arcs</p> <p><u>A.G. Rousskikh*</u>, V.I. Oreshkin*, A.S. Zhigalin*, S.A. Chaikovsky*, R.B. Baksht**</p> <p><i>*Institute of High Current Electronics SB RAS, Tomsk, Russia</i> <i>**Tel Aviv University, Tel Aviv, Israel</i></p>

19	<p>G1-P-015301 Investigation of Pulsed Plasma Sources Based on Vacuum Flashover Discharge</p> <p><u>I.L. Muzyukin*</u>, K.V. Shalomov**</p> <p><i>*Institute of Electrophysics UD RAS, Ekaterinburg, Russia</i> <i>**Ural Federal University, Ekaterinburg, Russia</i></p>
20	<p>G3-O-015602 Application of the Hollow Cathode Effect for Local Ion Nitriding of the Machine Parts</p> <p>V.V. Budilov*, <u>K.N. Ramazanov*</u>, Yu.G. Khusainov*, I.V. Zolotov*, N.S. Babenko**</p> <p><i>*Ufa State Aviation Technical University, Ufa, Russia</i> <i>**Ufa Engine Industrial Association, Ufa, Russia</i></p>
21	<p>G3-P-921801 Research of Shock Wave Generation in Plasma Electrolyte Processing</p> <p>D.G. Denisov*, R.N. Kashapov**, N.F. Kashapov*</p> <p><i>*Kazan federal university, Kazan, Russia</i> <i>**Kazan Physical-Technical Institute, Kazan, Russia</i></p>
22	<p>G3-P-921802 Obtaining Nanoparticles of Metals in Plasma-Electrolytic Formation of Microrelief</p> <p>R.N. Kashapov*, N.F. Kashapov**, V.D. Semushin**</p> <p><i>*Kazan Physical-Technical Institute, Kazan, Russia</i> <i>**Kazan federal university, Kazan, Russia</i></p>
23	<p>G3-P-921901 Research of Influence Surface Roughness on the Process of Formation the Mao (Microarc Oxidation) Coatings</p> <p>L.N. Kashapov</p> <p><i>Kazan federal university, Kazan, Russia</i></p>
24	<p>G2-O-016304 Electron Source with a Multi-Apertured Plasma Emitter</p> <p><u>M.S. Vorobyov</u>, N.N. Koval, S.A. Sulakshin</p> <p><i>Institute of High Current Electronics SB RAS, Tomsk, Russia</i></p>
25	<p>G2-O-016305 Modernization of Cathode Assemblies of Electron Sources Based on Low Pressure Arc Discharge</p> <p><u>M.S. Vorobyov*</u>, V.N. Devyatkov*, N.N. Koval*, **, V.V. Shugurov*</p> <p><i>*Institute of High Current Electronics SB RAS, Tomsk, Russia</i> <i>**National Research Tomsk State University, Tomsk, Russia</i></p>

