

14th International Conference
"Gas Discharge Plasmas and Their Applications"

GDP 2019

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Tomsk, Russia

Institute of High Current Electronics SB RAS
National Research Tomsk Polytechnic University
Tomsk Scientific Center
Tomsk State University of Architecture and Building
Tomsk State University of Control Systems and Radioelectronics
Scientific Council on the Complex Problem "Physics of Low Temperature Plasma"

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G1 **PHYSICAL PROCESSES IN GENERATORS OF LOW-TEMPERATURE PLASMA**
 Plasma of low and high pressure discharges, pre-electrode phenomena

G2 **PLASMA SOURCES AND EQUIPMENT**
 Generators based on the high and low pressure discharges, pulsed plasma sources

G3 **APPLICATION OF LOW-TEMPERATURE PLASMA**
 Surface modification, and plasmachemical, electrodischarge and other technologies

Plenary Lectures:

<p>Sept, 16 (Monday) 9:30 – 10:15</p>	<p>G1-O-934701 Nano-, Subnano-, and Picosecond Processes in High-Power Electrical Discharges in Gases <u>Gennady Mesyats</u> P.N. Lebedev Physical Institute of the Russian Academy of Sciences, Moscow, Russia</p>
<p>Sept, 17 (Tuesday) 9:00 – 9:45</p>	<p>G3-O-018401 Atmospheric Pressure Plasmas Treatment of Al₂O₃-Filled Epoxy Resin for Accelerating Surface Charge Dissipation <u>Cheng Zhang</u>^{1,2}, Fei Kong¹, Tao Shao^{1,2} ¹ Key Laboratory of Power Electronics and Electric Drive, Institute of Electrical Engineering, Chinese Academy of Sciences, Beijing, China ² University of Chinese Academy of Sciences, Beijing, China</p>
<p>Sept, 17 (Tuesday) 9:45 – 10:05</p>	<p>PR-Report Special Features of the Functioning of Discharge Systems and Generation of Beam Plasma in Medium Vacuum (1-100 Pa) <u>Efim Oks</u> Tomsk State University of Control Systems and Radioelectronics, Tomsk, Russia</p>
<p>Sept, 18 (Wednesday) 9:00 – 9:45</p>	<p>G3-O-027601 Interaction of Cold Atmospheric Plasma Jet with Dielectric Target <u>I.Schweigert</u>¹, DM.Zakrevsky², A.Bondar³ ¹ Khristianovich Institute of Theoretical and Applied Mechanics SB RAS, Novosibirsk, Russia ² AV Rzhanov Institute of Semiconductor Physics SB RAS, Novosibirsk, Russia ³ Institute of Chemical Biology and Fundamental Medicine SB RAS, Novosibirsk, Russia</p>
<p>Sept, 19 (Thursday) 9:00 – 9:45</p>	<p>G2-O-015301 Electron Beam Excited Plasma and Beam Plasma Discharge in Plasma Processing Technologies <u>E.G.Shustin</u> Kotelnikov Institute of Radio Engineering a.Electronics of RAS, Fryazino Branch, Fryazino, Russia</p>

16 September (Monday)

11:00 – 13:10

11:00 – 11:30 Invited	G1-O-924901 Low-Pressure Pulsed Gas Discharges with Hollow Cathode and Hollow Anode and Their Applications <u>Y.D.Korolev</u> Institute of High Current Electronics Siberian Division RAS, Tomsk, Russia
11:30 – 11:50	G1-O-017001 Kinetics of Electrons and Ions During the Formation of Low-Pressure Gas Discharge <u>A.V.Kozyrev</u> , V.YU.Kozhevnikov, N.S.Semeniuk Institute of High Current Electronics SB RAS, Tomsk, Russia
11:50 – 12:10	G1-O-900101 Regimes of the Discharge Sustainment in a Trigger Unit of the Sealed-Off Cold-Cathode Thyatron <u>N.V.Landl</u> ¹ , Y.D.Korolev ¹ , V.G.Geyman ¹ , O.B.Frants ¹ , G.A.Argunov ¹ , A.V.Bolotov ¹ , A.V.Akimov ² , P.A.Bak ² ¹ Institute of High Current Electronics, Tomsk, Russia ² Budker Institute of Nuclear Physics, Novosibirsk, Russia
12:10 – 12:30	G1-O-926702 Features of the Discharge Development Under the Action of a Trigger Pulse in the Trigger Unit of Sealed-Off Cold-Cathode Thyatron <u>G.A. Argunov</u> , N.V. Landl, Y.D. Korolev, V.G. Geyman, O.B. Frants, V.O. Nekhoroshev Institute of High Current Electronics, Tomsk, Russia
12:30 – 12:50	G2-O-010202 Generation of Uniform Beam-Plasma Formations in Large Vacuum Volumes <u>V.V.Denisov</u> , N.N.Koval Institute of High Current Electronics SB RAS, Tomsk, Russia
15:50 – 13:10	G1-O-008302 Measurement of Plasma Parameters in an Electron Source with a Plasma Cathode Based on a Low Pressure Arc Discharge <u>S.YU.Doroshkevich</u> , M.S.Vorobyov, S.S.Kovalsky, I.V.Lopatin, N.N.Koval, S.A.Sulakshi HCEI SB RAS, Tomsk, Russia
13:10 – 14:30	Lunch

16 September (Monday)

14:30 – 17:10

14:30 – 15:00 Invited	<p>G2-O-017801 Pulsed Jets for Dense Plasma Generation in an External Magnetic Field</p> <p><u>S.V.Ryzhkov</u>¹, V.V.Kuzenov²</p> <p>¹ Bauman Moscow State Technical University, Moscow, Russia ² N.L.Dukhov All-Russian Research Institute of Automatics, Moscow, Russia</p>
15:00 – 15:20	<p>G2-O-001802 Atmospheric Pressure Plasma Generator for Modification of Nitrile Butadiene Rubber Surface</p> <p><u>K.P.Savkin</u>¹, A.S.Bugaev¹, V.I.Gushenets¹, A.V.Vizir¹, A.G.Nikolaev¹, E.M.Oks^{1,2}, G.Yu.Yushkov¹, M.V.Shandrikov¹, V.P.Frolova^{1,2}, zhang Bin³, Kaixiong Gao³</p> <p>¹ Institute of High current Electronics SB RAS, Tomsk, Russia ² Tomsk State University of Control Systems and Radioelectronics, Tomsk, Russia ³ Lanzhou Institute of Chemical Physics, Chinese Academy of Sciences, Lanzhou, Gansu, People's Republic of China</p>
15:20 – 15:40	<p>G2-O-002205 About the Pulse Modes of Corona Glow Area</p> <p><u>V.S.Kuznetsov</u>, V.F.Tarasenko, E.A.Sosnin</p> <p>Institute of High Current Electronics SB RAS, Tomsk</p>
15:40 – 16:00	<p>G2-O-020301 A Calibration Method for Photoelectric Radiation Detectors for Measuring High-Intensity Pulsed Sources</p> <p><u>K.A.Tumashevich</u>, S.G.Kireev, S.G.Shashkovskiy</p> <p>Scientific and Industrial Enterprise "Melitta", Ltd., Moscow, Russia</p>
16:00 – 16:20	<p>G2-O-023001 Development of Rotating Ambient-Air Arc Jet for Low-Temperature Treatment</p> <p><u>V.Gamaleev</u>, N.Iwata, J.-S.Oh, M.Hiramatsu, M.Ito</p> <p>¹ Meijo University, Nagoya, Japan ² Osaka City University, Osaka, Japan</p>
16:20 – 16:40	<p>G2-O-024802 Power Supply for Obtaining the Low-Temperature Plasma Jet</p> <p>Y.D.Korolev^{1,2}, <u>V.O.Nekhoroshev</u>¹, O.B.Frants¹, N.V.Landl¹, A.V.Bolotov¹</p> <p>¹ Institute of High Current Electronics SB RAS, Tomsk, Russia ² National Research Tomsk State University, Tomsk, Russia</p>

16 September (Monday)

14:30 – 17:10

16:40 – 17:00	G2-O-911201 Small Anode Ion Source <u>V.Dudnikov</u> ¹ , G.Dudnikova ² ¹ Muons, Inc, Batavia, IL, USA ² Institute of Computational Mathematics and Mathematical Geophysics SB RAS, Novosibirsk, Russia
17:00 – 19:00	Coffee and Poster Session G1 (Page 29)

17 September (Tuesday)

10:30 – 12:40

<p>10:30 – 11:00 Report</p>	<p>G2-O-015101 Optical Emission Study of Plasma Vortex Rings at Atmospheric Pressure Air <u>L.Y.Volodin</u>, A.S.Kamrukov Bauman Moscow State Technical University, Moscow, Russia</p> <p>G2-O-015102 High-Speed Imaging Pyrometry of Plasma Vortex Rings at Atmospheric Pressure Air <u>L.Y.Volodin</u>, A.S.Kamrukov Bauman Moscow State Technical University, Moscow, Russia</p>
<p>11:00 – 11:20</p>	<p>G2-O-004102 Plasma Parameters of Dual Deep Oscillation Magnetron Sputtering System <u>V.O.Oskirko</u>, A.N.Zakharov, A.P.Pavlov, V.A.Semenov Institute of High Current Electronics SB RAS, Tomsk, Russia</p>
<p>11:20 – 11:40</p>	<p>G2-O-007702 Low-Temperature Plasma Generation in a Non-Self-Sustained Glow Discharge with a Hollow Cathode of Extended and Complex Shape <u>D.YU.Ignatov</u>, I.V.Lopatin, V.V.Denisov, YU.K.Ahmadeev, N.N.Koval Institute of High Current Electronics SB RAS, Tomsk, Russia</p>
<p>11:40 – 12:00</p>	<p>G2-O-008102 Improving the Uniformity of the Distribution of Plasma Concentration in the Non-Self-Sustaining Low-Pressure Glow Discharge with a Hollow Cathode <u>E.V.Ostroverkhov</u>, V.V.Denisov Institute of High Current Electronics SB RAS, Tomsk, Russia</p>
<p>12:00 – 12:20</p>	<p>G2-O-009302 The Distribution of Plasma Parameters Along the Axis of the Hollow Anode in the Plasma Electron Emitter <u>S.S.Kovalsky</u>, V.V.Denisov, E.V.Ostroverkhov, N.N.Koval Institute of High Current Electronics SB RAS, Tomsk, Russia</p>

17 September (Tuesday)

10:30 – 12:40

12:20 – 12:40	G2-O-033101 High-Current Pulse Non-Self-Sustained Glow Discharge with Current Up to 1 kA <u>V.V.Yakovlev</u> , V.V.Denisov, N.N.Koval, S.S.Kovalsky, E.V.Ostroverkhov Institute of High Current Electronics SB RAS, Tomsk, Russia
12:40 – 14:00	Lunch

17 September (Tuesday)

14:00 – 16:10

14:00 – 14:30 Invited	G1-O-000404 Oes Diagnostics of Plasma of Fast Discharges in Strongly Overvoltaged Gaps <u>D.A.Sorokin</u> ¹ , <u>S.A.Minaev</u> ² , <u>M.I.Lomaev</u> ¹ , <u>V.S.Ripenko</u> ¹ ¹ Institute of High Current Electronics, Tomsk, Russia ² National Research Tomsk State University, Tomsk, Russia
14:30 – 14:50	G1-O-001501 Railgun Gas Switches in Oscillatory Regime of Discharge <u>A.V.Kharlov</u> , <u>E.V.Kumpyak</u> , <u>G.V.Smorudov</u> , <u>N.V.Tsoy</u> Institute of High Current Electronics, Tomsk, Russia
14:50 – 15:10	G1-O-003601 Investigation of Electron Transition Into Runaway Mode in Inhomogeneous Electric Field in Various Gas Media <u>Y.I.Mamontov</u> , <u>V.V.Lisenkov</u> , <u>I.V.Uimanov</u> Institute of Electrophysics, Ekaterinburg, Russia
15:10 – 15:30	G1-O-018702 Species Kinetics in Ar-S2 Plasma of the Pulsed Periodic Discharge <u>S.V.Avtaeva</u> Institute of Laser Physics SB RAS, Novosibirsk, Russia
15:30 – 15:50	G1-O-025101 Measuring the Velocity of Streamers Formed in an Inhomogeneous Electric Field <u>D.V.Beloplotoy</u> , <u>D.A.Sorokin</u> , <u>M.I.Lomaev</u> , <u>V.F.Tarasenko</u> Institute of High Current Electronics, Tomsk, Russia
15:50 – 16:10	G1-O-024005 A Limit Value of the Volume Discharge Ignition Frequency in Dense Gases <u>B.A.Kozlov</u> Department of Electronic Devices, Ryazan State Radio Engineering University, Ryazan, Russia
16:10 – 18:30	Coffee and Poster Session G2&G3 (Page 40)

18 September (Wednesday)

10:15 – 12:25

10:15 – 10:45 Invited	G1-P-027202 I-V Characteristics and Efficiency of Electron Beam Generation in Discharges, in Nitrogen and Oxygen <u>P.A.Bokhan</u> , P.P Gugin, M.A.Lavrukhin, D.E.Zakrevsky A.V Rzhanov Institute of Semiconductor Physics SB RAS, Novosibirsk, Russia
10:45 – 11:05	G1-O-012702 Gas Heating Dynamics in a Pulse Microwave Discharge in Air <u>A.I.Saifutdinov</u> ^{1,2} , E.V.Kustova ² , V.A.Lashkov ² ¹ Kazan National Research Technical University named after A.N.Tupolev KAI, Kazan ² Saint-Petersburg University, Saint-Petersburg
11:05 – 11:25	G1-O-018201 Discharge Features in Crossed Electric and Magnetic Fields <u>N.A.Strokin</u> ¹ , A.V.Kazantsev ¹ , V.M.Bardakov ² , Nguyen the Thang ¹ , A.S.Kuzmina ¹ ¹ Irkutsk National Research Technical University, Irkutsk, Russia ² Irkutsk State Transport University, Irkutsk, Russia
11:25 – 11:45	G1-O-019201 Emission and Level Population in Noble Gases and Their Binary Mixtures Ionized by Ion Beam <u>M.U.Khasenov</u> , A.K.Amrenov Nazarbayev University, National Laboratory Astana, Astana, Kazakhstan
11:45 – 12:05	G1-O-025701 Discharge Development in the Saline Solution at Above Threshold Voltages <u>V.S.Kasianov</u> ¹ , Y.D.Korolev ^{1,2} , I.A.Shemyakin ^{1,2} , N.V.Landl ¹ , A.V.Bolotov ¹ ¹ Institute of High Current Electronics SB RAS, Tomsk, Russia ² National Research Tomsk State University, Tomsk, Russia
12:05 – 12:25	G1-O-029402 Unstable Plasma-Surface Interaction and Auto-Oscillating Discharge Regimes <u>I.V.Vizgalov</u> ¹ , I.A.Sorokin ^{1,2} , K.M.Gutorov ¹ , V.A.Kurnaev ¹ ¹ National Research Nuclear University MEPHI, Moscow, Russia ² Kotel'nikov Institute of Radio Engineering and Electronics (Fryazino Branch), Russian Academy of Sciences, Fryazino, Russia
12:25 – 14:00	Lunch

