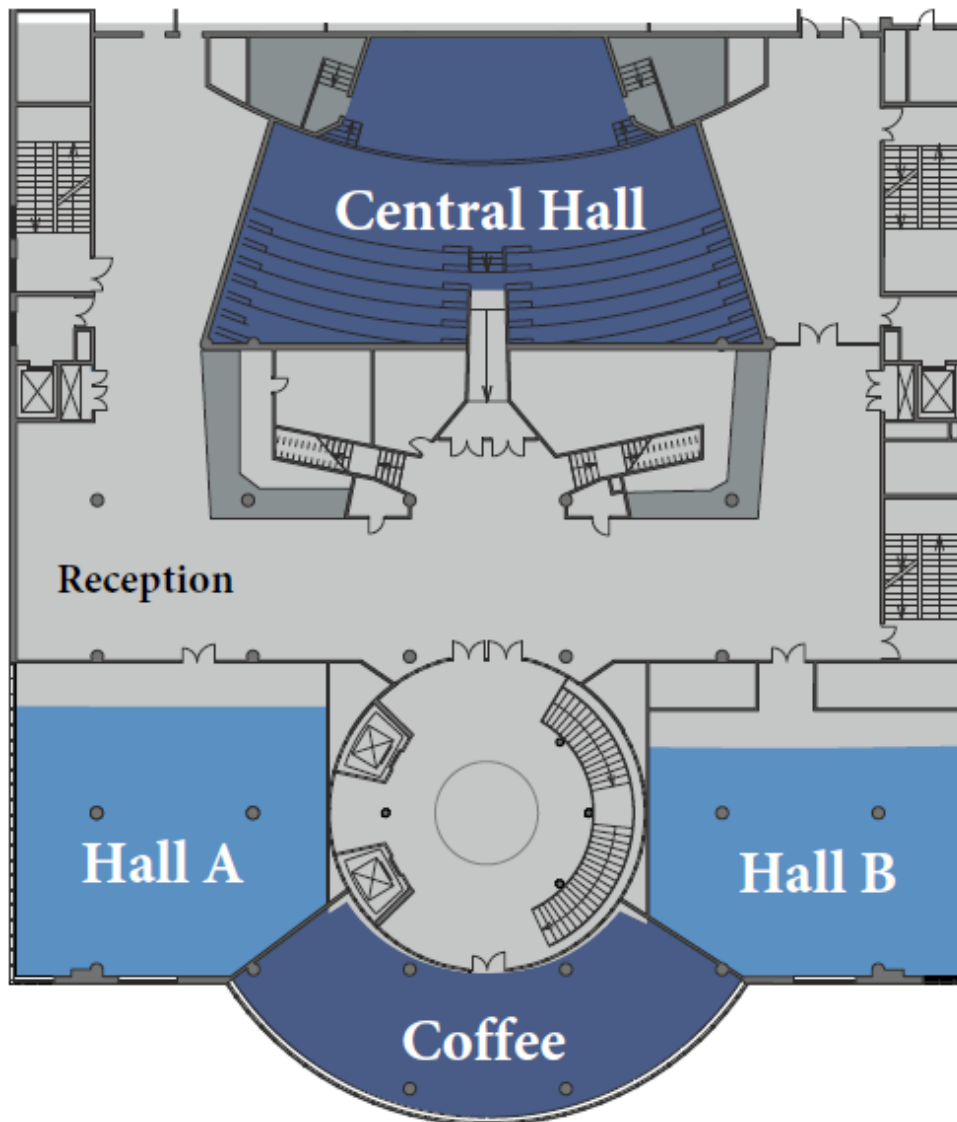


Scientific program

The official language of the Conference is English



September 6 (Monday)

Panorama, Central Hall

Plenary Session

Plenary Lecture 09:35-10:20	Nanosecond diffuse-channel discharge in air G.A. Mesyats P.N. Lebedev Physical Institute RAS, Moscow, Russia
Plenary Lecture 10:40-11:25	Pulsed power generation for gas discharge and plasma applications Weihua Jiang Extreme Energy-Density Research Institute Nagaoka University of Technology, Nagaoka, Niigata, Japan
Invited Lecture 11:25-12:00	Different modes of runaway electron beams in high-pressure gases V.F. Tarasenko Institute of High Current Electronics SB RAS, Tomsk, Russia

September 6 (Monday)

Panorama, Hall A

Section 1. Oral Session 1 (OS-1-1)
13.30-15.35

1	Invited report	Runaway electron flows in magnetized coaxial gas diodes <i>M.I. Yalandin, G.A. Mesyats, N.M. Zubarev, S.A. Shunaylov, V.G. Shpak, K.A. Sharypov</i> Institute of Electrophysics UB RAS, Ekaterinburg, Russia
2	Oral	Subnanosecond breakdown of air-insulated coaxial line initiated by runaway electrons in the presence of strong axial magnetic field <i>S.A. Shunaylov, G.A. Mesyats, N.M. Zubarev, E.A. Osipenko, K.A. Sharypov, V.G. Shpak, M.I. Yalandin</i> Institute of Electrophysics UB RAS, Ekaterinburg, Russia
3	Oral	Study of the generation of runaway electrons with reference to the formation of a streamer in a sharply inhomogeneous electric field <i>D. Beloplotov, V.F. Tarasenko, V. Shklyayev, D.A. Sorokin</i> Institute of High Current Electronics SB RAS, Tomsk, Russia
4	Oral	Features of the ionization wave development preceding the breakdown in a long capillary tube surrounded by a continuous or sectioned electrode <i>Yu.S Akishev, V.B. Karalnik, A.V. Petryakov</i> State Research Center of Russian Federation Troitsk Institute for Innovation and Fusion Research, Moscow, Russia
5	Oral	Simulation of negative corona discharge in atmospheric air: from mode of trichel pulses to stationary discharge <i>A.O Kokovin, A.V. Kozyrev, V.Y. Kozhevnikov</i> Institute of High Current Electronics SB RAS, Tomsk, Russia

Panorama, Hall B

Section 2. Oral Session 1 (OS-2-1)
13.30-15.35

1	Invited report	Ti-W surface alloys synthesized by PVD-LEHCEB and oxidized by PEO <i>F. Morini, A. Palmeri, S. Franz, A. Vincenzo, M. Bestetti</i> Politecnico di Milano, Milano, Italy
2	Oral	Structure and mechanical properties of stainless-steel specimens, made by additive method, after pulsed electron beam treatment <i>A.D. Teresov, Yu.H. Akhmadeev, E.A. Petrikova, O.V. Krysina, Yu.F. Ivanov, G.V.Semenov</i> Institute of High Current Electronics SB RAS, Tomsk, Russia
3	Oral	Formation of a Cr-Zr surface alloy using a low-energy high-current electron beam <i>A.B. Markov, E.V. Yakovlev, A.V. Solovov, E.A. Pesterev, M.S. Slobodyan, V.I. Petrov</i> Tomsk Scientific Centre SB RAS, Tomsk, Russia
4	Oral	Processing of the titanium alloy by high-speed steel tools with combine surface treatment <i>S.V. Fedorov, Tet Oo, E. S. Mustafaev</i> Moscow State University of Technology «STANKIN», Moscow, Russia

September 6 (Monday)

Panorama, Hall A

Section 4. Oral Session 1 (OS-4-1)
15.55-18.00

1	Invited report	Generation of ion and electron beams and plasma flows in special conditions with "extreme" parameters and some examples of its applications <u>E.M. Oks</u> High Current Electronics Institute SB RAS, Tomsk, Russia
2	Oral	Influence of accelerating gap configuration on parameters of a forevacuum plasma-cathode source of pulsed electron beam <u>A.V. Kazakov, A.V. Medovnik, E.M. Oks, N.A. Panchenko</u> Tomsk State University of Control Systems and Radioelectronics, Tomsk, Russia
3	Oral	Efficiency of electron beam extraction to the ambient atmosphere in an electron accelerator based on ion-electron emission <u>S.Yu. Doroshkevich, M.S. Vorobyov, M.S. Torba, N.N. Koval, S.A. Sulakshin, V.A. Levanisov</u> Institute of High Current Electronics SB RAS, Tomsk, Russia
4	Oral	Suppression of the generation of heavy ions in vacuum diode with passive anode <u>A.I. Pushkarev, A.I. Prima, X.P. Zhu, C.C. Zhang, Y. Li, Yu. Egorova, M.K. Lei</u> Tomsk Polytechnic University, Tomsk, Russia
5	Oral	Simulation of charged particle beam dynamics extracted from a plasma source <u>I.A. Kanshin</u> Dukhov Automatics Research Institute (VNIIA), Moscow, Russia

Panorama, Hall B

Section 3. Oral Session 1 (OS-3-1)
15.55-18.00

1	Invited report	Plasma-solution synthesis of transition metal oxides <u>K.V. Smirnova, V.V. Rybkin, D.A. Shutov, A.N. Ivanov</u> Ivanovo State University of Chemistry and Technology, Ivanovo, Russia
2	Oral	Creating nanoscale luminescence centres in silver halides suitable for infrared application <u>E.A. Korsakova, V.V. Lisenkov, L.V. Zhukova, A.N. Orlov, A.S. Korsakov, V.V. Osipov, V.V. Platonov, D.D. Salimgareev</u> Ural Federal University, Ekaterinburg, Russia
3	Invited report	Conversion of methane in plasma generated by pulsed electron beams and nanosecond discharges <u>D.L. Kuznetsov, V.V. Uvarin, I.E. Filatov</u> Institute of Electrophysics UB RAS, Ekaterinburg, Russia
4	Oral	Influence of the catalyst packing configuration on the discharge characteristics and CO₂ reduction in a packed bed plasma reactor <u>M. Zhu, F.F. Wu, H. Ma, S.Y. Xie, C.H. Zhang</u> Nanjing University of Aeronautics and Astronautics, Nanjing, China

September 7 (Tuesday)



Panorama, Central Hall

Plenary Session

Plenary Lecture 09:00-09:45	Surface ionization waves preceding a volume breakdown in low-pressure gas discharge tubes <i>Y.S. Akishev</i> Troitsk Institute of Innovative and Thermonuclear Research (TRINITI), Moscow, Troitsk, Russia
Invited Lecture 09:45-10:20	The 40 years to RADAN - compact multi-purposed sources for various pulse power investigations <i>V.G. Shpak, M.I. Yalandin, S.A. Shunaylov</i> Institute of Electrophysics UB RAS, Ekaterinburg, Russia
Invited Lecture 10:50-11:25	Application of an arc with a self-heated hollow cathode for coating deposition by reactive anodic evaporation <i>N.V. Gavrilov</i> Institute of Electrophysics UB RAS, Ekaterinburg, Russia
Invited Lecture 11:25-12:00	Intriguing phenomena accompanied sub-nanosecond duration powerful microwave pulse interaction with neutral gas and plasma <i>Y.E. Krasik</i> The Max Knoll Chair in Electronics and Opto-Electronics Physics Department, Technion - Israel Institute of Technology, Haifa, Israel

