



**Ural Federal
University**

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**Institute of Physics
and Technology**

Program
of the Sixth International Young
Researchers' Conference
Physics. Technologies. Innovation.
dedicated to the 70th anniversary of the
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ИНЖЕНЕРНАЯ КОМПАНИЯ «ПРОСОФТ-СИСТЕМЫ»



АКЦИОНЕРНОЕ ОБЩЕСТВО
НПО автоматика
им. академика Н.А. Семихатова

PROGRAM OVERVIEW

Day 1 – Monday – May 20

12:00 – 14:00	Registration. <i>Foyer Ft-201</i>
14:00 – 17:00	Sight-seeing. <i>Citytour</i>

Day 2 – Tuesday – May 21

08:30 – 09:00	Registration. <i>Foyer Ft-201</i>	Poster Session. Panel 1. Panel 2. Arrangement of display stands, <i>Main Foyer</i>
09:00 – 09:20	Opening. Welcome and opening comments of top university officials including Dean of Institute of Physics and Technology. <i>F-201</i>	
09:20– 10:00	Plenary Talk Peptide Photonics: From Bioinspired Nanodots To New Biomedical Nanotechnology Prof. G. Rosenman, Tel Aviv University, <i>F-201</i>	
10:00– 10:40	Plenary Talk Modern Theory of Multiferroics: What Is It and How Does It Work? Prof. I. Solovyev, National Institute for Materials Science, Japan, <i>F-201</i>	
10:40– 11:20	Plenary Talk Nuclear Non-Proliferation Control Prof. V.Yu. Konovalov, Federal Authority for Nuclear Regulation, UAE, <i>F-201</i>	
11:20 – 11:40	Coffee Break. <i>F-416</i>	

Plenary Talk, «Mixed, Compressed And Layered Semiconductors As Challenges For First-Principles Theory.», A. Postnikov. University of Lorraine, France.

Plenary Talk, «MgAl₂O₄ Ceramics Doped With Rare Earth Ions: Synthesis And Luminescent Properties», D. Valiev. National Research, Tomsk Polytechnic University.

1. *Kiselev Sviatoslav*, Luminescence of Li₆Y(BO₃)₃ doped with Pr³⁺ ions under X-ray, electron beam and ultraviolet excitation.
2. *Khatchenko Yulia*, Fast d-f luminescence of Pr³⁺ ions in some complex phosphates and silicates: comparative characteristics.
3. *Chaikin Dmitrii*, Spectral and kinetic parameters of thermoluminescence in cation-deficient AlN.
4. *Vagapov Alexander*, Effect of 10 MeV electron beam on the luminescent properties of MgAl₂O₄ impurity centers.

1. *Martyuk Daniil*, Using galvanic coatings to improve operational characteristics and resource for external combustion engines in arctic conditions.
2. *Shevchuk Alexey*, Copper recovery from spent solution of printed circuit boards etching.
3. *Hloba Nastassiya*, Determination of size of particles of water acrylic dispersions.
4. *Seleznev Andrian*, Methods of instrumental and theoretical analysis of contemporary anthropogenic sediments in urban areas.
5. *Lobanov Daniil*, Physical and chemical features of the zinc extraction from technogenic formations.
6. *Podryadova Kristina*, Liquid-liquid equilibrium for the quaternary system propionic acid - n-propanol - n-propyl propionate - water at 303.15 K.

1. *Akylbekova Aiman*, ZnSe₂O₅ nanocrystals synthesis in a nanoporous layer of silicon dioxide on silicon.

2. *Bokuniaeva Aleksandra*, Centers of crystallization in antimony thin films studied by transmission electron microscopy.
3. *Kuznetsova Yulia*, The effect of matrix on luminescence of nanocomposite based on CdS.
4. *Sinetskaya Darya*, Studying of structural and orientational changes in the process of growth of Pd-Pb solid film films.
5. *Chlenova Anna*, Thin film based magnetoimpedance sensor for magnetic needle position identification.
6. *Slautin Boris*, Local study of lithiation and degradation paths in LiMn₂O₄ battery cathodes via confocal raman microscopy.

11:40 – 13:00, Panel 6. Oral reports, F-425

1. *Savintseva Marina*, Research of properties of packaging materials for sterilization processing of medical instruments.
2. *Kingsley Duru*, The cytotoxic evaluation and regenerative potentials of isoflavones in diabetic animal models.
3. *Silina Evgenia*, Mathematical modelling of processes of radiation-induced adaptive response and plotting of dependence of dose change factor from time.
4. *Adepoju Feyisayo Olabisi*, Gray biotechnology.
5. *Lovtsevich Tatyana*, Parameters affecting EPR dose reconstruction in the teeth of Sverdlovsk region residents.
6. *Elsayed Israa*, Red biotechnology: a healthy World.

13:00– 14:00, Lunch Break

14:00 – 16:00, Panel 1. Oral reports, F-401

5. *Pavzderin Nikita*, Thermal and electrical properties of Co-doped La₂NiO₄.
6. *Devitsky Oleg*, Obtaining and research of heterostructures GaP/Si for photoelectric converters.
7. *Zibert Alexandr*, Synthesis of nanostructures based on FeSe.
8. *Balakhayeva Rakhima*, Structure of CdTe nanocrystals synthesized by electrochemical deposition from different solutions onto the SiO₂/Si track template.

9. *Alzhanova Aliya*, Nanomechanical properties of nanostructured SiO₂/Si systems.
10. *Usseinov Abay*, Ab initio calculations of CO₂ adsorption on nonpolar (100) ZnO surface.
11. *Sotnikov Oleg*, Quantum nanoskymions.
12. *Lei Xue*, Modeling of electronic and optical properties of C₃N₄ within DFT frame.
13. *Baratova Aliya*, Dynamics of heteroannihilation processes in fractal media.