18 September (Wednesday)

14:00 – 16:00

14:00 – 14:30 Invited	<p>G2-O-008004 Electron Beam Generation with Variable Current Amplitude During Its Pulse in a Source with a Grid Plasma Cathode</p> <p><u>M.S.Vorobyov</u>¹, N.N.Koval^{1,2}, V.V.Yakovlev¹, A.D.Teresov¹, S.YU.Doroshkevich¹, V.I.Shin¹</p> <p>¹ HCEI SB RAS, Tomsk, Russia ² National Research Tomsk State University, Tomsk, Russia</p>
14:30 – 14:50	<p>G2-O-006402 Plasma Source for Generation of Auxiliary Anode Plasma in Electron Source with Grid Plasma Cathode</p> <p><u>P.V.Moskvin</u>, V.N.Devyatkov, S.S.Kovalsky, M.S.Vorobyev HCEI SB RAS, Tomsk, Russia</p>
14:50 – 15:10	<p>G2-O-010102 Profile Formation of Emission Current of Grid Plasma Cathode in a Longitudinal Magnetic Field</p> <p><u>V.N.Devyatkov</u>, N.N.Koval HCEI SB RAS, Tomsk, Russia</p>
15:10 – 15:30	<p>G2-O-010902 The Deflection of a Wide Electron Beam From the Longitudinal Axis of the Source with a Plasma Cathode and Plasma Anode</p> <p><u>V.I.Shin</u>, P.V.Moskvin, M.S.Vorobyov, V.N.Devyatkov, S.YU.Doroshkevich HCEI SB RAS, Tomsk, Russia</p>
15:30 – 16:00 Report	<p>G2-O-026901 Switching Devices - Eptron with 100 Kv Operating Voltage and a Sub-Nanosecond Switching Times</p> <p>P.A.Bokhan, <u>P.P.Gugin</u>, V.A.Kim, M.A.Lavrukhin, D.E.Zakrevsky ¹ AV Rzhzanov Institute of Semiconductor Physics, Novosibirsk, Russia</p>
	<p>G2-O-027402 Improving Pulse Repetition Rate with a Combination of Capillary and Open Discharges</p> <p>P.A.Bokhan, P.P. Gugin, V.A.Kim, <u>M.A.Lavrukhin</u>, D.E.Zakrevsky ¹ AV Rzhzanov Institute of Semiconductor Physics, Novosibirsk, Russia</p>

19 September (Thursday)

10:15 – 12:25

10:15 – 10:45 Invited	G2-O-018202 Tandem Analyzer of Plasma Flow Ions by Energy, Mass and Charges <u>N.A.Strokin</u> ¹ , <u>A.V.Kazantsev</u> ¹ , <u>V.M.Bardakov</u> ² , <u>Nguyen the Thang</u> ¹ , <u>A.S.Kuzmina</u> ¹ ¹ Irkutsk National Research Technical University, Irkutsk, Russia ² Irkutsk State Transport University, Irkutsk, Russia
10:45 – 11:05	G2-O-017201 Experience of Formation of Combined Low Energy Electron-Ion Beams in Plasma Sources of Charged Particles <u>D.A.Antonovich</u> , <u>V.A.Gruzdev</u> Polotsk State University, Novopolotsk, Belarus
11:05 – 11:25	G2-O-021301 Pulsed Fields Influence on Pig Ion Source Performance <u>N.N.Schitov</u> Dukhov Automatics Research Institute (VNIIA), Moscow, Russia
11:25 – 11:45	G2-O-023902 Angular Distributions of Mass and Charge Flow of Ionic Component in Plasma Beam Generated High-Voltage Nanosecond Surface Flashover in Vacuum <u>Morozov P.A.</u> , <u>Punanov I.F.</u> , <u>Emlin R.V.</u> Institute of Electrophysics, Yekaterinburg, Russia
11:45 – 12:05	G2-O-001301 Operation Features of the Pulse Penning Ion Source in the Transition Pressure Range <u>N.V.Mamedov</u> ^{1,2} , <u>S.P.Maslennikov</u> ² , <u>À.À.Solodovnikov</u> ¹ , <u>D.I.Yurkov</u> ^{1,2} ¹ All-Russia Research Institute of Automatics (VNIIA), Moscow, Russia ² National Research Nuclear University MEPhI, Moscow, Russia
12:05 – 12:25	G2-O-016601 Evaporation of Polycrystalline Silica-Aluminium Cathode in Cathodic Arc Vacuum Discharge <u>D.V.Dukhopelnikov</u> , <u>D.V.Kirillov</u> Moscow State Technical University n.a.Bauman, Moscow, Russia
12:25 – 14:00	Lunch

19 September (Thursday)

14:00 – 16:10

14:00 – 14:30 Invited	G1-O-003201 On the Nature of Charged Particle Flow in Vacuum Arc <u>I.L.Muzyukin</u> ¹ , P,S.Mikhailov ¹ , ¹ Institute of Electrophysics UD RAS, Ekaterinburg, Russia
14:30 – 14:50	G1-O-001401 Interaction of High-Density Cathode-Spot Plasma with a Magnetic Field <u>M.M.Tsvetoukh</u> ¹ , D.L.Shmelev ² , S.A.Barengolts ^{3,1} ¹ Lebedev Physical Institute of Russian Academy of Sciences, Moscow, Russia ² Institute of Electrophysics UD RAS, Ekaterinburg, Russia ³ Prokhorov General Physics Institute of Russian Academy of Sciences, Moscow Russia
14:50 – 15:10	G1-O-004001 Current-Voltage Characteristics of the High-Frequency Arc Discharge in the Air <u>A.F.Kokorin</u> Yekaterinburg
15:10 – 15:30	G1-O-003301 Study of the Ion Plasma Flow Generated by Vacuum Flashover Discharge <u>I.L.Muzyukin</u> ¹ , <u>P.S.Mikhailov</u> ¹ ¹ Institute of Electrophysics UD RAS, Ekaterinburg, Russia
15:30 – 15:50	G1-O-006901 Investigation of the Expansion Dynamics of the Near-Surface Light Erosion Plasma Formed During the Evaporation of a Material by Broadband High-Brightness Radiation <u>A.V.Pavlov</u> ¹ , <u>YU.YU.Protasov</u> ¹ , <u>V.D.Telekh</u> ¹ , <u>T.S.Tshepanuk</u> ¹ ¹ Bauman Moscow State Technical University, Moscow, Russia
15:50 – 16:10	G1-O-022602 Probe Diagnostics of the Plasma Plume Created by a Magnetic Nozzle of an Inductively Coupled Plasma Source <u>A.I.Shumeiko</u> , <u>V.D.Telekh</u> , <u>S.V.Ryzhkov</u> , <u>V.V.Kuzenov</u> ¹ Bauman Moscow State Technical University, Moscow, Russia
16:10 – 18:30	Coffee and Poster session G3 (Page 52)

20 September (Friday)

10:15 – 12:25

10:15 – 10:45 Invited	<p>G2-O-028701 Creation of Plasma Column to Generate Thz-Radiation Due to Electron Beam-Plasma Interaction</p> <p><u>I.A.Ivanov</u>^{1,2}, A.V.Arzhannikov^{1,2}, V.S.Burmasov^{1,2}, M.A.Makarov¹, K.I.Mekler¹, A.F.Rovenskiikh¹, D.A.Samtsov¹, S.L.Sinitsky^{1,2}</p> <p>¹ Budker Institute of Nuclear Physics, Novosibirsk, Russia ² Novosibirsk State University, Novosibirsk, Russia</p>
10:45 – 11:05	<p>G2-O-008201 The Formation of Powerful Plasma Bunches in High-Current Plasma Guns with a Discharge on the Surface of the Dielectric</p> <p><u>B.A.Kokshenev</u>, N.E.Kurmaev, R.K.Cherdizov Institute of High Current Electronics SB RAS, Tomsk, Russia</p>
11:05 – 11:25	<p>G2-O-016101 Foil Liner Implosions with a Nanosecond Rise Time of Current Through the Liner</p> <p><u>S.A.Sorokin</u> Institute of High Current Electronics SB RAS, Tomsk, Russia</p>
11:25 – 11:45	<p>G2-O-026302 One Second Plasma Source for Flow Forming in Smola Device</p> <p><u>V.O.Ustiuzhanin</u>^{1,2}, I.A.Ivanov^{1,2}, A.V.Sudnikov^{1,2}, V.V.Glinsky¹</p> <p>¹ Novosibirsk State University, Novosibirsk, Russia ² Institute of Nuclear Physics, Novosibirsk, Russia</p>
11:45 – 12:05	<p>G2-O-007502 Plasma Generation in the Arc Discharge with a Thermionic Cathode in Current Stabilization Conditions</p> <p><u>I.V.Lopatin</u>, YU.H.Akhmadeev, N.N.Koval, S.S.Kovalskiy, Institute of High Current Electronics SB RAS, Tomsk, Russia</p>
12:05 – 14:00	Lunch

16 September (Monday)

11:00 – 13:10

11:00 – 11:30 Invited	<p>G3-O-022101 Modification of Denture Polymers in RF-Discharge and Hybrid Plasmas: Advanced Techique for Clinical Practice</p> <p><u>T.M.Vasilieva</u>¹, E.O.Kudasova², E.V.Kochurova, R.A.Akasov³, E.A.Markvicheva³, M.N.Vasiliev¹</p> <p>¹ Moscow Institute of Physics and Technology, Dolgoprudny, Russia ² the First Sechenov Moscow State Medical University under Ministry of Health of the Russian Federation, Moscow, Russia ³ Shemyakin-Ovchinnikov Institute of Bioorganic Chemistry of the Russian Academy of Sciences, Moscow, Russia</p>
11:30 – 11:50	<p>G3-O-000804 Model Compound Mixtures for Studying the Main Trends of Volatile Organic Compounds Conversion in Processes of Air Cleaning by Pulsed Discharges</p> <p><u>I.E.Filatov</u>, V.V.Uvarin, D.L.Kuznetsov Institute of Electrophysics UD RAS, Yekaterinburg, Russia</p>
11:50 – 12:10	<p>G3-O-025602 Contactless Particle Filtering by Alternating Electric Field</p> <p><u>D.S.Lapitsky</u>, V.S.Filinov, R.A.Syrovatka Joint Institute for High Temperatures RAS, Moscow, Russia</p>
12:10 – 12:30	<p>G3-O-011301 Preparation of High-Voltage Vacuum Gap Surfaces by the Glowing Discharge</p> <p><u>I.A.Kanshin</u>, V.G.Markov Dukhov Automatics Research Institute (VNIIA), Moscow, Russia</p>
12:30 – 12:50	<p>G3-O-021901 EHD Cell Parameters and Collector Effective Area</p> <p><u>M.D.Babushkin</u>, V.Yu.Khomich, I.E.Rebrov Federal State Budgetary Scientific Institution Institute for Electrophysics and Electric Power RAS, St.-Petersburg, Russia</p>
12:50 – 13:10	<p>G3-O-007802 Vacuum Arc Deposition of MoN Coatings in the Modes of Plasma Assistance</p> <p><u>N.A.Prokopenko</u>, O.V.Krysina, V.V.Shugurov, E.A.Petrikova, O.S.Tolkachev Institute of High Current Electronics SB RAS, Tomsk, Russia</p>
13:10 – 14:30	Lunch

16 September (Monday)

14:30 – 17:00

14:30 – 15:00 Invited	G3-O-930401 Evolution of Steam and Plasma Plume Generation on Pulse Laser Action on the Surface of Metal in Water <u>A.Yu.Ivanov</u> , A.V.Kapytski, S.V.Vasiliev Grodno State University, Grodno, Belarus
15:00 – 15:20	G3-O-022501 Technology of Hardening and Improving the Performance of High-Speed Steels by Glow Discharge Plasma <u>V.V.Abidzina</u> , U.M.Shamiankou Belarusian-Russian University, Mogilev, Belarus
15:20 – 15:40	G3-O-025901 Hybrid Methods for Obtaining Plasma Chemical Coatings N.M.Chekan ¹ , <u>Y.V.Auchynnika</u> ² , I.P.Akula ¹ , E.I.Eisymont ² , A.N.Gorelchik ² ¹ SSI «Physico-Technical Institute», National Academy of Sciences of Belarus.Minsk ² Yanka Kupala State University of Grodno.Grodno
15:40 – 16:00	G3-O-028201 Formed Nano-W - Wc Coatings on the High-Speed Steel Substrate by the Electrodischarge Explosion <u>E.G.Grigoryev</u> ¹ , K.L.Smirnov ¹ , E.L.Strizhakov ² , S.V.Neskoromniy ² 1 Merzhanov Institute of Structural Macrokinetics and Materials Science RAS, Chernogolovka, Russia 2 Don State Technical University, Rostov-on-Don, Russia
16:00 – 16:20	G3-O-029002 Influence of Gas Discharge Plasma on Films of Complex Composition Forming Process and Properties <u>Y.S.Zhidik</u> ^{1,2} , T.I.Danilina ¹ , A.A.Chistoedova ¹ , E.V.Zhidik ¹ , P.E.Troyan ¹ , L.R.Bitner ¹ 1 Tomsk State University of Control Systems and Radioelectronics, Tomsk, Russia 2 V.E.Zuev Institute of Atmospheric Optics SB RAS, Tomsk, Russia
16:20 – 16:40	G3-O-029603 Electric Discharge Destruction of Reinforced Concrete Sleepers with Different Modes of Pulse Polarity <u>E.V.Petrenko</u> , A.S.Yudin Tomsk Polytechnic University, Tomsk, Russia

16 September (Monday)

14:30 – 17:00

16:40 – 17:00	G3-O-007402 Influence of Metal-Gas Plasma Composition and Parameters on Composition and Characteristics of Nitride Coatings <u>O.V.Krysin</u> a, V.V.Shugurov, V.E.Prokopiev, S.S.Kovalsky, N.A.Prokopenko Institute of High Current Electronics SB RAS, Tomsk, Russia
16:50 – 19:00	Coffee and Poster Session G1 (Page 29)

17 September (Tuesday)

10:30 – 12:40

10:30 – 11:00 Invited	G3-O-031702 The Technology of Low-Temperature Ion Nitriding of Austenitic and Martensitic Steels with Ultrafine-Grained Structure Yu.G.Khusainov, R.S.Esipov, <u>K.N.Ramazanov</u> Ufa State Aviation Technical University, Ufa, Russia
11:00 – 11:20	G3-O-008802 Ion-Plasma Zr-Nb-N Coatings: Equipment, Deposition and Properties <u>V.V.Shugurov</u> , O.V.Krysina, N.A.Prokopenko Institute of High Current Electronics SB RAS, Tomsk, Russia
11:20 – 11:40	G3-O-020801 Roughness of Nickel and Titanium Ultrathin Films Coated by Magnetron Sputtering Technique D.V.Dukhopelnikov ¹ , <u>E.V.Vorobev</u> ¹ , D.V.Kirillov ¹ , S.O.Shilov ¹ , V.V.Karavaev ² ¹ Moscow State Technical University n.a.Bauman, Moscow, Russia ² Company "Dana engineering", Moscow, Russia
11:40 – 12:00	G3-O-023703 High-Rate Deposition of Chromium Coatings by Magnetron Sputtering <u>D.V.Sidelev</u> ¹ , G.A.Bleykher ¹ , V.A.Grudin ¹ , V.P.Krivobokov ¹ , M.Bestetti ^{1,2} ¹ Tomsk Polytechnic University, Tomsk, Russia ² Politecnico di Milano, Milan, Italy
12:00 – 12:20	G3-O-022301 Formation of the Silicon Coating on the Niti Substrate by Magnetron Sputtering <u>A.V.Luchin</u> ¹ , K.V.Krukovskii ² , O.A.Kashin ² ¹ National Research Tomsk Polytechnic University, Tomsk, Russia ² Institute of Strength Physics and Materials Science SB RAS, Tomsk, Russia
12:20 – 12:40	G3-O-027005 Complex Modification of the Surface of High-Speed Steel in Low-Temperature High-Density Plasma <u>E.L.Vardanyan</u> , K.N.Ramazanov, A.YU.Nazarov, R.Sh.Nagimov Ufa state aviation technical university, Ufa, Russia
12:40 – 14:00	Lunch