September 7 (Tuesday)**Panorama, Hall A**

Section 1. Oral Session 2 (OS-1-2)
13.30-15.35

1	Invited report	Initiation mechanisms and dynamics of development at the prebreakdown stage of a self-sustained subnanosecond discharge in high-pressure nitrogen <i>S.N Ivanov, V.V. Lisenkov, Yu.I Mamontov</i> Institute of Electrophysics UB RAS, Ekaterinburg, Russia
2	Oral	Plasma generation in a high-current glow discharge with a hollow cathode in an axially symmetrical system using two electron sources <i>E.V. Ostroverkhov, V.V. Denisov</i> Institute of High Current Electronics SB RAS, Tomsk, Russia
3	Oral	Average ion-charge state and explosive emission plasma momentum derivation from critical temperature of metal <i>M.M. Tsventoukh</i> Lebedev Physical Institute of Russian Academy of Sciences, Moscow, Russia
4	Oral	Electric explosion of flat copper conductors in asymmetric and symmetric configurations in the current skinning mode <i>N.A. Labetskaya, I.M. Datsko, S.A. Chaikovsky, V.A. Van'kevich, E. Oreshkin, V.I. Oreshkin</i> Institute of High Current Electronics SB RAS, Tomsk, Russia
5	Oral	Study of anode and cathode plasmas formation in an electron diode with an explosive emission cathode <i>A.I. Pushkarev, A.I. Prima</i> Tomsk Polytechnic University, Tomsk, Russia

Panorama, Hall B

Section 2. Oral Session 2 (OS-2-2)
13.30-15.35

1	Invited report	Modeling of ion-plasma synthesis of linear-chained carbon <i>E.A. Buntov, A.F. Zatsepin, A.I. Matitsev, V.A. Dutov, K.P. Arslanov</i> Ural Federal University, Ekaterinburg, Russia
2	Oral	Balanced control of thermal impact on metal materials in electron source with a plasma cathode <i>K.T. Ashurova, T.V. Koval, M.S. Vorobyov, My Kim An Tran, V.I. Shin, P.V. Moskvina, N.N. Koval</i> Institute of High Current Electronics SB RAS, Tomsk, Russia
3	Oral	Energy density distribution of a modulated electron beam in a source with a plasma cathode based on a low pressure arc <i>V.I. Shin, P.V. Moskvina, M.S. Vorobyov, V.N. Devyatkov, N.N. Koval</i> Institute of High Current Electronics SB RAS, Tomsk, Russia
4	Oral	Effect of irradiation with ions of different atomic masses (Ar⁺ and Xe⁺) on the properties of Co₉₀Fe₁₀/Cu magnetic superlattices <i>N.V. Gushchina, V.V. Ovchinnikov, K.V. Shalomov, N.S. Bannikova, R.S. Zavornitsyn, M.A. Milyaev</i> Institute of Electrophysics UB RAS, Ekaterinburg, Russia
5	Oral	Formation of austenite particles enriched in manganese up to 20 at. % and more, in volume of Fe-6.35 at. % Mn alloy in temperature range of 300-450 °C during irradiation with Ar⁺ 20 keV ions <i>E.V. Makarov, V.V. Ovchinnikov</i> Institute of Electrophysics UB RAS, Ekaterinburg, Russia

September 7 (Tuesday)

Panorama, Hall A

Section 4. Oral Session 2 (OS-4-2)

15.55-18.00

1	Invited report	Operating parameters of high pulse repetition frequency capillary gas discharge switch and its application for ion self-terminating lasers pumping <i>P.A. Bokhan, P.P. Gugin, M.A. Lavrukhin, D.E. Zakrevsky</i> A. V. Rzhanov Institute of Semiconductor Physics SB RAS, Novosibirsk, Russia
2	Oral	Investigation of cold atmospheric plasma jet generation excited by square-wave pulse <i>P.P. Gugin, D.E. Zakrevsky, <u>Elena V. Milakhina</u></i> A.V. Rzhanov Institute of Semiconductor Physics SB RAS, Novosibirsk, Russia
3	Oral	Subnanosecond switching of standard thyristors triggered in impact-ionization wave mode by a high-voltage PCSS driver <i><u>A. Gusev</u>, I. Prudaev, I. Lavrinovich, A. De Ferron, B. Novac, L. Pecastaing</i> Universite de Pau et des Pays de l'Adour, E2S UPPA, SIAME, Pau, France
4	Oral	Formation of the voltage pulses up to 400 kilovolts with front pulse less than 10 nanoseconds <i>B.A. Kozlov, <u>D.S. Makhanko</u></i> PLASMA, JSC Research Institute of Gas-Discharge Devices, Ryazan, Russia
5	Oral	Increasing the operation stability of the electron accelerator based on ion-electron emission <i><u>M.S. Torba</u>, S.Yu. Doroshkevich, M.S. Vorobyov, N.N. Koval, S.A. Sulakshin, V.A. Levanisov</i> Institute of High Current Electronics SB RAS, Tomsk, Russia

Panorama, Hall B

Section 3. Oral Session 2 (OS-3-2)

15.55-18.00

1	Oral	Carbon nanoparticles (CNP) coated with copper oxide (CuO) by electrophoretic synthesis <i><u>Nay Win</u></i> Southwest State University, Kursk, Russia
2	Oral	Investigation of photocatalytic activity of bismuth nanopowder oxide doped with silver obtained by pulsed electron beam evaporation in vacuum <i><u>O.A.Svetlova</u>, V.G. Ilves, S.Yu. Sokovnin</i> Institute of Electrophysics UB RAS, Ekaterinburg, Russia
3	Oral	Influence of the supplied energy on the phase content of crystalline dispersed titanium dioxide obtained by the plasma dynamic method <i>A.A. Sivkov, <u>Y.N. Vympina</u>, I.A. Rakhmatullin, A.S. Ivasutenko, Y.L. Shanenkova</i> School of Energy & Power Engineering, Tomsk, Russia
4	Oral	Synthesis of metastable cubic tungsten carbide with a high purity in dispersed and bulk forms by the plasma dynamic method <i>A.A. Sivkov, <u>I.I. Shanenkov</u>, D.S. Nikitin, A. Nassurbayev</i> Tomsk Polytechnic University, Tomsk, Russia

September 8 (Wednesday)

Panorama, Hall A

Section 1. Oral Session 3 (OS-1-3)
09.00-10.10

1	Invited report	Nanosecond breakdown in a pulsed open discharge <i>P.P. Gugin, P. Bokhan, D.E. Zakrevsky, N.A. Glubokov</i> Institute of Semiconductor Physics SB RAS, Novosibirsk, Russia
2	Oral	Runaway of electrons and initiation of explosive electron emission during pulse breakdown of dense gases <i>G.A. Mesyats, N.M. Zubarev</i> Institute of Electrophysics UB RAS, Ekaterinburg, Russia
3	Oral	A source of powerful subnanosecond VUV-UV radiation pulses based on a high-pressure gas discharge <i>V.I. Baryshnikov, V.L. Paperny</i> Irkutsk State University, Irkutsk, Russia

Panorama, Hall B

Section 2. Oral Session 3 (OS-2-3)
09.00-10.10

1	Invited report	Application of composite SHS-cathodes in recent PVD technologies for manufacturing of protective UHTC-based coatings <i>Ph. Kiryukhantsev-Korneev, E. Levashov</i> National University of Science and Technology "MISIS", Moscow, Russia
2	Oral	Deposition of Al₂O₃ coatings in Ar-O₂ low-pressure discharge plasma under a high dissociation degree of O₂ <i>P.V. Tretnikov, N.V. Gavrilov, A.S. Kamenetskikh, S.V. Krivoshapko, A.V. Chukin</i> Institute of Electrophysics UB RAS, Ekaterinburg, Russia
3	Oral	Structural and phase dependencies of coatings formation based on intermetallides Ti-Al systems for increasing the durability of cutting tools <i>E.L. Vardanyan, K.N. Ramazanov, A.Yu. Nazaraov, R.Sh. Nagimov, A.A. Maslov</i> Ufa State Aviation Technical University, Ufa, Russia

September 8 (Wednesday)

Panorama, Hall A

Section 4. Oral Session 3 (OS-4-3)

10.30-12.00

1	Invited report	Cold plasma source based on the apokampic discharge in atmospheric-pressure air <i>D.A. Sorokin, V.A. Panarin, E.A. Sosnin, V.S. Kuznetsov, V.S. Skakun</i> Institute of High Current Electronics SB RAS, Tomsk, Russia
2	Oral	Wide radiation bands of sub-nanosecond discharge in xenon and inaccuracies in their measurements <i>V.F. Tarasenko, A.N. Panchenko, D.V. Beloplotov, D.A. Sorokin, M.I. Lomaev, V.V. Kozevnikov</i> Institute of High-Current Electronics SB RAS, Tomsk, Russia
3	Oral	Methods for increasing the electrical breakdown strength of the accelerating gap in an electron source with a plasma cathode <i>P.V. Moskvina, V.N. Devyatkov, I.V. Lopatin, V.I. Shin</i> Institute of High Current Electronics SB RAS, Tomsk, Russia
4	Oral	Features of plasma generation in a pulsed mode of a non-self-sustained arc discharge <i>S.S. Kovalsky, V.V. Denisov, E.V. Ostroverkhov, V.E. Prokop'ev</i> Institute of High Current Electronics SB RAS, Tomsk, Russia

Panorama, Hall B

Section 3. Oral Session 3 (OS-3-3)

10.30-12.00

1	Invited report	Features of the gas-phase synthesis of oxide nanopowders using high-power lasers <i>V.V. Osipov, V.V. Lisenkov, V.V. Platonov, E.V. Tikhonov</i> Institute of Electrophysics UB RAS, Ekaterinburg, Russia
2	Oral	Impulse laser application for surface modification of tool steel with B₄C-Al powders <i>U.L. Mishigdorzhijn, N.S. Ulakhanov, A.V. Nomoev</i> Institute of Physical Materials Science SB RAS, Ulan-Ude, Russia
3	Oral	Droplets generation conducting during laser-plasma treating of metals in electric field <i>A.Yu. Ivanov, A.L. Sitkevich, S.V. Vasiliev</i> Grodno State University named after Yanka Kupala, Grodno, Belarus

Institute of Electrophysics

Sections 1-4. Poster Session

14.00-17.00

Information is located at the bottom of the scientific program.

