

VI International conference

Plasma Physics and Plasma Technology

**Minsk, Belarus,
September 28 – October 02, 2009**

Final Programme

CONFERENCE ORGANIZERS

**National Academy of Sciences of Belarus
B.I.Stepanov Institute of Physics**

**Russian Academy of Sciences
Joint Institute for High Temperatures**

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TOPICS

- 1. Electrical and optical discharges, near-electrode processes**
(plasma accelerators; pulsed sources and arcs; spark, barrier, surface and glow discharges; high-frequency and laser sources of plasma).
- 2. Plasma dynamics. Transporting, optical, and thermodynamic properties of plasma**
- 3. Methods and instrumentation for plasma diagnostics**
(emission and absorption spectroscopy; intracavity laser spectroscopy; optical, interferometric, probe, and other methods)
- 4. Interaction of concentrated energy flows with a surface**
(modification of surface properties of materials and coatings by electromagnetic radiation, cathode and ion beams; plasma treatment of materials; plasma deposition of coatings)
- 5. Plasma in nanotechnology**
(synthesis of nanoscale structures and fullerenes; surface structures formation)
- 6. Plasma applications**
(in engineering industry, microelectronics, plasma chemistry, metallurgy, ecology, biomedicine and so on)
- 7. Non-ideal and dusty plasma, clusters**
- 8. ISTC Projects**

Monday – September 28

7:00 – 22:00 **Arrival, registration, Excursions**

Tuesday – September 29, Morning

Hall I:

10:00 – 10:30 **Opening Ceremony**

10:30 – 13:00 **Plenary Session**

1. **Fortov V.E.**
EXTREME STATES OF PLASMAS IN LABORATORY AND IN SPACE

11:15 – 11:30 **Coffee Break**

2. **Messerle V.E., Karpenko E.I., Ustimenko A.B.**
PLASMA-FUEL SYSTEMS APPLICATION IN POWER ENGINEERING”
3. **Simonchik L.V.**
GENERATION OF NON-THERMAL ATMOSPHERIC PRESSURE PLASMAS USING DC GLOW DISCHARGES

13:00 – 14:00 **Lunch**

Tuesday – September 29, Afternoon

Hall I

14:00 – 16:15

Topical Session

Section 8. ISTC Projects

Albert Gozal (ISTC)

3. 17 CONTINUOUS-WAVE ALL-SOLID-STATE END-DIODE-PUMPED LASERS WITH INTRACAVITY RAMAN CONVERSION, **V.A. Orlovich**, **H. Szymczak**, **K.P. Sreenivasan**, **H.J. Eichler**, **P.-Y. Turpin**, **C. Rizzuto**, **P.A. Apanasevich**, **A.S. Grabtchikov**, **R.V. Chulkov**, **I.A. Khodasevich**

6. 10 MOBILE PLASMA UNIT FOR TOXIC WASTE DESTRUCTION, **Mosse A.L.**, **Savchenko G.E.**, **Sauchyn V.V.**, **Lozhachnik A.V.**

- 4 APPLICATION OF MICROWAVE - LASER DISCHARGES AND PLASMA JETS FOR FLOW-FIELDS MODIFICATION, **I. Mashek**, **V. Lashkov**, **Yu.Kolesnichenko**, **V.Brovkin**

5. 03 INVESTIGATION OF PROCESS INTERACTION OF HYDROGEN-OXIGEN VHF-PLASMA WITH SODIUM COBALTITE SURFACE, **Savitsky A.**, **Gremenok V.**, **Pankov V.**

16:15 – 16:30 Coffee Break

Tuesday – September 29, Afternoon

Hall II

14:00 – 16:15

Topical Session

Section 7. Non-ideal and dusty plasma, clusters

- 7.1 MELTING OF DUSTY CLUSTER DUE TO PARAMETRIC INSTABILITY CAUSED BY NANOSECOND ELECTRIC PULSES, Vasilyak L.M., Fortov V.E., Morfill G.E., Ivlev A.V., Pustylnik M.Y., Polyakov D.N., Thomas H.M., Vetchinin S.P.
- 7.2 SINGLE DUST PARTICLE IN MAGNETIC FIELD, Karasev V.Yu., Dzlieva E. S., Golubev M.S.
- 7.3 CHANGING DUSTY PLASMAS PACKING TYPE, Karasev V.Yu., Ivanov A.Yu., Dzlieva E.S., Golubev M.S., Eikhvald A.I.
- 7.4 DUSTY PLASMA EXPERIMENTS ON THE INTERNATIONAL SPACE STATION, Molotkov V.I., Lipaev A.M., Fortov V.E., Petrov O.F., Naumkin V.N., Morfill G.E., Thomas H.M., Ivlev A.V., Khrapak S.A., Hagl T.
- 7.5 STRONGLY COUPLED COULOMB CLUSTERS OF DIAMAGNETIC PARTICLES IN INHOMOGENEOUS MAGNETIC FIELDS, D'yachkov L.G., Savin S.F., Vasiliev M.M., Petrov O.F., Fortov V.E.
- 7.6 DUST HEATING IN TWO COMPONENT DC DISCHARGE, Daniyarov T. T., Ramazanov T. S., Maiorov S. A., Kodanova S.K., Zhankarashev Y.B., Dosbolayev M. K.
- 7.7 REGULAR-BLOCK MODELING OF CLUSTERS IN THE CARBON ARC DISCHARGE PLASMA, Poklonski N.A., Vyrko S.A., Vlassov A.T.

- 5.1 GENERATION OF QUASIMONOENERGETIC IONS BY COULOMB EXPLOSIONS WITH OPTIMIZED STRUCTURE OF NANOCCLUSERS, Murakami M., Mima K.

16:15 – 16:30 Coffee Break

Tuesday – September 29, Afternoon

Hall III

16:30 – 18:00

Poster Sessions

Section 1. Electrical and optical discharges, near-electrode processes

- 1.14 THE INFLUENCE OF ELECTRODE POLARITY ON CHARACTERISTICS OF A GLOW DISCHARGE IN CROSSED FIELDS, Platonov A.A., Sasin A.V., Slyshov A.G.
- 1.15 MOVING PLASMA STRUCTURES INITIATED BY GLOW DISCHARGE IN SOLUTION FLOW, Khlyustova A. V., Khorev M. S., Maximov A. I., Varlamov I. S.
- 1.16 3D NUMERICAL MODELING OF CHEMICALLY ACTIVE GLOW DISCHARGE IN AIR, Petrusev A.S.
- 1.17 THE CHOICE OF NUMERIC ALGORITHM FOR THE LASER PLUME SIMULATION, Kuzenov V. V.
- 1.18 STRUCTURE OF THE CATHODE REGION OF THE GLOW DISCHARGE IN HELIUM, Nisimov S.U., Prokhorova E., Slyshov A.G., Kuznetsova Yu.A.
- 1.19 INVESTIGATION OF MAGNETICALLY INSULATED EFFECT IN ION DIODE, Pushkarev A.I., Sasonov R.V., Isakov I.F.