17 September (Tuesday)

14:00 – 16:10

14:00 – 14:30 Invited	<p>G3-O-016402 Redox Processes Involving Chromium Ions, Initiated by the Action of a Discharge in Air, Oxygen and Argon on Aqueous Solutions</p> <p>D.A.Shutov, A.V.Sungurova, A.S.Manukyan, <u>V.V.Rybkin</u> Ivanovo State University of Chemistry and Technology, Ivanovo, Russia</p>
14:30 – 14:50	<p>G3-O-030301 Characterization of Alumina Deposition Process in a High Power Pulsed Reactive Magnetron Sputtering</p> <p><u>M.A.Kondratev</u>¹, A.V.Kaziev¹, K.A.Leonova¹, D.V.Kolodko^{1,2}, D.G.Ageychenkov¹, A.V.Tumarkin¹, T.V.Stepanova¹</p> <p>¹ National Research Nuclear University MEPhI (Moscow Engineering Physics Institute), Moscow, Russia ² Kotel'nikov Institute of Radio Engineering and Electronics, Fryazino Branch RAS, Fryazino, Russia</p>
14:50 – 15:10	<p>G3-O-001201 The Use of Magnetron Sputtering to Synthesis Boride Neutron-Absorbing Coatings</p> <p><u>A.S.Larionov</u>, E.A.Zhakanbayev, A.N.Karpikov, V.N.Volodin, L.V.Chekushina Institute of nuclear physics, Almaty, Republic of Kazakhstan</p>
15:10 – 15:30	<p>G3-O-032603 Influence of Architecture Coatings Based on Intermetallides, Carbides, Oxides and Nitrides of Ti-Al Systems on Their Physical and Mechanical PROPERTIES</p> <p>E.L.Vardanyan, K.N.Ramazanov, <u>A.Yu.Nazarov</u>, R.Sh.Nagimov Ufa state aviation technical university, Ufa, Russia</p>
15:30 – 15:50	<p>G3-O-029502 Investigation of Catalyst Obtained From Aluminum Oxide Produced by Plasma Synthesis</p> <p><u>D.I.Subbotin</u>^{1,2,3}, V.E.Popov¹, E.A.Pavlova², V.E.Kuznetsov¹, V.V.Azartsova^{1,2}, A.S.Nabatova², J.A.Kuchina¹</p> <p>¹ Institute for Electrophysics and Electric Power RAS, St.Petersbourg, Russia ² St.Petersburg State Technological Institute St.Petersburg, Russia ³ St.Petersburg State University, St.Petersburg, Russia</p>

17 September (Tuesday)

14:00 – 16:10

15:50 – 16:10	<p>G3-O-933301 Electric Discharges in a Magnetic Field to Control Hypersonic Flow Around Bodies</p> <p><u>V.P.Fomichev</u>^{1,2} , M.A.Yadrenkin¹, E.K.Shipko¹</p> <p>¹ ITAM SB RAS, Novosibirsk, Russia ² Novosibirsk State Technical University, Novosibirsk, Russia</p>
16:10 – 18:30	Coffee and Poster Session G2&G3 (Page 40)

18 September (Wednesday)

10:15 – 12:25

10:15 – 10:45 Invited	G3-O-003401 Structure of an Electro-Explosive Coating of the Zn-Ag System <u>D.A. Romanov</u> ¹ , S.V. Moskovskii ¹ , V.E. Gromov ¹ Siberian State Industrial University, Novokuznetsk, Russia
10:45 – 11:05	G3-O-003501 Ti-Zr Coatings Formed on the Titanium Implant Surface by the Electroexplosive Method <u>K.V. Sosnin</u> ¹ , D.A. Romanov ¹ , V.E. Gromov ¹ Siberian State Industrial University, Novokuznetsk, Russia
11:05 – 11:25	G3-O-005501 Characterization of the α-Al₂O₃ Coatings Deposited by Reactive Evaporation in Anodic Arc Under High-Current Ion Assistance <u>A.S.Kamenetskikh</u> ¹ , N.V.Gavrilov ¹ , P.V.Tretnikov ¹ , A.V.Chukin ² ¹ Institute of Electrophysics, Yekaterinburg, Russia ² Ural Federal University, Yekaterinburg, Russia
11:25 – 11:45	G3-O-005502 High-Rate Low-Temperature PVD of Thick 10 mkm Alfa-Alumina Coatings N.V.Gavrilov ¹ , <u>A.S.Kamenetskikh</u> ¹ , P.V.Tretnikov ¹ , A.V.Chukin ² ¹ Institute of Electrophysics, Yekaterinburg, Russia ² Ural Federal University, Yekaterinburg, Russia
11:45 – 12:05	G3-O-030102 The Signal Radiation by the Plasma Asymmetrical Dipole Antenna <u>N.N.Bogachev</u> ^{1,2,3} , N.G.Gusein-Zade ^{1,2} , I.L.Bogdankevich ^{1,2} , S.E.Andreev ^{1,2,3} , A.M.Ignatov ^{1,2} , V.I.Nefedov ³ ¹ Prokhorov General Physics Institute RAS, Moscow, Russia ² Pirogov Russian National Research Medical University, Moscow, Russia ³ MIREA – Russian Technological University, Moscow, Russia
12:05 – 12:25	G3-O-028401 The Transmission Spectrum Switching Speed of Electromagnetic Band Gap Plasma Structure <u>V.S.Babitski</u> ¹ , TH.Callegari ² , L.V.Simonchik ¹ , J.Sokoloff ² , M.S.Usachonak ¹ ¹ Institute of physics NAS of Belarus, Minsk, Belarus ² LAPLACE CNRS, Toulouse, France
12:25 – 14:00	Lunch

18 September (Wednesday)

14:00 – 15:50

14:00 – 14:30 Invited	G3-O-003701 Development of Environment Friendly Technology of Generation of Electroerosion-Resistant Composite Coatings for Switches of High-Power Electric Lines, which Combines Electro-Explosive Spraying and Electron-Ion-Plasma Modification <u>E.A.Budovskikh</u> , D.A.Romanov, S.V.Moskovskii, V.E.Gromov Siberian State Industrial University, Novokuznetsk, Russia
14:30 – 14:50	G3-O-027501 Nanoscale Dynamic Effects Instead of Temperature.Low-Temperature Structural States Formed by Ion Irradiation <u>E.V.Makarov</u> ¹ , V.V.Ovchinnikov ^{1,2} , V.A.Semionkin ^{1,2} , F.F.Makhin'ko ¹ , K.V.Shalomov ¹ ¹ Institute of Electrophysics UB RAS, Yekaterinburg, Russia ² Ural Federal Technical University named after the First President of Russia B.N.Yeltsin, Yekaterinburg, Russia
14:50 – 15:10	G3-O-030901 Titanium Surface Texturing Induced by Argon Ion Bombardment in an ICP Discharge <u>Danilyuk D.V.</u> , Kharkov M.M., Kaziev A.V. National Research Nuclear University MPhI, Moscow,Russia
15:10 – 15:30	G3-O-032101 Peculiarities of the Formation of High-Intensity Ion Beams of Gases, Metals and Semiconductor Materials A.I.Ryabchikov, D.O.Sivin, <u>A.E.Shevelev</u> , G.S.Modebadze National research Tomsk polytechnic university, Tomsk, Russia
15:30 – 15:50	G3-O-032301 Effect of the Reactive Gas Impurites in Helium Plasma on the Fuzzy Tungsten Structure <u>M.M.Kharkov</u> , O.V.Ogorognikova, A.V.Kaziev, V.S.Efimov, Y.M.Gasparyan National Research Nuclear University MPhI Moscow, Russia

10:15 – 10:45 Invited	<p>G3-O-006201 Modification of the Surface Structure of Steel by Combined Electron-Plasma Method</p> <p><u>A.A.Klopotov</u>^{1,2}, Yu.A.Abzaev¹, Yu.F.Ivanov³, A.I.Potekaev², M.P.Kalashnikov⁴, G.G.Volokitin¹, A.V.Chumaevskii⁴, A.D.Teresov³</p> <p>¹ Tomsk State University of Architecture and Building, Tomsk, Russia ² National Research Tomsk State University, Tomsk, Russia ³ Institute of High Current Electronics SB RAS, Tomsk, Russia ⁴ Institute of Strength Physics and Materials Science SB RAS, Tomsk, Russia</p>
10:45 – 11:05	<p>G3-O-008601 Irradiation by a Low-Energy Pulsed Electron Beam of Zirconia-Based Composite</p> <p><u>A.A.Leonov</u>^{1,2}, Yu.F.Ivanov^{1,2}, M.P.Kalashnikov², V.D.Paygin², A.D.Teresov¹</p> <p>¹ Institute of High-Current Electronics SB RAS, Tomsk, Russia ² National Research Tomsk Polytechnic University, Tomsk, Russia</p>
11:05 – 11:25	<p>G3-O-019702 Synthesis of Ni-Al Intermetallic Surface Alloys Produced by Using a Low-Energy High-Current Electron Beam</p> <p><u>E.V.Yakovlev</u>, A.B.Markov, D.A.Shepel, A.V.Solovyov, V.I.Petrov</p> <p>Tomsk Scientific Centre SB RAS, Tomsk, Russia</p>
11:25 – 11:45	<p>G3-O-033001 Nanostructure Formation of Hypoeutectic Silumin by Electron-Ion-Plasma Methods</p> <p><u>Yu.F.Ivanov</u>¹, V.E.Gromov², D.V.Zagulyaev², S.V.Konovalov³, Yu.A.Rubannikova², E.A.Petrikova¹, M.E.Rygina¹</p> <p>¹ Institute of High Current Electronics SB RAS, Tomsk, Russia ² Siberian State Industrial University, Novokuznetsk, Russia ³ Samara National Research University, Samara, Russia</p>
11:45 – 12:05	<p>G3-O-014502 Surface Treatment of Metals, Dielectrics and Semiconductors by Runaway Electron Preionized Diffuse Discharge</p> <p><u>V.S.Ripenko</u>, M.V.Erofeev, M.A.Shulepov, V.F.Tarasenko</p> <p>Institute of High Current Electronics SB RAS, Tomsk, Russia</p>

19 September (Thursday)

10:15 – 12:25

12:05 – 12:25	<p>G3-O-029101 Low Temperature ICP Etching InP/InGaAsP heterostructure in CL₂-based plasma</p> <p><u>S.V.Ishutkin</u>^{1,2}, V.S.Arykov², I.V.Yunusov², M.V.Stepanenko², P.E.Troyan², Y.S.Zhidik²</p> <p>¹ Research and Production Company «Micran», Tomsk, Russia ² Tomsk State University of Control System and Radioelectronics, Tomsk, Russia</p>
12:25 – 14:00	Lunch

19 September (Thursday)

14:00 – 16:50

14:00 – 14:30 Invited	G3-O-029801 Advanced Functional Coatings Deposited Using Supersonic Atmospheric Plasma Spraying <u>I.P.Gulyaev</u> ¹ , V.I.Kuzmin ¹ , E.E.Kornienko ² ¹ Institute of Theoretical and Applied Mechanics SB RAS, Novosibirsk, Russia ² Novosibirsk State Technical University, Novosibirsk, Russia
14:30 – 14:50	G3-O-003801 Synthesis of C-N Powder Materials by Arc Discharge Plasma <u>Yu.Z.Vassilyeva</u> , A.Ya.Pak Tomsk Polytechnic University, Tomsk, Russia
14:50 – 15:10	G3-O-009901 Optimization of Plasma Dynamic Synthesis Process for Increasing the Yield and Purity of E-Fe₂O₃ Epsilon Phase <u>I.Shanenkov</u> ¹ , A.Sivkov ¹ , A.Ivashutenko ¹ , M.Gukov ¹ , Liping Li ² , Guangshe Li ² , Wei Han ² ¹ National research Tomsk polytechnic university, Tomsk, Russia ² Jilin university, Changchun, PR China
15:10 – 15:30	G3-O-011404 Experimental and Numerical Study of High-Temperature Synthesis of Nanosized Silica Particles in Flow-Type Plasmachemical Reactor <u>E.V.Kartaev</u> ¹ , S.M.Aulchenko ^{1,2} , V.A.Emelkin ¹ ¹ Khristianovich Institute of Theoretical and Applied Mechanics SB RAS, Novosibirsk, Russia ² Novosibirsk State Architectural-Building University, Novosibirsk, Russia
15:30 – 15:50	G3-O-021501 Synthesis and Processing of Powder Materials in Dc Arc Thermal Plasma Samokhin A.V., Alekseev N.V., <u>Astashov A.G.</u> , Kirpichev.D.E., Fadeev A.A., Sinaiskiy M.À., Tsvetkov Y.V. A.A.Baikov Institute of Metallurgy and Materials Sciences RAS, Moscow, Russia
15:50 – 16:10	G3-O-032401 Prototype Electropasma Installation for the Gasification of Organic Waste to Produce Fuel Gas A.S.Anshakov, <u>P.V.Domarov</u> , V.A.Faleev Kutateladze Institute of Thermophysics SB RAS, Novosibirsk, Russia

19 September (Thursday)

14:00 – 16:50

16:10 – 16:30	G3-O-002301 Deformation Features of Eutectic Silumin Subjected to Electron Beam Treatment <u>E.A.Petrikova</u> , Yu.F.Ivanov Institute of High Current Electronics SB RAS, Tomsk, Russia
16:30 – 16:50	G3-O-026402 Modification of Die Steels Surface in a Plasma of Non-Self-Sustained Glow Discharge <u>Yu.A.Denisova</u> , V.V.Denisov, E.V.Ostroverkhov, A.A.Leonov Institute of High Current Electronics SB RAS, Tomsk, Russia
16:10 – 18:30	Coffee and Poster Session G3 (Page 52)

10:15 – 10:45 Invited	<p>G3-O-031401 Antibacterial PotENTIAL of Zn- and Cu- Substituted Hydroxyapatite Coatings Deposited by RF-Magnetron Sputtering: Structure and Properties</p> <p>K.Prosolov^{1,2}, O.Belyavskaya¹, A.Bolat-Ool^{1,2}, I.Khlusov³, A.Prosolov⁴, D.Mitrichenko⁴, A.Komkov⁵, O.Nikoleva⁴, <u>Yu.Sharkeev</u>^{1,2}</p> <p>¹ Institute of Strength Physics and Materials Science of SB RAS, Tomsk, Russia ² National Research Tomsk Polytechnic University, Tomsk, Russia ³ Siberian State Medical University, Tomsk, Russia ⁴ Research and Production Company "SINTEL" LLC, Tomsk, Russia ⁵ Kemerovo City Clinical Hospital No.2, Kemerovo, Russia</p>
10:45 – 11:05	<p>G3-O-031402 Application of Glancing Angle Deposition for Manipulation of Thin Calcium Phosphappte Coatings Morphology</p> <p><u>K.Prosolov</u>^{1,2}, O.Belyavskaya¹, J.Rau³, Yu.Sharkeev^{1,2}</p> <p>¹ Institute of Strength Physics and Materials Science of SB RAS, Tomsk, Russia ² National Research Tomsk Polytechnic University, Tomsk, Russia ³ Istituto di Struttura della Materia, Consiglio Nazionale delle Ricerche (ISM-CNR), Roma, Italy</p>
11:05 – 11:25	<p>G3-O-027302 Influence of Ultrasonic Waves During Micro-Arc Oxidation on Structure and Properties of Calcium Phosphate Coatings</p> <p><u>E.G.Komarova</u>¹, E.A.Kazanceva², M.B.Sedelnikova¹, Yu.P.Sharkeev¹</p> <p>¹ Institute of Strength Physics and Materials Science SB RAS, Tomsk, Russia ² National Research Tomsk State University, Tomsk, Russia</p>
11:25 – 11:45	<p>G3-O-024401 Effect of UV Irradiation Or Diffuse Plasma on Surface Properties of Micro-Arc Calcium Phosphate Coatings</p> <p><u>V.V.Chebodaeva</u>^{1,2}, E.G.Komarova¹, M.V.Erofeev³, V.S.Ripenko³, Y.P.Sharkeev^{1,2}</p> <p>¹ Institute of Strength Physics and Materials Science SB RAS, Tomsk, Russia ² National Research Tomsk Polytechnic University, Tomsk, Russia ³ Institute of High Current Electronics SB RAS, Tomsk, Russia</p>

20 September (Friday)

10:15 – 12:25

11:45 – 12:05	<p>G3-O-030502 Irradiation of a Whitefly by Submicrosecond Electron Beam at Atmospheric Pressure</p> <p><u>A.A.Iseberlinova</u>¹, S.A.Nuzhnyh², A.V.Poloskov¹, M.A.Serebrennikov¹, I.S.Egorov¹</p> <p>¹ Tomsk Polytechnic University, Tomsk, Russia ² Tomsk State University, Tomsk, Russia</p>
12:05 – 12:25	<p>G3-O-031102 Pulsed Corona Discharge Oxidation of Aqueous Dissolved Organic Substances</p> <p><u>F.Saprykin</u>¹, I.Kornev¹, G.Lobanova¹, S. Preis²</p> <p>1 Tomsk Polytechnic University, Tomsk, Russia 2 University of Technology, Tallinn, Estonia</p>
12:25 – 14:00	Lunch

