

NATIONAL ACADEMY OF SCIENCES OF UKRAINE  
NATIONAL SCIENTIFIC CENTER  
“KHARKOV INSTITUTE OF PHYSICS AND TECHNOLOGY”  
KARAZIN KHARKOV NATIONAL UNIVERSITY

## **PROGRAM**

XIV International Conference  
**“PLASMA ELECTRONICS  
AND NEW METHODS OF ACCELERATION”**

(August 27-31, 2018)  
Kharkov, Ukraine

*Devoted to:*

100<sup>th</sup> anniversary of the National Academy of Sciences of Ukraine

100<sup>th</sup> anniversary of Academician of NASU Ya.B. Fainberg

90<sup>th</sup> anniversary of the National Science Center  
“Kharkov Institute of Physics and Technology”  
of the National Academy of Sciences of Ukraine

Kharkov-2018

НАЦИОНАЛЬНАЯ АКАДЕМИЯ НАУК УКРАИНЫ  
НАЦИОНАЛЬНЫЙ НАУЧНЫЙ ЦЕНТР  
“ХАРЬКОВСКИЙ ФИЗИКО-ТЕХНИЧЕСКИЙ ИНСТИТУТ”  
ХАРЬКОВСКИЙ НАЦИОНАЛЬНЫЙ УНИВЕРСИТЕТ им. В.Н. КАРАЗИНА

## **ПРОГРАММА**

**XIV Международной конференции  
«ПЛАЗМЕННАЯ ЭЛЕКТРОНИКА  
И НОВЫЕ МЕТОДЫ УСКОРЕНИЯ»**

(27-31, августа 2018 г.)

Харьков, Украина

*Посвящается*

*100-летию Национальной академии наук Украины*

*100-летию со дня рождения академика НАН Украины Я.Б. Файнберга*

*90-летию Национального научного центра  
«Харьковский физико-технический институт»  
Национальной академии наук Украины*

Харьков-2018

## Schedule Порядок проведения

<i>Date</i>	<i>Time</i>	<i>Section</i>
<i>SUNDAY, August, 26 Воскресенье, 26 августа</i>	15 <sup>00</sup> - 18 <sup>00</sup>	Registration participants Регистрация участников
<i>MONDAY, August, 27 Понедельник, 27 августа</i>	8 <sup>00</sup> - 9 <sup>50</sup>	Registration participants Регистрация участников
	10 <sup>00</sup> - 10 <sup>30</sup>	Opening Открытие Конференции
	10 <sup>30</sup> - 13 <sup>10</sup>	Plenary reports Пленарные доклады
	13 <sup>10</sup> - 15 <sup>00</sup>	Lunch Обед
	15 <sup>00</sup> - 17 <sup>40</sup>	Plenary reports Пленарные доклады
	18 <sup>00</sup>	Party at "Bunker" (ККННУ)
<i>TUESDAY, August, 28 Вторник, 28 августа</i>	9 <sup>00</sup> - 11 <sup>30</sup>	<u>Sections 1&amp;2.</u> Nonrelativistic & relativistic electronics
	11 <sup>45</sup> - 13 <sup>25</sup>	Нерелятивистская и релятивистская электроника
	13 <sup>25</sup> - 15 <sup>00</sup>	Lunch Обед
	15 <sup>00</sup> - 17 <sup>05</sup>	<u>Sections 1&amp;2.</u> Nonrelativistic & relativistic electronics
	17 <sup>05</sup> - 18 <sup>20</sup>	<u>Section 4.</u> Thermonuclear fusion. (Collective processes) Термоядерный синтез (Коллективные процессы)