September 9 (Thursday)

Panorama, Hall A

Section 1. Oral Session 4 (OS-1-4)

09.00-10.25

1	Invited report	On the scaling laws for low-temperature plasmas at macro and micro scales <i>Y. Fu, X. Wang, B. Zheng, P. Zhang, Q. Fan, J. Verboncoeur</i> Tsinghua University, Beijing, China
2	Oral	Influence of molecular oxygen on energy characteristics of a gas discharge of atmospheric pressure in air with addition of carbon oxide <i>A.N. Orlov, V.V. Osipov, V.V. Lisenkov, S.M. Arminin</i> Institute of Electrophysics UB RAS, Ekaterinburg, Russia
3	Invited report	Operating parameters of high pulse repetition frequency capillary gas discharge switch and its application for ion self-terminating lasers pumping <i>P.A. Bokhan, P.P. Gugin, M.A. Lavrukhin, D.E. Zakrevsky</i> A. V. Rzhanov Institute of Semiconductor Physics SB RAS, Novosibirsk, Russia

Panorama, Hall B

Section 2. Oral Session 4 (OS-2-4)

09.00-10.25

1	Invited report	PVD gradient and multilayer coatings deposited by vacuum-arc plasma-assisted method <i>O.V. Krygina, N.N. Koval, Yu.F. Ivanov, N.A. Prokopenko, V.V. Shugurov</i> Institute of High Current Electronics SB RAS, Tomsk, Russia
2	Oral	Nb/NbN multilayer coatings deposited by the vacuum-arc plasma-assisted method: synthesis, properties, structure <i>O.V. Krygina, N.A. Prokopenko, Yu.F. Ivanov, V.V. Shugurov, E.A. Petrikova, O.S. Tolkachev, M.E. Rygina</i> Institute of High Current Electronics SB RAS, Tomsk, Russia
3	Oral	Influence of pulse-periodic low-pressure arc discharge mode on coating properties <i>M.V. Savchuk, V.V. Yakovlev, V.V. Denisov, A.A. Leonov, A.O. Egorov</i> Institute of High Current Electronics SB RAS, Tomsk, Russia
4	Oral	Ti₂AlC MAX phase coatings made by reactive cathodic arc deposition (arc-PVD) <i>A.A. Maslov, A. Yu. Nazarov, E.L. Vardanyan</i> Ufa State Aviation Technical University, Ufa, Russia

September 9 (Thursday)

Panorama, Hall A

Section 4. Oral Session 4 (OS-4-4)

10.40-12.00

1	Oral	The measurements of plasma expansion processes of high current vacuum arc <i><u>I.L. Muzyukin</u>, P.S. Mikhailov, S.A. Chaikovskiy, I.V. Uimanov, D.L. Shmelev, Yu.A. Zemskov</i> Institute of Electrophysics UB RAS, Ekaterinburg, Russia
2	Oral	Experimental study of micro pulsed plasma thruster <i>I.L. Muzyukin, <u>P.S. Mikhailov</u></i> Institute of Electrophysics UB RAS, Ekaterinburg, Russia
3	Oral	Thrust characteristics of compact high-voltage pulsed plasma thruster utilizing liquid propellant <i>S.A. Buldashev, R.V. Emlin, P.A. Morozov, <u>I.F. Punanov</u>, Y.N. Shcherbakov, L.Y. Yashnov</i> Institute of Electrophysics, Ekaterinburg, Russia
4	Oral	Properties of pulsed magnetron discharge plasma in helium <i><u>A.V. Kaziev</u>, D.V. Kolodko, G.I. Rykunov, N.S. Sergeev</i> National Research Nuclear University MEPhI (Moscow Engineering Physics Institute), Moscow, Russia

Panorama, Hall B

Section 2. Oral Session 5 (OS-2-5)

10.40-12.00

1	Oral	Effect of bias voltage on the performance of magnetron deposited MoS₂ coatings <i><u>M.M. Kharkov</u>, G.I. Rykunov, A.V. Kaziev, M.S. Kukushkina, D.V. Kolodko, M.V. Prozhega, E.O. Reschikov, I.S. Babinets, P.P. Beschapov, A.M. Stasenko, S.V. Chernyshov</i> National Research Nuclear University MEPhI, Moscow, Russia
2	Oral	TiCrN vacuum arc coating to increase wear resistance of die steels <i><u>A.A. Leonov</u>, Yu.A. Denisova, V.V. Denisov, M.V. Savchuk, V.N. Tishchenko</i> Institute of High Current Electronics SB RAS, Tomsk, Russia
3	Oral	Effect of ultraviolet irradiation or plasma of diffuse discharge on the surface properties of MAO calcium phosphate coatings <i><u>E.G. Komarova</u>, E.A. Kazantseva, V.S. Ripenko, A. Zharin, Y.P. Sharkeev</i> Institute of Strength Physics and Materials Science SB RAS, Tomsk, Russia
4	Oral	Effect of power of ultrasound during micro-arc oxidation on phase composition and morphology of calcium phosphate coatings <i><u>E.A. Kazantseva</u>, E.G. Komarova, Y.p. Sharkeev</i> Institute of Strength Physics and Materials Science SB RAS, Tomsk, Russia

September 10 (Friday)

Panorama, Hall A

Section 1. Oral Session 5 (OS-1-5)
09.00-10.25

1	Invited report	OES of nitrogen atoms concentration during plasma processing <u>S.V. Avtaeva</u> Institute of Laser Physics SB RAS, Novosibirsk, Russia
2	Oral	Spatial spectroscopy of magnetron discharge argon plasma using a radiative-collisional model <u>S. Serushkin</u> Bauman Moscow State Technical University, Moscow, Russia
3	Oral	OES investigation of a low-pressure non-self-sustained glow discharge plasma in Ar:N₂ gas mixture <u>S.S. Kovalsky</u> , <u>V.V. Denisov</u> , <u>E.V. Ostroverkhov</u> , <u>V.E. Prokop'ev</u> Institute of High Current Electronics SB RAS, Tomsk, Russia
4	Oral	Magnetic field influence on the penning discharge characteristics <u>N.V. Mamedov</u> , <u>A.S. Rohmanenkov</u> , <u>A.A. Solodovnikov</u> Dukhov Automatics Research Institute, Moscow, Russia

Panorama, Hall B

Section 2. Oral Session 6 (OS-2-6)
09.00-10.25

1	Invited report	Aerosol assisted atmospheric pressure plasma deposition for silver-containing antibacterial coatings <u>L. Wang</u> , <u>C. Lo Porto</u> , <u>F. Palumbo</u> , <u>M. Modic</u> , <u>U. Cvelbar</u> , <u>C. Leys</u> , <u>A. Nikiforov</u> National University of Defense Technology, Changsha, China
2	Oral	Plasma modification of the surface of a steel product using the MAK-10 installation <u>S.A. Il'inyh</u> , <u>S.A. Ahmetshin</u> , <u>V.A. Krashaninin</u> , <u>B.R. Gelchinski</u> , <u>A.A. Rempel</u> Institute of Metallurgy of the Ural Branch of the Russian Academy of Sciences, Ekaterinburg, Russia
3	Oral	Development of the computer model of the plasma installation <u>R.A. Okulov</u> , <u>E.V. Popov</u> , <u>B.R. Gelchinski</u> , <u>A.A. Rempel</u> Institute of Metallurgy of the Ural Branch of the Russian Academy of Sciences, Ekaterinburg, Russia

September 10 (Friday)

Panorama, Hall A

Section 1. Oral Session 6 (OS-1-6)
10.40-12.00

1	Oral	Methods for introducing negative feedback for beam current control in sources with a plasma cathode based on a low pressure arc <i>M. Vorobyov, P. Moskvina, V. Devyatkov, N. Koval, V. Shin</i> Institute of High Current Electronics SB RAS, Tomsk, Russia
2	Oral	The problem of "anomalous" ion transport in high-current vacuum discharges <i>V.Y. Kozhevnikov, A. Kokovin, A.V. Kozyrev</i> Institute of High Current Electronics SB RAS, Tomsk, Russia
3	Oral	The measurements of vacuum arc behavior at threshold currents <i>I.L. Muzyukin, P.S. Mikhailov</i> Institute of Electrophysics UB RAS, Ekaterinburg, Russia

Institute of Electrophysics (08.09.2021)

Sections 1-4. Poster Session

14.00-17.00

1-01-P	FEATURES OF THE LOW-PRESSURE HOLLOW-CATHODE GLOW DISCHARGE SUSTAINING FOR THE CONDITIONS OF ENHANCED EMISSIVITY OF THE CATHODE SURFACE <i>N.V. LANDL, Y.D. KOROLEV, O.B. FRANTS, G.A. ARGUNOV, V.G. GEYMAN, V.O. NEKHOROSHEV</i> Institute of High Current Electronics SB RAS, Tomsk, Russia
1-03-P	INVESTIGATION OF THE CHARGE STATE VARIATION OF THE CATHODE MATERIAL IONS IN THE LOW CURRENT VACUUM ARC PLASMA <i>YU.A. ZEMSKOV, I.V. UIMANOV</i> Institute of Electrophysics UB RAS, Ekaterinburg, Russia
1-05-P	ELECTRICAL PROPERTIES OF He-INDUCED W "FUZZ" WITHIN THE PRE-BREAKDOWN AND BREAKDOWN REGIMES <i>YU.A. ZEMSKOV, YU.I. MAMONTOV, I.V. UIMANOV</i> Institute of Electrophysics UB RAS, Ekaterinburg, Russia
1-06-P	MEASUREMENT OF THE EXPANSION VELOCITY OF THE PLASMA HIGH-CURRENT VACUUM ARC DISCHARGE <i>A. S. ZHIGALIN, A.G. ROUSSKIKH, V.I. ORESHKIN, A.P. ARTYOMOV</i> Institute of High Current Electronics SB RAS, Tomsk, Russia
1-10-P	METHOD OF TRIGGERING A COLD CATHODE THYRATRON WITH NANOSECOND STABILITY <i>G. ARGUNOV, N. LANDL, Y. KOROLEV, O. FRANTS, V. GEYMAN, V. NEKHOROSHEV</i> Institute of High Current Electronics SB RAS, Tomsk, Russia
1-13-P	DYNAMICS AND FEATURES OF STREAMER FORMATION IN A SHARPLY INHOMOGENEOUS ELECTRIC FIELD <i>D.V. BELOPLOTOV, M.I. LOMAEV, D.A. SOROKIN, V.F. TARASENKO</i> Institute of High Current Electronics SB RAS, Tomsk, Russia
1-15-P	INVESTIGATION OF THE RADIAL DENSITY DISTRIBUTION OF THE NEAR-SURFACE MATTER IN THE CYLINDRICAL CONDUCTORS SKIN EXPLOSION <i>I.M. DATSKO, N.A. LABETSKAYA, V.A. VAN'KEVICH</i> Institute of High Current Electronics SB RAS, Tomsk, Russia
1-16-P	THE INITIAL STAGE OF THE PLASMA FORMATION AT THE SKIN EXPLOSION OF CYLINDRICAL CONDUCTORS <i>I.M. DATSKO, N.A. LABETSKAYA, S.A. CHAIKOVSKY, V.A. VAN'KEVICH, V.I. ORESHKIN</i> Institute of High Current Electronics SB RAS, Tomsk, Russia
1-17-P	FORMATION OF THE SPATIAL STRUCTURE OF A DIFFUSE DISCHARGE IN EXCIMER LASERS <i>YU.N. PANCHENKO, A.V. PUCHIKIN, M.V. ANDREEV, E.V. GORLOV, V.I. ZHARKOV</i> Institute of High Current Electronics SB RAS, Tomsk, Russia
1-18-P	PLASMA CHANNEL DYNAMICS IN SUB- AND MICROSECOND DISCHARGES IN WATER <i>N.S. SEMENIUK, A.V. KOZYREV, A.A. ZHERLITSYN, S.S. KONDRATIEV, V.M. ALEXEENKO</i> Institute of High Current Electronics SB RAS, Tomsk, Russia