16 September (Monday)

16:50 –19:00

Poster Session G1

1	<p>G1-O-024901 Prebreakdown Currents in the Two-Sectioned Cold-Cathode Thyatron and Their Role in Mechanism of Static Breakdown</p> <p>Y.D.Korolev, N.V.Landl, V.G.Geyman, O.B.Frants, G.A.Argunov, A.V.Bolotov</p> <p>Institute of High Current Electronics SB RAS, Tomsk, Russia</p>
2	<p>G1-O-027201 Mechanism of High Effective Generation of Electron Beams in High-Voltage Discharge in Helium and Its Mixtures with Nitrogen and Oxygen</p> <p>P.A.Bokhan, P.P Gugin, M.A.Lavrukhin, D.E.Zakrevsky</p> <p>AV Rzhанov Institute of Semiconductor Physics SB RAS, Novosibirsk, Russia</p>
3	<p>G1-O-926701 Features of the Sustainment of Low-Pressure Glow Discharge with the Hollow-Cathode and Hollow-Anode</p> <p>G.A.Argunov, N.V.Landl, Y.D.Korolev, V.G.Geyman, O.B.Frants, I.A.Shemyakin, V.S.Kasyanov</p> <p>Institute of High Current Electronics SB RAS, Tomsk, Russia</p>
4	<p>G1-O-001602 Experimental Establishing of Plasma Opening Switch Voltage Scaling</p> <p><u>S.V.Loginov</u></p> <p>Institute of High Current Electronics SB RAS, Tomsk, Russia</p>
5	<p>G1-P-000405 Effect of Streamer Velocity on the Characteristics of Dynamic Displacement Current</p> <p>D.A.Sorokin, D.V.Beloplotov, A.A.Grishkov, V.A.Shklyayev, V.F.Tarasenko</p> <p>Institute of High Current Electronics SB RAS, Tomsk, Russia</p>
6	<p>G1-O-014701 Plasma Transfer as a Whole</p> <p><u>A.E.Medvedev</u></p> <p>Institute of Laser Physics SB RAS, Novosibirsk, Russia</p>
7	<p>G1-P-001503 Resistance of Spark Channels in Air in Unipolar and Oscillatory Discharges</p> <p>A.V.Kharlov</p> <p>Institute of High Current Electronics SB RAS, Tomsk, Russia</p>

8	<p>G1-P-002204 Streamer Start of Apokampic Discharge V.S.Kuznetsov¹, E.A.Sosnin¹, V.A.Panarin¹, V.S.Skakun¹, D.S.Pechenitsin¹, V.F.Tarassenko¹, D.P.Liu², Y.Song² ¹ Institute of High Current Electronics SB RAS, Tomsk, Russia ² Dalian Nationalities University, Jinzhou New District, Dalian, Liaoning Province, People's Republic of China</p>
9	<p>G1-P-002703 Computer Simulation of High Current Vacuum Arc with Developed Anode Spot D.L.Shmelev^{1,2}, I.V.Uimanov¹ ¹ Institute of Electrophysics UB RAS, Ekaterinburg, Russia ² Ural Federal University, Ekaterinburg, Russia</p>
10	<p>G1-P-002704 Modeling of Plasma Jet of Vacuum Arc with Copper-Chromium Cathode Under Action of Strong Axial Magnetic Field D.L.Shmelev^{1,2}, I.V.Uimanov¹, V.Frolova³ ¹ Institute of Electrophysics UB RAS, Ekaterinburg, Russia ² Ural Federal University, Ekaterinburg, Russia ³ Institute of High Current Electronics SB RAS, Tomsk, Russia</p>
11	<p>G1-P-002705 On Possible Reasons of Positive Near-Anode Voltage Drop in High-Current Vacuum Arc D.L.Shmelev^{1,2}, S.A.Barengolts³, M.M.Tsventoukh⁴, I.V.Uimanov¹, L.Wang⁵ ¹ Institute of Electrophysics UB RAS, Ekaterinburg, Russia ² Ural Federal University, Ekaterinburg, Russia ³ Prokhorov General Physics Institute RAS, Moscow, Russia ⁴ Lebedev Physical Institute RAS, Moscow, Russia ⁵ State Key Laboratory of Electrical Insulation and Power Equipment, Xian Jiaotong University, Xian, China</p>
12	<p>G1-P-002801 Simulation of the Generation of Jets and Drops by the Cathode Spot of a Vacuum Arc G.A.Mesyats¹, I.V.Uimanov² ¹ Lebedev Physical Institute RAS, Moscow, Russia ² Institute of Electrophysics UB RAS, Ekaterinburg, Russia</p>
13	<p>G1-P-002802 Model of the Convective Thermal Desorption of Deuterium and Formation of Plasma Ion Composition in a Pulsed Vacuum Arc Discharge with a Metal Deuteride Cathode I.V.Uimanov¹, D.L.Shmelev¹, S.A.Barengolts^{1,2} ¹ Institute of Electrophysics UB RAS, Ekaterinburg, Russia ² Prokhorov General Physics Institute RAS, Moscow, Russia</p>

14	<p>G1-P-003302 A High-Current Pulsed Vacuum Arc Plasma Source</p> <p>P.A.Morozov, I.F.Punanov, R.V.Emlin, I.L.Muziukin, C.A.Chaikovskii, I.V.Uimanov, D.L.Shmelev, Iu.A.Zemskov, P.S.Mikhailov</p> <p>Institute of Electrophysics UB RAS, Ekaterinburg, Russia</p>
15	<p>G1-P-006702 Investigation of Plasma Ion Composition Generated by High-Power Impulse Magnetron Sputtering Hipims of Graphite</p> <p>A.V.Vizir, E.V.Oskomov</p> <p>Institute of High Current Electronics SB RAS, Tomsk, Russia</p>
16	<p>G1-P-006703 Sputtering Kinetics of Graphite Target in High-Power Impulse Magnetron Discharge Hipims</p> <p>A.V.Kozyrev^{1,2}, V.Yu.Kozhevnikov^{1,2}, E.V.Oskomov¹</p> <p>¹ Institute of High Current Electronics SB RAS, Tomsk, Russia ² National Research Tomsk State University, Tomsk, Russia</p>
17	<p>G1-P-007503 Temperature Gradients in Targets with High-Intensity Implantation and Their Influence on the Characteristics of Ion-Modified Layers</p> <p>A.I.Ryabchikov¹, I.V.Lopatin², P.S.Ananin¹, G.A.Bleicher¹, A.I.Ivanova¹, T.V.Koval¹, G.S.Modebadze¹, D.O. Sivin¹</p> <p>¹ National Research Tomsk Polytechnic University, Tomsk, Russia ² Institute of High Current Electronics SB RAS, Tomsk, Russia</p>
18	<p>G1-P-007504 Instant Values of the Main Plasma Parameters of the Non-Self-Sustained Arc Discharge with Thermionic Cathode</p> <p>I.V.Lopatin, S.S.Kovalskiy, N.V.Landl</p> <p>Institute of High Current Electronics SB RAS, Tomsk, Russia</p>
19	<p>G1-P-007803 Effect of the Discharge Area Magnetic Field on the Mass-Charge Composition of Two-Component Ion Beam</p> <p>V.P.Frolova^{1,2}, P.P.Kiziridi¹, N.A.Prokopenko¹</p> <p>¹ Institute of High Current Electronics SB RAS, Tomsk, Russia ² State University of Control Systems and Radioelectronics, Tomsk, Russia</p>
20	<p>G1-P-008006 Electron Beam Generation with Variable Power During Its Pulse in a Source with a Grid Plasma Cathode</p> <p>M.S.Vorobyov, S.S.Kovalsky</p> <p>Institute of High Current Electronics SB RAS, Tomsk, Russia</p>

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21	<p>G1-P-008901 Measurement of Plasma Parameters in a Hybrid Dc+Hipims Mode of Magnetron Sputtering</p> <p>V.A.Semenov, V.O.Oskirko, A.A.Solovyev, A.N.Zakharov, S.V.Robotkin, I.V.Ionov</p> <p>Institute of High Current Electronics SB RAS, Tomsk, Russia</p>
22	<p>G1-P-009602 About Changes in the Physicochemical Properties of Aqueous Solutions Used as a Liquid Electrolyte Cathode</p> <p>G.K.Tazmeev¹, B.A.Timerkaev², A.K.Tazmeev¹</p> <p>¹ Kazan Federal University, Naberezhnye Chelny Institute, Naberezhnye Chelny, Russia ² Kazan National Research Technical University named after A.N.Tupolev, Kazan, Russia</p>
23	<p>G1-P-009604 Some Features of the Electric Discharge with the Anode as a Liquid Electrolyte Flow</p> <p>G.K.Tazmeev, R.N.Tazmееva</p> <p>Kazan Federal University, Naberezhnye Chelny Institute, Naberezhnye Chelny, Russia</p>
24	<p>G1-P-010301 Axial Distribution of Plasma Ion Composition in Planar Magnetron Discharge</p> <p>M.V.Shandrikov¹, I.D.Artamonov², A.S.Bugaev¹, A.V.Vizir¹, E.M.Oks^{1,2}, G.Yu.Yushkov¹</p> <p>¹ Institute of High Current Electronics SB RAS, Tomsk, Russia ² Tomsk State University of Control System and Radioelectronics, Tomsk, Russia</p>
25	<p>G1-P-010401 Plasma Generation Delay on the Surface of Coper and Duralumin Conductors with Dielectric Coating</p> <p>I.M.Datsko, N.A.Labetskaya, D.V.Rybka, V.A.Vankevich and V.V.Shugurov</p> <p>Institute of High Current Electronics SB RAS, Tomsk, Russia</p>
26	<p>G1-P-012703 Simulation Different Scenarios of Transitions Between Different Modes of Current Transfer to Electrodes of Dc Discharges</p> <p>A.I.Saifutdinov^{1,2}, B.A.Timerkaev¹</p> <p>¹ Kazan National Research Technical University named after A.N.Tupolev (KAI), Kazan, Russia ² Saint-Petersburg University, Saint-Petersburg, Russia</p>

27	<p>G1-P-012704 Effect of Supersonic Gas Flow on the Structure of the Glow Discharge.</p> <p>B.R.Zalyaliev, B.A.Timerkaev, A.I.Saifutdinov, A.O.Sofronitskiy, A.A.Kaleeva</p> <p>¹ Kazan National Research Technical University named after A.N.Tupolev (KAI), Kazan, Russia</p>
28	<p>G1-P-013901 Study of Ionization Waves in a Pulse Discharge in Argon</p> <p>V.S.Kurbanismailov¹, O.A.Omarov¹, G.B.Ragimkhanov¹, D.V.Tereshonok², Z.R.Khalikova¹</p> <p>¹ Dagestan State University, Makhachkala, Russia ² Joint Institute for High Temperatures RAS, Moscow, Russia</p>
29	<p>G1-P-013902 Optical and Kinetic Characteristics of a Pulsed Discharge in Argon with Aluminum Vapor at Atmospheric Pressure</p> <p>V.S.Kurbanismailov¹, S.A.Maiorov^{2,3}, O.A.Omarov¹, G.B.Ragimkhanov¹, Z.R.Khalikova^{1,2}</p> <p>¹ Dagestan State University, Makhachkala, Russia ² Prokhorov General Physics Institute RAS, Moscow, Russia ³ Joint Institute for High Temperatures RAS, Moscow, Russia</p>
30	<p>G1-P-013903 Study of Ionization Waves in a Pulse Discharge in Helium</p> <p>V.S.Kurbanismailov¹, O.A.Omarov¹, G.B.Ragimkhanov¹, D.V.Tereshonok²</p> <p>¹ Dagestan State University, Makhachkala, Russia ² Joint Institute for High Temperatures RAS, Moscow, Russia</p>
31	<p>G1-P-015801 Study of the Temperature Influence on Structural-Phase Changes in Porcelain Ceramics Production</p> <p>N.Kantai¹, N.K.Kasmamyrov², B.K.Rakhadilov³, M.Pashkovsky⁴</p> <p>¹ D.Serikbayev EKSTU, Ust-Kamenogorsk, Kazakhstan ² Institute of Physical-Technical Problems and Materials NAS KR, Bishkek, Kyrgyzstan ³ S.Amanzholov EKSU, Ust-Kamenogorsk, Kazakhstan ⁴ Wroclaw Polytechnic University, Republic of Poland</p>
32	<p>G1-P-016901 Characterization of Magnetron Plasma Using Optical Spectroscopy and Collisional-Radiative Model of Nitrogen</p> <p>K.E.Evdokimov, M.E.Konishchev, V.F.Pichugin, Z.Sun</p> <p>National Research Tomsk Polytechnic University, Tomsk, Russia</p>

33	<p>G1-P-017101 Measuring the Expansion Velocity of Plasma Formed During Electrical Breakdown Along an Exploding Al Foil in a Medium of Disorbated Gases</p> <p>A.G.Rousskikh¹, A.S.Zhigalin¹, V.I.Oreshkin^{1,2}, R.B.Baksht¹</p> <p>¹ Institute of High Current Electronics SB RAS, Tomsk, Russia ² National Research Tomsk Polytechnic University, Tomsk, Russia</p>
34	<p>G1-P-017901 The Mechanodiffusion Model of the Initial Stage of Particles Flow Introduction Process in a Target Surface</p> <p>Elena S.Parfenova¹, Anna G.Knyazeva^{1,2}</p> <p>¹ Institute of Strength Physics and Materials Science SB RAS, Tomsk, Russia ² National Research Tomsk Polytechnic University, Tomsk, Russia</p>
35	<p>G1-P-018301 Simulation of High-Pressure Gas Breakdown Under Conditions of Spatially Non-Uniform Initial Ionization and Temperature</p> <p>A.G.Sitnikov, A.V.Kozyrev, V.Yu.Kozhevnikov, A.O.Kokovin, N.S.Semeniuk</p> <p>Institute of High Current Electronics SB RAS, Tomsk, Russia</p>
36	<p>G1-P-018801 New Method of Condensed Systems Ignition by Laser Radiation</p> <p>V.A.Arkipov, V.D.Goldin, N.N.Zolotorev, A.G.Korotkikh, V.T.Kuznetsov, O.V.Matvienko</p> <p>National Research Tomsk State University, Tomsk, Russia</p>
37	<p>G1-P-019501 Air Breakdown in the Field of Traveling Tem-Wave Assisted by Runaway Electrons</p> <p>A.G.Sadykova¹, G.A.Mesyats^{1,2}, E.A.Osipenko³, K.A.Sharypov¹, V.G.Shpak¹, S.A.Shunailov¹, M.I.Yalandin^{1,2}, N.M.Zubarev^{1,2}</p> <p>¹ Institute of Electrophysics UB RAS, Ekaterinburg, Russia ² Lebedev Physical Institute RAS, Moscow, Russia ³ Ural Federal University, Ekaterinburg, Russia</p>
38	<p>G1-P-019601 Investigation of Dependence of the Composition of Cathode Material Ions in Low-Current Vacuum Arcs on the Current Value</p> <p>Yu.A.Zemskov, I.V.Uimanov</p> <p>Institute of Electrophysics UB RAS, Ekaterinburg, Russia</p>