<p><i>WEDNESDAY, August, 29 Среда, 29 августа</i></p>	<p>9<sup>00</sup> - 10<sup>40</sup>  10<sup>55</sup> - 13<sup>50</sup>  13<sup>50</sup> - 15<sup>00</sup> 15<sup>00</sup> - 17<sup>30</sup></p>	<p><u>Section 3.</u> New methods of charged particle acceleration Новые методы ускорения заряженных частиц</p> <p><u>Section 5.</u> Collective processes in Space plasmas Коллективные процессы в космической плазме</p> <p>Lunch / Обед</p> <p><u>Section 8.</u> Applications and Technology Приложения и технологии</p>
<p><i>THURSDAY, August, 30 Четверг, 30 августа</i></p>	<p>9<sup>00</sup> - 11<sup>30</sup>  11<sup>45</sup> - 13<sup>25</sup>  13<sup>25</sup> - 15<sup>00</sup> 15<sup>00</sup> - 16<sup>40</sup></p>	<p><u>Section 7.</u> Nonlinear processes in space plasmas Нелинейные процессы в плазменных средах</p> <p>Lunch / Обед</p> <p><u>Section 7.</u> Nonlinear processes in space plasmas Нелинейные процессы в плазменных средах</p>
<p><i>FRIDAY, August, 31 Пятница, 31 августа</i></p>	<p>9<sup>00</sup> - 11<sup>30</sup>  11<sup>45</sup> - 13<sup>25</sup>  13<sup>25</sup> - 15<sup>00</sup> 15<sup>00</sup> - 17<sup>55</sup>  15<sup>00</sup> - 17<sup>05</sup>  17<sup>05</sup> - 17<sup>30</sup></p>	<p><u>Section 6.</u> Plasma-beam discharge, gas discharge and plasmachemistry Плазменно-пучковый разряд, газовый разряд и плазмохимия</p> <p>Lunch / Обед</p> <p><u>Section 6.</u> Plasma-beam discharge, gas discharge and plasmachemistry Плазменно-пучковый разряд, газовый разряд и плазмохимия</p> <p><u>Section 8.</u> Applications and Technology Приложения и технологии</p> <p>Closing Заккрытие Конференции</p>

**27.08. 2018**

**8:00-9:50 REGISTRATION OF XIV INTERNATIONAL CONFERENCE PARTICIPANTS**

**10:00-10:30 OPENING OF XIV INTERNATIONAL CONFERENCE “PLASMA ELECTRONICS AND NEW ACCELERATION METHODS”**

*Academician Anatoly Glebovich Zagorodny,  
Academician Nikolai Fedorovich Shulga,  
Academician Nikolai Alexeevich Azarenkov,  
Academician Vladimir Mefodievich Yakovenko,  
Corresponding Member of NASU Ivan Nikolaevich Onishchenko*

**PLENARY REPORTS / ПЛЕНАРНЫЕ ДОКЛАДЫ**

10:30-11:10

SCATTERING OF FAST CHARGED PARTICLES IN THIN CRYSTALS  
(CLASSICAL AND QUANTUM EFFECTS IN SCATTERING)

*Nikolai Fedorovich Shulga*

РАССЕЯНИЕ БЫСТРЫХ ЗАРЯЖЕННЫХ ЧАСТИЦ В ТОНКИХ  
КРИСТАЛЛАХ (КЛАССИЧЕСКИЕ И КВАНТОВЫЕ ЭФФЕКТЫ  
В РАССЕЯНИИ)

*Н.Ф. Шульга*

11:10-11:50

ON PULSATING RADIATION IN WEAKLY INVERTED MEDIA

*Anatoly Glebovich Zagorodny (together with A.V. Kirichok, V.M. Kuklin, A.V. Mischin)*

О ПУЛЬСИРУЮЩЕМ ИЗЛУЧЕНИИ В СЛАБО ИНВЕРТИРОВАННОЙ СРЕДЕ  
*А.Г. Загородний (вместе с А.В. Куричок, В.М. Куклин, А.В. Мишин)*