14:00 – 16:00, Panel 3. Oral reports, F-414

7. *Pavlova Yana*, Determination of the degree of the recovery of uranium dioxide with the addition of oxides of rare-earth elements.
8. *Fedorov Sergei*, The behavior of micro-dispersed gold in smelting of sulfide materials.
9. *Ordinartsev Denis*, Leaching of vanadium from the second stage duplex process converter slag.
10. *Kotegov Alexander*, Verification of CFD model of a two-stage entrained-flow air blown gasifier.
11. *Rulinskaya Marina*, Improving the efficiency of heat exchange equipment manufacturing «Butadiene».
12. *Tsarev Nikolay*, Aggressive wastewater sludges conditioning with polyelectrolytes.
13. *Vorob'ev Alexey*, Study of stability of silicon complexes in KF–KCl–K₂SiF₆ melt.
14. *Kostromin Konstantin*, Localization of fluoride ion at LRW by evaporation in a pilot plant.
15. *Khamatnurova Alina*, Effects provided by the lower concentrations of inorganic additives on the synthesis and properties of polycaproamide.

14:00 – 16:00, Panel 4. Oral reports, F-419

7. *Otcheskikh Dmitry*, Composite solid electrolyte CaWO₄-SiO₂.
8. *Bryuzgina Anna*, Crystalline structure and physicochemical properties of Y₂Ba₃Fe_{5-x}CoxO_{13+δ} solid solutions.
9. *Finogenov Anton*, Determination of compositions and specific enthalpies of melting in salt systems with participation carbonat aniona.
10. *Burchakov Alexander*, Study of phase equilibria in the system K,Rb||F,I,CrO₄.

11. *Dmitriev Alexander*, Low-energy electron beam application for SiCN-based coatings deposition.

12. *Ivanov Roman*, Investigation of the influence of melt movement on the microstructure of a 3d printed product completed by the method of selective laser melting.

13. *Metlev Denis*, Study of the evaporation of porous targets from high-transparent oxides and fluorides with the help of a fiber ytterbium laser.

14. *Kotenkov Pavel*, Effect of copper on the Al₃Hf aluminides formation in the Al-Cu-Hf system.

15. *Sakvin Ivan*, Application of the method of electrochemical performance for the determination of the coefficient of hydrogen diffusion in pipeline steel mark 10G2 before and after corrosion tests.

14:00 – 16:00, Panel 6. Oral reports, F-425

7. *Kharlamova Anastasiia*, Study of the dynamics of dissolution of pharmaceuticals in water by calorimetric method.

8. *Volzhaninov Denis*, The development of the experimental set-up to study biomechanics of heart muscle cells.

9. *Kusay Abotrabi*, Medical biotechnology: its prospects and development.

10. *Ishkova Maria*, The research of the influence of ionizing radiation different doses on the containers for yogurt production.

11. *Desyatov Denis*, Radioactive waste approaches analysis by different countries.

12. *Berdenev Nikita*, EPR dosimeter for routine measurements.

13. *Agomo Atambire*, Green biotechnology: the future of plant development from here.

14. *Kasianova Valentina*, Physico-chemical properties of maltodextrin stabilized cerium dioxide nanoparticles.

15. *Vyrova Darya*, Isolation of beta-glucan from yeast and its use as a dietary supplement.

16:00 – 18:30, Poster Session. Panel 1. Main Foyer

1. *Pankov Vitaly*, Effect of medium of sintering and manganese impurities on photoluminescence of alumina ceramic.

2. *Myshkina Aleksandra*, Luminescent- optical properties of cerium dioxide nanoparticles annealed in a reducing atmosphere.

3. *Abashev Rinat*, Complex kinetics photoluminescence f centers in strongly irradiated anion-deficient corundum and its connection with the degree of filling electron traps.
4. *Postnikov Mikhail*, Control of the band gap by intercalating copper in ZrSe₂.
5. *Botov Michael*, Near-surface self-trapped exciton in Li₂O.
6. *Muftakhetdinova Razilia*, Study of the spectral characteristics of meteorites after modeling thermal and impact metamorphism.
7. *Dutov Valerii*, New esr centers of transparent nanoceramic MgAl₂O₄.
8. *Ramazanova Guzallia*, ESR of anion-deficient alumina single crystal after UV irradiation.
9. *Voynov Victor*, Non-radiation technology of creating complex color centers in anion-defective corund crystals.
10. *Makarova Alina*, Structural features and luminescence of natural spinel with abnormally high chromium content.
11. *Savchenko Sergey*, Composite color-tunable nanophosphor for UV radiation conversion.
12. *Parulin Roman*, Luminescent thin films of gadolinium oxide doped with erbium and europium ions.
13. *Churkin Viacheslav*, Photoluminescence of alumina ceramic doped with manganese under vacuum high-temperature sintering.
14. *Shevelev Vladimir*, The effect of fluorescent additives on optical and luminescent properties of organic polymers.
15. *Borbolin Andrey*, Optically induced processes in ultradisperse anion-deficient Al₂O₃-BeO ceramics exposed to high doses of ionizing radiation.
16. *Trofimova Elena*, 5d-4f luminescence in Sr₉Lu(PO₄)₇ doped with Pr³⁺ ions.
17. *Koubisy Mohamed*, Photoluminescence of oxygen-deficient centres in Re-implanted silica glass.
18. *Bubnova Anna*, Luminescence analysis of ceramic magnesium aluminum spinel Fe²⁺:MgAl₂O₄ synthesized from nanosized powders via sintering in air and vacuum.
19. *Konev Aleksandr*, The nature of radiation-induced EPR signals in halloysite nanotubes.
20. *Smirnov Nikolai*, Luminescence of intrinsic and impurity centers in Mg-doped aluminum oxide ceramics.