1-19-P	<p>THE DYNAMICS OF THE FORMATION OF INITIAL STAGES OF A TRANSVERSE NANOSECOND DISCHARGE WITH AN EXTENDED SLOT CATHODE IN ARGON <i>N.A. ASHURBEKOV, K.O. IMINOV, M.Z. ZAKARYAEVA, G.S. SHAKHSINOV, K.M. RABADANOV</i> Dagestan State University, Makhachkala, Russia</p>
1-23-P	<p>INVESTIGATION OF THE ALUMINUM ELECTRODES EROSION OF A PLASMA GUN DURING THE OPERATION OF A HIGH-CURRENT VACUUM ARC DISCHARGE <i>A.P. ARTYOMOV, A.G. ROUSSKIKH, A.S. ZHIGALIN, I.A. ROUSSKIKH, A.G. TYUKAVKIN, V.I. ORESHKIN</i> Institute of High Current Electronics SB RAS, Tomsk, Russia</p>
1-24-P	<p>DETERMINATION OF THE CONDUCTOR RESISTANCE DURING THEIR EXPLOSION IN VACUUM UNDER CONDITIONS OF SKINNING THE CURRENT <i>A.G. ROUSSKIKH, A.S. ZHIGALIN, V.I. ORESHKIN</i> Institute of High Current Electronics SB RAS, Tomsk, Russia</p>
1-27-P	<p>THE DEVELOPMENT OF HYDRODYNAMIC AND THERMAL INSTABILITIES IN A LIQUID METAL JETS IN THE CATHODE SPOT OF A VACUUM ARC <i>I.V. UIMANOV, G.A. MESYATS</i> Institute of Electrophysics UB RAS, Ekaterinburg, Russia</p>
1-28-P	<p>SURFACE DISCHARGE DURING ELECTRICAL EXPLOSION OF CONDUCTORS IN STRONG MAGNETIC FIELDS <i>V.I. ORESHKIN, S.A. CHAIKOVSKY, E.V. ORESHKIN</i> Institute of High Current Electronics SB RAS, Tomsk, Russia</p>
1-30-P	<p>DETERMINATION OF THE VOLTAGE DROP ON A HIGH-CURRENT VACUUM ARC DISCHARGE UNDER CONDITIONS OF A LIMITED CROSS-SECTION OF THE PLASMA FLOW <i>A.G. ROUSSKIKH, A.S. ZHIGALIN, V.I. ORESHKIN, A.P. ARTYOMOV</i> Institute of High Current Electronics SB RAS, Tomsk, Russia</p>
1-31-P	<p>COMPARATIVE CHARACTERISTICS OF A GLOWING ANOMALOUS, AN OPEN AND A HOLLOW CATHODE DISCHARGES <i>P.A. BOKHAN, E.V. BELSKAYA, P.P. GUGIN, A.A. KVASHNINA, D.E. ZAKREVSKY</i> Institute of Semiconductor Physics SB RAS, Novosibirsk, Russia</p>
1-32-P	<p>FEATURES OF THE ELECTRON AVALANCHE FORMATION PROCESS IN A STRONGLY INHOMOGENEOUS ELECTRIC FIELD UNDER HIGH OVERVOLTAGES <i>YU.I. MAMONTOV, V.V. LISENKOV</i> Institute of Electrophysics UB RAS, Ekaterinburg, Russia</p>
1-33-P	<p>ELECTRON EMISSION FROM AN EXPANDING PLASMA FRONT WITHIN THE FOREVACUUM PRESSURE RANGE IN SPHERICAL GEOMETRY <i>YU.I. MAMONTOV, I.V. UIMANOV</i> Institute of Electrophysics UB RAS, Ekaterinburg, Russia</p>
1-34-P	<p>NUMERICAL INVESTIGATION OF A HIGH-PRESSURE GAS MEDIUM PRE-IONIZATION BY RUNAWAY ELECTRONS <i>V.V. LISENKOV, YU.I. MAMONTOV</i> Institute of Electrophysics UB RAS, Ekaterinburg, Russia</p>
1-35-P	<p>SOME ISSUES OF THE OPERATION OF PLASMA OPENING SWITCHES <i>S.V. LOGINOV</i> Institute of High Current Electronics SB RAS, Tomsk, Russia</p>
1-39-P	<p>FEATURES OF PLASMA SUSTAINING IN A LARGE-VOLUME HOLLOW ANODE <i>N.V. LANDL, Y.D. KOROLEV, I.V. LOPATIN, S.S. KOVALSKY, V.S. KASYANOV, V.O. NEKHOROSHEV</i> Institute of High Current Electronics SB RAS, Tomsk, Russia</p>

1-40-P	<p>GENERATION OF A PLASMA OF A NON-SELF-SUSTAINING GLOW DISCHARGE AT LOW PRESSURE INSIDE LONG CAVITIES <i>D.Y. IGNATOV, S. KOVALSKY, I. LOPATIN</i> Institute of High Current Electronics SB RAS, Tomsk, Russia</p>
1-44-P	<p>“ELECTRICAL WIND” IN CO₂-LASER MIXTURES AT SUPERATMOSPHERIC PRESSURES <i>B.A. KOZLOV, D.S. MAKHANKO</i> Ryazan State Radio Engineering University named after V.F. Utkin, Ryazan, Russia</p>
1-45-P	<p>FORMATION OF VOLUME DISCHARGES IN DENSE GASES AT PULSE REPETITION RATES UP TO 10 kHz <i>B.A. KOZLOV</i> Ryazan State Radio Engineering University named after V.F. Utkin, Ryazan, Russia</p>
1-47-P	<p>ARC DISCHARGES OPERATION IN "ELION" MODE <i>I.V. LOPATIN, YU.H. AKHMADEEV, S.V. KOVALSKY, D.YU. IGNATOV</i> Institute of High Current Electronics SB RAS, Tomsk, Russia</p>
1-48-P	<p>TRAPPED RUNAWAY MODE OF ELECTRONS ACCELERATION AND IONIZATION PROCESSES IN PULSED DISCHARGE <i>M.M. TSVENOUKH</i> Lebedev Physical Institute of Russian Academy of Sciences, Moscow, Russia</p>
1-50-P	<p>MODELING DC DISCHARGES: FROM TOWNSEND TO ARC MODE IN ATOMIC AND MOLECULAR GASES <i>A.I. SAIFUTDINOV, B.A. TIMERKAEV, A.R. SOROKINA, A.A. SAIFUTDINOVA</i> Kazan National Research Technical University, Kazan, Russia</p>
1-52-P	<p>NUMERICAL STUDIES OF THE DYNAMICS OF A SURFACE BARRIER DISCHARGE IN MOLECULAR GASES AND GAS HEATING IN THE REGION OF THE DISCHARGE FORMATION <i>A.I. SAIFUTDINOV, A.A. SAIFUTDINOVA, B.A. TIMERKAEV</i> Kazan National Research Technical University, Kazan, Russia</p>
1-53-P	<p>ON HYBRID TYPE OF CATHODE ATTACHMENT IN HIGH CURRENT VACUUM ARCS <i>D.L. SHMELEV, S.A. CHAIKOVSKY, I.V. UIMANOV</i> Institute of Electrophysics UB RAS, Ekaterinburg, Russia</p>
1-54-P	<p>2D KINETIC SIMULATION OF CATHODE SPOT PLASMA EXPANSION <i>D.L. SHMELEV, S.A. BARENGOLTS, M.M. TSVENOUKH, I.V. UIMANOV</i> Institute of Electrophysics UB RAS, Ekaterinburg, Russia</p>
1-55-P	<p>MECHANISM OF ADDITIONAL SELF-FOCUSING OF AN ELECTRON BEAM GENERATED DURING A HIGH-VOLTAGE NANOSECOND DISCHARGE IN A GAS-FILLED DIODE <i>D.A. SOROKIN, M.I. LOMAEV, A.V. DYATLOV, V.F. TARASENKO</i> Institute of High Current Electronics SB RAS, Tomsk, Russia</p>
1-56-P	<p>SPLITTING OF THE IONIZATION WAVE DURING THE DEVELOPMENT OF GAS BREAKDOWN IN A MULTICHANNEL DISCHARGE SYSTEM <i>A.I. SHISHPANOV, P.S. BAZHIN, A.V. MESCHANOV</i> Saint Petersburg State University, Saint-Petersburg, Russia</p>
1-57-P	<p>HOLE SIZE EFFECT ON MICROHOLLOW CATHODE DISCHARGE IN AIR <i>K.I. ROMANOV, S.I. MOSHKUNOV, S.V. NEBOGATKIN, E.A. SHERSHUNOVA</i> Institute for Electrophysics and Electric Power RAS, Moscow, Russia</p>