11:50-12:30

NSC KIPT SOURCE OF NEUTRONS BASED ON SUBCRITICAL ASSEMBLY,  
WHICH OPERATED BY LINEAR ELECTRON ACCELERATOR

*I.M. Neklyudov, I.M. Karnaukhov, A.Yu. Zelinsky, Igor Vyacheslavovich Ushakov*

ИСТОЧНИК НЕЙТРОНОВ НИЦ ХФТИ, ОСНОВАННЫЙ  
НА ПОДКРИТИЧЕСКОЙ СБОРКЕ, УПРАВЛЯЕМОЙ ЛИНЕЙНЫМ  
УСКОРИТЕЛЕМ ЭЛЕКТРОНОВ

*И.М. Неклюдов, И.М. Карнаухов, А.Ю. Зелинский, И.В. Ушаков*

12:30-13:10

SOLITONS IN NORMAL FERMILIQUID

*Nodar Levanovich Tsintsadze*

СОЛИТОНЫ В НОРМАЛЬНОЙ ФЕРМИ-ЖИДКОСТИ

*Н.Л. Цинцадзе*

**13:10-15:00 LUNCH / ОБЕД**

15:00-15:40

HIGH-CURRENT PLASMA ACCELERATORS: PHYSICS AND APPLICATION

*Igor Evgen`evich Garkusha*

СИЛЬНОТОЧНЫЕ УСКОРИТЕЛИ ПЛАЗМЫ: ФИЗИКА И ПРИМЕНЕНИЕ

*И.Е. Гаркуша*

15:40-16:20

NUCLEAR POWER TODAY AND IN THE FUTURE: NEW MATERIALS

*Viktor Nikolaevich Voyevodin*

ЯДЕРНАЯ ЭНЕРГЕТИКА СЕГОДНЯ И В БУДУЩЕМ: НОВЫЕ МАТЕРИАЛЫ

*В.Н. Воеводин*

16:20-17:00

NUCLEAR MEDICINE IN NSC KIPT OF NAS OF UKRAINE

*Anatoly Nikolaevich Dovbnya*

ЯДЕРНАЯ МЕДИЦИНА В ННЦ ХФТИ НАН УКРАИНЫ

*А.Н. Довбня*

17:00-17:40

INTERNATIONAL METRIC SYSTEM OF UNITS

*Pavel Ivanovich Neyezhnikov*

МЕЖДУНАРОДНАЯ МЕТРИЧЕСКАЯ СИСТЕМА ЕДИНИЦ СИ

*П.И. Неежмаков*

**28.08. 2018**

**Sections 1&2. NONRELATIVISTIC & RELATIVISTIC ELECTRONICS (NRE)**

**Секции 1&2. НЕРЕЛЯТИВИСТСКАЯ И РЕЛЯТИВИСТСКАЯ  
ЭЛЕКТРОНИКА (НРЭ)**

9:00-9:25

INTERACTION BETWEEN A TUBULAR BEAM OF CHARGED PARTICLES  
AND AN ANISOTROPIC DISPERSIVE SOLID-STATE CYLINDER

*Yurii Olegovich Averkov, Yu.V. Prokopenko, V.M. Yakovenko*

9:25-9:50

EFFICIENT APPROACH TO ANALYSIS OF TM MODES IN COAXIAL  
GYROTRON CAVITY WITH CORRUGATED INSERT

*T.I. Tkachova, Vitalii Ivanovich Shcherbinin, V.I. Tkachenko*

9:50-10:15

RADIATION OF A CHARGED PARTICLE IN THE IDEALLY CONDUCTING  
METAL WAVEGUIDE FILLED WITH A SPATIALLY PERIODIC LAYERED  
DIELECTRIC

*Viktor Ivanovich Tkachenko, I.V. Tkachenko, A.P. Tolstoluzhsky, S.N. Khizhnyak*

10:15-10:40

ON POSSIBILITY OF EXTERNAL MAGNETIC FIELD APPLICATION  
FOR ELECTRICAL INSULATION OF ELECTRODES

*Olga Nikolaevna Shulika*

10:40-11:05

POWER SUPPLY DEVELOPMENT FOR ION SOURCE OF ACCELERATOR  
MLUD-3

*Yevgenii Vasilievich Gussev, O.V. Manuilenko, V.N. Sokol, A.A. Turchin, V.V. Zhiznevsky*