21. *Sofronova Anastasia*, Radiation-induced defects in SrMgF₄ crystals irradiated by fast electrons.
22. *Belikov Alexandr*, Volt-ampere features of silver sulfide.
23. *Menshenina Anastasia*, About the nature of the luminescence band at 2.6 eV in zirconia.
24. *Kozlovskiy Artem*, Changes in the optical properties of AlN irradiated with C²⁺ ions with energy 40 keV.
25. *Boqizoda Daleri*, Photoemission characteristics and in situ Kelvin probe work function measurements on films of linear chained carbon on copper and silicon substrates.
26. *Yakovenko Vladislav*, Simulating and visualization bremsstrahlung and its use for the formation of small absorbed.
27. *Shekunov Grigoriy*, Grain boundary diffusion simulation of Xe in UO₂.
28. *Tereshchenko Alexey*, Calculation of Lorenzograms for solutions of the model of double sine-Gordon.
29. *Rozanov Evgenii*, Using metadynamics for calculating nucleation energy barrier of metastable liquid.
30. *Shvab Ekaterina*, Computer modeling of heating and melting the fine particles of gold in different environments.
31. *Kashin Ilya*, Investigation of ferromagnetism in chromium triiodide monolayer.
32. *Nuretdinov Tagir*, Quantum fluctuation research in Fe_xMn_{1-x}Si with considering of the LDA+U+SO calculations of the electronic structure.
33. *Akischeva Anna*, Modelling of the system of magnetic anisotropic nanoparticles.
34. *Makoveeva Eugenia*, Mathematical modeling of nonlinear growth rates of crystals with allowance for Meers kinetics.
35. *Badrtdinov Danis*, The magnetic anisotropy of spin S=1 BaMoP₂O₈ system.
36. *Titova Ekaterina*, 3D dendrite shape in the large chemical Peclet number limit in the case of rotational symmetry.
37. *Toropova Liubov*, Effect of forced convection on dendrite growth kinetics.
38. *Grinina Zlata*, Magnetization reversal in GdCo antidot films with perpendicular anisotropy.
39. *Kudyukov Egor*, Effect of annealing on stress-magnetoresistance properties of films with unidirectional anisotropy.

40. *Zverev Vladimir*, Characteristic relaxation times for the multicore magnetic anisotropic nanoparticles.

41. *Kulesh Nikita*, Magnetization configurations in soft magnetic Fe-Nb-Cu-Si-B films with periodic nanoscale curvature.

42. *Izmozherov Ivan*, 3D Bloch lines model in domain structure of thin films with perpendicular magnetic anisotropy.

43. *Gupalo Marina*, The effect of the topology of a magnetic polymer on its structural and magnetic properties.

44. *Urzhumtsev Andrey*, Processes of magnetization reversal in permanent magnets of the Sm-Co-type.

45. *Nogovitsyna Tatiana*, Electronic structure and magnetic susceptibility of Fe_{1-x}CoxSi alloys.

46. *Moskalev Mikhail*, Partial structural transformation of NiMn in exchange biased Fe₂₀Ni₈₀/Ni₃₀Mn₇₀/Fe₂₀Ni₈₀ thin films.

47. *Russkikh Pavel*, Surface modification of steel inductor as an approach to enhance its durability in high pulsed magnetic fields.

48. *Adanakova Olga*, Effect of layered structuring on exchange bias in FeMn/X/Fe₂₀Ni₈₀ (X = Ta, Gd) films.

49. *Orlov Konstantin*, The calculation of frequency of resonant absorption of microwave radiation by water.

50. *Schapova Elizaveta*, The comparison of two data processing techniques of magnetic method for elastic compressive stress determination.

51. *Korenistov Pavel*, Electronic structure, electrical and optical properties of Mn_{1.8}Co_{1.2}Al alloy and spin gapless semiconductor state.

52. *Alekseev Igor*, Magnetic viscosity dependence of δM plots for a NdFeB-based alloy.

53. *Petukhova Anastasia*, Spatial magnetic flux distribution in an object magnetized by three-pole electromagnet locally.

54. *Sozonov Dmitry*, Comparative study of ultrasonic and magnetic methods for estimating plastic deformation of medium carbon steel.

55. *Feshchenko Anastasia*, Magnetic properties of soft magnetic cobalt-based alloy heat treated in presence of indium vapors.

56. *Rusalina Anastasia*, Magnetism of Dy-Co system amorphous films.

57. *Panchenko Polina*, Influence of magnetic field annealing on hysteresis properties of polycrystalline films of iron-group alloys.

58. *Vasilenko Olga*, Structural Sensitivity of the Parameters of Asymmetric “Coercive Return–Magnetization” Cycle in Heat-Treated Low-Carbon Steels.

59. *Skvortsov Daniil*, Separation of substances during evaporation from three-component mixture and optimization of this process.

60. *Toporova Natalia*, Crystal structure and kinetic properties of intercalation compounds $\text{Cr}_{0.33}\text{Nb}(\text{S}_{1-x}\text{Se}_x)_2$.

61. *Trofimova Kristina*, Synthesis and characterization of semiconducting carbazole thin films.

62. *Nizovtseva Irina*, Multi-grain evolution under slow, intermediate and fast regimes of solidification in multi-component alloying system.

63. *Akramov Danil*, Changes in the crystal structure and phase transformations in the $\text{Co}_7(\text{Se}_{1-y}\text{Te}_y)_8$.

64. *Borodin Kirill*, Influence of interaction between impurity atoms on solubility of gases in crystals.

65. *Filatov Maxim*, Thermal properties of ceramic and nanocomposition coatings of ZrO_2 and NiO-ZrO_2 obtained by reactive magnetron RF hardening.

66. *Yakupov Ratmir*, Depending on the loading rate, the mechanical properties of the Ti-3.5Al-1.1Zr-2.5V titanium alloy.