26	<p>G2-O-020701 Investigation of Plasma Cathode with Low Pressure Arc Discharge in Axial Magnetic Field for Intense Electron Beam Source</p> <p><u>S.V. Grigoriev</u>*, P.V. Moskvina*</p> <p><i>*Institute of High Current Electronics SB RAS, Tomsk, Russia</i></p>
27	<p>G3-P-005201 Regularities of Structure and Phase Composition Formation of Surface Layer of Silumin Subjected to Electron-Beam Treatment</p> <p><u>E.A. Petrikova</u>*, **, Yu.F. Ivanov*, **, A.V. Tkachenko***, A.D. Teresov*, **</p> <p><i>*Institute of High Current Electronics SB RAS, Tomsk, Russia</i> <i>**National Research Tomsk State University, Tomsk, Russia</i> <i>***National Research Tomsk Polytechnic University, Tomsk, Russia</i></p>
28	<p>G3-P-016801 Investigation of Properties of Zirconium (Film)/Sus321 Steel (Substrate) System Subjected to a Pulsed Electron-Beam Treatment</p> <p><u>A.D. Teresov</u>*, **, V.V. Shugurov*, Yu.F. Ivanov*, **, Yu.A. Denisova*, **, E.A. Petrikova*, **, N.N. Koval*, **</p> <p><i>*Institute of High Current Electronics SB RAS, Tomsk, Russia</i> <i>**National Research Tomsk State University, Tomsk, Russia</i></p>
29	<p>G2-P-007801 Explosive-Emission Cathode with Resistive Decoupling in a High-Current Plasma-Filled Diode</p> <p><u>P.P. Kiziridi</u>, G.E. Ozur</p> <p><i>Institute of High Current Electronics SB RAS, Tomsk, Russia</i></p>
30	<p>G2-P-006701 Low Operating Pressure Dc Ion Source</p> <p>A.S. Bugaev*, A.V. Vizir*, E.M. Oks*, **, <u>M.V. Shandrikov</u>*</p> <p><i>*Institute of High Current Electronics SB RAS, Tomsk, Russia</i> <i>**Tomsk State University of Control Systems and Radioelectronics, Tomsk, Russia</i></p>
31	<p>G3-P-007001 Gas Discharge Ion Source for Modification of Polymers Surface Properties</p> <p><u>K.P. Savkin</u>*, A.S. Bugaev*, A.V. Vizir*, A.G. Nikolaev*, I.V. Puhova*, M.V. Shandrikov*, G.Yu. Yushkov*, A.V. Tyunkov**, I.A. Kurzina***</p> <p><i>*Institute of High Current Electronics SB RAS, Tomsk, Russia</i> <i>**Tomsk State University of Control Systems and Radioelectronics, Tomsk, Russia</i> <i>***National Research Tomsk State University, Tomsk, Russia</i></p>

32	<p>G3-P-013201 Impact of E-Beam on the Viscosity Characteristics of Oil</p> <p>Y.V. Savinykh*, **, <u>V.M. Orlovskii</u>***, Y.V. Loskutova*</p> <p><i>*Institute of Petroleum Chemistry SB RAS, Tomsk, Russia</i> <i>**National Research Tomsk Polytechnic University, Tomsk, Russia</i> <i>***Institute of High Current Electronics SB RAS, Tomsk, Russia</i></p>
33	<p>G1-P-014201 The Emission Current Increasing in the Plasma Electron Sources Based on a Low-Pressure Arc Discharge</p> <p>T. V. Koval*, V. N. Devyatkov**, <u>Nguyen Bao Hung</u>*</p> <p><i>*National Research Tomsk Polytechnic University, Tomsk, Russia</i> <i>**Institute of High Current Electronics SB RAS, Tomsk, Russia</i></p>
34	<p>G1-P-017901 Propagation of the Pulsed Electron Beam of Nanosecond Duration in Gas Composition of High Pressure</p> <p>R.V. Sazonov, <u>G.E. Kholodnaya</u>, D.V. Ponomarev, G.E. Remnev</p> <p><i>National Research Tomsk Polytechnic University, Tomsk, Russia</i></p>
35	<p>G1-O-921101 Research of Transportation Efficiency of Low-Energy High-Current Electron Beam in Plasma Channel in External Magnetic Field</p> <p>E.S.Vagin, <u>V.P Grigoriev</u></p> <p><i>National Research Tomsk Polytechnic University, Tomsk, Russia</i></p>
36	<p>G1-P-003001 Beam Plasma Generated in Dielectric Hollow: Experiments and Simulation</p> <p><u>D.B. Zolotukhin</u>*, V.A. Burdovitsin*, Yu.G. Yushkov*, E.M. Oks**</p> <p><i>*Tomsk State University of Control Systems and Radioelectronics, Tomsk, Russia</i> <i>**Institute of High Current Electronics SB RAS, Tomsk, Russia</i></p>
37	<p>G2-P-012401 Formation of the Focused Electrom Beam by the Plasma Source in Fore-Vacuum Pressure Range</p> <p>I.Y. Bakeev, <u>Y.A. Burachevsky</u>, A.A. Zenin, D.B. Zolotukhin, A.C. Klimov, E.M. Oks</p> <p><i>Tomsk State University of Control Systems and Radioelectronics, Tomsk, Russia</i></p>
38	<p>G2-P-001303 Two-Stage Open Discharge Based Pulse Compressor</p> <p>P.A. Bokhan, <u>P.P. Gugin</u>, M.A. Lavrukhin, Dm.E. Zakrevsky</p> <p><i>Institute of Semiconductor Physics, Siberian Division, Russian Academy of Sciences, pr. Akademika Lavrent'eva 13, Novosibirsk, 630090, Russia, gugin@isp.nsc.ru</i></p>