11:05-11:30

RADIATION COMPLEX ON THE BASIS OF HELIUM IONS LINAC

*Sergey Nikolaevich Dubniuk, R.A. Anokhin, A.F. Dyachenko, A.P. Kobets,  
A.I. Kravchenko, O.V. Manuilenko, K.V. Pavlii, V.N. Reshetnikov, A.S. Shevchenko,  
V.A. Soshenko, S.S. Tishkin, B.V. Zajtsev, A.V. Zhuravlyov, V.G. Zhuravlyov*

11:45-12:10

THE BUNCH FORMATION AND TRANSPORT SYSTEM TO THE TARGET  
OF THE HELIUM IONS LINAC

*Alexandr Fedorovich Dyachenko, R.A. Anokhin, S.N. Dubniuk, A.P. Kobets,  
A.I. Kravchenko, O.V. Manuilenko, V.M. Reshetnikov, V.A. Soshenko, S.S. Tishkin,  
B.V. Zajtsev, O.V. Zhuravlov, V.H. Zhuravlov*

12:10-12:35

BEAM AND TARGET PARAMETERS MEASUREMENT SYSTEM ON HELIUM  
IONS LINEAR ACCELERATOR

*Roman Alexandrovich Anokhin, S.N. Dubnyuk, A.F. Dyachenko, A.P. Kobets,  
O.V. Manuilenko, K.V. Pavlii, A.S. Shevchenko, V.A. Soshenko, S.S. Tishkin,  
A.V. Zabolotin, B.V. Zajtsev, A.V. Zhuravlyov*

12:35-13:00

CALCULATIONS OF PLASMA PARAMETERS FOR HIGH POWER IMPULSE REFLEX DISCHARGE

*Yurii Viktorovich Kovtun*

13:00-13:25

LAST RESULTS OF NOVEL PLASMAOPTICAL DEVICES INVESTIGATION

*A.A. Goncharov, Andrey Nikolaevich Dobrovolsky, V.Yu. Bazhenov, I.V. Litovko, I.V. Naiko, L.V. Naiko, E.G. Kostin, I.M. Protsenko*

**13:25-15:00 LUNCH / ОБЕД**

**Sections 1&2. NONRELATIVISTIC & RELATIVISTIC ELECTRONICS (NRE)**

**Секции 1&2. НЕРЕЛЯТИВИСТСКАЯ И РЕЛЯТИВИСТСКАЯ  
ЭЛЕКТРОНИКА (НРЭ)**

15:00-15:20

MONITORING THE CAPACITOR CHARGE VOLTAGE IN THE PULSE VOLTAGE GENERATOR USING THE ACCELERATOR OF RELATIVISTIC ELECTRON BEAMS

*Alexey Borisovich Batrakov, E.G. Glushko, A.A. Zinchenko, Y.F. Lonin, A.G. Ponomarev, S.I. Fedotov*

15:20-15:40

EXCITATION OF A FLAT COMB USING AN ELECTRON BEAM WITH A VIRTUAL CATHODE

*Anatolii Mikhaylovich Gorban', Yu.F. Lonin, A.G. Ponomaryov*

15:40-16:00

IMPROVING RF GENERATION CONDITIONS IN A FERRITE-FILLED TRANSMISSION LINE

*Sergey Yurievich Karelin, V.B. Krasovitsky, I.I. Magda, and V.S. Mukhin*

16:00-16:20

INTERACTION OF A RELATIVISTIC ELECTRON BEAM WITH ELECTROMAGNETIC FIELDS IN AZIMUTHALLY CORRUGATED WAVEGUIDE

*Vladimir Vsevolodovich Ognivenko*

16:20-16:40

THE POSSIBILITY OF ACCELERATION OF IONS BY A ELECTRON BEAM WHICH GENERATED BY A MAGNETRON GUN WHEN TRANSITION TO PLASMA MODE

*Sergey Alexeevich Cherenshchykov*

16:40-17:00

SIMULATING MULTIGUN SYSTEM WITH LANGMUIR LAW EMISSION CURRENT

*Petr Alexandrovich Martynenko*



**Section 4. THERMONUCLEAR FUSION (COLLECTIVE PROCESSES) (TNF)**  
**Секция 4. ТЕРМОЯДЕРНЫЙ СИНТЕЗ (КОЛЛЕКТИВНЫЕ ПРОЦЕССЫ)**  
**(ТЯС)**