1. 20 PROPERTIES OF COMBINED BEAM-PLASMA MAGNETRON DISCHARGE, Serov A.A., Velmakin A.V., Muraviov S.V.
1. 21 ELECTRICAL DISCHARGE IN ELECTRODYNAMIC DISPERSE SYSTEM (EDDS), Anisimov Yu.I., Mashek I.Ch., Metelsky K.E., Ryabchikov Ye.L.
1. 22 2D SIMULATION AND EXPERIMENTAL RESULTS FOR THE NORMAL DC ATMOSPHERIC PRESSURE GLOW DISCHARGE IN HELIUM, Bogdanov E.A., Kapustin K.D., Kudryavtsev A.A., Kirillov A.A., Simonchik L.V., Zgirouski S.M.
1. 23 SPATIAL DISTRIBUTION OF STATIONARY VACUUM ARC PLASMA FLUX IN AN CURVILINEAR MAGNETIC FIELD , Paperny V.L ., Krasov V.I., Astrakchantsev N.A., Lebedev N.V., Korobkin Yu.V.
1. 24 STRUCTURE AND PROPERTIES OF THE CONDENSATE NEAR THE Ti – CATHODE SPUTTERING IN A REACTING GAS MEDIUM, Smolanov N.A., Pankin N.A., Chetvertakova O.F.
1. 25 EXAMINATION OF THE HIGH-CURRENT MELTING PLASMATRON OPERATING ON HELIUM, Vaschenko S.P., Pozdnyakov B.A., Urbakh E.K., Urbakh A.E., Faleev V.A.
1. 26 ATMOSPHERIC-PRESSURE VORTEX ELECTRODELESS MICROWAVE PLASMA GENERATOR, Lavrov P. B., Lavrov B. P., Ravaev A. A., Khodataev K.V., Esakov I. I., Bychkov V. L., Matveev I. B., Kirchuk E. Yu.
1. 27 LOW PRESSURE AMALGAM LAMPS WITH HIGH LIFETIME, Vasilyak L. M., Drozdov L. A., Sokolov D. V., Dreego A. L., Moiseenko T. A., Kostyuchenko S. V., Sobur D. A.
1. 28 STUDY OF THE INDUCTIVE RF DISCHARGE WITH THE CAPACITIVE COMPONENT, Alexandrov A.F., Vavilin K.V., Kralkina E.A., Pavlov V.B., Rukhadze A.A., Savinov V.P., Zhao C.

1. 29 PHYSICAL MODEL OF RF PLASMA SOURCE LOCATED IN THE EXTERNAL MAGNETIC FIELD, Alexandrov A.F., Vavilin K.V., Kralkina E.A., Pavlov V.B., Rukhadze A.A., Savinov V.P., Zhao C.
1. 30 CHANGE OF THE SHOCK-WAVE CONFIGURATION NEAR BODY UNDER PLASMA JETS AND PELLETS ACTIONS, Erofeev A.V., Lapushkina T.A., Poniaev S.A., Zhukov B.G.
1. 31 DYNAMIC BARRIER EFFECT, Belevtsev A. A., Firsov K.N., Kazantsev S.Yu., Kononov I.G.
1. 32 ELECTRON DETACHMENT INSTABILITY IN STRONGLY ELECTRONEGATIVE POLYATOMIC GASES, Belevtsev A. A., Firsov K.N., Kazantsev S.Yu., Kononov I.G.
1. 33 ON EXPERIMENTAL ESTIMATE OF THE SF₆ DISSOCIATION TIME IN SF₆-BASED MIXTURES, Belevtsev A. A., Firsov K.N., Kazantsev S.Yu., Kononov I.G.
1. 34 IGNITION OF METHANE-OXYGEN GAS MIXTURE IN CLOSED VOLUME BY FREELY LOCALIZED LASER SPARK AND PULSE LASER HEATING OF THE GAS, Firsov K.N., Kazantsev S.Yu., Kononov I.G., Kossyi I.A., Tarasova N.M.
1. 35 THE BEHAVIOR OF DISCHARGE CONTRACTION IN Air, Kishov M-R. G., Magomedgadjiev H. I., Omarova P. H.
1. 36 RESEARCH OF A BALL LIGHTNING AND PROSPECTS OF IT'S USE FOR APPLIED PURPOSES, Oreshko A.G.
1. 37 EXPERIMENTAL STUDY OF A MULTIPOINT CATHODE CORONA IN AN ARGON FLOW, Baldanov B. B.
1. 38 DYNAMICS OF A CHEMICAL COMPOUND OF A MIX OF MOLECU-LAR GASES IN THE DISCHARGES, Mol'kov S.I.

1. 39 ENERGY SPECTRUM OF ATOMIC PARTICLES IN GLOW DISCHARGE WITH LAMINATED CATHODE AT LOW PRESSURE, Barchenko V.T., Grebnev O.I., Zharov A.A.
1. 40 SIMULATION VOLT AMPERE CHARACTERISTICS MAGNETRON SPUTTERING SYSTEMS, Barchenko V.T., Grebnev O.I., Egorov S.K.
1. 41 SPATIAL CROSS-CORRELATION OF INDIVIDUAL MICRODISCHARGES IN DIELECTRIC BARRIER DISCHARGE, Akishev Yu., Grushin M., Karal'nik V., Petryakov A., Trushkin N.
1. 42 PECULIARITIES OF THE PULSE PLASMA ACCELERATOR WORK AT VARIOUS INITIAL GAS DENSITIES IN A CONTINUOUS FILLING MODE, Zhukeshov A.M., Amrenova A.U., Gabdullina A.T., Ibraev B.M.
1. 43 GLOW DISCHARGE IN SPHERICAL GEOMETRY AS BASIS OF PLASMA MODIFICATION PROCESSES: MODELING AND EXPERIMENT, Zhovtyansky V., Khomych V., Lelyuh Yu., Nazarenko V., Tkachenko Ya.
1. 44 WAYS OF THE PLASMA ELECTRON SOURCES OPERATION, Zalesski V.G., Rusetski I.S.
1. 45 EMISSION OF MONOENERGETIC FLOW OF V^{2+} , Ti^{2+} , Zr^{2+} , IONS FROM VACUUM ELECTROARC DISCHARGE, Zhohlik I.N.
1. 46 IS IT NECESSARY TAKE INTO ACCOUNT THE CHARGE TRANSFER ON APPLICATION OF GLOW DISCHARGE FOR THE SURFACE TREATMENT, Lyapin A. I.
1. 47 PULSE MAGNETRON DISCHARGE WITH ADDITIONAL ANODE, Romanchuk I. A., Golubev V. S., Artyomenko I. G.

1. 48 INTERACTION PARAMETERS OF EROSION PLASMA COUNTER-FLOWS IN A CONFINED AREA, Khramtsov P.P., Penyazkov O.G., Hryshchanka U.M.
1. 49 DC NORMAL ATMOSPHERIC PRESSURE GLOW DISCHARGES IN NOBLE AND MOLECULAR GASES, Arkhipenko V.I., Kirillov A.A., Safronau Ya.A., Simonchik L.V., Zgirouski S.M.
1. 50 DYNAMICS OF PLASMA FORMATIONS IN MINI-MPC, Mishchuk A.A., Kostyukevich E.A., Kuzmitskii A.M.

**Section 2. Plasma dynamics. Transporting, optical,
and thermodynamic properties of plasma**

2. 5 DYNAMICS OF DENSE XE PLASMA GENERATED BY MPC AND FEATURES OF EUV RADIATION FROM COMPRESSION ZONE, Garkusha I.E., Chebotarev V.V., Ladygina M.S., Marchenko A.K., Petrov Yu. V., Solyakov D.G., Tereshin V.I., Yeliseev D.V., Hassanein A.
2. 6 FEATURES OF THE SPATIAL DISTRIBUTION FORMATION OF ELECTRONEGATIVE PLASMA PARAMETERS IN TANDEM PLASMA-CHEMICAL REACTORS, Kudryavtsev A..A., Serditov K.Yu., Timofeev N.A.
2. 7 THE TORQUE OF ELONGATED BODY IN A GLOW DISCHARGE UNDER MAGNETIC FIELD AFFECTION, Karasev V.Yu., Dzlieva E. S., Eikhval'd A. I., Ivanov A. Yu., Golubev M.S.
2. 8 PROPAGATION OF THE ELECTROMAGNETIC WAVE IN AXIALLY HETEROGENEOUS TORCH DISCHARGE PLASMA, Lutsenko Yu.Yu., Vlasov V.A., Zelenetskaya E.P.