39	<p>G3-P-001302 Generation of Microwave Oscillations in the Devices Based on the Photoelectronic Open Discharge</p> <p>P. A. Bokhan, <u>P. P. Gugin</u>, M. A. Lavrukhin, Dm. E. Zakrevsky <i>Institute of Semiconductor Physics SB RAS, Novosibirsk, Russia</i></p>
40	<p>G3-P-006301 Effect of Vacuum Conditions and Plasma Concentration on the Chemical Composition and the Adhesion of the Vacuum-Plasma Coatings</p> <p><u>D.P. Borisov</u>, A.D. Korotaev, V.M. Kuznetsov, V.A. Slabodchikov, E.V. Chulkov <i>National Research Tomsk State University, Tomsk, Russia</i></p>
41	<p>G3-P-014001 Thermal Stability of Ti-C-Ni-Cr and Ti-C-Ni-Cr-Al-Si Nanocomposite Coatings</p> <p><u>A.V. Andreev</u>*, A.D. Korotaev*, **, I.Y. Litovchenko*, ** <i>*National Research Tomsk State University, Tomsk, Russia</i> <i>**Institute of Strength Physics and Materials Science SB RAS, Tomsk, Russia</i></p>
42	<p>G1-P-006302 Characteristics of the Pulsed Quasi-Stationary Non-Self-Sustained Gas Discharge with Hot Filament Cathode</p> <p><u>D.P. Borisov</u>, A.D. Korotaev, V.M. Kuznetsov, V.A. Slabodchikov, E.V. Chulkov <i>National Research Tomsk State University, Tomsk, Russia</i></p>
43	<p>G3-P-009406 The Influence of the Ion-Plasma Synthesis Regimes on the Features of Structural-Phase State of Multicomponent Nanocomposite</p> <p><u>V.R. Berezovskaya</u>*, I.A. Ditenberg**, ***, K.I. Denisov*, **, ***, A.D. Korotaev*, **, ***, Yu.P. Pinzhin*, ***, <i>*National Research Tomsk State University, Tomsk, Russia</i> <i>**Siberia Physical-Technical Institute, Tomsk, Russia</i> <i>***Institute of Strength Physics and Materials Science SB RAS, Tomsk, Russia</i></p>
44	<p>G3-P-009405 Thermal Stability of Nanocomposite Multicomponent</p> <p><u>V.R. Berezovskaya</u>*, I.A. Ditenberg**, ***, K.I. Denisov*, **, ***, A.D. Korotaev*, **, ***, <i>*National Research Tomsk State University, Tomsk, Russia</i> <i>**Siberia Physical-Technical Institute, Tomsk, Russia</i> <i>***Institute of Strength Physics and Materials Science SB RAS, Tomsk, Russia</i></p>