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39	<p>G1-P-019602 Dependence of the Plasma Composition in the Low-Current Vacuum Arc Discharge with the CuCr Cathode on the Current Value and Surface Conditions</p> <p>Yu.A.Zemskov, I.V.Uimanov Institute of Electrophysics UB RAS, Ekaterinburg, Russia</p>
40	<p>G1-P-019603 Investigation of Features of Crater Formation on the Cathode Surface in the Short Vacuum Discharge</p> <p>Yu.A.Zemskov, I.L.Muzyukin, I.V.Uimanov Institute of Electrophysics UB RAS, Ekaterinburg, Russia</p>
41	<p>G1-P-019902 Distribution of Plasma Potential Near the Infinite Chain of Dust Particles</p> <p>M.V.Salnikov, G.I.Sukhinin, A.V.Fedoseev, N.A.Demin Institute of Thermophysics SB RAS, Novosibirsk, Russia</p>
42	<p>G1-P-020201 Space Charge Sheath Near Dielectric Target, Irradiated by Electron Beam</p> <p>V.A.Burdovitsin Tomsk State University of Control Systems and Radioelectronics, Tomsk, Russia</p>
43	<p>G1-P-021201 The Emission Spectra of Gas Mixtures Plasma Induced by the Products of $6\text{Li N,}^* 3\text{H}$ nuclear Reaction</p> <p>Yu.N.Gordienko¹, E.G.Batyrbekov², M.U.Khasenov³, K.K.Samarkhanov¹, Yu.V.Ponkratov¹</p> <p>¹ Branch Institute of Atomic Energy of the National Nuclear Center of the Republic of Kazakhstan, Kurchatov, Kazakhstan ² National Nuclear Center of the Republic of Kazakhstan, Kurchatov, Kazakhstan ³ Nazarbayev University, National Laboratory Astana, Astana, Kazakhstan</p>
44	<p>G1-P-021801 The Formation of Tungsten Carbides in Beam-Plasma Discharge of CH_4 on the Tungsten Surface</p> <p>G.K.Kaiyrdy, M.K.Skakov, A.Zh.Miniyazov, I.A.Sokolov, T.R.Tulenbergenov, O.S.Bukina Institute of Atomic Energy Branch of the National Nuclear Center of the Republic of Kazakhstan, Kurchatov, Kazakhstan</p>
45	<p>G1-P-022201 Electric Arc Plasmatorch of a Two-Chamber Scheme with Reverse Polarity of Electrodes Connection</p> <p>D.Y.Batomunkuev, S.P.Vashenko ITAM SB RAS, Novosibirsk, Russia</p>

46	<p>G1-P-022701 Numerical Investigation of the Surface Barrier Discharge in the Air</p> <p>A a Saifutdinova¹, B a Timerkaev¹, a I Saifutdinov^{1,2}</p> <p>¹ Kazan National Research Technical University named after A.N.Tupolev (KAI), Kazan, Russia ² Saint-Petersburg University, Saint-Petersburg, Russia</p>
47	<p>G1-P-023201 The Interrelation Between of the Geometry of the Channel of the Flare Discharge and Energy Characteristics</p> <p>A.E.Myusova, Y.Y.Lutsenko</p> <p>National Research Tomsk Polytechnic University, Tomsk, Russia</p>
48	<p>G1-P-024003 Phenomena at the Electrode Surfaces and Localization of Volume Discharges in Small Sized Sealed Off Tea-Co² Lasers</p> <p>B.A.Kozlov, Mai T.N.</p> <p>Department of Electronic Devices, Ryazan State Radio Engineering University, Ryazan, RUSSIA</p>
49	<p>G1-P-024006 High-Voltage Pulse Generators for Effective Pumping of Super-Atmospheric Pressure Co²-Lasers</p> <p>B.A.Kozlov¹, D.S.Makhan'ko², V.I.Seredinov¹, S.A.Pyanchenkov¹</p> <p>¹ Department of Electronic Devices, Ryazan State Radio Engineering University, Ryazan, Russia ² AA Plasma, Ryazan, Russia</p>
50	<p>G1-P-024804 Methodics for Electrical Diagnostic of the Plasma Jet Formed in the Low-Current Plasmatron</p> <p>Y.D.Korolev^{1,2,3}, V.O.Nekhoroshev¹, O.B.Frants¹, N.V.Landl¹, A.V.Bolotov¹</p> <p>¹ Institute of High Current Electronics SB RAS, Tomsk, Russia ² National Research Tomsk State University, Tomsk, Russia ³ National Research Tomsk Polytechnic University, Tomsk, Russia</p>
51	<p>G1-P-025102 The Effect of Polarity on the Formation of Streamers in an Inhomogeneous Electric Field</p> <p>D.V.Beloplotov, D.E.Genin, D.S.Pechenitsin, V.F.Tarasenko</p> <p>Institute of High Current Electronics SB RAS, Tomsk, Russia</p>

52	<p>G1-P-025103 On the Influence of a Cathode Shape on the Parameters of Current Pulses of Runaway Electron Beams at Applying Voltage Pulses with a Rise Time Of 200 ns</p> <p>D.V.Beloplotov, D.E.Genin, D.S.Pechenitsin, V.F.Tarasenko Institute of High Current Electronics SB RAS, Tomsk, Russia</p>
53	<p>G1-P-025601 Particle Dynamics in Quadrupole Alternating Corona Discharge</p> <p>D.S.Lapitsky Joint Institute for High Temperatures RAS, Moscow, Russia</p>
54	<p>G1-P-025801 The Dynamics of Ionization Waves Formation in a Transverse Nanosecond Plasma-Beam Discharge with a Slot Cathode in Argon</p> <p>N.A.Ashurbekov¹, K.O.Iminov¹, M.Z.Zakariaeva¹, A.R.Ramazanov¹, G.Sh.Shakhsinov¹</p> <p>¹ Dagestan State University, Makhachkala, Russia ² Institute of Physics of Dagestan Research Center RAS, Makhachkala, Russia</p>
55	<p>G1-P-026601 Holographic Interferometry for the Study of the Electric Explosion of Wires</p> <p>A.S.Skryabin, A.V.Pavlov, A.M.Kartova, V.D.Telekh Bauman Moscow State Technical University, Moscow, Russia</p>
56	<p>G1-P-027901 Emission Currents From Cathode with Nanostructured Tendril Bundles</p> <p>D.N.Sinelnikov, D.G.Bulgadaryan, V.A.Kurnaev, V.V.Kulagin National Research Nuclear University MEPhI (Moscow Engineering Physics Institute), Moscow, Russia</p>
57	<p>G1-P-028801 Studies of the Mechanisms for Controlling the Spatial Parameters of Thin Plasma Channel in Open Atmospheric Discharge</p> <p>A.V.Kozyrev, V.Yu.Kozhevnikov, A.O.Kokovin, N.S.Semeniuk, V.A.Panarin Institute of High Current Electronics SB RAS, Tomsk, Russia</p>

58	<p>G1-P-028901 Simulation of the Explosion of a Surface Microprotrusion During a Radio Frequency Breakdown</p> <p>E.V.Oreshkin¹, S.A.Barengolts^{1,2}, V.I.Oreshkin^{3,4}, K.V.Khishchenko⁵</p> <p>¹ Lebedev Physical Institute RAS, Moscow, Russia ² Prokhorov General Physics Institute RAS, Moscow, Russia ³ Institute of High Current Electronics SB RAS, Tomsk, Russia ⁴ National Research Tomsk Polytechnic University, Tomsk, Russia ⁵ Joint Institute for High Temperatures RAS, Moscow, Russia</p>
59	<p>G1-P-029701 Regulation of the Air High Voltage AC Plasma Torch Power by Small Amount of Methane</p> <p>A.V.Surov¹, D.I.Subbotin^{1,2,3}, V.E.Popov¹, S.D.Popov¹, V.A.Spodobin¹, Gh.V.Nakonechny¹, E.O.Serba¹, A.A.Kiselev¹</p> <p>¹ Institute for Electrophysics and Electric Power RAS (IEE RAS), St.Petersburg, Russia ² St.Petersburg State Technological Institute (Technical University), St.Petersburg, Russia ³ St.Petersburg State University, St.Petersburg, Russia</p>
60	<p>G1-P-030601 Target Temperature Measurements in a Pulsed Magnetron Discharge in Target Material Vapor</p> <p>D.G.Ageychenkov¹, A.V.Tumarkin¹, A.V.Kaziev¹, D.V.Kolodko^{1,2}, K.A.Leonova¹, A.Yu.Khomyakov^{1,3}</p> <p>¹ National Research Nuclear University MEPhI (Moscow Engineering Physics Institute), Moscow, Russia ² Kotel'nikov Institute of Radio Engineering and Electronics, Fryazino Branch RAS, Fryazino, Russia ³ Prokhorov General Physics Institute RAS, Moscow, Russia</p>
61	<p>G1-P-031301 DBD Plasma Jets in Argon and Helium: Streamers Propagation Along Gas Flows</p> <p>O.M.Stepanova^{1,2}, A.M.Astafiev^{1,2}, Z.Chen³, M.E.Pinchuk^{1,2}</p> <p>¹ Saint Petersburg State University, Saint Petersburg, Russia ² Institute for Electrophysics and Electric Power RAS, Saint Petersburg, Russia ³ Anhui University of Technology, Maanshan, Anhui, China</p>
62	<p>G1-P-032001 The Method of Synthesis Gas and Steam Pyrolysis at High Temperatures</p> <p>M.Yu.Nikolaev¹, V.V.Makarov², O.P.Kuznetsova², I.A.Leskov², A.V.Strikovskiy², A.S.Gritsay²</p> <p>¹ "Kvarts Group", LLC, Omsk, Russia ² Omsk State Technical University, Omsk, Russia</p>

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63	<p>G1-P-900102 Regimes of Sustaining the Hollow-Cathode Glow Discharge with the Hot Filament Inside the Cavity</p> <p>N.V.Landl, Y.D.Korolev, V.G.Geyman, O.B.Frants, I.A.Shemyakin, V.S.Kasyanov, I.V.Lopatin, S.S.Kovalsky</p> <p>Institute of High Current Electronics SB RAS, Tomsk, Russia</p>
64	<p>G1-P-900103 Influence of the Resistance of Semiconductor on Delay Times to Brekdown in a Flashover Based Trigger Unit of the Cold-Cathode Thyatron</p> <p>N.V.Landl, Y.D.Korolev, V.G.Geyman, O.B.Frants, G.A.Argunov, A.V.Bolotov</p> <p>Institute of High Current Electronics SB RAS, Tomsk, Russia</p>
65	<p>G1-P-934801 Monte-Carlo Simulation of the Ionization Processes for Discharges in the Left Branch of Paschen's Curve</p> <p><u>A.A.Grishkov</u>. V.A.Shklyayev, Y.D.Korolev</p> <p>Institute of High Current Electronics SB RAS, Tomsk, Russia</p>

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Poster Session G2

1	<p>G2-O-023806 Plasma Processing Reactor for the Production and Treatment of Nanoscale Structures for Nanoelectronics</p> <p>I.A.Sorokin^{1,2}, D.V.Kolodko^{1,2}, E.G.Shustin¹</p> <p>¹ Kotel'nikov Institute of Radio Engineering and Electronics RAS, Fryazino, Russia ² National Research Nuclear University MEPhI, Moscow, Russia</p>
2	<p>G2-P-001101 Forevacuum Plasma Source of Ribbon Electron Beam with a Multi-Aperture Extraction System</p> <p>A.S.Klimov, A.A Zenin, I.Yu.Bakeev</p> <p>Tomsk State University of Control Systems and Radioelectronics, Tomsk, Russia</p>
3	<p>G2-P-001702 Influence of the Space Charge of an Ion Beam on the Time-Of-Flight Diagnostics of Its Composition</p> <p>A.S.Klimov, A.A Zenin, I.Yu.Bakeev</p> <p>Tomsk State University of Control Systems and Radioelectronics, Tomsk, Russia</p>
4	<p>G2-P-002101 Filamentation of Current-Carrying Plasma Shells</p> <p>V.I.Oreshkin¹, R.B.Baksht¹, A.G.Rousskikh¹, A.S.Zhigalin¹, E.V.Oreshkin²</p> <p>¹ Institute of High Current Electronics SB RAS, Tomsk, Russia ² P.N.Lebedev Physical Institute RAS, Moscow, Russia</p>
5	<p>G2-P-002901 Hollow Cathode Plasma Source Based on Ring-Shaped Anode Layer Thruster for Plasma-Optic Applications</p> <p>A.S.Bugaev¹, V.I.Gushenets², E.M.Oks^{1,2}</p> <p>¹ Institute of High Current Electronics SB RAS, Tomsk, Russia ² Tomsk State University of Control Systems and Radioelectronics, Tomsk, Russia</p>
6	<p>G2-P-004501 Deuterium Ion Beam Formation and Acceleration System Based on a Vacuum Arc Discharge with a Gas-Saturated Deuterated Cathode</p> <p>A.G.Nikolaev¹, V.P.Frolova^{1,2}, E.M.Oks^{1,2}, K.P.Savkin¹, M.V.Shandrikov¹, G.Yu.Yushkov¹</p> <p>¹ Institute of High Current Electronics SB RAS, Tomsk, Russia ² Tomsk State University of Control Systems and Radioelectronics, Tomsk, Russia</p>

7	<p>G2-P-005601 Effect of the Outer Plasma Shell on the Formation of the Current Sheet in the Z-Pinch Gas-Discharge Plasma</p> <p>R.K.Cherdizov, V.A.Kokshenev, N.E.Kurmaev, A.V.Shishlov Institute of High Current Electronics SB RAS, Tomsk, Russia</p>
8	<p>G2-P-005801 Formation of Pulsed Large-Radius Electron Beam in the Forevacuum Pressure Range by a Plasma-Cathode Source Based on Arc Discharge</p> <p>A.V.Kazakov¹, A.V.Medovnik¹, E.M.Oks^{1,2} ¹Tomsk State University of Control Systems and Radioelectronics, Tomsk, Russia ²Institute of High Current Electronics SB RAS, Tomsk, Russia</p>
9	<p>G2-P-005802 Generation of Focused High-Current Electron Beam with Millisecond Pulse Duration by a Forevacuum Plasma-Cathode Electron Source Based on Cathodic Arc</p> <p>A.V.Kazakov¹, A.V.Medovnik¹, E.M.Oks^{1,2} ¹Tomsk State University of Control Systems and Radioelectronics, Tomsk, Russia ²Institute of High Current Electronics SB RAS, Tomsk, Russia</p>
10	<p>G2-P-007001 Development of Three-Dimensional Simulation of Discharge Breakdown</p> <p>M.G.Lobok^{1,2} ¹Center for Fundamental and Applied Research, Dukhov All-Russian Research Institute of Automatics, Moscow, Russia ²P.N.Lebedev Physical Institute RAS, Moscow, Russia</p>
11	<p>G2-P-008202 The Motion of the Plasma Flow in the Interelectrode Gap of the Magnetically Insulated Transmission Line</p> <p>B.A.Kokshenev, N.E.Kurmaev, R.K.Cherdizov Institute of High Current Electronics SB RAS, Tomsk, Russia</p>
12	<p>G2-P-009003 The Main Plasma* S Parameters of a Vacuum Installation Based on Low-Pressure Vacuum-Arc and Magnetron Discharges</p> <p>D.B-D.Tsyrenov, E.O.Nikolaev, A.P.Semenov Institute of Physical Materials Science SB RAS, Ulan-Ude, Russia</p>