2. 9 THE INTERCONNECTION BETWEEN TRANSPORT AND ELECTRODYNAMIC CHARACTERISTICS OF THE HIGH FREQUENCY TORCH DISCHARGE, Lutsenko Yu.Yu., Vlasov V.A., Zelenetskaya E.P.
2. 10 EVOLUTION OF A LARGE ION TEMPERATURE GRADIENT IN A PLASMA, Medvedev Yu. V.
2. 11 EXPANSION OF A FINITE-SIZE PLASMA WITH NEGATIVE IONS INTO A VACUUM, Medvedev Yu. V.
2. 12 RADIATION OF MULTI CHARGED ALUMINIUM PLASMA PRODUCED BY BESSEL BEAM, Bychkov S.S., Bychkov S.S. (Jr.), Pyatnitsky L.N., Soldatenkov E.S.
2. 13 THE IMPACT OF TRANSVERSAL MAGNETIC FIELD ON THE SPATIAL STRUCTURE OF NANOSECOND DISCHARGE WITH SLOT CATHODE, Ashurbekov N.A., Iminov K.O., Kobzev O.V., Kobzeva V.S.
2. 14 EFFECTS OF INTERACTION OF BROADBAND LASER RADIATION WITH HIGH-VELOCITY IONIZATION WAVES IN PLASMA WAVEGUIDE, Ashurbekov N.A., Shakhshinov G.Sh., Ramazanov A.R.
2. 15 PLASMA-FIELD DYNAMICS IN RADIO-WAVE MODIFIED IONOSPHERE IN RADIO-WAVE MODIFIED IONOSPHERE, Kochetov A.V., Terina G. I.
2. 17 IONIZATION EQUILIBRIUM AND COMPOSITION OF PARTIALLY IONIZED PLASMAS FOR OTHER ELEMENTS, Ramazanov T.S., Dzhumagulova K.N., Gabdullin M.T., Redmer R.
2. 18 PLASMA NONEQUILIBRIUM DUE TO RADIATION EFFECTS IN ELECTRIC ARC PLASMAS, Zhovtyansky V., Lelyuh Yu., Tkachenko Ya.

2. 19 SCATTERING PROCESSES AND THE BETH-UHLENBECK FORMULA FOR A PARTIALLY IONIZED PLASMA, Omarbakiyeva Y.A., Roepke G., Ramazanov T.S.
2. 21 ION BEAM FLUCTUATIONS IN THE WAKE OF A PLASMA THRUSTER, Pisarev V., Tsikata S., Honoré C., Lemoine N., Grésillon D.
2. 22 PECULIARITIES OF EMISSION PROCESSES FROM COLLISIONAL AREA OF TWO GAS-DISCHARGE COMPRESSION PLASMA FLOWS, Astashynski V.M., Kuzmitskii A.M., Kostyukevich E.A., Mishchuk A.A.
2. 23 NUMERICAL SIMULATION OF HYDROGEN COMPRESSION PLASMA FLOWS PARAMETERS IN MAGNETOPLASMA COMPRESSOR, Ananin S.I., Astashinsky V.M.

18:30 – 21:00 Welcome Party

Wednesday – September 30, Morning

Hall I

9:00 – 11:00

Plenary Session

1. **Gaponenko S. V.**
PLASMA PHYSICS AND NANOPHOTONICS
2. **Petrov O. F., Vaulina O. S., Fortov V. E.**
STRONGLY COUPLED DUSTY PLASMAS: DIAGNOSTICS AND RESULTS OF INVESTIGATIONS

- 3 Zhovtyansky V. A., Lelyuh Yu. I.
CRITERION FOR PLASMA NONEQUILIBRIUM DUE TO
RADIATION EFFECTS AS THE WRONG DETECTOR IN
DIAGNOSTIC OF ELECTRIC ARC PLASMAS

11:00 – 11:15 Coffee Break

Hall I

11:15 – 13:00

Topical Session

Section 1. Electrical and optical discharges, near-electrode processes

- 1.2 THE EFFECT OF LONGITUDINAL MAGNETIC FIELD ON
RECOMBINATION RADIATION OF A LOW-PRESSURE GLOW
DISCHARGE IN HYDROGEN, Ulanov I. M., Litvintsev A. Yu.,
Pinaev V.A.
- 1.3 SCENARIO OF PROGRESS OF THE LOW VOLTAGE
UNDERWATER DISCHARGES IN ELECTROLYTE VOLUME,
Khlyustova A. V., Maximov A. I.
- 1.4 ON CONTROL OF PARAMETERS OF BEAM-PLASMA
DISCHARGE USED IN PLASMA CHEMISTRY, Serov A.A..
- 1.5 PECULIARITIES IN VOLT-AMPERE CHARACTERISTICS OF
GLOW DISCHARGE IN Ar:N₂ MIXTURES, Dyatko N.A., Ionikh
Y.Z., Meshchanov A.V., Napartovich A.P., Petrov F.B.
- 1.6 A DARK PHASE EFFECT AT THE INITIAL STAGE OF A GLOW
DISCHARGE IN NITROGEN, Dyatko N.A., Ionikh Y.Z.,
Meshchanov A.V., Napartovich A.P., Shishpanov A.I.
- 1.7 THE EFFECT OF FLOW STRUCTURE TRANSFORMATION
INDUCED BY ELECTRIC DISCHARGE AND ITS SIMPLE
MODEL, Gembarzhevskii G. V.

Wednesday – September 30, Morning

Hall II

11:15 – 13:00

Topical Session

Section 2. Electrical and optical discharges, near-electrode processes

Section 3. Methods and instrumentation for plasma diagnostics

- 2. 2 REFLECTION EFFICIENCY OF TWO-DIMENSIONAL SQUARE SYMMETRY UNMAGNETIZED PLASMA PHOTONIC CRYSTALS IN MICROWAVE WAVELENGTH RANGE, Shapoval S., Barabanenkov M., Ganiev A., Severov D.
- 2. 3 PLASMA DYNAMICS IN LASER-DRIVEN MAGNETO-INERTIAL FUSION, Ryzhkov S.V., Kostukov I.Yu.
- 2. 4 THE CALCULATION OF TRANSPORT COEFFICIENTS OF NOBLE GASES UNDER HIGH PRESSURES, Apfelbaum E. M.
- 2. 16 CLUSTER MODEL OF DENSE METALS VAPOR PLASMA, Khomkin A.L., Shumikhin A.S.
- 2. 20 MICROPLASMA DISCHARGE USED TO CONTROL ELECTROMAGNETIC BAND GAP DEVICE, Lo J., Callegari Th., Sokoloff J., Boeuf J. P.
- 3. 1 STUDY OF ENERGY PARAMETERS OF LASER EROSIVE PLASMA ON THE BASIS OF CuInSe_2 TARGET BY TIME-RESOLVED EMISSION SPECTROSCOPY METHOD, Chuchman M.P., Shuaibov A.K., Shimon L.L.