17:05-17:30

HIGH-CURRENT ION BEAM COMPENSATION IN A SECTION  
OF AN INDUCTION LINAC

*V.I. Karas', E.A. Kornilov, O.V. Manuilenko, V.P. Tarakanov,  
Olga Viktorovna Fedorovskaya*

17:30-17:55

ON SYNCHROTRON RADIATION POLARIZATION FROM RUNAWAY  
ELECTRONS IN TOROIDAL MAGNETIC FIELDS

*Yakov Mikhaylovich Sobolev*

17:55-18:20

OPTIMIZATION APPROACH TO THE SYNTHESIS OF PLASMA  
STABILIZATION SYSTEM IN TOKAMAK ITER

*Dmitrii Alexandrovich Ovsyannikov, S.V. Zavadskiy*

**29.08. 2018**

**Section 3. NEW METHODS OF ACCELERATION (AMA)**

**Секция 3. НОВЫЕ МЕТОДЫ УСКОРЕНИЯ (НМУ)**

9:00-9:25

DESIGN OF A GAS CELL FOR LASER WAKEFIELD ACCELERATION OF ELECTRONS

*Anton Alexandrovich Golovanov, V.S. Lebedev, I.Yu. Kostyukov*

9:25-9:50

WAKEFIELD EXCITATION BY A LASER PULSE IN A DIELECTRIC MEDIUM

*Vladimir Artemovich Balakirev, I.N. Onishchenko*

9:50-10:15

DIELECTRIC WAVEGUIDES FOR ELECTRON ACCELERATION BY LASER PULSE WAKEFIELD

*Vladimir Artemovich Balakirev, I.N. Onishchenko*

10:15-10:40

INVESTGATION OF MULTIBUNCH WAKEFIELD EXCITATION IN DIELECTRIC COMPOUND-RESONATOR

*G.P. Berezina, K.V. Galaydych, G.A. Krivonosov, Anatolii Fedorovich Linnik, O.L. Omelaenko, I.N. Onishchenko, V.I. Pristupa, G.V. Sotnikov, V.S. Us*

**Section 5. COLLECTIVE PROCESSES IN SPACE PLASMAS (CPSP)**

**Секция 5. КОЛЛЕКТИВНЫЕ ПРОЦЕССЫ В КОСМИЧЕСКОЙ ПЛАЗМЕ (КП)**

10:40-11:05

ACCELERATING FIELD EXCITATION, OCCURRENCE AND EVOLUTION OF ELECTRON BEAM NEAR JUPITER

*Vasilii Ivanovich Maslov, A.P. Fomina, R.I. Kholodov, I.P. Levchuk, S. Nikonova, O.P. Novak, I.N. Onishchenko*

11:05-11:30

RESONANCE NONLINEAR REFLECTION FROM NEUTRON STAR AND ADDITIONAL RADIATION COMPONENTS OF CRAB PULSAR

*Viktor Moiseevich Kontorovich, I.S. Spevak, V.K. Gavrikov*

11:45-12:10

MULTI-FRACTAL ANALYSIS OF THE EARTH'S ELECTROMAGNETIC FIELD TIME VARIATIONS CAUSED BY THE POWERFUL GEOSPACE STORM OCCURRED ON SEPTEMBER 7-8, 2017

*Leonid Feoktistovich Chernogor, K.P. Garmash, O.V. Lazorenko, A.A. Onishchenko*

12:10-12:35

ASPECTS OF ELECTROMAGNETIC COMPATIBILITY AT REMOTE SENSING OF IONOSPHERE IN RADIOPHYSICAL OBSERVATORY OF KHARKIV NATIONAL UNIVERSITY