67. *Shutov Ilya*, The study of manifestations of the Jahn-Teller effect in the elastic properties of crystals ZnSe:Ni by acoustic spectroscopy.

68. *Bondarevskaya Anna*, Anomalous behavior of elastic properties of calcium fluorite crystal induced by nickel impurity.

69. *Losev Timofey*, Photodegradation of CsSnI_3 investigated by mean of xps.

70. *Ilyin Vadim*, Electrical resistivity of liquid CuSn , CuSnBi , CuSnBiIn , CuSnBiInCd alloys of equiatomic compositions.

71. *Zhilova Olga*, The structure of the heterogeneous $(\text{Co}_{40}\text{Fe}_{40}\text{B}_{20})_{34}(\text{SiO}_2)_{66}/\text{In}_2\text{O}_3$ nanosystem.

72. *Surganov Oleg*, Researching of the electronic structure and paramagnetic properties of irradiated polyethylene.

73. *Tarasova Oksana*, Development of broadband radio-absorbing structures based on frequency elector gratings.

74. *Goshev Andrey*, Influence of surface-bound water on the electrophysical properties of MW–CNTS.

75. *Sokolovsky Dmitry*, Effect of high pressure on the thermal EMF of carbon nanotubes.

76. *Tsykareva Yuliana*, Alteration of carbon nanotubes' band structure through chemical modification.

77. *Igolnikov Alexander*, Study of thermal conductivity thermally unstable substances in a wide range of temperatures and pressures.

78. *Egochina Veronika*, The research of the pre-wetting effect on the moisture transition from the surface of the ice in the frozen ground.

79. *Makarov Efrem*, Comparizon of the ion bombardment influence and shock mechanical loading on amorphous $\text{Fe}_{72,5}\text{Cu}_1\text{Nb}_2\text{Mo}_{1,5}\text{Si}_{14}\text{B}_9$ alloy.

80. *Basyrova Sara*, Influence of unipolar corona discharge on surface energy of modified cardboard.

81. *Punanov Ivan*, Angular distribution of ions generated by nanosecond surface flashover of polymers.

82. *Karishev Patrikey*, Investigation of features of crater formation on the cathode surface in the short vacuum discharge.

83. *Mikhailov Pavel*, Study of the ion plasma flow generated by a high-current vacuum arc.

84. *Mostovaya Ekaterina*, Three-dimensional chirped light bullets in carbon nanotubes.

85. *Osanova Elvira*, Fuel loading optimization into the active zone of the BN-800 reactor for the purpose of the most balanced distribution of the energy releasing field.

86. *Khalaf Hyam*, Efficiency and radioactive aerosol permeability of AFA-RSP-20 analytical filter.

87. *Fedorovykh Vyacheslav*, Evolution of the domain structure by electron and ion beam irradiation in strontium barium niobate single crystals.

88. *Gimadeeva Lyubov*, Formation of domain structure by electron beam irradiation in PMN-39PT single crystals.

89. *Dybov Vladislav*, Evolution of the phase composition and electrical properties of amorphous LiNbO_3 films in thermal annealing process.

90. *Abramov Alexander*, Indentation-induced local polarization reversal in La doped BiFeO₃ ceramics.
91. *Pashnina Elena*, Electron beam domain patterning in thin plates of magnesium doped lithium niobite.
92. *Kornilova Vera*, Investigation of piezoelectric and elastic properties of diphenylalanine microtubes after lyophilic drying.
93. *Vlasov Evgeny*, Domain patterning in congruent lithium niobate by electron beam irradiation at elevated temperatures.
94. *Anikin Viktor*, Influence of the domain structure on piezoelectric and dielectric properties of relaxor ferroelectrics.
95. *Lisjikh Boris*, Influence of composition gradients on initial domain structure in lithium tantalate.
96. *Guzhova Alina*, Electret properties of Polylactic Acid – Montmorillonite composites.
97. *Minzagirova Alsu*, Effect of montmorillonite on the properties of electret polyethylene.
98. *Gilmanov Iskander*, Interrelation of electret properties of polyethylene foam from the production technique and addition of a finely dispersed filler.

15:00 – 18:00, Poster Session. Panel 2. Main Foyer

1. *Kotelnikov Andrey*, Program model of the ultrasonic flaw detector introtest-1m.
2. *Briginets Sofya*, The software for figurative the cardiominitorah.
3. *Rozevika Alina*, The software for the grut mobile complex.
4. *Alimkhanov Albert*, Neutron detector based on 6Li-silicate glass activated by cerium.
5. *Abdurakhimov Nursulton*, Design of a universal experimental stand for determining the spectrophotometric characteristics of substances.
6. *Mogilnikov Ilya*, Eviot-module.
7. *Mekhontseva Galina*, Evaluation of factors influencing the measurement of electrical resistivity of material of standard samples of silicon single crystal.
8. *Davydov Danil*, Research of the sensitivity of EPR hydroxyapatite-based dosimeters to various types of ionizing radiation.
9. *Chuvashov Roman*, Device for nitroaromatic substance detecting and identification.
10. *Alaberdin Rinat*, Development of a mobile device for the analysis of the content of harmful gas in the fire.