45	<p>G3-O-012301 Micro Arc Oxidation and Its Application for Deposition of Calcium Phosphate-Based Coatings on Ti-Nb Alloy</p> <p><u>E.G. Komarova</u>*, Yu.P. Sharkeev*,**, M.B. Sedelnikova*,**, V.V. Chebodaeva**, T.V. Tolkacheva*</p> <p><i>*Institute of Strength Physics and Materials Science SB RAS, Tomsk, Russia</i> <i>**National Research Tomsk Polytechnic University, Tomsk, Russia</i></p>
46	<p>G3-P-002301 The Structure of Growth and Properties of Nanocrystalline Gradient Coatings Ti-Al-Si-Cu-N Produced by Ion-Assisted Magnetron Sputtering</p> <p><u>S.V.Ovchinnikov</u>*,**, A.D.Korotaev*,**, Yu.P. Pinzhin*,**</p> <p><i>*National Research Tomsk State University, Tomsk, Russia</i> <i>**Institute of Strength Physics and Materials Science SB RAS, Tomsk, Russia</i></p>
47	<p>G3-P-015601 Accuracy and Roughness of Tin Coatings Deposited by Vacuum Arc Plasma</p> <p>V.V. Budilov, <u>K.N. Ramazanov</u>, I.I. Yagafarov, <i>Ufa State Aviation Technical University, Ufa, Russia</i></p>
48	<p>G3-P-015603 A Deposition of Functional Coatings Based on Intermetallic Systems Tial on the Surface of Punching Tools for Cold Heading Machines by Vacuum Arc Plasma</p> <p>E.L. Vardanyan, V.V. Budilov, I.I. Yagafarov, <u>K.N. Ramazanov</u> <i>Ufa State Aviation Technical University, Ufa, Russia</i></p>
49	<p>G3-P-015801 Computer Modeling of Local Ion Nitriding Process with Hollow Cathode Effect</p> <p>K.N. Ramazanov, Yu.G. Khusainov, <u>I.V. Zolotov</u> <i>Ufa State Aviation Technical University, Ufa, Russia</i></p>
50	<p>G3-O-004902 Investigation of Properties of Coal-Water Slurries Produced by Electric Discharge Methods</p> <p><u>S.L. Buyantuev</u>*, A.S. Kondratenko**, A.B. Khmelev*</p> <p><i>East Siberia State University of Technology and Management, Ulan-Ude, Russia</i> <i>**Buryat State University, Ulan-Ude, Russia</i></p>
51	<p>G3-P-010901 Structure of Superhardness TiB₂ Layers at Processing by Powerful Electron Beams</p> <p><u>Z.M. Khaltarov</u>, D.E.Dasheev, A.S. Milonov, N.N. Smirnyagina, A.P. Semenov <i>Institute of Physical Materials Science, Ulan-Ude, Russia</i></p>