1-58-P	<p>FORMATION OF PLASMA JETS BY A HIGH-CURRENT DISCHARGE IN METAL VAPOR <i>V.A. KOKSHENEV, N.E. KURMAEV</i> Institute of High Current Electronics SB RAS, Tomsk, Russia</p>
1-59-P	<p>DENSE PLASMA FORMATION ON THE SURFACE OF A STAINLESS STEEL CONDUCTOR IN ULTRAHIGH MAGNETIC FIELDS <i>V.A. KOKSHENEV, N.E. KURMAEV</i> Institute of High Current Electronics SB RAS, Tomsk, Russia</p>
1-60-P	<p>MECHANISMS FOR INCREASING THE DIFFUSE CHANNELS DENSITY IN PUMP DISCHARGES OF EXCIMER LASERS <i>S.A. YAMPOLSKAYA, A.G. YASTREMSKII</i> Institute of High Current Electronics SB RAS, Tomsk, Russia</p>
1-62-P	<p>EXPERIMENTAL INSTALLATION FOR STUDYING CATHODE PLASMA PROCESSES IN VACUUM GAP OF PULSED ELECTRON ACCELERATOR WITH GAS OR LIQUIDE INJECTION <i>I.S. EGOROV, A.V. KLIMKIN, A.V. POLOSKOV, M.A. SEREBRENNIKOV, M.V. TRIGUB</i> Tomsk polytechnic university, Tomsk, Russia</p>
1-65-P	<p>CURRENT AND VOLTAGE IN PLANAR DIODE WITH A MOVING CONDUCTING CHANNEL <i>V.A. SHKLYAEV, S.YA. BELOMYTTSEV, A.A. GRISHKOV</i> Institute of High Current Electronics SB RAS, Tomsk, Russia</p>
1-68-P	<p>STUDY OF RADIATIVE CHARACTERISTICS OF A COMPLETED PARTIAL DISCHARGE <i>V.O. BEZRUKOV, E.A. YAKOVLEV, V.V. YUGAY, L.A. ZINOVYEV, A.R. KASHLEV</i> Karaganda Technical University, Karaganda, Kazakhstan</p>
1-72-P	<p>GENERATION OF PLASMA IN LOW-PRESSURE DISCHARGE <i>S.P. NIKULIN</i> Institute of Electrophysics UB RAS, Ekaterinburg, Russia</p>
1-73-P	<p>EFFECT OF BREMSSTRAHLUNG ON THE CHARACTERISTIC GROWTH LENGTH OF AN AVALANCHE OF RUNAWAY ELECTRONS <i>E.V. ORESHKIN</i> P.N. Lebedev Physical Institute of the Russian Academy of Sciences, Moscow, Russia</p>
2-01-P	<p>MULTI-CYCLE MODIFICATION OF 40Cr STEEL BY IRRADIATING THE "FILM (Si (0.2 μm) + Nb (0.2 μm)) / SUBSTRATE (40Cr STEEL)" SYSTEM BY AN INTENSIVE PULSED ELECTRON BEAM <i>N.N. KOVAL, YU.F. IVANOV, V.V. SHUGUROV, A.D. TERESOV, E.A. PETRIKOVA</i> Institute of High Current Electronics SB RAS, Tomsk, Russia</p>
2-02-P	<p>CHARGE AND ELEMENTAL COMPOSITION OF PLASMA GENERATED BY SPUTTERING OF POWDER TARGET FROM AMORPHOUS BORON <i>YU.F. IVANOV, V.V. SHUGUROV, O.V. KRYSINA, V.E. PROKOPIEV</i> Institute of High Current Electronics SB RAS, Tomsk, Russia</p>
2-03-P	<p>STRUCTURE AND PROPERTIES OF HIGH-CHROMIUM STEEL IRRADIATED WITH A PULSED ELECTRON BEAM AND NITRIDED IN A LOW-PRESSURE GAS DISCHARGE PLASMA <i>YU.F. IVANOV, E.A. PETRIKOVA, A.D. TERESOV, S.V. LYKOV, M.E. RYGINA</i> Institute of High Current Electronics SB RAS, Tomsk, Russia</p>

2-04-P	<p>NUMERICAL ESTIMATION OF THE SPUTTERING COEFFICIENT OF COPPER ANODE OF A PLANAR MAGNETRON BY A BEAM OF ACCELERATED ARGON IONS WITH ENERGY OF 1-10 keV</p> <p><i>D.B-D. TSYRENOV, A.P. SEMENOV, I.A. SEMENOVA, E.O. NIKOLAEV</i></p> <p>Institute of Physical Materials Science SB RAS, Ulan-Ude, Russia</p>
2-06-P	<p>FEATURES OF THE DISCHARGE AND DEPOSITION OF THE CrN_x COATINGS WHEN USING MAGNETRON WITH A HOT TARGET</p> <p><i>G.A. BLEYKHER, V.A. GRUDININ, D.V. SIDELEV, V.P. KRIVOBOKOV</i></p> <p>Tomsk Polytechnic University, Tomsk, Russia</p>
2-10-P	<p>DEPOSITION OF TiSiCN COATINGS BY DECOMPOSITION OF HEXAMETHYLDISILAZANE AND ANODIC EVAPORATION OF TITANIUM IN A LOW-PRESSURE ARC DISCHARGE</p> <p><i>A.I. MEN'SHAKOV, YU.A. BRYUHANOVA, YU.S. SURKOV, A.V. CHUKIN</i></p> <p>Institute of Electrophysics UB RAS, Ekaterinburg, Russia</p>
2-12-P	<p>EFFECT OF 3D IONS IMPLANTATION ON ELECTRONIC STRUCTURE OF V₂O₅ BASED CATHODE FOR LITHIUM-ION BATTERIES</p> <p><i>I.S. ZHIDKOV, A.I. KUKHARENKO, D.A. ERZUNOV, S.O. CHOLAKH, N.V. GAVRILOV, E.Z. KURMAEV</i></p> <p>Ural Federal University, Ekaterinburg, Russia</p>
2-13-P	<p>METHOD OF A STRUCTURAL STEELS COMPLEX TREATMENT COMBINING ELECTRON-ION-PLASMA ALITIZING AND NITRIDING IN A SINGLE VACUUM CYCLE</p> <p><i>YU.H. AKHMADEEV, I.V. LOPATIN, YU.F. IVANOV, O.V. KRYSINA, E.A. PETRIKOVA, M.E. RYGINA</i></p> <p>Institute of High Current Electronics SB RAS, Tomsk, Russia</p>
2-17-P	<p>THE EFFECT OF O₂ DISSOCIATION DEGREE ON THE RATE OF ANODIC EVAPORATION OF Al IN LOW-PRESSURE ARC</p> <p><i>S.V. KRIVOSHAPKO, N.V. GAVRILOV, A.S. KAMENETSKIKH, P.V. TRETNIKOV, A.V. CHUKIN</i></p> <p>Institute of Electrophysics UB RAS, Ekaterinburg, Russia</p>
2-19-P	<p>INFLUENCE OF ELECTRON-BEAM HEATING MODES ON THE STRUCTURE OF COMPOSITE ZrO₂-Al₂O₃ CERAMICS</p> <p><i>A.S. KLIMOV, I.YU. BAKEEV, A.A. ZENIN</i></p> <p>Tomsk State University of Control Systems and Radioelectronics, Tomsk, Russia</p>
2-20-P	<p>ELECTRON BEAM SINTERING OF Mn-Zn FERRITES USING A FOREVACUUM PLASMA ELECTRON SOURCE</p> <p><i>A.S. KLIMOV, I.YU. BAKEEV, A.A. ZENIN</i></p> <p>Tomsk State University of Control Systems and Radioelectronics, Tomsk, Russia</p>
2-22-P	<p>FEATURES OF BORIDING DIE STEEL D5 BY ELECTRON BEAMS</p> <p><i>A.S. MILONOV, D.E. DASHEEV, N.N. SMIRNYAGINA, A.E. LAPINA</i></p> <p>Institute of Physical Materials Science SB RAS, Ulan-Ude, Russia</p>
2-27-P	<p>EFFECT OF ION NITRIDING BY GLOW DISCHARGE ON THE PHYSICOMECHANICAL PROPERTIES OF THE PLASTICALLY DEFORMED TOOL STEEL R6M5</p> <p><i>R.K. VAFIN, A.V. ASYLBAEV, D.V. MAMONTOV, I.D. SKLIZKOV, G.I. RAAB, E.F. KHAIRETDINOV, R.S. ESIPOV</i></p> <p>Institute of Aviation Technologies and Materials, Ufa, Russia</p>

2-29-P	<p>ADVANTAGES OF USING OF PLASMA OF PULSE-PERIODIC LOW-PRESSURE DISCHARGES FOR SURFACE TREATMENT</p> <p><i>V.V. DENISOV, YU.A. DENISOVA, S.S. KOVALSKY, A.A. LEONOV, E.V. OSTROVERKHOV, V.N. TISHCHENKO, V.V. YAKOVLEV</i></p> <p>Institute of High Current Electronics SB RAS, Tomsk, Russia</p>
2-30-P	<p>INVESTIGATION OF TUNGSTEN SURFACE CARBIDIZATION UNDER PLASMA IRRADIATION</p> <p><i>A. ZH. MINIYAZOV, T.R. TULENBERGENOV, I.A. SOKOLOV, G.K. ZHANBOLATOVA, O.S. BUKINA, Ye.A. KOZHAHMETOV, M.K. SKAKOV</i></p> <p>Branch "Institute of Atomic Energy" National Nuclear Center of the Republic of Kazakhstan, Kurchatov, Kazakhstan</p>
2-32-P	<p>FORMATION OF CATALYTIC AND CORROSION PROTECTIVE LAYERS WITH USE OF ION BEAM ASSISTED DEPOSITION OF METALS FROM VACUUM ARC DISCHARGE PLASMA</p> <p><i>V.V. POPLAVSKY,</i></p> <p>Belarusian State Technological University, Minsk, Belarus</p>
2-34-P	<p>EFFECT OF TEMPERATURE ON THE FORMATION OF TUNGSTEN CARBIDE IN A BEAM-PLASMA DISCHARGE</p> <p><i>G.K. ZHANBOLATOVA, V.V. BAKLANOV, M.K. SKAKOV, I.A. SOKOLOV, O.S. BUKINA, YE.A. KOZHAHMETOV, N.A. ORAZGALIEV</i></p> <p>Branch "Institute of Atomic Energy" National Nuclear Center of the Republic of Kazakhstan, Kurchatov, Kazakhstan</p>
2-36-P	<p>COMPARATIVE STUDY ON HIGH-VOLTAGE NANOSECOND PULSES AND DIELECTRIC BARRIER DISCHARGE EFFECTS ON SURFACE MORPHOLOGY AND PHYSICO-CHEMICAL PROPERTIES OF NATURAL PYRRHOTITE</p> <p><i>I.ZH. BUNIN, I.A. KHABAROVA</i></p> <p>The N.V. Melnikov Institute of Comprehensive Exploitation of Mineral Resources RAS, Moscow, Russia</p>
2-39-P	<p>SURFACE ENGINEERING OF TITANIUM: INFLUENCE OF ICP ETCHING AND CALCIUM-PHOSPHATE-BASED COATING DEPOSITION</p> <p><i>M.M. KHARKOV, A.V. KAZIEV, G.I. RYKUNOV, M.S. KUKUSHKINA, K.A. PROSOLOV, M.A. KHIMICH, Yu.P. SHARKEEV</i></p> <p>National Research Nuclear University MEPhI, Moscow, Russia</p>
2-41-P	<p>COMPUTER SIMULATION OF TEMPERATURE FIELDS IN THE CR (FILM) –ZN (SUBSTRATE) SYSTEM DURING PULSED ELECTRON BEAM IRRADIATION</p> <p><i>A.B.MARKOV, A.V.SOLOVEV, E.V.YAKOVLEV, E.A.PESTEREV</i></p> <p>Tomsk Scientific Centre SB RAS, Tomsk, Russia</p>
2-42-P	<p>FIELD ELECTRON EMISSION FROM NANOSTRUCTURED TUNGSTEN SURFACE</p> <p><i>P.S. MIKHAILOV, I.L. MUZYUKIN</i></p> <p>Institute of Electrophysics UB RAS, Ekaterinburg, Russia</p>
2-43-P	<p>EFFECT OF ION IRRADIATION ON THE STRUCTURAL STATE AND MECHANICAL PROPERTIES OF NATURALLY-AGED HOT-PRESSED D16 (Al-Cu-Mg) ALLOY PROFILES</p> <p><i>N.V. GUSHCHINA, V.V. OVCHINNIKOV, L.I. KAIGORODOVA, D.Y. RASPOSIENKO, D.I. VICHUZHANIN</i></p> <p>Institute of Electrophysics UB RAS, Ekaterinburg, Russia</p>