11. *Zabolotniy Sergey*, Development of a mobile device for analysis of the concentration of natural gas.
12. *Yurpolsky Dmitry*, Development of a mobile device for optical analysis of problem skin zones.
13. *Glotov Vadim*, Development of a mobile device for analysis of the concentration of natural gas.
14. *Mukhin Roman*, Digital method of processing information in spectroscopy: problems and prospects.
15. *Krasnoborova Ekaterina*, The control module of shaft engine rotation speed.
16. *Kornienko Maxim*, The error reduction of coordinates determination of acoustic emission sources.
17. *Demin Maksim*, Automated control device based on the imx6 application microprocessor.
18. *Ziatdinova Adel*, Device for nitroaromatic substance detecting.
19. *Sturis Aleksey*, Hardware for electron beam energy control measuring in real time.
20. *Byzov Alexander*, Hardware-software system for magnetic structurescopy dius-1.15m.
21. *Martemyanov Nikolay*, Module for high-temperature annealing of widegap materials in various gases.
22. *Mikhailov Alexey*, Dipole model of magnetization of rebar in concrete.
23. *Nedorezov Maksim*, Surface egg sterilizer based on urt05-m accelerator.
24. *Semchenko Vladimir*, Lewis transformers with matching adders.
25. *Zakirov Nail*, Development of a device to restore the thread for 3d printers from plastic waste.
26. *Fofanov Andrey*, Modernization of hardware and software complex to study the mechanical properties of ice.
27. *Kochnev Alexander*, Instrumental control of magnetic properties and phase composition of corrosion-resistant chromium-nickel steels.
28. *Ogorodnikova Olga*, Method of ripe tomato detecting for a harvesting robot.
29. *Patrakov Vitaly*, Comparison of commercial and integrated thyristors triggered in impact-ionization wave mode.
30. *Ostrovsky Vasily*, Development of a control system of hardware and software complex to determine thin films thickness by interferential method.

31. *Sinev Maxim*, Description of the shs reactor and the nearest plans for its use.
32. *Kupchinsky Anton*, The energy dependence of sensitivity correction for the direct-reading dosimeter.
33. *Mironov Arsenii*, Research of the effect of different substances on the detection of the following quantities of nitro-containing explosive substances by the method of extinguishing the chemiluminescence.
34. *Voloshin Artyom*, Determination of neutron spectrum using bonner sphere spectrometer.
35. *Pyshkina Mariia*, The dependence of the uncertainty on the amount of sphere at bonner sphere spectrometer.
36. *Saif Mujahed*, Estimate the absolute efficiency by matlab for the nai(tl) detector using iaea-314.
37. *Ushakov Vjacheslav*, Stand for the analysis of the amplitude-time characteristics of the nuclear precession signal.
38. *Bagenov A*, GMH optimization of steering gear control unit.

18:00 – 18:30, Registration for intellectual sports game “Quest”. *Main Foyer*

18:30 – 21:00, Intellectual sports game “Quest”. *University campus*

Day 3 – Wednesday – May 22

08:30 – 09:00	Poster Session: Panel 3. Panel 5. Arrangement of display stands. <i>Main Foyer</i>
09:00 – 09:40	Plenary Talk Radiation Effects And Defect In Functional Oxides And Halides For Fusion Applications Prof. A.I. Popov, University of Latvia, Latvia, <i>F-201</i>
09:40– 10: 20	Plenary Talk Synthesis of unoxidized Nanoparticles in a Pulsed-Periodic Gas Discharge Prof. V.V. Ivanov, Moscow Institute of Physics and Technology, Russia, <i>F-201</i>
10: 20– 11:00	Plenary Talk Impact Physics - From Chicxulub To Chelyabinsk Prof. N. Artemieva, Planetary Science Institute, Tucson, USA, <i>F-201</i>
11:00– 11:20	Coffee Break. F-416

11:20 – 13:00, Panel 1. Oral reports, *F-401*

14. *Germov Alexander*, Results and perspectives of NMR spectroscopy in the study of the electronic structure of uranium mononitride.

15. *Pankov Sergei*, Conductivity mechanisms in $[\text{ZnO}/\text{SiO}_2]_{25}$ thin-film structure.

16. *Sedov Egor*, Quantum size effect and critical temperature of thin aluminum films.

17. *Olontseva Darya*, Stripping of the ion beam when passing through nanotubes.

18. *Sludnaya Marina*, Correction of the classical theory of ionic inhibition of Bohr.

19. *Makarova Kseniya*, Scattering of ultrashort electromagnetic field pulses by graphene.

20. *Shalomov Konstantin*, Estimation of temperature and thermal pressures in thermalized areas of dense cascades of atomic displacements in the course of ion bombardement.

21. *Potapova Irina*, Wave propagation and dissipation parameters of surface plasmons on the border of nanocomposite.

11:20 – 13:00, Panel 3. Oral reports, *F-414*

16. *Gordeev Egor*, Interkalation of layered hydroxonitrate Gd-Er fluoride ions and sulfate ions.

17. *Burdina Anna*, Obtaining nanocrystalline powders of tantalum carbide and studying their properties.

18. *Okuneva Tatyana*, Optimization of conditions sedimentation of iron, nickel, titanium, chrome, molibden, cobalt, tantal, tungsten and aluminum for ICP-AES determination of gallium and germanium.

19. *Adiyak Ekaterina*, Synthesis of nonstoichiometric titanium dioxide in hydrogen stream.

20. *Osinkina Tatiana*, Oxidation of Ti-Al-Nb and Ti-Al-Ta alloys by air oxygen.

21. *Osipenko Anastasia*, Study of ruthenium behaviour in alkali chloride melts using electronic absorption spectroscopy.

11:20 – 13:00, Panel 4. Oral reports, *F-419*

16. *Sedukhin Vadim*, To the question of the interaction of titanium carbide with low-carbon steel.

17. *Sinitsin Nikolai*, The surface tension of liquid steel 110G13L.

18. *Slinkin Igor*, The microstructure of sintered permanent magnets with Co-(36,0-38,5)%Sm grade KS-37.

19. *Valtsev Nikolay*, Microstructure and crystal structure of the pipes from the CrNi60WTi alloy with spray coating PV-NiCr16Al6Y.

20. *Balyakin Ilya*, Radial distribution functions of TiZrNbHfTa high-entropy alloy in a liquid state.

21. *Gibadullina Alfiya*, Modelling of the thermodynamic and kinetic stability of alloys based on “nickel-chromium-molybdenum” system.