52	<p>G3-O-015901 Phase Composition, Structure and Properties of Cement Stone After Modifying Fullerenes</p> <p>A.P. Semenov*, <u>N.N. Smirnyagina*</u>, L.A.Urghanova**, C.V.Kanakin***, S.A. Lkhasaranov**, I.A. Semenova*, A.A. Minyaeva**, B.O. Tsyrenov*, D.E. Dasheev*, Z.M. Khaltarov*</p> <p><i>*Institute of Physical Materials Science, Ulan-Ude, Russia</i> <i>**East Siberia State University of Technology and Management, Ulan-Ude, Russia</i> <i>***Geological Institute SB RAS, Ulan-Ude, Russia</i></p>
53	<p>G3-P-004601 Growing of Aluminium Nitride Films by Plasma-Enhanced Atomic Layer Deposition at Low Temperatures</p> <p>V.A. Tarala, A.S. Altakhov, <u>V.Ya.Martens</u>, S.V. Lisitsyn</p> <p><i>North-Caucasus Federal University, Stavropol, Russia</i></p>
54	<p>G3-P-900902 Synthesis of Polycrystalline Diamond Films in the Abnormal Glow Discharge and Their Properties</p> <p>A.V. Kabyshev, F.V. Konusov, S.A. Linnik, G.E. Remnev, A.V. Gaydaychuk</p> <p><i>National Research Tomsk Polytechnic University, Tomsk, Russia</i></p>
55	<p>G3-P-922201 Antiemissive Coatings</p> <p>N.Z. Vetrov*, D.K. Kostrin**, A.A. Lisenkov***, M.S. Popova**</p> <p><i>*JSC «S.E.D.-SPb», St.Petersburg, Russia</i> <i>**St.Petersburg State Electrotechnical University, St.Petersburg, Russia</i> <i>***Institute of Problems of Mechanical Engineering RAS, St.Petersburg, Russia</i></p>
56	<p>G3-P-922501 Structure-Phase States of Silumin Surface Layer After Electron Beam and High Cycle Fatigue</p> <p>K.V. Alsaraeva*, V.E. Gromov*, Yu.F. Ivanov**, S.V. Konovalov*</p> <p><i>*Siberian State Industrial University, Novokuznetsk, Russia</i> <i>**Institute of High Current Electronics SB RAS, Tomsk, Russia</i></p>
57	<p>G3-P-922801(без печати) Formation of Structural Globular Features of Electroexplosive Coatings</p> <p>D. A. Romanov*, E. A. Budovskikh*, V. E. Gromov*,</p> <p><i>*Siberian State Industrial University, Novokuznetsk, Russia</i></p>

58	<p>G3-P-923101(без печати) Structure and Properties of Surface Layers Obtained due to Titanium Surface Alloying by Yttrium via Combined Electron-Ion-Plasma Treatment</p> <p>A.M. Belousov, A.V. Boldyrev, I.K. Israphilov</p> <p><i>*Siberian State Industrial University, Novokuznetsk, Russia</i> <i>**Institute of High Current Electronics SB RAS, Tomsk, Russia</i> <i>***National Research Tomsk Polytechnic University, Tomsk, Russia</i></p>
59	<p>G3-P-923201 (без печати) Superhard by ion-plasma steel coating, titanium-doped</p> <p>E.N. Eremin*, A.Sh. Syzdykova*, V.M. Yurov**, S.A. Guchenko**</p> <p><i>*Omsk State Technical University, Omsk, Russia</i> <i>**The Karaganda State University of the name of academician E.A. Buketov, Karaganda, Kazakhstan</i></p>
60	<p>G3-P-923202 (без печати) Autowave Processes And Self-Structures in the Formation Ion-Plasma Coatings</p> <p>V.M. Yurov*, S.A. Guchenko*, V.Ch. Laurinas*, E.N. Eremin**, A.Sh. Syzdykova**</p> <p><i>*The Karaganda State University of the name of academician E.A. Buketov, Karaganda, Kazakhstan</i> <i>**Omsk State Technical University, Omsk, Russia</i></p>
61	<p>G3-P-923203 (без печати) Thermal Resistance Multiple Plasma Coatings</p> <p>V.M. Yurov*, V. Buchinskis**, E.N. Platonov***, S.A. Guchenko*</p> <p><i>*The Karaganda State University of the name of academician E.A. Buketov, Karaganda, Kazakhstan</i> <i>**Vilnius Gediminas Technical University, Vilnius, Lithuania</i> <i>***The Karaganda State University of the name of academician E.A. Buketov, Karaganda, Kazakhstan</i></p>
62	<p>G3-P-923301 Study of the Evolution of the Metall Surfaces Topography under Ion Beam Impact Using Statistic Methods</p> <p><u>A.S. Yashin</u>, R.A. Valikov, T.V. Yakutkina, N.V. Volkov</p> <p><i>National Research Nuclear University MEPhI (Moscow Engineering Physics Institute), Moscow, Russia</i></p>