3.3 INFLUENCE OF LASER PLASMA INHOMOGENEITY ON RESULTS OF QUANTITATIVE ELEMENTAL ANALYSIS OF METALS BY OPTICAL EMISSION SPECTROSCOPY, Catsalap K., Ershov-Pavlov E., Stanchitz L., Stepanov K.

3.14 LASER SPECTROCHEMICAL MICROANALYSIS OF PIGMENTS FROM CANVAS PAINTINGS, Dovnar-Zapolskaya E., Kiris V., Klyachkovskaya A., Raikov S.

13:00 – 14:00 Lunch

Wednesday – September 30, Afternoon

Hall I

14:00 – 16:15

Topical Session

Section 1. Electrical and optical discharges, near-electrode processes

1. INVESTIGATION OF NEAR-ELECTRODE PROCESSES IN ARC DISCHARGES AND ELECTRODE SERVICE LIFE, Anshakov A.S.

1.8 SIGNIFICANCE OF SPUTTER ATOMS FOR MAGNETRON DISCHARGE, Krivobokov V.P., Yanin S.N.

1.9 GAS DISCHARGE INFLUENCE ON SUPERSONIC BODY STREAMLINE, Erofeev A.B., Lapushkina T.A., Ponyaev S.A.

1.10 SELF-ORGANIZATION PHENOMENA IN A SELF-SUSTAINED VOLUME DISCHARGE IN SF₆ AND SF₆-BASED MIXTURES PRE-IRRADIATED BY A PULSE CO₂-LASER, Belevtsev A. A., Firsov K.N., Kazantsev S.Yu., Kononov I.G.

1.11 PROPERTIES OF A DISCHARGE IN A DOUBLY TRANSFERRED ARC TORCH, Tukhto O., Koval' I., Predtechensky M.

1. 12 ORTHOGONAL SYMMETRIC DISCHARGE SYSTEM, Studenovskiy P.
1. 13 SPECTROSCOPY INVESTIGATION OF MAGNETOPLASMA COMPRESSOR, Dojcinovic I.P. , Kuraica M.M. , Obradovic B.M., Cvetanovic N. , Puric J.

16:15 – 16:30 Coffee Break

Wednesday – September 30, Afternoon

Hall II

14:00 – 16:15

Topical Session

Section 4. Interaction of concentrated energy flows with a surface

4. 1 INFLUENCE OF ELECTRON BEAM PLASMA PARAMETERS ON CRYSTALLINITY DEGREE AND SILICON LAYERS DEPOSITION RATE, Konstantinov V.O., Sharafutdinov R.G., Shchukin V.G.
4. 2 ELECTRIC SIGNAL GENERATION UNDER INTERACTION OF HF LASER RADIATION WITH BOTTOM SURFACE OF A WATER COLUMN, Andreev S.N., Firsov K.N., Kazantsev S.Yu., Kononov I.G., Pashinin P.P.
4. 3 TECHNOLOGICAL MICROWAVE PLASMA MODULE FOR REACTIVE-ION ETCHING MATERIALS OF ELECTRONIC TECHNICS IN DUAL-FREQUENCY DISCHARGE, Bordusov S. V, Dostanko A. P.
4. 4 GASES FLOWS CONTROL IN PROCESSES OF MAGNETRON DEPOSITION OF TANTALUM OXIDE FILMS, Burmakou A.P., Kuleshov V.N.

- 4.5 EFFECT OF IMPLANTATION AND ANNEALING REGIMES ON ION-BEAM SYNTHESIS OF InAs NANOCRYSTALS, Komarov F., Vlasukova L., Milchanin O., Wesch W., Komarov A., Bobachenok O.
- 4.6 STRUCTURAL-PHASE TRANSFORMATIONS IN CHROMIUM-SILICON SYSTEM TREATED BY COMPRESSION PLASMA AND HIGH-CURRENT ELECTRON BEAMS, Uglov V.V., Kvasov N.T., Petukhou Yu.A., Koval N.N., Teresov A.D., Ivanov Yu.F., Astashynski V.M., Kuzmitski A.M.
- 4.7 CHANGING THE STRUCTURE OF METALS UNDER THEIR EXPOSURE TO MAGNETIC FIELDS FROM THE ASPECT OF GENERALITY OF INTERACTION PROCESSES OF CONCENTRATED ENERGY FLOWS WITH METALLIC MATERIALS, Anisovich A. G.
- 4.8 PRODUCTION OF METALLURGICAL COATINGS BY HETEROGENEOUS ARC PLASMA, Smyaglikov I.P.

16:15 – 16:30 Coffee Break

Wednesday – September 30, Afternoon

Hall III

16:30 – 18:00

Poster Sessions

Section 3. Methods and instrumentation for plasma diagnostics

- 3.2 TOWARD QUANTITATIVE DEUTERIUM ANALYSIS WITH LASER-INDUCED BREAKDOWN SPECTROSCOPY USING ATMOSPHERIC-PRESSURE HELIUM GAS, Kurniawan K.H., Chumakov A.N., Kagawa K.

- 3.4 SIMULATIONS OF THE PULSE ATMOSPHERIC PRESSURE HELIUM MICROPLASMA SOURCE FOR THE ANALYSIS OF GASES BY THE METHOD OF COLLISION ELECTRON SPECTROSCOPY (CES), Bogdanov E.A., Chirtsov A.S., Kapustin K.D., Kudryavtsev A.A.
- 3.5 CONTROLLED TIME DELAY OF DATA IN THE OPTICAL SYSTEMS OF THE PROCESSING INFORMATION ON THE EFFECT OF PLASMA DISPERSION, Zalesski V.B., Zykov G.L., Esman A.K., Kuleshov V.K.
- 3.6 OPTICAL ABSORPTION METHODS FOR MEASUREMENTS OF COMBUSTION GAS CONCENTRATIONS, Krat'ko L.E., Miatselskaya N.S., Chubrik N.I.
- 3.7 DETERMINATION OF ELECTRON CONCENTRATION IN THE NONEQUILIBRIUM PLASMA OF NON-SELF-SUSTAINED DC GLOW DISCHARGE IN ATMOSPHERIC PRESSURE AIR, Simonchik L. V., Stelmach G. F., Usachonak M. S.
- 3.8 LASER EROSION PLASMA USE TO MONITOR SOL-GEL SYNTHESIS OF YAG-BASED CERAMICS, Zhuravleva V.I., Boiko A.A., Poddenezhny E.N.
- 3.9 EVALUATION OF DC ARC PLASMA EMISSION SELF-ABSORPTION BY PARAMETERS OF SELF-REVERSED SPECTRAL LINE PROFILE, Boretskij V. F., Catsalap K. Yu., Ershov-Pavlov E. A., Stanchitz L. K., Stepanov K. L., Veklich A. N.
- 3.10 RESONANCE EFFECTS IN LASER ABLATION PROCESSES AND LASER-PLASMA INTERACTION, Burakov V.S., Tarasenko N.V., Nedelko M.I., Isakov S.N., Shirokanov A.D.
- 3.11 ON-LINE NANOSTRUCTURES VARIATIONS MONITORING BY DIGITAL LASER SPECKLE TECHNOLOGIES, Bazulev N.B., Filatov S.A., Fomin N.A., Meleeva O.V.