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13	<p>G2-P-009501 Gas-Discharge High-Frequency Generators for Material Processing</p> <p>L.N.Orlikov¹, N.L.Orlikov², E.M.Mambetova³, S.M.Shandarov⁴</p> <p>Tomsk State University of Control Systems and Radioelectronics, Tomsk, Russia</p>
14	<p>G2-P-009701 Formation of Powerful Plasma Flow From Substance of Liquid Electrolyte Cathode</p> <p>K.K.Tazmееv, I.M.Arslanov, G.K.Tazmееv</p> <p>Kazan Federal University, Naberezhnye Chelny Institute, Naberezhnye Chelny, Russia</p>
15	<p>G2-P-009801 Generation of Two-Component Beams of Metal Ions Based on Vacuum Arc with Copper-Chrome Cathode</p> <p>V.P.Frolova¹, P.P.Kiziridi¹, N.A.Prokopenko¹</p> <p>¹ Institute of High Current Electronics SB RAS, Tomsk, Russia ² Tomsk State University of Control Systems and Radioelectronics, Tomsk, Russia</p>
16	<p>G2-P-009802 Generation of Beam Multicharged Ions of Bismuth</p> <p>V.P.Frolova^{1,2}, G.Y.Yushkov¹, A.G.Nikolaev¹, E.M.Oks^{1,2}</p> <p>¹ Institute of High Current Electronics SB RAS, Tomsk, Russia ² Tomsk State University of Control Systems and Radioelectronics, Tomsk, Russia</p>
17	<p>G2-P-012504 Computer Simulation of Ion Beam-Plasma Interaction</p> <p>G.I.Dudnikova¹, M.A.Boronina², E.A.Genrikh², V.A.Vshivkov²</p> <p>¹ Institute of Computational Mathematics and Mathematical Geophysics SB RAS, Novosibirsk, Russia,</p>
18	<p>G2-P-014401 A New Type of Non-Thermal Atmospheric Pressure Plasmas Source</p> <p>V.N.Tikhonov , I.A.Ivanov and A.V.Tikhonov</p> <p>Russian Institute of Radiology and Agroecology, Obninsk, Russia</p>
19	<p>G2-P-016802 Improving the Performance of N₂ Laser with Longitudinal Discharge</p> <p>Yu.N.Panchenko¹, I.N.Konovalov¹, A.V.Puchikin¹, V.F.Losev¹, A.B.Vorozhtsov², G.V.Sakovich³</p> <p>¹ Institute of High Current Electronics SB RAS, Tomsk, Russia ² National Research Tomsk State University, Tomsk, Russia ³ Institute for Problems of Chemical & Energetic Technologies SB RAS, Byisk, Russia</p>

20	<p>G2-P-017301 Spectral Characteristics of Atmospheric Plasma Rf Discharge and Laser Radiation Filament</p> <p>A.V.Puchikin¹, Yu.N.Panchenko¹, M.V.Andreev¹, S.M.Bobrovnikov²</p> <p>¹ Institute of High Current Electronics SB RAS, Tomsk, Russia ² V.E.Zuev Institute of Atmospheric Optics SB RAS, Tomsk, Russia</p>
21	<p>G2-P-018102 Launch of Lower Hybrid Waves to a Dense Plasma Column in a Strong Magnetic Field</p> <p>N.A.Melnikov¹, V.Batkin^{1,2}, A.Burdakov^{1,2,3}, I.Ivanov^{1,2}, P.Kalinin^{1,2}, I.Kotelnikov^{1,2}, K.Mekler¹, S.Polosatkin^{1,2,3}, V.Postupaev^{1,2}, E.Sidorov¹</p> <p>¹ Budker Institute of Nuclear Physics, Novosibirsk, Russia ² Novosibirsk State University, Novosibirsk, Russia, ³ Novosibirsk State Technical University, Novosibirsk, Russia</p>
22	<p>G2-P-018501 Study of Ignition and Burning of Partial Discharge at Low Voltage in the Presence of Electrolytes</p> <p>E.A.Yakovlev, A.D.Mekhtiyev, V.V.Yugay, L.A.Zinovyev, N.B.Kaliaskarov</p> <p>Karaganda state technical universiyt, Karaganda, Kazakhstan</p>
23	<p>G2-P-020002 Microwave Complex for Obtaining Low-Temperature Plasma at Atmospheric Pressure</p> <p>I.A.Ivanov, V.N.Tikhonov, A.V.Tikhonov</p> <p>Russian Institute of Radiology and Agroecology, Obninsk, Russia</p>
24	<p>G2-P-020601 Spectral Measurements in the Plasma of Microwave and Magnetron Discharges</p> <p>O.I.Shipilova¹, A.A.Chernikh¹, V.L.Paperny¹</p> <p>¹ Irutsk State University, Irkutsk, Russia</p>
25	<p>G2-P-020701 Plasma Emission During Combustion of Ni-Al Powder Mixture</p> <p>A.I.Kirdyashkin, R.M.Gabbasov</p> <p>Tomsk Scientific Center of SB RAS, Tomsk, Russia</p>
26	<p>G2-P-021001 Calculation Model of the Plasma Load Matching with the Current Sources Based on Explosive Magnetic Generator</p> <p>M.A.Shurupov, A.V.Mashtakov, A.N.Gusev, V.E.Zavalova, A.V.Kozlov, N.P.Shurupova</p> <p>Joint Institute for High Temperatures RAS, Moscow, Russia</p>

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27	<p>G2-P-021401 Influence of the Holes Diameter in the Perforated Electrode on the Parameters of Electron Beam Generated by Forevacuum Plasma Electron Source</p> <p>A.A.Zenin, I.Yu.Bakeev, A.S.Klimov</p> <p>Tomsk State University of Control Systems and Radioelectronics, Tomsk, Russia</p>
28	<p>G2-P-022801 The Effect of Compression Plasma Flows on the Metal Film-Substrate System</p> <p>D.V.Kirillov, K.V.Nosov, A.V.Pavlov, Yu.Yu.Protasov, V.D.Telekh , O.Ñ.Shchepanyuk</p> <p>Bauman Moscow State Technical University, Moscow, Russia</p>
29	<p>G2-P-026201 The Ion Beam Generation in the Self-Magnetically Insulated Ion Diode</p> <p>The Ion Beam Generation in the Self-Magnetically Insulated Ion Diode</p> <p>A.V.Stepanov¹, V.I.Shamanin¹, V.A.Tarbokov¹</p> <p>¹ National Research Tomsk Polytechnic University, Tomsk, Russia</p>
30	<p>G2-P-028501 Partial Discharge Analysis Through Lissajous Figure at Low Air Pressures</p> <p>Z.Shi, C.H.Zhang</p> <p>¹ Guangxi University, Nanning, China</p>
31	<p>G2-P-029201 Development of Electron-Beam Equipment and Technology of Layer Welding of the Wire in the Conditions of Additive Technologies</p> <p>V.V.Fedorov, V.A.Klimenov, A.V.Batranin, Pardeep Ranga</p> <p>National Research Tomsk Polytechnic University, Tomsk, Russia</p>
32	<p>G2-P-029301 Deposition Rates of Cu, Cr, and Si in an Impulse Magnetron Discharge with Hot Target</p> <p>A.V.Kaziev¹, K.A.Leonova¹, D.G.Ageychenkov¹, A.V.Tumarkin¹, D.V.Kolodko^{1,2}, M.M.Kharkov¹, A.Yu.Khomyakov^{1,3}</p> <p>¹ National Research Nuclear University MEPhI, Moscow, Russia ² Kotel'nikov Institute of Radio Engineering and Electronics RAS, Fryazino, Russia ³ Prokhorov General Physics Institute RAS, Moscow, Russia</p>

33	<p>G2-P-030101 Study of Characteristics of the Low-Temperature Plasma Source Based on the Piezotransformer</p> <p>K.V.Artem'ev¹, N.N.Bogachev^{1,2,3}, N.G.Gusein-Zade^{1,2,3}, L.V.Kolik¹, E.M.Konchekov^{1,2}, D.V.Malakhov^{1,2,3}</p> <p>¹ Prokhorov General Physics Institute RAS, Moscow, Russia ² Pirogov Russian National Research Medical University, Moscow, Russia ³ MIREA Russian Technological University, Moscow, Russia</p>
34	<p>G2-P-032501 Features of Low Pressure Arc Discharge with the Cold Hollow Cathode in a Magnetic Field</p> <p>N.N.Pedin, V.V.Denisov, E.V.Ostroverkhov, V.V.Yakovlev</p> <p>Institute of High Current Electronics SB RAS, Tomsk, Russia</p>
35	<p>G2-P-032801 Parameters Affecting the Operation of ECR Plasma Source</p> <p>M.A.I.Elgarhy^{1,2}, Kihyun Lee¹, Soong Hyeong Lee¹, Minkeun Lee¹, Kyoung-Jae Chung¹, and Y.S.Hwang¹</p>
36	<p>G2-O-020602 Powerful Source of VUV-UV Radiation Based on Nanosecond Volumetric Discharge</p> <p>V.I.Baryshnikov¹, V.Y.Chirkov, V.L.Paperny²</p> <p>¹ Irkutsk State Railway University, Irkutsk, Russia ² Irkutsk State University, Irkutsk, Russia</p>

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37	<p>G3-P-024103 Effect of Irradiation on the Structure Subjected to Severe Plastic Deformation of the 146¹ Alloy of the Al-Cu-Li- Zn System</p> <p>N.V.Gushchina¹, V.V.Ovchinnikov^{1,2}, F.F.Makhin'ko¹, L.I.Kaigorodova³, D.Y.Rasposienko³</p> <p>¹ Institute of Electrophysics UB RAS, Ekaterinburg, Russia ² Ural Federal Technical University, Yekaterinburg, Russia ³ Institute of Metal Physics UB RAS, Yekaterinburg, Russia</p>
38	<p>G3-P-024104 The Influence of Ion Irradiation on Mechanical Properties and Low-Cycle Fatigue of Pressed Profiles of the V95 Alloy After Artificial Aging</p> <p>N.V.Gushchina¹, V.V.Ovchinnikov^{1,2}, F.F.Makhin'ko¹, S.V.Smirnov³, D.I.Vichuzhanin³</p> <p>¹ Institute of Electrophysics UB RAS, Ekaterinburg, Russia ² Ural Federal Technical University, Yekaterinburg, Russia ³ Institute of Engineering Science UB RAS, Ekaterinburg, Russia</p>
39	<p>G3-P-024301 Influence of Electrolyte-Plasma Surface Hardening on the Structure and Properties of Steel 40**</p> <p>B.K.Rakhadilov, Z.A.Satbayeva, L.B.Bayatanova, M.K.Kilyshkanov, K.A.Kalibayev, A.K.Kochneva</p> <p>S.Amanzholov East Kazakhstan State University, 070020, Ust-Kamenogorsk, Kazakhstan,</p>
40	<p>G3-P-024501 Calculation of Heat Regimes for a Ni-Al Surface Alloy Formed on a Carbon Steel Substrate with a Low-Energy High-Current Electron Beam</p> <p>D.A.Shepel', A.B.Markov, E.V.Yakovlev</p> <p>Tomsk Scientific Centre SB RAS, Tomsk, Russia</p>
41	<p>G3-P-024701 Electrical Model of Micro-Arc Oxidation Process</p> <p>P.E.Golubkov, E.A Pecherskaya, D.V.Artamonov, Y.E.Gerasimova, Y.V.Shepeleva</p> <p>Penza State University, Penza, Russia</p>
42	<p>G3-P-025201 Acceleration of Heavy Ions in the Hall Accelerator</p> <p>A.S.Chikhachev</p> <p>VEI-the branch of FSUE "RFNC-VNIITF them.Acad.E.I.Zababakhin", Moscow, Russia</p>

43	<p>G3-P-026001 Effect of Combined Treatment on Microhardness and Structure of Hypoeutectic Silumin</p> <p>D.V.Zagulyaev¹, V.E.Gromov¹, Yu.F.Ivanov², E.A.Petrikova², S.V.Konovalov³, V.V.Shlyarov¹</p> <p>¹ Siberian State Industrial University, Novokuznetsk, Russia ² Institute of High Current Electronics SB RAS, Tomsk, Russia ³ Samara National Research University, Samara, Russia</p>
44	<p>G3-P-026501 Coatings Based on Chromium Carbide, Deposited by Arc Sputtering of Graphite and Cr-Al Si Targets</p> <p>A.P.Rubshtein, A.B.Vladimirov, S.A.Plotnikov</p> <p>¹ M.N.Miheev Institute of Metal Physics, Ekaterinburg, Russia</p>
45	<p>G3-P-026801 The Axial Vuv Radiation Intensity Distribution of a Glow Discharge and its Application for Creation Luminescence Centers in Crystalline Media</p> <p>A.A.Tyutrin¹, A.L.Rakevich¹, D.S.Glazunov¹, E.F.Martynovich¹</p> <p>¹ Irkutsk Branch of the Institute of Laser Physics SB RAS, Irkutsk, Russia</p>
46	<p>G3-P-026902 Two-Stage Subnanosecond Plasma Switch</p> <p>P.A.Bokhan¹, P.P.Gugin¹, D.E.Zakrevsky¹, M.A.Lavrukhin</p> <p>¹ ISP SB RAS, Novosibirsk, Russia</p>
47	<p>G3-P-027003 Effect of Additional Ion Bombardment on the Quality of Vacuum Ion-Plasma Coatings</p> <p>S.R.Shekhtman, K.N.Ramazanov, E.L.Vardanyan, R.M.Kireev¹</p> <p>¹ Ufa State Aviation Technical University, Ufa, Russia</p>
48	<p>G3-P-027004 Designing of Equipment for the Synthesis of Coatings From Nitrid and Carbides of Intermetallide Ti-Al Systems by Condensation of Plasma Flows Generated with Vacuum Arc</p> <p>R.M.Kireev, K.N.Ramazanov, E.L.Vardanyan¹</p> <p>¹ Ufa State Aviation Technical University, Ufa, Russia</p>
49	<p>G3-P-027101 Generation of the Cold Plasma Jet of Atmospheric Pressure in Helium and Argon</p> <p>P.P.Gugin¹, E.V.Yelak², D.E.Zakrevsky^{1,2}</p> <p>¹ AV Rzhzanov Institute of Semiconductor Physics SB RAS, Novosibirsk, Russia ² Novosibirsk State Technical University, Novosibirsk, Russia</p>

50	<p>G3-P-027102 Effect of Cold Plasma Jet of Atmospheric Pressure in Helium on Lung Human Adenocarcinoma Cells</p> <p>E.A.Golubitskaya¹, P.P.Gugin², O.A.Koval¹, V.A.Richter¹, O.S.Troitskaya¹, E.V.Yelak³, D.E.Zakrevsky^{2,3}</p> <p>¹ Institute of Chemical Biology and Fundamental Medicine SB RAS, Novosibirsk Russia ² V Rzhhanov Institute of Semiconductor Physics SB RAS, Novosibirsk Russia ³ Novosibirsk State Technical University, Novosibirsk, Russia</p>
51	<p>G3-P-027502 Radiation-And-Thermal Exposure of Accelerated Ions on Ferromagnetic Alloys of Fe100-Xmnx and Fe100-XCrX After Their Megaplastic Deformation in Comparison with Pure Thermal Exposure</p> <p>E.V.Makarov¹, V.V.Ovchinnikov^{1,2}, V.A.Shabashov³, K.A.Kozlov³</p> <p>¹ Institute of Electrophysics UB RAS, Ekaterinburg, Russia ² Ural Federal Technical University, Yekaterinburg, Russia ³ M.N.Mikheev Institute of Metal Physics of UB RAS, Ekaterinburg, Russia</p>
52	<p>G3-P-027701 Microdiffractonal Analysis of the Structure of High-Speed Cellular Crystallization of Silumine</p> <p>M.E.Rygina^{1,2}, E.A.Petrikova², A.D.Teresov², I.S.Tolkachev¹, Yu.F.Ivanov^{1,2}</p> <p>¹ Institute of High Current Electronics SB RAS, Tomsk, Russia ² National Research Tomsk Polytechnic University, Tomsk, Russia</p>
53	<p>G3-P-027803 Gaseous Discharge Plasma Switching in Oversized Interference Microwave Switches</p> <p>S.N.Artemenko, V.S.Igumnov, S.A.Gorev, S.A.Novikov, Yu.G.Yushkov</p> <p>National Research Tomsk Polytechnic University, Tomsk, Russia</p>
54	<p>G3-P-028001 Study of Metal Powder Received by Plasma Spray</p> <p>A.T.Gabdrakhmanov, I.H.Israphilov, A.T.Galiakbarov</p> <p>Kazan Federal University, Naberezhnye Chelny, Russia</p>
55	<p>G3-P-028601 Application of Low-Pressure Glow Discharge in Transverse Supersonic Gas Flow</p> <p>D.I.Israphilov, I.H.Israphilov</p> <p>Kazan Federal University, Naberezhnye Chelny, Russia</p>
56	<p>G3-P-029902 Influence of Different Plasma Initiation Ways on Obtaining Ultradispersed Silicon Carbide</p> <p>A.Nassyrbayev¹, S.O.Pogorelova², D.S.Nikitin³</p> <p>National Research Tomsk Polytechnic University, Tomsk, Russia</p>