*I.I. Magda, Leonid Feoktistovich Chernogor*

12:35-13:00

AN ELECTRIC FIELD SENSOR BASED ON A SHORT MONOPOLE ANTENNA

*S.Y. Karelin, Igor Ivanovich Magda, V.S. Mukhin*

13:00-13:25

FORMATION OF CAVITIES IN THE IONOSPHERIC PLASMA DUE TO LOCALIZED ELECTROSTATIC TURBULENCE

*Dmitrii Vasilievich Chibisov*

13:25-13:50

DISPERSIVE DISTORTIONS OF THE FRACTAL ULTRA-WIDEBAND SIGNALS IN PLASMA MEDIA

*L.F. Chernogor, Oleg Valerievich Lazorenko, A.A. Onishchenko*

**13:50-15:00 LUNCH / ОБЕД**

**Section 8. APPLICATIONS AND TECHNOLOGY (AT)**

**Секция 8. ПРИЛОЖЕНИЯ И ТЕХНОЛОГИИ**

15:00-15:25

ELECTROMAGNETIC FILTER FOR H<sup>-</sup> SEPARATION FROM PIG WITH METAL HYDRIDE CATHODE

*Igor Nikolaevich Sereda, A.F. Tseluyko, D.L. Ryabchikov, Ya.O. Hrechko, A. Krupka*

15:25-15:50

USING OF PROTON BEAM WRITING TECHNIQUES FOR FABRICATION OF MICRO DIFFRACTION GRATINGS

*Alexandr Georgievich Ponomarev, S.V. Kolinko, V.A. Rebrov, V.N. Kolomiets, S.N. Kravchenko*

15:50-16:15

WORKS IN THE NSC KIPT ON THE CREATION AND APPLICATION OF THE CPA LASER SYSTEM

*Andrey Vadimovich Vasiliev, A.N. Dovbnya, A.M. Egorov, V.P. Zaitsev, V.P. Leshchenko, I.N. Onischenko, A.I. Povrozin, G.V. Sotnikov*

16:15-16:40

$\alpha$ -PARTICLE INDUCED FORWARD-BACKWARD ELECTRON EMISSION FROM TITANIUM NITRIDE

*Vitalii Pavlovich Zhurenko, S. Kononenko, O. Kalantaryan, I. Mysiura, S. Avotin, N. Rokhmanov*

16:40-17:05

INVESTIGATION OF COPPER SAMPLES WITH ION-PLASMA TREATMENT ON THE HIGH VOLTAGE BREAKDOWNS

*Vladimir Andreevich Baturin, A.Yu. Karpenko, V.E. Storizhko, V.A. Shutko*

17:05-17:30

PECULIARITIES OF INTERACTION OF LOW-ENERGY PROTONS WITH TUNGSTEN SURFACE

*Oleg Antonovich Fedorovich, V.V. Hladkovskyi, B.P. Polozov, L.M. Voitenko, E.G. Kostin, V.A. Petriakov, A.A. Rokitskyi, A.S. Oberemok, V.V. Burdin*

**30.08. 2018**

**Section 7. NONLINEAR PROCESSES (NP)**

**Секция 7. НЕЛИНЕЙНЫЕ ПРОЦЕССЫ (НП)**

9:00-9:25

THE EFFECT OF NONRECIPROCITY ON THE DYNAMICS OF COUPLED OSCILLATORS AND coupled WAVES

*Vyacheslav Alexandrovich Buts, D.M. Vavriv*

9:25-9:50

QUANTUM-MECHANICAL SIMULATIONS OF INTERACTION OF MANY-ELECTRON QUANTUM SYSTEMS WITH IONIZING LASER PULSES

*Alexandr Alexeevich Romanov, A.A. Silaev, D.A. Smirnova, T.S. Sarantseva, A.A. Minina, M.V. Frolov, N.V. Vvedenskii*