63	<p>G3-P-917401 Modification of the Cilindrical Products Outer Surface under The Radial Beam of Argon Ions Influence at Automatic Mode</p> <p>B.A. Kalin, N.V. Volkov, <u>R.A. Valikov</u>, A.S. Yashin, T.V. Yakutkina*, V.P. Krivobokov, S.N. Yanin, O.Kh. Asainov, Yu.N. Yurev**</p> <p><i>*National Research Nuclear University MPhI (Moscow Engineering Physics Institute), Moscow, Russia</i> <i>**National research Tomsk polytechnic university, Tomsk, Russia</i></p>
64	<p>G3-P-901801 Radiation-Induced Hydrogen Transfer in Metals</p> <p>Yu.I. Tyurin*, <u>V.A. Vlasov*</u>, **, A.S. Dolgov*</p> <p><i>*National Research Tomsk Polytechnic University, Tomsk, Russia</i> <i>**Tomsk State University of Architecture and Building, Tomsk, Russia</i></p>
65	<p>G3-P-901602 Surface Modification of Materials Kilns Low-Temperature Plasma</p> <p>V.A. Vlasov**, <u>G.G. Volokitin*</u>, N.K. Skripnikova*, O.G. Volokitin*, V.V. Shekhovtsov*</p> <p><i>*Tomsk State University of Architecture and Building, Tomsk, Russia</i> <i>**National research Tomsk polytechnic university Tomsk, Russia</i></p>
66	<p>G3-P-924101 The Structure and Properties of the Surface of the Alloy Formed During High Melting Film-Substrate System</p> <p>Yu.F. Ivanov**, V.A. Vlasov**,***, A.I. Potekaev****, <u>A.A. Klopotov**</u>, ****, A.D. Teresov**, E.A. Petrikova*, **, V.V. Shugurov*, M.S. Rygina*, **</p> <p><i>*Institute of High Current Electronics SB RAS, Tomsk, Russia</i> <i>**National Research Tomsk State University, Tomsk, Russia</i> <i>***National Research Tomsk Polytechnic University, Tomsk, Russia</i> <i>****Tomsk State University of Architecture and Building, Tomsk, Russia</i></p>
67	<p>G3-P-922001 Deposition of Barrier Layers of Titanium Nitride Using Dual Magnetron</p> <p>Y.N. Yurjev, D.V. Kiseleva, <u>D.V. Sidelev</u></p> <p><i>National Research Tomsk Polytechnic University, Tomsk, Russia</i></p>

September 11, Friday

9:00 – 10:30

Oral Session 5.1

9:00 – 9:30 Invited	G1-O-018101 Spatial Profiles of the Cathode Region Parameters in a Strongly Constricted Atmospheric Pressure Glow Discharge <u>V.I. Arkhipenko</u> , <u>L.V. Simonchik</u> <i>*Institute of Physics of NAS of Belarus, Minsk, Belarus</i>
19:30 – 9:50 Invited	G2-O-009602 Increase of Uniformity of Distribution of Density of Ionic Current in an Extended Plasma Source with the Heated and Hollow Cathode <u>V.V. Shugurov</u> *, N. N. Koval*, N.A. Prokopenko* <i>*Institute of High Current Electronics SB RAS, Tomsk, Russia</i>
9:50 – 10:10	G2-O-017502 Pulsed Mode of Non-Self-Sustained Arc Discharge with Filament Cathode and Hollow Cathode <u>V.V. Denisov</u> , S.S. Kovalskiy, V.V. Yakovlev, N.N. Koval <i>Institute of High Current Electronics SB RAS, Tomsk, Russia</i>
10:10 – 10:30	G1-O-016701 Two-Electrode Gas Switch with Electrodynamical Acceleration of a Discharge Channel <u>A.V. Kharlov</u> , B.M. Kovalchuk, E.V. Kumpyak, N.V. Tsoy <i>Institute of High Current Electronics SB RAS, Tomsk, Russia</i>
10:30 – 11:00	Coffee Break
11:00	Closing Ceremony