57	<p>G3-P-030001 Obtaining Nano-Disperse Soot From Orthoxylene by the High-Voltage AC Plasma Torch</p> <p>S.D.Popov¹, D.I.Subbotin^{1,2,3}, V.E.Popov¹, A.V.Surov¹, V.V.Lizander^{1,2}, N.A.Charykov², Gh.V.Nakonechny¹, E.O.Serba¹, N.V.Obraztsov¹</p> <p>¹Institute for Electrophysics and Electric Power RAS, St.Petersbourg, Russia ²St.Petersburg State Technological Institute, St.Petersburg, Russia ³St.Petersburg State University, St.Petersburg, Russia</p>
58	<p>G3-P-030206 The Influence of the Magnetic Field in Ion Nitrogening on Probe Characteristics, Micro-Hardness and Structure of AISI M2/R6m5 Steel</p> <p>R.K.Vafin¹, K.N.Ramazanov¹, A.V.Asylbaev¹,</p> <p>¹Ufa State Aviation Technical University, Ufa, Russia</p>
59	<p>G3-P-030207 The Influence of the Magnetic Field in Ion Nitrogening on Probe Characteristics, Micro-Hardness and Structure of AISI 321/08h18n10t Steel</p> <p>R.K.Vafin¹, A.V.Asylbaev¹, A.A.Nikolaev¹</p> <p>¹Ufa State Aviation Technical University, Ufa, Russia</p>
60	<p>G3-P-030701 Modelling of Mossbauer Spectra of Layered Metal Systems Obtained by Ion-Plasma Sputtering</p> <p>A.K.Zhubaev, S.K.Yerezhepova, T.S.Mukhanbetzhan</p> <p>Aktobe Regional State University, Aktobe, Kazakhstan</p>
61	<p>G3-P-031201 Experimental Determination of the Optimal Focusing Zones for Laser Ignition of Butane-Air combustible mixtures</p> <p>Y.V.Anishchanka¹, E.Y.Loktionov¹</p> <p>¹Bauman Moscow State Technical University, Moscow, Russia</p>
62	<p>G3-P-031501 Action of Subnanosecond Pulsed Electric Field on Scov-3 and Jurkat Cells</p> <p>A.A.Petrov¹, A.A.Moraleva^{1,2}, N.V.Antipova^{1,2}, I.S.Samoylov³, R.Kh.Amirov³, N.V.Pestovskii¹, S.Yu.Savinov¹</p> <p>¹Shemyakin-Ovchinnikov Institute of Bioorganic Chemistry of RAS, Russia ²P.N.Lebedev Physical Institute of RAS, Moscow, Russia ³Joint Institute for High Temperatures of RAS, Russia</p>

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63	G3-P-031601 Influence of Hydrogen Plasma on the Surface of a Bismuth Single Crystal Markov Oi, Khripunov Yu.V. Orel state university n.a.I.S.Tergenev, Orel, Russia
64	G3-P-031701 Effect of Low-Temperature Ion-Nitriding of Titanium Alloy Ti-6Al-4V on Parameters of Surface Layer R.D.Agzamov, A.F.Tagirov, K.N.Ramazanov ¹ ¹ Ufa State Aviation Technical University, Ufa, Russia
65	G3-P-031703 Influence of Hydrogen Content on the Process of Low-Temperature Ion Nitriding Titanium Alloy Ti-6Al-4V in CG and UFG States Yu.G.Khusainov, R.D.Agzamov, A.A.Nikolaev, K.N.Ramazanov ¹ ¹ Ufa State Aviation Technical University, Ufa, Russia
66	G3-P-032601 Model Calculation of the Stoichiometric Composition of Three-Component Vacuum Ion Plasma Coatings E.L.Vardanyan ¹ , K.N.Ramazanov ¹ , A.Yu.Nazarov ¹ , R.Sh.Nagimov ¹ ¹ Ufa State Aviation Technical University, Ufa, Russia
67	G3-P-032604 Effect of Vacuum Arc Plasma Coatings Deposition Conditions on Parts Quality Parameters I.I.Yagafarov, K.N.Ramazanov, A.Yu.Nazarov ¹ ¹ Ufa State Aviation Technical University, Ufa, Russia
68	G3-P-032701 Investigation of the Plasma-Electrolyte Process Obtaining a Metal Powder From Cocr Alloy Ramil Kashapov , Kashapov L.N., Kashapov N.F.
69	G3-P-032902 Oxidative Plasma Chemical Transformations of C3-C4 Alkanes S.V.KUDRYASHOV, A.YU.RYABOV, and A.N.OCHERED'KO Institute of Petroleum Chemistry SB RAS, Tomsk, Russia
70	G3-P-930402 Particle Generation During Laser-Plasma Treating of Metals in External Electric Field A.Yu.Ivanov, A.L.Sitkevich, S.V.Vasiliev Grodno State University, Grodno, Belarus

71	<p>G3-P-918901 Effect of Electron-Beam Irradiation on the Safety and Quality of Helminthosporium-Infected Barley</p> <p>N.N.Loy¹, N.I.Sanzharova¹, S.N.Gulina¹, M.S.Vorobyev², N.N.Koval², S.Yu.Doroshkevich², T.V.Chizh¹, O.V.Suslova¹</p> <p>¹RIARAE, Obninsk, Russia ²Institute of High Current Electronics SB RAS, Tomsk, Russia</p>
72	<p>G3-O-005302 Deposition Tisicn-Coatings by RF Magnetron Sputtering of Titanium in Ar/N₂/ CH₃ 3Si 2NH</p> <p><u>D.R.Emlin</u>¹, N.V.Gavrilov¹, A.I.Menshakov¹, A.V.Chukin², S.O.Cholakh²</p> <p>¹IEP UB RAS, Yekaterinburg, Russia ²Ural Federal University, Yekaterinburg, Russia</p>
73	<p>G3-O-000701 Features and Regularities of Electron-Ion-Plasma Modification of High-Chromium Steel</p> <p><u>Yu.F.Ivanov</u>, E.A.Petrikova, A.D.Teresov</p> <p>Institute of High Current Electronics SB RAS, Tomsk, Russia</p>

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1	<p>G3-O-007301 Intensification of Process of Dissolution of Solid Sodium Silicate Electrical Discharges</p> <p>S.A.Glotov Tomsk, 634003, Russia, sernatev@gmail.com, +79234264927</p>
2	<p>G3-O-009902 Formation of Bulk Wc1-X-Based Coatings on Metal Substrates at High-Speed Sputtering of Electric Discharge Plasma Jet</p> <p>Alexander Sivkov¹, Alexander Ivashutenko¹, Ivan Shanenkov¹, Yuliya Shanenkova¹, Iliyas Rahmatullin¹ National Research Tomsk Polytechnic University, Tomsk, Russia</p>
3	<p>G3-O-016701 Micro-Plasma Electrolytic Treatment of the Metal Surface: Properties of Coatings, Their Application</p> <p>S.S Arbutzova, P.I.Butyagin, A.V.Bolshanin, A.I.Kondratenko MANEL, Tomsk, Russia</p>
4	<p>G3-P-000402 The Possibility of Applying Runaway Electron Preionized Diffuse Discharge for Synthesis of Diamond, Diamond-Like Compounds and Graphene</p> <p>D.A.Sorokin, E.I.Lipatov, V.S.Ripenko, M.A.Shulepov Institute of High Current Electronics SB RAS, Tomsk, Russia</p>
5	<p>G3-P-000501 Molybdenum Carbide Embedded Into Carbon Matrix Synthesized by DC Arc Plasma</p> <p>A.Y.Pak¹ National Research Tomsk Polytechnic University, Tomsk, Russia</p>
6	<p>G3-P-000702 Multi-Cyclic Electron-Ion-Plasma Alloying of Silumin: Structure, Properties</p> <p>Yu.F.Ivanov, I.V.Lopatin, E.A.Petrikova, M.E.Rygina, A.D.Teresov, O.S.Tolkachev Institute of High Current Electronics SB RAS, Tomsk, Russia</p>
7	<p>G3-P-000703 Nanostructure Formation of Hypoeutectic Silumin by Electron-Ion-Plasma Methods</p> <p>Yu.F.Ivanov¹, V.E.Gromov², D.V.Zagulyaev², S.V.Konovalov³, Yu.A.Rubannikova², E.A.Petrikova¹, M.E.Rygina¹ ¹ Institute of High Current Electronics SB RAS, Tomsk, Russia ² Siberian State Industrial University, Novokuznetsk, Russia ³ Samara National Research University, Samara, Russia</p>

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8	<p>G3-P-000801 Effect of Pulse Duration and Gas Pressure on Dry Reforming of Methane in Nanosecond Spark Discharge</p> <p>I.E.Filatov, D.L.Kuznetsov, V.V.Uvarin Institute of Electrophysics UB RAS, Ekaterinburg, Russia</p>
9	<p>G3-P-000802 Improvement of Efficiency of the Use of Pulsed Corona Discharge Energy During the Conversion of Volatile Organic Compounds</p> <p>I.E.Filatov, D.L.Kuznetsov, V.V.Uvarin Institute of Electrophysics UB RAS, Ekaterinburg, Russia</p>
10	<p>G3-P-001102 Features of Electron-Beam Processing of Metal-Ceramic Powders in the Forevacuum</p> <p>A.S.Klimov, A.A Zenin, I.Yu.Bakeev Tomsk State University of Control Systems and Radioelectronics, Tomsk, Russia</p>
11	<p>G3-P-001103 Parameters of Ion Stream From an Electron-Beam-Plasma Generated by a Ribbon Electron Beam</p> <p>A.S.Klimov, I.Yu.Bakeev, A.A Zenin Tomsk State University of Control Systems and Radioelectronics, Tomsk, Russia</p>
12	<p>G3-P-001701 High-Intensity Pulsed Ion Beam Generation in Plasma Erosion Mode</p> <p>A.Pushkarev, A.Prima, Yu.Egorova National Research Tomsk Polytechnic University, Tomsk, Russia</p>
13	<p>G3-P-002206 The Influence of the Energy Input Mode on the Plasma Water Treatment Efficiency in a Bubble Chamber</p> <p>V.S.Kuznetsov¹, E.A.Sosnin¹, V.A.Panarin¹, V.S.Skakun¹, D.S.Pechenitsin¹, I.A.Victorova², Yu.V.Chudinova²</p> <p>¹Institute of High Current Electronics SB RAS, Tomsk, Russia ²Tomsk Agricultural Institute, Tomsk, Russia</p>
14	<p>G3-P-002302 X-Ray Microanalysis of Silumin Irradiated by an Intense Pulsed Electron Beam</p> <p>E.A.Petrikova, A.D.Teresov, O.S.Tolkachev, Yu.F.Ivanov Institute of High Current Electronics SB RAS, Tomsk, Russia</p>

15	<p>G3-P-002401 Thermodynamical Analysis Clinker Formation Processes Under the Condition of Low Temperature Plasma</p> <p>N.K.Skripnikova, V.V.Shekhovtsov, O.G.Volokitin, V.A.Vlasov, G.G.Volokitin</p> <p>¹ Tomsk State University of Architecture and Building, Tomsk, Russia</p>
16	<p>G3-P-003001 Creating a Ceramic Coating on Metal</p> <p>I.Y.Bakeev, Y.A.Burachevsky, Y.G.Yushkov</p> <p>Lenin av.40, Tomsk, 634050, Russia, E-mail: Yury_BYA@mail.ru, +7-913-807-16-49</p>
17	<p>G3-P-003402 Electroexplosive Electrical Erosion Resistant Coatings of the Ag-W System Used for Electrical Contacts of Power Mine Equipment</p> <p>D.A.Romanov¹, S.V.Moskovskii¹, V.E.Gromov¹</p> <p>Siberian State Industrial University, Novokuznetsk, Russia</p>
18	<p>G3-P-004101 Effect of Nitrogen Pressure and Pulsed Power Supply Parameters on the Process of Ion Nitriding in Glow Discharge Plasma.</p> <p>V.O.Oskirko, I.M.Goncharenko, A.S.Grenadyorov, V.A.Semenov</p> <p>Institute of High Current Electronics SB RAS, Tomsk, Russia</p>
19	<p>G3-P-004303 Low-Temperature Cementation of Stainless Steel in Electron Beam Generated Plasma</p> <p>A.I.Men'shakov^{1,2}, Yu.S.Surkov¹, P.A.Skorynina³</p> <p>¹ Institute of Electrophysics UB RAS, Ekaterinburg, Russia ² Ural Federal University named after the first President of Russia B.N.Yeltsin, Ekaterinburg, Russia ³ Institute of Engineering Science UB RAS, Ekaterinburg, Russia</p>
20	<p>G3-P-004305 Investigation of the Conditions for the Formation of Sicn-Based Coatings in Electron Beam Generated Plasma</p> <p>A.I.Men'shakov^{1,2}, A.S.Dmitriev¹, S.O.Cholakh²</p> <p>¹ Institute of Electrophysics UB RAS, Ekaterinburg, Russia ² Ural Federal University named after the first President of Russia B.N.Yeltsin, Ekaterinburg, Russia</p>
21	<p>G3-P-004602 Characterization of Nanosilica Produced by Arc Plasma Method</p> <p>P.V.Kosmachev^{1,2}, N.K.Skripnikova¹, V.A.Vlasov¹</p> <p>¹ Tomsk State University of Architecture and Building, Tomsk, Russia ² National Research Tomsk Polytechnic University, Tomsk, Russia</p>

22	<p>G3-P-004801 Formation of Catalytic Layers by Ion Beam Assisted Deposition of Metals from Vacuum Arc Discharge Plasma</p> <p>V.V.Poplavsky Belarusian State Technological University, Minsk, Belarus</p>
23	<p>G3-P-005101 Formation of the Silicon Coating on the NiTi Substrate by Plasma Immersion Ion Treatment</p> <p>O.A.Kashin¹, K.V.Krukovskii¹, V.A.Slabodchikov², A.I.Lotkov¹, ¹ Institute of Strength Physics and Materials Science SB RAS, Tomsk, Russia ² National Research Tomsk State University, Tomsk, Russia</p>
24	<p>G3-P-005702 About Influence of a Change Rate of a Submillisecond Electron beam energy during its pulse on modification of a steel surface</p> <p>Yu.H.Akhmadeev, I.V.Lopatin, Yu.F.Ivanov, M.S.Vorobyov, E.A.Petrikova Institute of High Current Electronics SB RAS, Tomsk, Russia</p>
25	<p>G3-P-005703 Low Energy Implantation of Nitrogen Ions by extended beam with a ballistic focusing in a stainless steel</p> <p>A.I.Ryabchikov¹, Yu.H.Akhmadeev², I.V.Lopatin², O.V.Krygina², D.O.Sivin¹, O.S.Korneva¹, P.S.Ananin¹, S.V.Dektyarev¹ ¹ National Research Tomsk Polytechnic University, Tomsk, Russia ² Institute of High Current Electronics SB RAS, Tomsk, Russia</p>
26	<p>G3-P-006101 Triggered Gas Switches with a Sharply Non-Uniform Electric Field at the Electrode with Negative Potential</p> <p>A.A.Zherlitsyn, E.V.Kumpyak, A.O.Kokovin Institute of High Current Electronics SB RAS, Tomsk, Russia</p>
27	<p>G3-P-007201 Protective and Anti-Reflection Silicon-Carbon Films for Ir Optic</p> <p>A.S.Grenadyorov¹, A.A.Solovyev¹, K.V.Oskomov¹ ¹ Institute of High Current Electronics SB RAS, Tomsk, Russia</p>
28	<p>G3-P-007602 Measurement of the Surface temperature of TiCuN coating / A7 substrate system at pulsed electron-beam treatment</p> <p>A.D.Teresov, O.V.Krygina, P.V.Moskvin, N.A.Prokopenko Institute of High Current Electronics SB RAS, Tomsk, Russia</p>