2-44-P	<p>POSSIBILITY OF ANNEALING OF A DEFORMED Ni–13.9 WT. % W ALLOY WITH A BEAM OF ACCELERATED ARGON IONS</p> <p><i>N.V. GUSHCHINA, V.V. OVCHINNIKOV, V.I. BOBROVSKII, V.I. VORONIN</i></p> <p>Institute of Electrophysics UB RAS, Ekaterinburg, Russia</p>
2-45-P	<p>ION CURRENT OPTIMIZATION IN A MAGNETRON WITH TUNABLE MAGNETIC FIELD</p> <p><i>A.V. KAZIEV, D.G. AGEYCHENKOV, A.V. TUMARKIN, D.V. KOLODKO, N.S. SERGEEV, M.M. KHARKOV</i></p> <p>National Research Nuclear University MEPhI, Moscow, Russia</p>
2-47-P	<p>INVESTIGATION OF THE STRUCTURE OF CRATERS ON THE SURFACE OF STEEL 12X18H10T AFTER ITS TREATMENT WITH A HIGH PULSEPOWER BEAM OF CARBON IONS</p> <p><i>A. E. LIGACHEV, M. V. ZHIDKOV, G. V. POTEKIN, G. E. REMNEV</i></p> <p>Prokhorov General Physics Institute RAS, Moscow, Russia</p>
2-49-P	<p>MODIFICATION OF STAINLESS STEEL BASED ON SYNERGISTIC OF LOW-ENERGY HIGH-INTENSITY ION IMPLANTATION AND HIGH-CURRENT ELECTRON BEAM IMPACT ON THE SURFACE LAYER</p> <p><i>O.S. KORNEVA, A.I. RYABCHIKOV, O.S. KORNEVA, D.O. SIVIN, A.I. IVANOVA, I.V. LOPATIN, I.A. BOZHKO</i></p> <p>National Research Tomsk Polytechnic University, Tomsk, Russia</p>
2-51-P	<p>INFLUENCE OF ION NITRIDING ON THE PROPERTIES OF DUPLEX SURFACE TREATMENT OF HIGH-SPEED STEEL</p> <p><i>R.SH. NAGIMOV, E.L. VARDANYAN, A.A. NIKOLAEV, A.V. OLEINIK, A.YU. NAZAROV</i></p> <p>Ufa State Aviation Technical University, Ufa, Russia</p>
2-52-P	<p>FORMATION OF WEAR-RESISTANCE NEAR SURFACE LAYERS IN Al-Si ALLOYS WITH AN ELECTRON-BEAM TREATMENT</p> <p><i>E.A. PETRIKOVA, YU.F. IVANOV, N.A. PROKOPENKO, A.D. TERESOV</i></p> <p>Institute of High Current Electronics SB RAS, Tomsk, Russia</p>
2-55-P	<p>FORMATION OF A SILICON-NIOBIUM-BASED SURFACE ALLOY USING ELECTRON-ION-PLASMA SURFACE ENGINEERING</p> <p><i>V.V. SHUGUROV, N.N. KOVAL, YU.F. IVANOV, A.D. TERESOV, E.A. PETRIKOVA</i></p> <p>Institute of High Current Electronics SB RAS, Tomsk, Russia</p>
2-56-P	<p>DEPOSITION OF BORON FILMS BY DISCHARGE SYSTEM WITH HOT ANODE FROM BORON POWDER</p> <p><i>V.V. SHUGUROV, YU.F. IVANOV</i></p> <p>Institute of High Current Electronics SB RAS, Tomsk, Russia</p>
2-57-P	<p>MODIFICATION AND OPTICAL DEGRADATION OF THIN MULTILAYERS UNDER VUV/VU RADIATION FROM COMPRESSED PLASMA FLOWS</p> <p><i>A.S. SKRIABIN, V.D. TELEKH, A.V. PAVLOV, D.A. CHESNOKOV, V.G. ZHUPANOV, P.A. NOVIKOV</i></p> <p>Bauman Moscow State Technical University, Moscow, Russia</p>
2-59-P	<p>INTERACTION OF PLASMA WITH BERYLLIUM</p> <p><i>I.A. SOKOLOV, M.K. SKAKOV, A.Z. MINIAZOV, T.R. TULENBERGENOV, G.K. ZHANBOLATOVA</i></p> <p>Institute of Atomic Energy of the National Nuclear Center of the Republic of Kazakhstan, Kurchatov, Kazakhstan</p>

2-60-P	<p>HYSTERESIS OF THE MAGNETRON DEPOSITION PROCESS WITH ALUMINUM AND ZINC TARGETS IN A REACTIVE MIXTURE OF GASES <i>D.G. AGEYCHENKOV, A.V. KAZIEV, D.V. KOLODKO, N.S. SERGEEV, A.S. ISAKOVA, A.V. TUMARKIN</i> National Research Nuclear University MEPhI, Moscow, Russia</p>
2-62-P	<p>ELECTRON-BEAM DEPOSITION OF THERMOCONDUCTING CERAMIC COATINGS FOR MICROELECTRONIC DEVICES <i>YU.G. YUSHKOV, E.M. OKS, A.V. TYUNKOV, D.B. ZOLOTUKHIN</i> Tomsk State University of Control Systems and Radioelectronics, Tomsk, Russia</p>
2-63-P	<p>EVALUATION OF EFFECTIVE MAGNETIZATION OF THIN MAGNETO-DIELECTRIC FILMS DEPOSITED FROM BEAM PLASMA IN MEDIUM VACUUM <i>A.V. TYUNKOV, YU.G. YUSHKOV, D.B. ZOLOTUKHIN</i> Tomsk State University of Control Systems and Radioelectronics, Tomsk, Russia</p>
2-64-P	<p>TWO-STAGE PVD METHOD FOR PROTECTIVE COATINGS FORMATION <i>YU.G. YUSHKOV, V.A. BURDOVITSIN, A.V. TYUNKOV, D.B. ZOLOTUKHIN</i> Tomsk State University of Control Systems and Radioelectronics, Tomsk, Russia</p>
2-65-P	<p>PLASMA NITRIDING IN COMPLEX POST-PROCESSING OF STAINLESS STEEL PARTS OBTAINED BY ADDITIVE LASER TECHNOLOGY <i>V.A. SIROSH, A.V. MAKAROV, V.P. KUZNETSOV, P.A. SKORYNINA, A.B. VLADIMIROV, N.V. LEZHININ</i> M.N. Mikheev Institute of Metal Physics UB RAS, Ekaterinburg, Russia</p>
2-68-P	<p>FORMATION OF ALLOYED LAYERS ON THE SURFACE OF MA-2 MAGNESIUM ALLOY BY METHODS OF COMBINED ELECTRON-ION-PLASMA TREATMENT <i>A.D. TERESOV, YU.A. DENISOVA, V.V. DENISOV, A.A. LEONOV, S.S. KOVALSKY</i> Institute of High Current Electronics SB RAS, Tomsk, Russia</p>
2-71-P	<p>LEAD EVAPORATION BY VUV RADIATION OF VARIOUS SPECTRAL RANGES <i>V.D. TELEKH, A.V. PAVLOV, Y.Y. PROTASOV, T.S. SHCHEPANUK</i> Bauman Moscow State Technical University, Moscow, Russia</p>
2-72-P	<p>GAS-DISCHARGE PLASMA APPLICATION FOR ION-BEAM TREATMENT OF THE HOLES' INNER SURFACES <i>O.S. KORNEVA, D.O. SIVIN, A.I. IVANOVA, D.O. VAKHRUSHEV</i> National Research Tomsk Polytechnic University, Tomsk, Russia</p>
2-73-P	<p>HIGH-ENTROPY ZrTiCrNiCu COATING <i>V.M. YUROV, V.I GONCHARENKO, V.S. OLESHKO</i> NAO Karaganda University named after Academician E.A. Buketov, Karaganda, Kazakhstan</p>
2-75-P	<p>INVESTIGATION OF THE EFFECT OF ION IRRADIATION ON THE PROCESS OF NANOCRYSTALLIZATION OF AN $Fe_{72.5}Cu_1Nb_2Mo_{1.5}Si_{14}B_9$ ALLOY USING THE IN SITU RESISTIVITY MEASUREMENT METHOD <i>K.V. SHALOMOV, V.V. OVCHINNIKOV</i> Institute of Electrophysics UB RAS, Ekaterinburg, Russia</p>
2-77-P	<p>ELECTRONIC-ION-PLASMA MODIFICATION OF THE STRUCTURE AND PROPERTIES OF SILUMIN <i>YU.F. IVANOV, A.A. KLOPOTOV, A.M. USTINOV, D.V. ZAGULIAEV, A.D. TERESOV, YU.A. ABZAEV, O.M. LOSKUTOV</i> Siberian State Industrial University, Novokuznetsk, Russia</p>