9:50-10:15

FEATURES OF STOCHASTIC DECAY IN THE MAGNETOACTIVE PLASMA

*V.A. Buts, Igor Konstantinovich Kovalchuk*

10:15-10:40

SUPERRADIANCE OF STATIONARY OSCILLATORS

*V.M. Kuklin, D.N. Litvinov, Alexandr Evgenievich Sporov*

10:40-11:05

THE SUPERRADIANCE OF A BUNCH OF ROTATING ELECTRONS

*V.M. Kuklin, D.N. Litvinov, Alexandr Evgenievich Sporov*

11:05-11:30

FEATURES OF BEHAVIOR OF ELECTRONS OF PLASMA IN OPEN TRAP IN CONDITION OF TRANSVERSE INPUT OF POWERFUL MICROWAVE PULSES AT ECR

*Alexandr Nikolaevich Antonov, V.S. Antipov, E.A. Kornilov, V.A. Vinokurov*

11:45-12:10

STRUCTURAL PHASE TRANSITIONS IN THIN CONVECTION AT DEPENDENCE OF VISCOSITY ON TEMPERATURE

*Ivan Valerievich Gushchin, V.M. Kuklin*

12:10-12:35

GROWTH RATE OF QED CASCADES IN A ROTATING ELECTRIC FIELD

*Igor Yurievich Kostyukov, I.I. Artemenko, E.N. Nerush*

12:35-13:00

MAGNETIZED PARTICLE DIFFUSION IN A RANDOM ELECTRIC FIELD WITH JUMPING PHASE

*Vladimir Ivanovich Zasenko, O.M. Cherniak*

13:00-13:25

THE CONSEQUENCES OF THE MODULATION INSTABILITIES

*Vladimir Mikhaylovich Kuklin*

**13:25-15:00 LUNCH / ОБЕД**

**Section 7. NONLINEAR PROCESSES (NP)**

**Секция 7. НЕЛИНЕЙНЫЕ ПРОЦЕССЫ (НП)**

15:00-15:25

CHAOTIC MAGNETOCONVECTION IN A NON-UNIFORMLY ROTATING  
ELECTROCONDUCTIVE FLUIDS

*M.I. Kopp, A.V. Tur, Vladimir Vladimirovich Yanovsky*

15:25-15:50

HEATING OF PLASMAS BY MICROWAVE RADIATION WITH STOCHASTIC  
JUMP PHASE

*Vyacheslav Ignatievich Karas`, A.F. Alisov, O.V. Bolotov, I.V. Karas`, S.Yu. Karelin,  
I.A. Zagrebelny, O.V. Fedorovskaya*

15:50-16:15

SIMULATION OF REGIMES IN THE PULSE-FORMING LINES  
BY OPERATOR METHOD

*Vladimir Ivanovich Chumakov, Yu.F. Lonin, O.I. Kharchenko*

16:15-16:40

FREQUENCY ANALYSIS OF THE STOCHASTIC FILTERING USING  
TRANSFER FUNCTIONS. PART I: SINUSOIDAL INPUT

*Oksana Igorevna Kharchenko, Yu.F. Lonin, A.G. Ponomarev*

**31.08.2018**

**Section 6. PLASMA-BEAM DISCHARGE, GAS DISCHARGE  
AND PLASMACHEMISTRY (PBD)**

**Секция 6. ГАЗОВЫЙ РАЗРЯД И ПЛАЗМОХИМИЯ,  
ПЛАЗМЕННО-ПУЧКОВЫЙ РАЗРЯД (ГРП)**

9:00-9:25

CATHODE DESIGN EFFECT ON GAS BREAKDOWN AND MODES  
OF BURNING OF THE GLOW DISCHARGE IN NITROGEN

*Valeriy Alexandrovich Lisovskiy, R.O. Osmayev, V.D. Yegorenkov*

9:25-9:50

ELECTRODES DIMENSIONS EFFECT ON THE SELF-SUSTAINED  
PLASMA-BEAM DISCHARGE POWER

*Yaroslav Olegovich Hrechko, N.A. Azarenkov, Ie.V. Babenko, D.L. Ryabchikov,  
I.N. Sereda, D.A. Boloto, A.F. Tseluyko*

9:50-10:15

DECOMPOSITION OF ETHYLENE IN LOW-TEMPERATURE PLASMA  
OF BARRIERLESS GAS DISCHARGE

*V.I. Golota, Dmitrii Vladimirovich Kudin, O.V. Manuilenko, G.V. Taran,  
L.M. Zavada, M.O. Yegorov, V.F. Khmelevskaya*