29	<p>G3-P-007603 Additive Manufactured VT6 Titanium Alloy surface modification by electron-ion-plasma methods</p> <p>A.D.Teresov, Yu.H.Akhmadeev, Yu.F.Ivanov, O.V.Krygina, P.V.Moskvin, E.A.Petrikova</p> <p>Institute of High Current Electronics SB RAS, Tomsk, Russia</p>
30	<p>G3-P-008401 Nanostructuring of the T31507 Steel Surface by Vanadium Borides Under the Influence Electron Beams in a Vacuum</p> <p>A.S.Milonov, D.E.Dashev, N.N.Smirnyagina.</p> <p>Institute of Physical Materials Science SB RAS, Ulan-Ude, Russia,</p>
31	<p>G3-P-008501 Thermophysical Model of Electron Beam Boriding of Carbon Steel ST³</p> <p>D.E.Dashev¹, N.N.Smirnyagina¹, A.E.Lapina¹, A.S.Milonov¹</p> <p>¹ Institute of Physical Materials Science SB RAS, Ulan-Ude, Russia</p>
32	<p>G3-P-008701 Plasmachemical Synthesis of Fullerenes C60 and C70 at Atmospheric Pressure and the Effect of Fullerenes on the hydration of Portland cement</p> <p>N.N.Smirnyagina¹, B.O.Tsyrenov¹, A.P.Semenov¹, D.E.Dashev¹, L.A.Urkhanova^{1,2}, S.A.Lkhasaranov²</p> <p>¹ Institute of Physical Material Science, Ulan-Ude, Russia ² East Siberia State University of Technology and Management, Ulan-Ude, Russia</p>
33	<p>G3-P-008902 Structural Features of the Magnetron Sputtered Cuo/Gdc Films for Solid Oxide Fuel Cell Application</p> <p>V.A.Semenov, I.V.Ionov, A.A.Solovyev, A.V.Shipilova, S.V.Robotkin</p> <p>Institute of High Current Electronics SB RAS, Tomsk, Russia</p>
34	<p>G3-P-008903 Hybrid DC+HIPIMS Magnetron Sputtering Deposition of Cu and CuO Films</p> <p>V.A.Semenov, V.O.Oskirko, A.A.Solovyev, A.N.Zakharov, S.V.Robotkin, I.V.Ionov</p> <p>Institute of High Current Electronics SB RAS, Tomsk, Russia</p>
35	<p>G3-P-009001 Influence of Vacuum-Arc and Magnetron Discharges Combustion Modes on Structure and Phase Composition of the Formed Composite TiN-Cu Coatings</p> <p>D.B-D.Tsyrenov, A.P.Semenov, N.N.Smirnyagina, E.O.Nikolaev¹</p> <p>¹ Institute of Physical Materials Science SB RAS, Ulan-Ude, Russia,</p>

36	<p>G3-P-009101 The Formation of a Plasma Anode in a High-Current Electron Gun with the Use of a Hybrid Discharge</p> <p>P.P.Kiziridi, G.E.Ozur Institute of High Current Electronics SB RAS, Tomsk, Russia</p>
37	<p>G3-P-011403 Modeling of the Synthesis of Core-Shell Composite particles based on segregated oxidation of titanium and silicon tetrachlorides in flow-type plasmachemical reactor</p> <p>S.M.Aulchenko^{1,2}, E.V.Kartaev¹ ¹ Khristianovich Institute of Theoretical and Applied Mechanics SB RAS, Novosibirsk, Russia, ² Novosibirsk State Architectural-Building University, Novosibirsk, Russia</p>
38	<p>G3-P-011701 Study of Ozone Production in a Dielectric Barrier Discharge in Oxygen-Containing Mixtures for Plasma Assisted Combustion</p> <p>A.A.Sludnova^{1,2}, P.A.Mikheyev^{1,2}, A.P.Torbin^{1,2}, A.V.Demyanov³, I.V.Kochetov^{3,4} ¹ Samara National Research University, Samara, Russia ² Lebedev Physical Institute RAS, Samara, Russia ⁴ Lebedev Physical Institute RAS, Moscow, Russia ³ State Research Center of the Russian Federation Troitsk Institute for Innovation and Fusion Research, Troitsk, Russia</p>
39	<p>G3-P-011802 The Study on Pulsed Electron Beam Energy Dissipation in Gas Compositions of Increased Pressure in the Presence of a Condensed Phase Water, Ash</p> <p>R.Sazonov, G.Kholodnaya, D.Ponomarev, I.Egorov, A.Poloskov National Research Tomsk Polytechnic University, Tomsk, Russia</p>
40	<p>G3-P-011901 Electrospark Method of Obtaining Nanopowders</p> <p>G.Kholodnaya, R.Sazonov, M.Zhuravlev, D.Ponomarev National Research Tomsk Polytechnic University, Tomsk, Russia</p>
41	<p>G3-P-014501 Temporal Changes of the IR Spectra of Heavy Water After Its Treatment by Diffuse Discharge and After Irradiation by a Nanosecond Duration Stream of Electrons</p> <p>V.S.Ripenko¹, V.M.Orlovskii¹ ¹ Institute of High Current Electronics SB RAS, Tomsk, Russia</p>

42	<p>G3-P-014503 Atmospheric Pressure Diffuse Discharge Treatment of Aqueous Solution of Methylenum Coeruleum</p> <p>V.S.Ripenko, M.V.Erofeev, V.F.Tarassenko Institute of High Current Electronics SB RAS, Tomsk, Russia</p>
43	<p>G3-P-014702 Laser-Plasma Synthesis of Diamond Films</p> <p>A.E.Medvedev¹, P.A.Pinaev¹, A.M.Barnyakov² ¹ Institute of Laser Physics SB RAS, Novosibirsk, Russia ² Budker Institute of Nuclear Physics SB RAS, Novosibirsk, Russia</p>
44	<p>G3-P-014801 Effects Affecting the Morphology of Microspheres Obtained in thermal plasma flow</p> <p>V.V.Shekhovtsov, V.A.Vlasov, O.G.Volokitin, G.G.Volokitin, N.K.Skripnikova Tomsk State University of Architecture and Building, Tomsk, Russia</p>
45	<p>G3-P-015001 Physical and Technical Processes of Obtaining Silicate Melts and Materials based on them in low-temperature plasma</p> <p>O.G.Volokitin, V.V.Shekhovtsov, V.A.Vlasov, G.G.Volokitin, N.K.Skripnikova Tomsk State University of Architecture and Building, Tomsk, Russia</p>
46	<p>G3-P-016502 Study of Some Optical Properties of Tio Thin Films Prepared by Ion Sputtering</p> <p>A.S.Skryabin¹, V.R.Vesnin¹, R.I.Chelmodeev¹, N.V.Pestovskiy², S.S.Gizha² ¹ Bauman Moscow State Technical University, Moscow, Russia ² Lebedev Physics Institute of the RAS, Moscow, Russia</p>
47	<p>G3-P-017501 Effects of Dielectric Barrier Discharge Generated Plasma on the Physicochemical and Technological Properties of Geomaterials</p> <p>I.Zh.Bunin¹, M.V.Ryazantseva¹, N.E.Anashkina¹ ¹ Institute of Comprehensive Exploitation of Mineral Resources RAS, Moscow, Russia</p>
48	<p>G3-P-018601 Matching of Mass Spectra of Ions And Terahertz Radiation of Low-Inductive Vacuum Spark with Laser Initiation</p> <p>A.P Melekhov, O.B.Ananin, E.D.Vovchenko, V.M.Komarecky, R.S.Ramakoti National research nuclear university MEPhI</p>

49	<p>G3-P-019301 Interaction of Low Temperature Plasma With Fusion Materials</p> <p>I.A.Sokolov, Oimur Tulenbergenov, Arman Miniyazov, Yuliya Baklanova Institute of Atomic Energy of National Nuclear Center of the Republic of Kazakhstan, Kurchatov, Kazakhstan</p>
50	<p>G3-P-019402 Optimization of the Numerical model of the triggerable LTD spark gap switch</p> <p>V.M.Alexeenko, S.S.Kondratiev, V.A.Sinebryukhov, S.N.Volkov</p>
51	<p>G3-P-019703 Study of Adhesion Characteristics of a Ni-Cu Surface Alloy Formed by a Low-Energy High-Current Electron Beam</p> <p>E.V.Yakovlev, A.B.Markov, D.A.Shepel, V.I.Petrov Institute of High Current Electronics SB RAS, Tomsk, Russia</p>
52	<p>G3-P-019801 Obtaining Nanodispersed Product of Titanium Diboride in an Arc Discharge of Magnetoplasma Accelerator</p> <p>S.O.Pogorelova¹, A.Nassyrbayev², D.S.Nikitin³ National Research Tomsk Polytechnic University, Tomsk, Russia</p>
53	<p>G3-P-020603 Optical Characteristics of Lithium Fluoride Crystals Irradiated by Lithium Ions and Microwave Discharge Plasma</p> <p>V.P.Dresvyanskiy¹, E.F.Martynovich^{1,2}, A.L.Rakevich¹, O.I.Shipilova², V.L.Paperny², A.A.Chernich ¹ Irkutsk Branch of the Institute of Laser Physics SB RAS, Irkutsk, Russia ² Irkutsk State University, Irkutsk, Russia</p>
54	<p>G3-P-020901 Features of Self-Sustained Magnetron Sputtering of Evaporating Metal Target</p> <p>G.A.Bleykher, A.V.Yuryeva, A.S.Shabunin, D.V.Sidelev, V.A.Grudin National Research Tomsk Polytechnic University, Tomsk, Russia</p>
55	<p>G3-P-021101 Obtaining of High-Power Electron Beams in a Plasma Anode Electron Source Powered by Marx Generator with Matched Loads</p> <p>E.N.Abdullin, G.F.Basov Institute of High Current Electronics SB RAS, Tomsk, Russia</p>

56	<p>G3-P-021502 Production of Al-O-N Nanopowders in a Plasma Reactor with a Limited Jet Flow</p> <p>A.G.Astashov¹, A.V.Samokhin¹, N.V.Alekseev¹, M.A.Sinayskiy¹, I.O.Pakhilo-Daryal¹, Yu.V.Tsetkov¹</p> <p>¹ IMET RAS, Moscow, Russia</p>
57	<p>G3-P-021601 Obtaining the Ultradisperse Material of the Al-Mg-O System by Plasma Dynamic Method</p> <p>A.A.Sivkov¹, A.S.Ivashutenko¹, I.A.Rakhmatullin¹, Yu.L.Shanenkova¹, A.I.Tsimmerman¹</p> <p>National Research Tomsk Polytechnic University, Tomsk, Russia</p>
58	<p>G3-P-021602 Analysis of Electrical Characteristics of Ceramics on the Basis of ZnO-Bi₂O₃, Obtained by Spark Plasma Sintering</p> <p>A.A.Sivkov¹, A.S.Ivashutenko¹, I.A.Rakhmatullin¹, Yu.L.Shanenkova¹, A.I.Tsimmerman¹</p> <p>National Research Tomsk Polytechnic University, Tomsk, Russia</p>
59	<p>G3-P-021702 Precision Cutting of High-Temperature Dielectrics by the Forevacuum Plasma Electron Source</p> <p>I.Y.Bakeev, A.S.Klimov, E.M.Oks, A.A.Zenin</p> <p>Lenin av.40, Tomsk, 634050, Russia, E-mail: BakeevIYu@mail.ru, +7-953-923-17-26</p>
60	<p>G3-P-022001 Direct Current Arc-Plasma Synthesis of B-C Powder Product</p> <p>A.Y.Pak¹, R.S.Martynov¹</p> <p>National Research Tomsk Polytechnic University, Tomsk, Russia</p>
61	<p>G3-P-022202 Plasmachemical Processing of Germany-Containing Mineral and Technological Raw Materials</p> <p>D.Y.Batomunkuev¹, S.P.Vashenko¹</p> <p>¹ ITAM SB RAS, Novosibirsk, Russia</p>
62	<p>G3-P-022401 Energy Depth Distribution of Pulsed Electron Beam of Wide Electron Kinetic Energy Spectrum for an Aluminum Target</p> <p>A.Poloskov, M.Serebrennikov, A.Isemberlinova, I.Egorov</p> <p>National Research Tomsk Polytechnic University, Tomsk, Russia</p>

63	<p>G3-P-022502 Hard Alloy Modification by Glow Discharge Plasma</p> <p>V.V.Abidzina, U.M.Shamiankou, M.A.Rabyko, S.V.Vereshchak, U.I.Pishchyk</p> <p>Belarusian-Russian University, Mogilev, Belarus</p>
64	<p>G3-P-022702 Electric Arc Synthesis of Micro Diamonds</p> <p>B.A.Timerkaev¹, A.A.Kaleeva¹, B.R.Shakirov¹, A.R.Ahmetvaleeva¹, A.I.Saifutdinov¹, A.A.Saifutdinova¹</p> <p>¹ Kazan National Research Technical University named after A.N.Tupolev - KAI, Kazan, Russia</p>
65	<p>G3-P-022703 Plasma Chemical Processing of Hydrocarbons</p> <p>A.A.Saifutdinova¹, B.A.Timerkaev¹, A.O.Sofronitsky¹, B.R.Zalyaliev¹, A.I.Saifutdinov¹,</p> <p>¹ Kazan National Research Technical University named after A.N.Tupolev - KAI, Kazan, Russia</p>
66	<p>G3-P-022901 Plasmadynamic Synthesis of Ultrafine Titanium Oxides</p> <p>A.A.Sivkov¹, A.S.Ivashutenko¹, I.A.Rahmatullin¹, Yu.L.Shanenkova¹, Yu.N.Vympina²</p> <p>National Research Tomsk Polytechnic University, Tomsk, Russia</p>
67	<p>G3-P-022902 Control of the Particle Size Distribution and the Investigation of the Crystal Structure of the Titanium Oxide Powders, Obtained by Plasmadynamic Method</p> <p>A.A.Sivkov¹, A.S.Ivashutenko¹, I.A.Rahmatullin¹, Yu.L.Shanenkova¹, Yu.N.Vympina²</p> <p>National Research Tomsk Polytechnic University, Tomsk, Russia</p>
68	<p>G3-P-023103 Cascade Volumetric Acceleration of Electrohydrodynamic Flows</p> <p>I.E.Rebrov¹</p> <p>¹ Institute for Electrophysics and Electric Power RAS, Saint Petersburg, Russia</p>
69	<p>G3-P-023301 Surface Properties of Polylactic Acid Films After Plasma Treatment</p> <p>E.O.Filippova, N.M.Ivanova, V.F.Pichugin</p> <p>National Research Tomsk Polytechnic University, Tomsk, Russia</p>

70	<p>G3-P-023702 Multilayer Chromium Nitride/Carbon Coatings Deposited by Magnetron Sputtering</p> <p>D.V.Sidelev¹, A.V.Obrosov², S.Wei²</p> <p>¹ National Research Tomsk Polytechnic University, Tomsk, Russia ² Brandenburg Technical University, Cottbus, Germany</p>
71	<p>G3-P-023804 Synthesis of Nanodimensional Carbon Films in Hollow Cathode Discharge</p> <p>I.A.Sorokin^{1,2}, D.V.Kolodko^{1,2}, E.G.Shustin¹, V.A.Luzanov¹, M.P.Temiryazeva¹, E.N.Mirgorodskaya¹</p> <p>¹ Kotel'nikov Institute of Radio Engineering and Electronics RAS, Fryazino, Russia ² National Research Nuclear University MEPhI, Moscow, Russia</p>
72	<p>G3-P-024102 The Influence of Ion Irradiation on Structure and Mechanical Properties of Pressed Profiles of V95 Alloy after Artificial Aging</p> <p>N.V.Gushchina¹, V.V.Ovchinnikov^{1,2}, F.F.Mahinko¹, L.I.Kaigorodova³</p> <p>¹ Institute of Electrophysics UB RAS, Ekaterinburg, Russia ² Ural Federal Technical University, Yekaterinburg, Russia ³ Institute of Metal Physics, UB RAS, 18, S.Kovalevskoi Str., Yekaterinburg, 620041, Russia</p>
73	<p>G3-P-927601 Effect of Trenches on Sheath Formation near Emissive Surface in Low Pressure Plasma in Magnetic Field</p> <p>M.Yadrenkin, V.Fomichev, <u>I.Schweigert</u></p> <p>Khristianovich Institute of Theoretical and Applied Mechanics, Novosibirsk, Russia</p>