2-78-P	<p>ADHESION STRENGTH OF $Ti_{1-x}C_x$ – DLC MULTILAYER NANOCOMPOSITE THIN FILMS COATED BY ION-PLASMA DEPOSITION ON MARTENSITIC STAINLESS STEEL PRODUCED BY SELECTIVE LASER MELTING FOLLOWED BY PLASMA-NITRIDING AND DIAMOND BURNISHING</p> <p><i>N.V. LEZHININ, A.V. MAKAROV, V.P. KUZNETSOV, A.B. VLADIMIROV, P.A. SKORYNINA, V.A. SIROSH</i></p> <p>M.N. Mikheev Institute of Metal Physics UB RAS, Ekaterinburg, Russia</p>
3-01-P	<p>ANALYSIS OF THE SIZE AND MORPHOLOGICAL COMPOSITION OF ABLATED CERIUM DIOXIDE NANOPARTICLES AFTER ULTRASONIC DISPERSION AND CENTRIFUGATION IN AQUATIC MEDIUM</p> <p><i>V.A. MAMONTOV, M.A. PUGACHEVSKII, A.Yu. RYZHENKOVA</i></p> <p>Southwest State University, Kursk, Russia</p>
3-02-P	<p>INVESTIGATION OF EFFECTIVENESS OF ANTIMICROBIAL TREATMENT OF POULTRY PRODUCTS BY ELECTROPHYSICAL METHODS</p> <p><i>R.A. VAZIROV, S.YU. SOKOVNIN, A.S. KRIVONOGOVA, A.G. ISAEVA</i></p> <p>Ural Federal University, Ekaterinburg, Russia</p>
3-03-P	<p>PREPARATION OF CERIUM (III) FLUORIDE NANOPOWDERS BY PULSED ELECTRON BEAM EVAPORATION IN VACUUM</p> <p><i>V.G. ILVES, S.Yu.SOKOVNIN, M.A. UIMIN</i></p> <p>Institute of Electrophysics UB RAS, Ekaterinburg, Russia</p>
3-04-P	<p>PRODUCTION OF IRON OXIDE NANOPOWDERS BY RADIATION-CHEMICAL METHOD</p> <p><i>M.E. BALEZIN, S.YU. SOKOVNIN, M.A. UIMIN</i></p> <p>Institute of Electrophysics UB RAS, Ekaterinburg, Russia</p>
3-05-P	<p>INVESTIGATION OF BIOLOGICAL ACTIVITY OF BISMUTH NANOPOWDER OXIDE DOPED WITH SILVER</p> <p><i>O.A. SVETLOVA, V.G. ILVES, M.V. ULITKO, S.Yu. SOKOVNIN, T.R. SULTANOVA</i></p> <p>Institute of Electrophysics UB RAS, Ekaterinburg, Russia</p>
3-06-P	<p>MORPHOLOGY HIGHLY DISPERSED SiO_2 OBTAINED IN THERMAL PLASMA ENVIRONMENT</p> <p><i>R.YU. BAKSHANSKIY, V.V. SHEKHOVTSOV, O.G. VOLOKITIN, N.K. SKRIPNIKOVS</i></p> <p>Tomsk State University of Architecture and Building, Tomsk, Russia</p>
3-07-P	<p>APPLICATION OF A NANOSECOND CORONA DISCHARGE GENERATOR FOR ELECTRICAL SEPARATION OF ORES</p> <p><i>O.D. KRASNIY, S.R. KORZHENEVSKIY, A.A. KOMARSKIY, A.V. PONOMAREV, A.S. CHEPUSOV</i></p> <p>Institute of Electrophysics UB RAS, Ekaterinburg, Russia</p>
3-08-P	<p>MECHANICAL PROPERTIES AND COMPOSITION OF $TiSiCN$ COATINGS OBTAINED BY DECOMPOSITION OF HEXAMETHYLDISILAZANE AND ANODIC EVAPORATION OF TITANIUM IN A LOW PRESSURE ARC DISCHARGE</p> <p><i>A.I. MEN'SHAKOV, YU.A. BRYUHANOVA, I.S. ZHIDKOV, P.A. SKORYNINA</i></p> <p>Institute of Electrophysics UB RAS, Ekaterinburg, Russia</p>
3-11-P	<p>$SiAlON$ SYNTHESIZED BY DC ARC PLASMA</p> <p><i>K.A. BEZUKHOV, V.A. VLASOV, A.A. KLOPOTOV, YU.A. ABZAEV, N.N. GOLOBOKOV, G.G. VOLOKITIN, V.V. SHEKHOVTSOV, N.A. TSVETKOV</i></p> <p>Tomsk State University of Architecture and Building, Tomsk, Russia</p>

3-12-P	<p>EFFECT OF PULSED SOFT X-RAY RADIATION ON THE SURFACE TOPOGRAPHY OF SOME METALS <i>A.E. LIGACHEV, M.V. ZHIDKOV, S.A. SOROKIN, G.V. POTEMKIN, YU.R.KOLOBOV</i> Prokhorov General Physics Institute RAS, Moscow, Russia</p>
3-13-P	<p>STUDY OF METHANE STEAM REFORMING IN THE PLASMA OF A NANOSECOND SURFACE GAS DISCHARGE <i>I.E. FILATOV, D.L. KUZNETSOV, V.V. UVARIN</i> Institute of Electrophysics UB RAS, Ekaterinburg, Russia</p>
3-14-P	<p>INVESTIGATION OF THE RELATIVE REACTIVITY OF VOLATILE ORGANIC COMPOUNDS IN THE AIR PLASMA OF A PULSED CORONA DISCHARGE BY THE METHOD OF COMPETING REACTIONS <i>I.E. FILATOV, V.V. UVARIN, D.L. KUZNETSOV</i> Institute of Electrophysics UB RAS, Ekaterinburg, Russia</p>
3-15-P	<p>SYNTHESIS OF MULLITE FROM ALUMINOSILICATE RAW MATERIALS IN A THERMAL PLASMA FLOW <i>R.E. GAFAROV, V.V. SHEKHOVTSOV, O.G. VOLOKITIN</i> Tomsk State University of Architecture and Building, Tomsk, Russia</p>
3-16-P	<p>SYNTHESIS OF MAX-PHASES, STRUCTURE AND PHASE COMPOSITION OF MODIFIED LAYERS ON TITANIUM ALLOY VT-1 AS A RESULT OF ELECTRON-BEAM TREATMENT <i>A.E. LAPINA, N.N. SMIRNYAGINA, V. M. KHALTANOVA</i> Institute of Physical Materials Science SB RAS, Ulan-Ude, Russia</p>
3-19-P	<p>MODIFICATION OF THE SURFACE OF COPPER AND ITS ALLOYS DUE TO NANOSECOND ULTRAVIOLET LASER PULSES IMPACT <i>V.E. ROGALIN, T.V. MALINSKIY, I.A. KAPLUNOV</i> Institute for Electrophysics and Electric Power RAS, Moscow, Russia</p>
3-20-P	<p>THE STUDY OF AN INSTABILITIES ROLE OF PLASMA IN THE HIGH-VOLTAGE DISCHARGE FORMATION INITIATED BY OPTICAL RADIATION AT HIGH PRESSURES IN HIGH-VOLTAGE OPTICALLY TRIGGERED SWITCHES <i>A.I. LIPCHAK, S.V. BARAKHVOSTOV, N.B.VOLKOV, E.A. CHINGINA, I.S. TURMYSHEV</i> Institute of Electrophysics UB RAS, Ekaterinburg, Russia</p>
3-23-P	<p>INVESTIGATION OF THE EFFECT OF WATER VAPOR AND CONDENSED PHASE ON THE ENERGY CONDITIONS FOR THE INITIATION OF THE PLASMA-CHEMICAL PROCESS OF FLUE GAS PURIFICATION BY A PULSED ELECTRON BEAM <i>G. KHOLODNAYA, R. SAZONOV, D. PONOMAREV, I. EGOROV, A. POLOSKOV, M. SEREBRENKOV</i> Tomsk Polytechnic University, Tomsk, Russia</p>
3-25-P	<p>EVALUATION OF THE EFFECT OF PRE-SOWING ELECTRON IRRADIATION OF BARLEY SEEDS ON PLANT DEVELOPMENT AND DISEASE INCIDENCE <i>N. N. LOY, N.I. SANZHAROVA, S.N. GULINA, O.V. SUSLOVA, T.V. CHIZH, M.S. VOROBYOV, S.Yu. DOROSHKEVICH</i> Federal State Scientific Institution «Russian Institute of Radiology and agroecology», Obninsk, Russia</p>
3-26-P	<p>INVESTIGATION OF HYDROXYL GROUP RADICALS GENERATION AT INTERACTION OF A COLD ATMOSPHERIC PLASMA JET WITH AN ENVIRONMENT <i>E.V. MILAKHINA, P.P. GUGIN, D.E. ZAKREVSKY</i> Novosibirsk State Technical University/Institute of Semiconductor Physics A.V. Rzhanov of the Siberian Branch of the RAS, Novosibirsk, Russia</p>

3-28-P	<p>THE STUDY OF RADIATION DAMAGE ASSESSMENT ON FUEL CLAD OF MNSR USING COMPUTATIONAL TOOLS <i>A. SAMIRU, V. N. NESTEROV</i> Tomsk Polytechnic University, Tomsk, Russia</p>
3-29-P	<p>EFFECT OF PLASMA ON PROLIFIRATION RATE OF HUMAN CELLS <i>E.A. SHERSHUNOVA, S.I. MOSHKUNOV, S.V. NEBOGATKIN, O.S. ROGOVAYA</i> Institute for Electrophysics and Electric Power RAS, Saint-Petersburg, Russia</p>
3-30-P	<p>THE DC PULSE CURRENT PATTERN INFLUENCE DURING SPARK PLASMA SINTERING <i>THET NAING SOE, I.M.MAKHADILOV, N.W.SOLIS PINARGOTE</i> Moscow State Technological University(Stankin), Moscow, Russia</p>
3-35-P	<p>PRODUCTION OF NANOPOWDERS OF BISMUTH OXIDE DOPED WITH SILVER BY PULSED ELECTRON BEAM EVAPORATION IN VACUUM <i>V.G. ILVES, S.YU.SOKOVNIN, M.A. UIMIN</i> Institute of Electrophysics UB RAS, Ekaterinburg, Russia</p>
3-36-P	<p>INFLUENCE OF RESIDUAL GAS ON THE FIELD ELECTRON EMISSION CHARACTERISTICS OF GRAINED STRUCTURAL GRAPHITE <i>A.S. CHEPUSOV, A.A. KOMARSKIY, S.R. KORZHENEVSKIY</i> Institute of Electrophysics UB RAS, Ekaterinburg, Russia</p>
3-37-P	<p>PHOTOCHEMICAL CONVERSION PROCESSES IN PETROLEUM <i>U.J. YOLCHUEVA, R.A. JAFAROVA, S.Y.RASHIDOVA, Z.F.HASHIMZADE SEYID, S.A.SULEYMANOVA</i> Institute of Petrochemical Processes, Azerbaijan National Academy of Sciences, Baku, Azerbaijan</p>
3-38-P	<p>INVESTIGATION OF THE ROLE OF CHEMICALLY ACTIVE RADICALS IN THE ANTIBACTERIAL PROPERTIES OF A LOW-TEMPERATURE PLASMA JET AT AMBIENT PRESSURE MIXED WITH ARGON AND AIR <i>N.A. ASHURBEKOV, Z.M. ISAEVA, G.S. SHAKHSINOV, K.M. RABADANOV, A.A. MURTAZAEVA, E.KH. ISRAPOV</i> Dagestan State University, Makhachkala, Russia</p>
3-39-P	<p>ELECTRIC ARC IN PLASMA FLOW OF GAS DISCHARGE WITH A LIQUID ELECTROLYTE CATHODE <i>G.K. TAZMEEV, A.K. TAZMEEV, B.K. TAZMEEV</i> Kazan Federal University, Naberezhnye Chelny Institute, Naberezhnye Chelny, Russia</p>
3-40-P	<p>PECULIARITIES OF ELECTROPHORETIC DEPOSITION OF NANOPOWDERS OF VARIOUS MORPHOLOGIES USED FOR OPTICAL CERAMICS FABRICATION <i>E.G. KALININA, M.G. IVANOV, D.S. RUSAKOVA</i> Institute of Electrophysics UB RAS, Ekaterinburg, Russia</p>
3-41-P	<p>ONE OF THE METHODS OF NUMERICAL OPTIMIZATION IN CHEMICAL KINETICS PROBLEMS <i>V.YU. CHEBAKOVA, L.N. KASHAPOV, N.F.KASHAPOV</i> Kazan Federal University, Kazan, Russia</p>
3-42-P	<p>LASER PLUME GLOW ON A SURFACE OF NON-ROTATING AND FAST-ROTATING TARGET <i>V.A. SHITOV</i> Institute of Electrophysics UB RAS, Ekaterinburg, Russia</p>