11:20 – 13:00, Panel 6. Oral reports, *F-425*

16. *Ibrahim Yama*, Enzymatic treatment to increase extract yield from Chlorella Algae.

17. *Volchkov Stanislav*, Investigation of the ferrofluid in blood vessels of complex geometry by the finite elements method.

18. *Okechukwu Queency*, Advancement of food processing biotechnology in developing countries.

19. *Nikitenko Eugeny*, Determination of physico-chemical forms of iodine-131 emissions of the industrial reactor unit.

20. *Simanova Yulia*, The influence of lead ions on the mechanical function of myocardium.

21. *Aboushanab Saied*, Potential use of beta-glucan in the industry and medicine.

13:00 – 14:00, Lunch Break.

14:00 – 16:00, Panel 1. Oral reports, F-401

22. *Ivanov Ivan*, The dislocation theory of elastic distortions of the crystal lattice to describe structural changes during the plastic deformation of titanium.

23. *Zamkovskaya Anastasia*, Effect of anisotropy of elastic properties on estimation iron borates microstructure.

24. *Gilfanova Svetlana*, Influence of electret effect on filter and dividing capabilities of polymer nonwovene materials.

25. *Belyaeva Tatyana*, The influence of polydispersity on the equilibrium properties of supramolecular magnetic polymers.

26. *Yuzhakov Vladimir*, Elastic and piezoelectric properties of diphenylalanine microtubes filled by ethanol molecules.

14:00 – 16:00, Panel 3. Oral reports, F-414

22. *Polshina Tatiana*, Arsenic (III) sorption by ionite Lewatit FO 36.

23. *Sinelshchikova Anna*, Dynamics of sorption of noble metal ions by sulphoethylated polyethylenymin with a modification degree of 0.58.

24. *Naskina Dilyara*, Mixing hydrodynamics research during the ammonium polyuranate deposition.

25. *Koshcheeva Alina*, Efficiency increasing methods used for hydrocarbon processing facilities.

26. *Britvina Anastasiya*, Precipitation of uranium peroxide from nitrate-sulphate pregnant solutions.

27. *Lavrov Anton*, Modeling the processes of mixing of sediments with large content of solid phases in the machine with different variants of mixing devices.

14:00 – 16:00, Panel 4. Oral reports, F-419

22. *Thoemmes Alexander*, Comparison of mechanical properties and microstructure of annealed and quenched Ti-6Al-4V alloys.
23. *Filatov Alexander*, Energy-efficient method of obtaining Al-Zr master-alloys.
24. *Gilev Ivan*, Effect of zirconium and titanium on the recrystallization of Al-Cu alloy.
25. *Gorinsky Petr*, Cu/Mg composite deformation curves features on nanoindentation.
26. *Komkova Daria*, Development and structure of extra-fine magnesium wires.
27. *Melchakov Stanislav*, Cu-Cr-W composite alloy with thin dispersive inclusions of W, received by vibrational reactive infiltration of Cr+W powder mixture by copper melt.
28. *Brusnitsyna Evgeniia*, Metallographic analysis of pallasite and octahedrite parts of seymchan meteorite.

14:00 – 16:00, Panel 6. Oral reports, F-425

22. *Sopelkina Kseniya*, Isolation and purification of fucoidan from brown algae fucus vesiculosus and laminariae thalli with the purpose of its use as a food supplement in cultured milk products.
23. *Kiseleva Maria*, Synthesis and study of nanopowders Al₂O₃+Ag composite properties.
24. *Salazar Perdomo Jennifer*, The role of white biotechnology in obtaining secondary metabolites from edible fungi.
25. *Myachina Tatiana*, The use of fluorescent dyes in the studies of structural and mechanical properties of cardiomyocytes.
26. *Torkwase Bulya*, The innovative approach towards improving green biotechnology in Nigeria.
27. *Letyagin Denis*, Influence of alternating high-frequency magnetic field on living organisms.
28. *Izmozherova Kira*, Active transport model of water in plants.

16:00 – 18:30, Poster Session. Panel 3. Main Foyer

1. *Tsimmerman Aleksandr*, Analysis of the possibility of obtaining bulk ceramic materials using spark plasma sintering in the ZnO-Bi₂O₃ system.
2. *Sultanova Dina*, Study of electroconducting properties of ceramics based on ZrO₂-Y₂O₃-Sc₂O₃.

3. *Ikanina Elena*, Iron (III) forms in aqueous solutions of salts of strong inorganic acids.
4. *Guliyants Yuri*, Catalytic purification of paraffin hydrocarbons from methanol admixtures.
5. *Osipov Pavel*, Flowsheet modeling of the gasifier with different transportation agents.
6. *Igosheva Viktoriya*, Electrothermal atomic absorption determination of indium.
7. *Gurianova Anna*, Study of the effects of modification on the properties of OSC-materials.
8. *Kosykh Anastasiya*, The influence of precipitation conditions on the parameters of size distribution and particle shapes of hydroxide and oxide tin powders.
9. *Bereskina Polina*, The influence of synthetics method on parameters of porosity and surface of alumina-ceria-zirconia composite.
10. *Nikitin Dmitry*, Electrolysis of fluoride-chloride melts as a method of cerium group REE production.
11. *Buinachev Sergei*, Investigation of the effect of pH in the sorption of yttrium on hydrated zirconium dioxide.
12. *Lazebny Ivan*, Verification of the CCGT model in aspen plus.
13. *Pyankov Artemiy*, Selective separation of bismuth-212 from thorium solution.
14. *Zolotarev Daniil*, Estimation of temperature influence on cathodic reduction of uranium from chloride melts.
15. *Sekhleyan Ovsanna*, Influence of environmental quality on population health of the Sverdlovsk region.
16. *Savastianova Anastasia*, The investigation of niobium pentachloride dissolution processes in molten chlorides.
17. *Maksimtsev Konstantin*, Synthesis and structure of aluminum-cerium master-alloys.
18. *Popilovskaya Kristina*, Extraction-spectrophotometric determination of di (2-ethylhexyl) phosphoric acid.
19. *Batalova Ekaterina*, Analysis of the spectral characteristics of apatite germinate.
20. *Shadrina Liubov*, Anions determination in layered hydroxides of REE using capillary electrophoresis.
21. *Lopunova Ksenia*, Influence of medium acidity on selectivity sorption of silver (I) ions of sulfoethylated polyallylamine, cross- linked by epichlorogidrin.