- 3. 12 PROBE DIAGNOSTICS OF CARBON CATHODIC-ARC EROSIVE PLASMA, Smyaglikov I.P., Chubrik N.I., Goncharik S.V., Chekan N.M.
- 3. 13 LIBS TECHNIQUES FOR TOTAL CARBON MEASUREMENTS IN SOILS, Belkov M., Burakov V., Giacomo A., Kiris V., Raikov S., Tarasenko N.
- 3. 15 THOMSON SCATTERING DIAGNOSTIC SYSTEM FOR ELECTRON PARAMETERS MEASUREMENT ON MAGNUM-PSI, Meiden H.J., Tugarinov S.N., Naumenko N.N.
- 3. 16 TESTING OF MEDICAL PRODUCTS FOR HEAVY METALS AND ARSENIC, Daineko J.V, Tarkaila A.M, Belkov M.V, Myrzina M.V.

Section 5. Plasma in nanotechnology

- 5. 4 FORMATION OF NANOSTRUCTURE OXIDE COATING UNDER THE ACTION OF ION IRRADIATION, Krivobokov V.P., Umnov S.P.
- 5. 5 CHARACTERISTICS OF NANO-SCALE METALLIC CLUSTERS PRODUCED BY THE ION TECHNOLOGIES IN OPTICAL LAYERS , Paperny V.L., Fedorov S.G., Ivanov N.A., Kolesnikov S.S., Rzhechitsky A.E.
- 5. 6 MECHANISM OF FORMATION OF THIN CARBON FILMS IN A CROSSED FIELD DISCHARGE IN ARGON, Sasin A.V., Chernov I.A., Ignatyev B.K., Wagner S.D.
- 5. 7 FORMATION OF NANOSTRUCTURED FILMS OF NICKEL ON SILICON USING A LOCALIZED GAS DISCHARGE, Abramov A. V., Bityutskaya L. A., Lazarev A. P., Pankratova E. A., Rubenstein V. M.

5. 8 MODULE FOR APPLICATION OF NANODISPERSED MATERIALS, Grebnev O.I., Barchenko V.T.
5. 9 SYNTHESIS OF NANOPOWDERS IN PLASMACHEMICAL REACTOR WITH MOLTEN ELECTRODES, Koval I. Yu., Tukhto O. M., Predtechensky M. R.
5. 10 NANOCARBON COATING FOR PROTECTION OF THE ARC PLASMATRON ELECTRODES, Karpenko E.I., Lukiachshenko V.G., Messerle V.E., Ushanov V.Zh., Ustimenko A.B.
5. 11 HYDROCARBON GAS PLASMA CRACKING FOR PRODUCTION OF HYDROGEN AND NANOSTRUCTURAL TECHNICAL CARBON, Messerle V.E., Ustimenko A.B.
5. 12 Ar:O₂ PLASMA TREATMENT OF CuFeS₂ NANOPARTICLES, May F., Savastenko N.A., Brüser V., Lopatic D. A., Nevar A.A., Butsen A.V., Tarasenko N.V.
5. 13 ION-BEAM SPUTTERING – EFFECTIVE METHOD FOR OBTAINING OF MAGNETIC CO/GAAS SCHOTTKY BARRIER, Pashkevich M.V., Stognij A.I., Novitskii N.N., Gribkov B.A., Mironov V.L., Shulenkov A.S., Fettar F.
5. 14 INTERACTION OF HYDROGEN PLASMA WITH POLYCRISTALLINE ALUMINIUM METAL FOILS, Zaitsev A.L., Savitsky A.A.
5. 15 PLASMA PYROLYSIS REACTORS FOR MWCNT SYNTHESIS USING ELECTRIC ARC AND HIGH VOLTAGE DISCHARGES, Gorbunov A.V., Bublichsky A.F., Galinovsky A.A., Charakhovsky L.I., Gorbunova V.A., Skomorohov D.S.
5. 16 PLASMA-ASSISTED SYNTHESIS AND MODIFICATION OF ZnO NANOPARTICLES, Nevar, A.A., Tarasenko N.V., Burakov V.S., Savastenko N.A., Brüser V.

5. 17 INVESTIGATION OF THE ULTRA HIGH VACUUM GROWTH OF CHROMIUM DISILICIDE NANOISLANDS AND SILICON COVERING LAYER ON THE PLASMA MODIFIED SURFACE OF MONOCRYSTALLINE SILICON SUBSTRATES, Galkin N.G., Astashynski V.M., Chusovitin E.A., Galkin K.N., Petrushkin I.A., Kuzmitskii A.M.
5. 18 FORMATION OF NANOSIZE CLUSTERS IN DENSE COMPRESSION PLASMA, Astashynski V.M., Uglov V.V., Kvasov N.T., Punko A.V., Doroshevich I.L., Shedko Yu. G., Petukhou Yu.A.

Section 6. Plasma applications

6. 8 USING COAXIAL DBD REACTOR FOR DECOLORIZATION OF THE AZO DYES, Dojcinovic B. P., Manojlovic D., Roglic G.M., Obradovic B. M., Kuraica M. M., Puric J.
6. 11 WATER STERILIZATION BY MULTIDIAPHRAGME DISCHARGE, Naumova I. K., Maximov A. I., Khlyustova A. V.
6. 12 A PECULIARITY OF CORONA WIRE HEATING ON OZONE GENERATION IN AN AIR-CLEANING ELECTROSTATIC PRECIPITATOR WITH SILVER-BASED WIRES, Islamov R.Sh., Krichtafovich Yu.A.
6. 13 PLASMA TECHNOLOGIES IN BUILDING INDUSTRY, Volokitin G.G., Skripnikova N.K., Volokitin O.G.
6. 14 MODELING AND OPERATING MODE OPTIMIZATION OF OIL – SLIME RECYCLING PLANT'S PLASMA-CATALYTIC REACTOR, Karengin A.G., Poberezhnikov A.D., Rudkovsky A.V.
6. 15 THE MOBILE INSTALLATION FOR PLASMA-CATALYTIC RECYCLING OF OIL-SLIME, Karengin A.G., Karavaev S.V, Rudkovsky A.V, Markin A.A, Poberezhnikov A.D.

6. 16 ELECTRIC-ARC PLASMATRONS FOR DIFFERENT WASTES PROCESSING AND UTILIZATION, Anshakov A.S., Ma T.C., Urbakh E.K., Dong J., Urbakh A.E., Faleev V.A.
6. 17 PLASMA-ELECTROLYTE PROCESSING OF MEDICAL NEEDLES USED IN ULTRASONIC-SURGERY, Kashapov R.N.
6. 18 APPLICATION OF LOW-TEMPERATURE PLASMA FOR DEPOSITED LOW-EMISSION COAT, Galyautdinov A.R., Galyautdinov R.T., Kashapov N.F.
6. 19 PLASMA APPLICATION FOR SOLID FUELS GASIFICATION, Messerle V.E., Ustimenko A.B.
6. 20 COMPUTING OF PULVERIZED COAL FLAME PLASMA AIDED COMBUSTION AT THE POWER BOILERS, Askarova A.S., Lavrichshev O.A., Messerle V.E., Nagibin A.O., Ustimenko A.B.
6. 21 PLASMA TECHNOLOGIES IN MICROWAVE DISCHARGES: OPPORTUNITIES OF REAL-TIME NONINVASIVE DIAGNOSTICS, Bosneaga Iu., Bologna M., Grosu T.
6. 22 PLASMA STERILIZATION OF LIQUIDS: NON-THERMAL EFFECTS OF HIGH INTENSITY PULSED ELECTRIC FIELDS, Bosneaga Iu.
6. 23 A STUDY ON INCINERATION ASH TREATMENT BY PLASMA ENERGY, Park H.-S., Kim S.-J., Park D.-W.
6. 24 A STUDY ON THE PLASMA TREATMENT OF WASTE OIL CONTAINING PCBs, Park H.-S., Kim S.-J., Park D.-W.
6. 25 A STUDY ON THE THERMAL TREATMENT OF PCBs-CONTAMINATED SOIL, Park H.-S., Kim S.-J., Park D.-W.