3-43-P	<p>SYNTHESIS OF CEMENT CLINKER USING PLASMA TECHNOLOGY <i>R.YU. BAKSHANSKIY, N.K. SKRIPNIKOVA, V.V. SHEKHOVTSOV, M.A. SEMENOVYKH</i> Tomsk State University of Architecture and Building, Tomsk, Russia</p>
3-44-P	<p>OBTAINING GLASS-CRYSTALLINE MATERIALS USING ARC PLASMA <i>R.YU. BAKSHANSKIY, G.G. VOLOKITIN, N.K. SKRIPNIKOVA, V.V. SHEKHOVTSOV, M.A. SEMENOVYKH</i> Tomsk State University of Architecture and Building, Tomsk, Russia</p>
4-01-P	<p>COMBINED ELECTRIC DISCHARGE "ARC + DISCHARGE WITH LIQUID ELECTROLYTE CATHODE" <i>G.K. TAZMEEV, B.A. TIMERKAEV, K.K. TAZMEEV</i> Kazan Federal University, Naberezhnye Chelny Institute, Naberezhnye Chelny, Russia</p>
4-05-P	<p>MEASUREMENT OF THE ELECTRON BEAM ENERGY IN A SOURCE WITH A PLASMA ANODE AND THE BEAM EXTRACTION INTO THE ATMOSPHERE THROUGH A FOIL WINDOW <i>E.N. ABDULLIN, G.F. BASOV</i> Institute of High Current Electronics SB RAS, Tomsk, Russia</p>
4-09-P	<p>CATHODIC ARC DISCHARGE SYSTEM WITH LANTHANUM HEXABORIDE CATHODE FOR BORON-CONTAINING PLASMA GENERATION <i>A.S. BUGAEV, V.I. GUSHENETS, E.M. OKS, V.P. FROLOVA</i> Institute of High Current Electronics SB RAS, Tomsk, Russia</p>
4-11-P	<p>INVESTIGATION OF SEPARATE DISCHARGE PROCESSES IN A HIGH-VOLTAGE NANOSECOND COMBINED SWITCH <i>P.P. GUGIN, P.A. BOKHAN, N.A. GLUBOKOV, D.E. ZAKREVSKY</i> Rzhanov Institute of Semiconductor Physics SB RAS, Novosibirsk, Russia</p>
4-15-P	<p>EFFECT OF EXTINCTION BEAM-PLASMA DISCHARGE WHILE THE INJECTION THERMOELECTRONS DURING TRANSPORTATION OF THE ELECTRON BEAM IN THE FOREVACUUM PRESSURE RANGE <i>A.A. ZENIN, I.YU. BAKEEV, A.S. KLIMOV</i> Tomsk State University of Control Systems and Radioelectronics, Tomsk, Russia</p>
4-16-P	<p>FEATURES OF GLOW DISCHARGE IGNITION THROUGH A SMALL HOLE IN THE HOLLOW CATHODE OF A LARGE VOLUME <i>A.S. KLIMOV, I.YU. BAKEEV, V.T. TRAN, E.M. OKS, A.A. ZENIN</i> Tomsk State University of Control Systems and Radioelectronics, Tomsk, Russia</p>
4-17-P	<p>HIGH VOLTAGE CAPACITOR FOR POWER SUPPLY SYSTEM <i>D.V. MOLCHANOV, A.D. LENSKIY, D.V. RYBKA</i> Institute of High Current Electronics SB RAS, Tomsk, Russia</p>
4-20-P	<p>HIGH-POWER RADIO FREQUENCY GENERATOR FOR PLASMA APPLICATIONS <i>V.E. PATRAKOV, D.A. LISOVSKY</i> Institute of Electrophysics UB RAS, Ekaterinburg, Russia</p>
4-22-P	<p>INFLUENCE OF PLANAR MAGNETRON DISCHARGE PARAMETERS ON SPATIAL DISTRIBUTION OF ION CURRENT DENSITY AND SUBSTRATE TEMPERATURE <i>M.V. SHANDRIKOV, E.M. OKS, A.V. VIZIR, G.YU. YUSHKOV</i> Institute of High Current Electronics SB RAS, Tomsk, Russia</p>
4-23-P	<p>INFLUENCE OF WORKING PRESSURE ON MASS-TO-CHARGE ION STATE IN A HIGH-CURRENT PULSED PLANAR MAGNETRON DISCHARGE PLASMA <i>M.V. SHANDRIKOV, E.M. OKS, A.V. VIZIR, G.YU. YUSHKOV</i> Institute of High Current Electronics SB RAS, Tomsk, Russia</p>

4-25-P	NON-SELF-SUSTAINING HIGH-VOLTAGE DISCHARGE WITH HOLLOW CATHODE AND PLASMA ANODE <i>V.I. GUSHENETS, E.M. OKS, A.S. BUGAEV</i> Institute of High Current Electronics SB RAS, Tomsk, Russia
4-27-P	INFLUENCE OF ELECTRON EMISSION ON OPERATION OF A CONSTRICTED ARC DISCHARGE IN A PULSED FOREVACUUM PLASMA-CATHODE ELECTRON SOURCE <i>A.V. KAZAKOV, E.M. OKS, N.A. PANCHENKO</i> Tomsk State University of Control Systems and Radioelectronics, Tomsk, Russia
4-30-P	INFLUENCE OF THE CATHODE REGION PREIONIZATION ON THE OPERATING PARAMETERS OF THE EPTRON <i>M.A. LAVRUKHIN, P.A. BOKHAN, P.P. GUGIN, D.E. ZAKREVSKY</i> Rzhanov Institute of Semiconductor Physics SB RAS, Novosibirsk, Russia
4-33-P	GENERATION OF A COLD ATMOSPHERIC PLASMA JET IN A PLANAR MULTICHANNEL DEVICE <i>E.V. MILAKHINA, P.P. GUGIN, D.E. ZAKREVSKY</i> Novosibirsk State Technical University/Institute of Semiconductor Physics A.V. Rzhanov of the Siberian Branch of the RAS, Novosibirsk, Russia
4-34-P	PICOSECOND SEMICONDUCTOR GENERATOR FOR CAPACITIVE SENSORS CALIBRATION <i>V.E. PATRAKOV, M.S. PEDOS, S.N. RUKIN</i> Institute of Electrophysics UB RAS, Ekaterinburg, Russia
4-35-P	SPATIAL DISTRIBUTION AND TIME EVOLUTION OF A METAL-CONTAINING PLASMA OF A LOW-CURRENT ATMOSPHERIC PRESSURE DISCHARGE <i>K.P. SAVKIN, D.A. SOROKIN, G.YU. YUSHKOV</i> Institute of High Current Electronics SB RAS, Tomsk, Russia
4-36-P	MINICP DEVICE FOR INVESTIGATION OF THE PLASMA-SURFACE INTERACTIONS <i>N.S. SERGEEV, A.V. KAZIEV, M.M. KHARKOV, YU.M. GASPARYAN, A.YU. KHOMYAKOV</i> National Research Nuclear University MEPhI, Moscow, Russia
4-38-P	OPTIMUM TRANSFER CHARACTERISTICS OF THE TESLA TRANSFORMER ON THE FIRST AND SECOND HALF-WAVES OF OUTPUT VOLTAGE <i>V.V. KLADUKHIN, S.P. KHRAMTSOV</i> Institute of Electrophysics UB RAS, Ekaterinburg, Russia
4-40-P	DYNAMICS OF THE TARGET TEMPERATURE CHANGE UNDER DIRECT IMPACT OF A COLD ATMOSPHERIC PLASMA JET <i>D.E. ZAKREVSKY, P.P. GUGIN, E.V. MILAKHINA</i> Institute of Semiconductor Physics SB RAS, Novosibirsk, Russia
4-42-P	ATMOSPHERIC COLD PLASMA JET GENERATED BY MICROWAVE ELECTRODE DISCHARGE: SOME DIAGNOSTIC TECHNIQUES <i>S.N. ANTIPOV, V.M. CHEPELEV, M.A. SARGSYAN, M.KH. GADZHIEV</i> Joint Institute for High Temperatures of the Russian Academy of Sciences, Moscow, Russia
4-46-P	A NEW TYPE OF NON-THERMAL ATMOSPHERIC PRESSURE PLASMA SOURCE BASED ON A WAVEGUIDE BRIDGE <i>V.N. TIKHONOV, S.A. GORBATOV, I.A. IVANOV, A.V. TIKHONOV</i> Federal State Scientific Institution «Russian Institute of Radiology and agroecology», Obninsk, Russia
4-47-P	«OVERHEATING» INSTABILITY FOR AN HF ARC DISCHARGE IN AIR AT ELEVATED PRESSURES <i>A.F. KOKORIN</i> Ural Federal University, Ekaterinburg, Russia