22. *Kurasova Yulia*, The influence of precipitation conditions on chromium hydroxide powders properties.
23. *Zhirenkina Nina*, The research of the processes of hydroxyapatite.
24. *Khorkova Arina*, Determination of tributyl phosphate and di-2-ethylhexylphosphoric acid in aliphatic hydrocarbons.
25. *Fofanov Grigoriy*, Interaction of metallic niobium with niobium-containing chloride melts.
26. *Glazunov Aleksandr*, The gas condensate as the source of diesel fuel.
27. *Kashapova Julia*, A method for Sr isotope ratio determination in biogenic apatite by MC-ICP-MS using SR resin.
28. *Petrov Anton*, Samarium and ytterbium metal production using lanthanothermic reduction.
29. *Taranova Lyubov*, Efficiency increasing methods used for hydrocarbon.
30. *Dedyukhin Alexander*, Neodymium solubility in gallium-zinc eutectic alloy.
31. *Glazunova Yuliya*, The study of kinetics of strontium sorption by natural and modified aluminosilicates.
32. *Shabunin Artem*, Adsorption-coagulation separation of cesium and strontium ions by intercalated aluminosilicates.
33. *Borodina Elena*, Development of technology for the isolation of germanium from irradiated gallium-nickel targets.
34. *Kirichenko Irina*, Determination of radionuclide composition of an actinium-containing rare earth concentrate.
35. *Alimgulov Ruslan*, Corrosion of structural materials in molten KCl–LiCl–UCl₃ containing metallic zinc.
36. *Baksheev Evgenii*, Synthesis of palladium containing solid solutions based on cerium and circonium oxides.
37. *Yushchenko Alena*, Coprecipitated hydroxides granulation.
38. *Soldatova Maria*, Deposition potentials of zirconium from chloride melts on solid and liquid metal cathodes.
39. *Mityushova Yulia*, Properties characterization of ceramic samples.
40. *Gordeeva Tatiana*, The analysis of uranium sorption isotherms in the area of colloids formation.

41. *Nikulina Victoria*, Electrochemical properties of niobium in alkali chloride based melts.
42. *Ismailov Murodzhon*, Preparation and analysis of Pr-Ga-Al alloys.
43. *Ryzhov Alexander*, Effect of temperature on electronic absorption spectra of tungsten-containing chloride melts.
44. *Bardina Maria*, Optimization of conditions of separation of nickel, titanium, chromium, molybdenum, tungsten, cobalt, tantalum and iron from selenium and tellurium.
45. *Zakharova Tatyana*, Studying the mechanisms of the sorption of radionuclides Cs-137 and Sr-90 in the soils of various regions.
46. *Orlov Pavel*, The influence of the solution composition on the course of chemical reactions during the sorption of cesium and strontium by natural and modified clinoptilolite.
47. *Mikhalev Semen*, The study of uranium electrodeposition in the method of alpha spectrometric analysis of uranium isotopic ratio.
48. *Kasyanova Anna*, A method for Sr isotope ratio determination in biogenic apatite by MC-ICP-MS using SR resin.
49. *Mozyrev Andrei*, Automobile tires reprocessing.
50. *Kudiyakova Valeriya*, CVD synthesis of the tin nanopowders.
51. *Silenkov Sergey*, Electrodeposition of nickel on the structure of nanotubular titanium dioxide.
52. *Smirnov Alexander*, Investigation of liquid-liquid equilibrium in splitting systems containing biofuel component.
53. *Yudina Yuliya*, Modeling of the solid phase particles dispergation and agglomeration processes in technological equipment.
54. *Boroznin Sergei*, Research into boron-carbon nanotube modified by alkaline metal atoms.
55. *Liubichev Dmitrii*, Liquid-liquid equilibrium in quarternary systems ethanol – ethylpropanoate – choline chloride – glycerol, propanol – propylpropanoate – choline chloride – glycerol, butanol – butylpropanoate – choline chloride – glycerol.
56. *Skachkov Anatolii*, Extraction of indium in the presence of Fe (III) from sulfur acid solutions.
57. *Novikov Ilya*, Sorption extraction of indium from sulfur acid solutions in the presence of iron ions.

58. *Danilenko Irina*, Valence of iron in chromite by the data of electron probe microanalysis.

59. *Shebukhova Ekaterina*, Synthesis and spectral properties of new phosphors $\text{Ca}_2\text{La}_{6.8}\text{Eu}_{1.2}(\text{XO}_4)_6\text{O}_{2-\delta}$ ($\text{X} = \text{Si}, \text{W}$), obtained by the anionic substitution method.

60. *Skripchenko Sergey*, The regeneration of saturated ionite after sorption hexavalent chromium from wastewater of chromium production plant.

61. *Sukhorukova Olga*, Phosphogypsum analysis by XRF.

62. *Tokmakova Kristina*, Electrochemical determination of glucose using silver and palladium nanoparticles as catalysts.

63. *Bobarenko Anastasya*, Organic nickel (II) and ruthenium (III) complexes as electrochemical catalysts in glucose oxidation

64. *Simanov Nikita*, The flow reactor calculation for the hot syn-gas desulphurization.