6. 26 GENERATION OF OXIDANTS IN FOAMING SYSTEM FOR REMOVAL OF COLOUR, Pawiat J., Zimin L.
6. 27 NO_x REMOVAL USING CORONA DISCHARGE AND CATALYSTS, Dors M., Mizeraczyk J.
6. 28 GENERATOR OF ATOMIC HYDROGEN, Trukhanov A.V., Stognij A.
6. 29 PLASMA PYROLYSIS OF LIQUID WASTE WITH HIGH CONTENT OF HYDROCARBONS, Skamarokhau D. S., Khvedchyn I.V., Mosse A. L., Lozhachnik A.V., Sauchyn V. V.
6. 30 PLASMA METHOD AND FACILITY FOR PERSISTENT ORGANIC POLLUTANTS AND WITHDRAWALS PESTICIDES PROCESSING, Lozhachnik A.V., Khvedchyn I.V., Mosse A.L., Sauchyn V.V., Skamarokhau D.S.
6. 31 DESIGN AND INVESTIGATION OF PLASMA CHAMBER FURNACE FOR BIO-MEDICAL WASTE PROCESSING, Nikanchuk A.N., Mosse A.L., Sauchyn V.V., Lozhachnik A.V.
6. 32 INACTIVATION OF MICROORGANISMS IN NONEQUILIBRIUM PLASMA OF NON-SELF-SUSTAINED ATMOSPHERIC PRESSURE AIR GLOW DISCHARGE, Arkhipenko V.I., Yermakova T.S., Kirillov A.A., Safronau Y.A., Simonchik L.V.
6. 33 300 KW PILOT FURNACE PLANT FOR PLASMA GASIFICATION AND MELTING OF ASH AND HAZARDOUS WASTES USING TWIN DC TORCH, Gorbunov A.V., Ganzha V.L., Dolgolenko G.V., Charakhovsky L.I., Galinovsky A.A., Bubljevsky A.F., Koval V.A.

- 6.34 AMMONIA CONVERSION IN SELF-SUSTAINED NORMAL DC ATMOSPHERIC PRESSURE GLOW DISCHARGE, Arkhipenko V.I., Kirillov A.A., Simonchik L.V., Zgirouski S.M.
- 6.35 AUTOMATIC PLASMA COMMUTATOR FOR CAPACITOR BANKS PROGRAMMED CROWBAR DISCHARGES, Soika, A.K., Salahub I.A.
- 6.36 SYNERGISTIC EFFECTS INVESTIGATION IN PLASMO-TECHNOLOGIES SYSTEMS WITH APPLICATION OF COMPUTER SYNTHESIS-TECHNOLOGIES, Vitiaz P.A., Laktiushin A.N., Laktiushina T.V., Zhilinsky O.V.
- 6.37 OPTIMIZATION OF REGIMES FOR MAKING GRADIENT GAS-THERMAL BIOCERAMICS-CONTAINING COATINGS BY COMPRESSION PLASMA FLOWS, Ilyushchenko A.F., Shevtsov A.I., Okovity V.A., Astashynski V.M., Kuzmitskii A.M., Kostyukevich E.A.
- 6.38 APPLICATION OF LAMINAR PLASMA JET TO TEST FIREPROOF MATERIALS, Smyaglikov I.P., Bogdanova V.V., Buraya O.N.
- 6.39 NUMERICAL ANALYSIS AND IMPLEMENTATION OF PLASMA PROCESSES FOR MODIFYING A SURFACE OF MATERIALS BY ELECTRIC ARC, Lykov A. M. , Naumenko N.N.
- 6.40 213 NM LASER TREATMENT OF BOVINE CORNEA, Batishche S., Bushuk S., Kouzmouk A., Savitch A., Tatur H., Grabner G. , Kautek W.
- 6.41 CHEMICOTHERMAL TREATMENT OF VACUUM- PLASMA NITRIDE COATING Zhilko L.V., Rusalsky D.P., Uglov V.V.

6. 42 USING OF COMBINED ELECTRICAL DISCHARGE IN THE AIR CHANNEL INSIDE TO THE WATER-ORGANIC SOLUTIONS FOR GENERATION OF HYDROGEN Chernyak V.Ya., Yukhymenko V.V., Prysiazhnevych I.V., Olszewski S.V., Sidoruk S.M., Verovchuk M.O., Shchedrin A.I., Levko D.S., Demchina V.P., Kudryavzev V.S.

19:00 – 21:30 Ballet Performance

Thursday – October 01, Morning

Hall I

9:00 – 11:15

Topical Session

Section 6. Plasma applications

6. 3 TRANSFORMER PLASMATRON OF ATMOSPHERIC PRESSURE FOR PLASMA CHEMICAL REACTIONS, Ulanov I. M., Isupov M. V., Litvinsev A. Yu., Mischenko P. A.
6. 4 PLASMACHEMICAL REACTOR FOR SILICON CARBIDE SYNTHESIS, Anshakov A.S., Urbakh E.K., Faleev V.A., Urbakh A.E.
6. 5 DEVELOPMENT AND EXAMINATION OF LINEAR PLASMATRONS WITH THE LONG SERVICE LIFE, Kuzmin M.G., Anshakov A.S., Cherednichenko V.S., Urbakh E.K., Urbakh A.E.
6. 6 PLASMACHEMICAL REACTOR WITH MOLTEN ELECTRODES, Predtechensky M., Tukhto O., Koval' I.
6. 7 PLASMA-ASSISTED SYNTHESIS OF ELECTROCATALYSTS, Savastenko N.A., Braser V., Anklam K., Schmuhl A., Junge H.

- 6.9 INVESTIGATION OF PROCESSES IN PLASMA SHAFT FURNACE FOR TOXIC WASTE TREATMENT, Sauchyn V.V., Mosse A.L.
- 5.2 PLASMAS IN LIQUIDS: APPLICATIONS IN SYNTHESIS OF NANOPARTICLES, Burakov V.S., Tarasenko N.V., Butsen A.V., Nedelko M.I., Nevar A.A.

11:15 – 11:30 Coffee Break

Thursday – October 01, Morning

Hall III

11:30 – 13:00

Poster Session

Section 4. Interaction of concentrated energy flows with a surface

- 4.9 A CALCULATION OF THE CONCENTRATION OF RADIATION PORES IN METALS, Orlov A.V., Krivobokov V.P., Orlov V.L.
- 4.10 TECHNIQUES AND EQUIPMENT FOR MATERIALS SURFACE TREATMENT BY PLASMA MAGNETRON CHARGE AND IONIC BEAMES, Asainov O.H, Bainov D.D., Ermolaev R.A., Krivobokov V.P., Mironovich V.V., Halimanovich V.I., Harlamov V.A., Judakov S.V.
- 4.11 INVESTIGATION OF COUNTER PLASMA JET INTERACTION WITH DISPERSE TARGETS, Mashek I. Ch., Smirnov A. G., Pechnikov D. S, Mikhailov D. V., Onuschenko P. A.