10:15-10:40

OZONE DECAY IN CHEMICAL REACTOR WITH THE DEVELOPED INNER  
SURFACE: AIR-ETHYLENE MIXTURE

*Oleg Vyacheslavovich Manuilenko, D.V. Kudin, V.I. Golota*

10:40-11:05

REFORMING OF ETHANOL IN HYBRID PLASMA CATALYTIC SYSTEM

*O.A. Nedybaliuk, V.Ya. Chernyak, Igor Igorovich Fedirchuk, V.P. Demchina,  
A.F. Nedybaliuk*

11:05-11:30

FEATURES OF THE MICROSECOND PULSED DISCHARGE IGNITION  
IN A POINT-TO-PLANE CONFIGURATION IN OXYGEN

*Svyatoslav Nikolaevich Mankovskyi, B.B. Kadolin, L.M. Zavada, V.I. Golota,  
M.O. Yegorov*

11:45-12:10

NUMERICAL SIMULATIONS OF CATHODE DIRECTED STREAMER  
PROPAGATION IN ELECTRONEGATIVE GASES

*O. Bolotov, B. Kadolin, S. Mankovskyi, Vladimir Nikolaevich Ostroushko,  
I. Pashchenko, G. Taran, L. Zavada*

12:10-12:35

MEASUREMENT OF ROTATIONAL TEMPERATURE OF MOLECULAR  
NITROGEN IN THE ANODE AREA OF NEGATIVE CORONA IN AIR UNDER  
TRICHEL PULSE MODE

*Oleg Valerievich Bolotov, V.I. Golota, Yu.V. Sitnikova*

12:35-13:00

VALIDATION OF THE NUMERICAL MODEL OF A SPARK CHANNEL EXPANSION IN A LOW-ENERGY ATMOSPHERIC PRESSURE DISCHARGE

*Konstantin Vladimirovich Korytchenko, V.S. Markov, I.V. Polyakov, E.D. Slepuzhnikov, R.G. Meleshchenko*

13:00-13:25

NUMERICAL SIMULATION OF INFLUENCE OF THE NON-EQUILIBRIUM EXCITATION OF MOLECULES ON DIRECT DETONATION INITIATION BY SPARK DISCHARGE

*Konstantin Vladimirovich Korytchehko, A.N. Ozerov, D.V. Vinnikov, Yu.A. Skob, D.P. Dubinin, R.G. Meleshchenko*

**13:25-15:00 LUNCH / ОБЕД**

15:00-15:25

CHARGING OF A MACROPARTICLE IN CATHODIC ARC SHEATH

*E.V. Romashchenko, Alexandr Anatolievich Bizyukov, I.O. Girka*

15:25-15:50

RESEARCHING OF OZONE DECAY DINAMICS IN DIFFERENT TECHNOLOGICAL CONDITIONS

*V.I. Golota, Grigorii Vitalievich Taran, O.V. Manuilenko, A.A. Zamuriev, Yu.V. Sitnikova, P.O. Opalev*

15:50-16:15

THE USE OF OZONE TECHNOLOGIES IN GRAIN STORAGE

*V.I. Golota, Grigorii Vitalievich Taran, A.A. Zamuriev, P.O. Opalev, S.G. Pugach, S.N. Mankovskiy, V.P. Petrenkova, I.N. Nyska*

16:15-16:40

INVESTIGATION OF PLASMA OF ARC DISCHARGE BETWEEN MELTING Cu AND Ni ELECTRODES

*Mikhail Mikhaylovich Kleshich, A.N. Veklich, S.O. Fesenko, V.F. Boretskij, L.A. Kryachko*

16:40-17:05

IGNITION OF THE BEAM-PLASMA DISCHARGE IN THE INITIALLY NEUTRAL GAS

*D.I. Dadyka, Igor Alekseevich Anisimov*

**17:05-17:30 Closing**

**Закрытие конференции**