4. 12 THE MODEL FOR CALCULATION OF THE ATOMS EMISSION AND METAL FILM DEPOSITION RATE AT MAGNETRON SPUTTERING SYSTEMS WORK WITH A HEAT-INSULATED TARGET, Bleykher G.A., Krivobokov V.P., Tretyakov R.S., Jureva A.V.
4. 13 ABOUT BOUND POSITRON STATES ON VACANCIES AND PORES IN METALS,
Prokopiev E.P., Grafutin V.I., Timoshenkov S.P.
4. 14 ONE MORE ION BEAM METHOD OF POLYMER SURFACE MODIFICATION, Kralkina E.A., Vavilin K.V., Pavlov V.B., Koh S.-K., Lee C.-S.
4. 15 INFLUENCE OF GLOW-DISCHARGE PLASMA IN REDUCTION MEDIA ON ULTRAFINE DIAMONDS SURFACE PROPERTIES,
Korobko A.P., Krashennnikov S.V., Bessonova N.P., Levakova I.V., Drozd S.N., Shmakova N.A., Chvalun S.N.
4. 16 THIN METAL FILM DEPOSITION ON THE PARTICLES TRAPPED IN RF MAGNETRON DISCHARGE PLASMA, Pal A. F., Rudavets A. G., Ryabinkin A.N., Serov A. O.
4. 17 OPTIMIZATION OF A MAGNETRON PLASMA SOURCE, Asainov O.H., Ibragimov E.A., Krivobokov V.P.
4. 18 IONS DESORPTION FROM THE SURFACE OF VARIOUS MATERIALS (METALS, SEMICONDUCTORS, INSULATORS) UNDER THE INFLUENCE OF INTENSIVE SOFT X-RAY RADIATION OF A LASER PLASMA SOURCE, Ananin O. B., Bogdanov G. S., Gerasimov I. A.
4. 19 MATHEMATICAL MODELING OF THE ETCHING PROCESS USING A LOCALIZED GAS DISCHARGE, Abramov A. V., Pankratova E. A., Surovtsev I. S.

4. 20 THE TEMPERATURE STIMULATION OF PLASMA ETCHING OF LITHIUM NIOBATE, Gulyaev V. V., Dikarev Yu. I., Rubinshtein V. M., Bormontov E. N.
4. 21 FEATURES OF LiNbO_3 ETCHING BY FLUORINE CONTENT RADICALS, Gulyaev V. V., Dikarev Yu. I., Tsvetkov S. M., Bormontov E. N.
4. 22 MULTICHANNEL DISCHARGE IN METALS AND ALLOYS PROCESSING, Bagautdinova L. N., Gaysin F. M.
4. 23 MULTICHANNEL DISCHARGE BETWEEN TWO LIQUID ELECTRODES IN A TUBE, Gaysin A. F.
4. 24 STUDIES OF PLASMA-SURFACE INTERACTION UNDER QSPA Kh-50 PLASMA EXPOSURES SIMULATING ITER TRANSIENT EVENTS,
Garkusha I.E., Aksenov N.N., Chebotarev V.V., Landman I., Linke J., Makhraj V.A., Tereshin V.I., Pugachov A.T., Malykhin S.V.
4. 25 SURFACE PROPERTIES OF TiO_2 THIN FILMS DEPOSITED IN ATMOSPHERIC DBD PLASMA, Klenko Y., Pichal J.
4. 26 TESTING SETUP AND STUDY OF THERMAL PROTECTION MATERIALS, Silva W. G., Charakhovski L.I., Maciel H.S., Otani C., Essiptchouk A.M., Petraconi G., Gregori M.L., Costa S.F., Chuprasov V. V. Tretiak M. S., Klishin A.F., Gotovtsev G.D.
4. 27 STATIONARY AND IMPULSE PLASMA ANNEALING THIN MOLYBDENUM FILMS IN NITROGEN-CONTAINING ATMOSPHERE, Chaplanov A. M., Shcherbakova E. N.
4. 28 MODIFICATION OF SURFACES IN A FLUOROCARBON PLASMA FOR IMPROVING THEIR ADHESION TO PTFE, Shelestova V. P., Zhandarov S. F., Grakovich P. N.

4. 29 A CONDENSATE IN EROSION JETS AT ACTING OF SHORT (~100 NS) LASER PULSES TO METAL SURFACE, Verenich P.I., Goncharov V.K., Kozadayev K.V., Puzyrev M.V.
4. 30 INFLUENCE OF THE SUBSTRATE TEMPERATURE ON THE CHARACTERISTICS DIAMONDLIKE CARBON FILMS, Goncharov V.K., Gusakov G.A., Ismailov D.R., Puzyrev M.V.
4. 31 RESEARCH OF PROCESS ENERGY TRANSFER TO PLASMA OF RF INDUCTIVLY COUPLED DISCHARGE, Kotov D., Yasunas A.
4. 32 REGULATION OF MOMENTARY OUTPUT POWER OF A CONTINUOS MODE CONDITIONS MAGNETRON (M-105, M-112 TYPE) INCLUDED IN THE TECHNOLOGICAL PLASMA UNIT, Bordusov S. V, Madveyko S. I.
4. 33 OPTICAL PROPERTIES OF A SILICON OXIDE THIN FILMS DEPOSITED BY REACTIVE MAGNETRON SPUTTERING METHOD, Golosov D., Zavatskiy S., Dostanko A., Chang Z., Xi J.
4. 34 DEEP ANISOTROPIC SILICON ETCHING FOR BIPOLAR IC WITH SHALLOW TRENCH ISOLATION, Turtsevich A.S., Amirov I.I., Soloduha V.A., Glukhmanchuk V.V., Kuzik S.V., Nalivaiko O.Y., Rodin G.F., Morozov O.V.
4. 35 CHANGE IN STATE OF CARBON STEELS ON THEIR EX-POSURE TO PLASMA ENERGY FLOW, Krylou-Alefirenka V. V.
4. 36 FEATURES OF SILICON OXIDE ETCHING IN PLASMA OF COMBINED SHF-LF-DISCHARGE, Nikiforenko N.N., Bordusau S.V., Burmakou A.P., Kuleshov V.N.
4. 37 A PERFECTION OF PROTECTION OF DETAILS FROM TITANIUM ALLOYS OPERATES AT THE HIGH TEMPERATURES, Ivanou I.

- 4.38 CHANGING THE STRUCTURE AND PROPERTIES OF NONFERROMAGNETIC METALS AND ALLOYS UNDER THEIR EXPOSURE TO PULSED MAGNETIC FIELDS, Anisovich A. G., Rumyantseva I. N., Azharonok V. V.
- 4.39 THE INFLUENCE OF ACOUSTO-RADIOWAVE ACTIVATION OF WATER ON PROPERTIES OF TEMPERABLE PORTLAND CEMENT MATERIALS, Belous N., Azharonok V., Rodcevich S., Goncharik S., Chubrik N., KoshevarV.
- 4.40 STRUCTURE OF THIN-FILM NICKEL-CARBON COMPOSITES FORMED BY METHOD OF PLASMA-ENHANCED CHEMICAL VAPOR DEPOSITION, Uglov V.V., Astashynskaya M.V., Vasiljeva L.A., Pauleau Y., Barna P.B., Kovacs A., Misjak F.
- 4.41 FORMATION OF WEAR-RESISTANT PLASMA COATINGS FROM CLAD POWDERS EXPOSED TO PULSED LASER RADIATION, Shevtsov A.I., Ilyuschenko A.F., Okovity V.A., Chumakov A.N., Bosak N.A, Buikus K.V.
- 4.42 MODELLING OF CONCENTRATION-CAPILLARY CONVECTION NEAR THE MELT-CRYSTAL INTERFACE UNDER THE ACTION OF Nd-LASER RADIATION ON THE Cu-38%Zn ALLOY, Berjeza N. A., Chumakov A.N.
- 4.43 213 NM LASER TREATMENT OF AL₂O₃ AND ALN CERAMICS, Batishche S., Bushuk S., Kouzmouk A., Tatur H., Forster M., Kautek W.
- 4.44 OPTIMIZATION OF ILD DIELECTRIC FOR MULTILEVEL METALLIZATION USING PECVD SILICON OXIDE FILMS Nalivaiko O.Y., Kalenik V.I., Plebanovich V.I.

Section 7. Non-ideal and dusty plasma, clusters

7. 8 INFLUENCE OF DUST PARTICLES ON GLOW DISCHARGE, Polyakov D.N., Shumova V.V., Vasilyak L.M.
7. 9 ELASTIC PROPERTIES OF DUSTY STRUCTURES, Karasev V.Yu., Dzlieva E. S., Eikhval'd A. I., Ivanov A. Yu., Golubev M.S.
7. 10 ABOUT ROTATIONAL MECHANISM OF DUSTY STRUCTURES IN MAGNETIC FIELD, Karasev V.Yu., Dzlieva E. S., Eikhval'd A. I., Ivanov A. Yu., Golubev M.S.
7. 11 ENERGY DENSITY AND PRESSURE IN TWO-DIMENSIONAL SYSTEMS: NEW APPROXIMATIONS AND NUMERICAL SIMULATION, Koss (Adamovich) X.G., Vaulina O.S.
7. 12 COLLISIONS OF TWO DUSTY PLASMA STRUCTURES, Karasev V.Yu., Ivanov A.Yu., Dzlieva E.S., Golubev M.S., Eikhvald A.I.
7. 13 STUDY OF HEAT CAPACITY IN NON-IDEAL SYSTEMS WITH ISOTROPIC PAIR POTENTIALS (DUSTY PLASMA), Vaulina O. S., Khrustalyov Yu. V., Petrov O. F.
7. 14 SIMULATION OF KINETIC PROCESSES IN THE NON-IDEAL NUCLEAR-EXCITED DUSTY PLASMA OF THE NOBLE GASES, Budnik A.P., Deputatova L.V., Fortov V.E., Kosarev V.A., Rykov V.A., Vladimirov V.I.
7. 15 ORDERED DUSTY PARTICLE STRUCTURES FOR INTERPARTICLE POTENTIAL AND NONPOTENTIAL FORCES, Deputatova L.V., Filinov V.S., Naumkin V.N., Vladimirov V.I., Meshakin V.I., Rykov V.A.
7. 16 ELECTROSTATIC INTERACTION OF SPHERICAL MICROPARTICLES, Filippov A.V.

- 7.17 MICROPARTICLE CHARGE SCREENING IN PLASMAS WITH TWO TYPES OF POSITIVE IONS, Derbenev I.N., Filippov A.V.
- 7.18 THE DETERMINING OF INTER-PARTICLE INTERACTION IN NON-IDEAL DISSIPATIVE SYSTEMS WITH ISOTROPIC PAIR POTENTIALS, Vaulina O.S., Lisin E.A., Gavrikov A.V., Petrov O.F., Fortov V.E.
- 7.19 APPLICATION OF "JELLIUM" MODEL FOR THE DESCRIPTION OF PROPERTIES OF MACROPARTICLES IN A TWO-COMPONENT DUSTY PLASMA, Dautov I., Fairushin I., Novikov K.
- 7.20 INVESTIGATION OF OPTICAL PROPERTIES OF DUSTY PLASMA IN CAPACITIVE RADIO FREQUENCY DISCHARGE OF ARGON, Daniyarov T.T., Ramazanov T.S., Baimbetov F.B., Zhumanov K.B., Jumabekov A.N., Dzhumagulov M.N., Dosbolayev M.K., Kodanova S.K., Orazbaev S.A., Azharonok V.V., Filatova I.I., Krat'ko L.E.
- 7.21 JEAN'S INSTABILITY IN A POSITIVE DUST PLASMA IN PRESENCE OF SECONDARY ELECTRON EMISSION, Sarkar S., Maity S., Khan M.
- 7.22 NUMERICAL MODELING OF THE 1-D DUST-ACOUSTIC TURBULENCE SUBJECT TO DISSIPATIONS IN THE PLASMA, Truhachev F.M.
- 7.23 EXPERIMENTAL RESULTS PROVING THE POSSIBILITY OF ISOTHERMAL DEBAY DUSTY PLASMA EXISTENCE, Azharonok V.V., Filatova I.I., Popov V.M., Klimovskii I.I.
- 7.24 LOW PRESSURE RF AIR PLASMA DECONTAMINATION OF MATERIALS FOR MEDICAL APPLICATIONS, Mel'nikova L.A., Shedikova O.E., Filatova I.I., Azharonok V.V.

13:00 – 14:00 Lunch

Thursday – October 01, Afternoon

Hall I

14:00 – 16:00

Plenary Sessions

1. **Ramazanov T. S.**
STRUCTURAL AND DYNAMIC PROPERTIES OF A NONIDEAL
COMPLEX PLASMA
2. **Akishev Yu. S., Grushin M., Karalnik V., Kochetov I., Napartovich
A., Petryakov A., Trushkin, N.**
INFLUENCE OF TRACE ADMIXTURES ON COMPOSITION OF
ACTIVE SPECIES GENERATED BY DC N₂-FLOWING
DISCHARGE
3. **Chumakov A.N., Ljubchenko F.N., Tarasenko V.F., Grabchikov
A.S., Ryabtsev G.I. ,**
LASER-PLASMA MICROTHRUSTERS: THE LATEST
ACHIEVEMENTS AND PROSPECTS

16:15 – 16:30 Coffee Break

Hall I

16:30 – 17:00

Closing Ceremony

Friday – October 02

Excursions, Post Symposium tours

SCHEDULE OF THE PPPT-6 CONFERENCE

| Start Time | Monday September 28 7:00 – 22:00 | Tuesday September 29 | Wednesday September 30 | Thursday October 01 | Friday October 02 |
|--------------------------------|------------------------------------------|-----------------------------------------------------------------------------------|----------------------------------------------------------------------------|----------------------------------------------------|-----------------------------------------|
| 9:00 | Arrival, registration, Excursions | | Plenary Session (Hall I) | | Excursions, Post Symposium tours |
| 10:00 - 10:30 10:30 - 11:15 | | Opening Ceremony Plenary Session (Hall I) | | Topical Session: Section 6 (Hall I) | |
| 11:15 - 11:30 | | Coffee Break | Coffee Break | Coffee Break | |
| 11:30 - 13:00 | | Plenary Session (Hall I) | Topical Sessions: Section 1 (Hall I) Sections 2, 3(Hall II) | Poster Session Sections 4, 7 (Hall III) | |
| 13:00 – 14:00 | | Lunch | Lunch | Lunch | |
| 14:00 – 16:15 | | Topical Sessions: Section 8. ISTC (Hall I) Section 7 (Hall II) | Topical Sessions: Section 1 (Hall I) Section 4 (Hall II) | Plenary Session (Hall I) | |
| 16:15 - 16:30 | | Coffee Break | Coffee Break | Coffee Break | |
| 16:30 - 18:00 | | Poster Session Sections 1, 2 (Hall III) | Poster Session Sections 3, 5, 6 (Hall III) | Closing Ceremony (Hall I) | |
| 18:30 – 21:00 | | Welcome Party | Ballet Performance | | |