65. *Pozdin Andrey*, The effect of iodine and ultrasound allocation on the composition and morphology of PbS films.

66. *Timina Daria*, Investigation of antioxidant capacity of plant extracts.

67. *Peshkova Anastasia*, Obtaining and investigation of antioxidant properties of grape extracts.

68. *Strepetov Kirill*, Uranium reduction from chloride melts on solid and liquid metal cathodes.

69. *Vaganova Irina*, Evolution of structural and optical properties of nanostructured PbS films doped with iron (II).

70. *Karpova Sofya*, Copper isotope ratios in cis-Urals copper sandstones and products of their processing as a tool for uncovering the bronze age smelting activities.

71. *Korobitsyna Anna*, Sorption of perrhenate ions by aminopolymers and their functional derivatives.

72. *Vovk Sergey*, The study of sorption kinetics of cobalt.

73. *Piskareva Mariya*, Determination of the firing temperature and redox atmosphere of the pottery from the bronze age settlement Kamenny Ambar by X-Ray diffraction phase analysis

74. *Kozlova Anastasiya*, Reaction of uranium(IV) chloride with oxygen in alkali chloride melts.

75. *Nikitin Alexander*, A study of air-steam charcoal conversion by thermogravimetric analysis.

76. *Pankrushina Elizaveta*, Statistical data processing of Raman thermal spectroscopy in minerals.

77. *Mashkovtsev Maksim*, Synthesis and luminescence of yttrium oxide ceramics with a variable europium content.

78. *Tropin Oleg*, Electronic absorption spectra of rare earth (Sm, Eu, Yb) dichlorides in alkali chloride melts.

79. *Markina Maria*, Design and calculation of the scheme of the ideal separatory cascade for a three-component mixture.

80. *Starygina Polina*, High temperature IR-spectroscopy of lithium, sodium and potassium urinates.

81. *Malyshev Andrei*, The study of REE leaching kinetics from phosphogypsum.

82. *Shishkin Roman*, Novel method of silicon synthesis by CVD.

83. *Gushshamova Viktoria*, Investigation of the impact of structural gaps on the hydrodynamics of the flow shell and tube heat exchanger.

84. *Kochergina Elizaveta*, Analysis of molybdenum-containing chloride melts by XRF.

85. *Ivanov Alexander*, Phosphate precipitation from the melts containing mixtures of rare earth elements: particle size distribution analysis.

86. *Nalivaiko Ksenia*, Kinetic of sorption of scandium and impurities from hydrolysis sulfuric acid by phosphoric acid cation-exchanger.

87. *Shestakov Kirill*, Autoclave leaching of REE from phosphogypsum.

88. *Bachina Tatyana*, Detection of heavy metals in food products by the method of excitation of isomeric states.

89. *Kotova Mariia*, Study of extraction separation of holmium and erbium from hydrochloric acid medium.

90. *Arnautov Alexander*, Insertion of silica into nanoporous alumina by chemical deposition technique.

91. *Yuferov Yuliy*, Technology development for obtaining a multilayer nanoporous aluminum oxide.

92. *Senina Alina*, Study of phase equilibrium in splitting systems involving ethyl propionate.

93. *Khudorozhkova Anastasia*, Study of liquidus temperatures in the KF – KCL – KI melt containing SiO₂ and K₂SiF₆

94. *Medvedeva Margarita*, Obtaining polyvinililbenzylaside films, functionalized by copper nanoparticles, on the surface of a glass-carbon electrode for address process immobilization.

95. *Saigushkina Anna*, Address functionalization of the gold electrode by the method of electrographing of salts 3- carboxyphenyl diazonium and 3-carboxy-1,2,4-triazole-5-diazonium.

96. *Kutergin Andrey*, Effect of activating natural aluminosilicate on its sorption properties.

97. *Abuelsoad Asmaa*, Beryllium biosorption on chemically modified sulfonated chitosan: kinetics and thermodynamics studies.

98. *Kriukova Veronika*, Modeling mixture processes in a conversion device with various types of construction of mixing devices.

16:00 – 18:30, Poster Session. Panel 5. Main Foyer

1. *Zafirov Evgeny*, The determination of the controlling parameter of transport of substances through the cell membrane at the early evolution stages by the method of computer calculations.

2. *Kuleshova Irina*, Stochastic analysis of the Ricker population model with immigration and Allee effect.

3. *Abramova Ekaterina*, Analysis of stochastic excitability in the population dynamics model.

4. *Samarina Anastasia*, Method of stochastic sensitivity function in analysis of a population dynamics model.

5. *Zimin Alexander*, On the dialogue in translation medicine: medicine request – answer of the physics.

6. *Kasoyan Kristina*, Development of marker recognition augmented reality.

7. *Arkhandeev Igor*, A MEX64-interface for solving inverse problems in Matlab.

8. *Gladkov Dmitrii*, Hardware-software complex of remote health monitoring of the patient on the example of electrocardiography.

9. *Pakhtusov Aleksey*, Correlation analysis of clinical data on evaluation of motor disturbances and muscle tone disorders in cerebral palsy.

10. *Golovacheva Polina*, Identification of problems of interaction between insurance company and clinic, task definition for the organization of electronic documents VMI for legal entities.

11. *Khrushkov Artem*, Creation of a medical information search system in the electronic medical card to assist in decision-making by a doctor.

12. *Ermakov Andrew*, About the logic of the functioning of physics texts transmitter in medicine.

13. *Vormanov Igor*, Approaches to teaching a distributed robot collective.

14. *Bannikov Ilya*, Increase the reliability of decision-making by the robots swarm.

15. *Kramarenko Anna*, Application of the parameters of measures of order and disorder for classifications of russian-language texts.

16. *Kupriyanov Anton*, The information security risk assessment of commercial organizations.

17. *Rakhmatova Anna*, Data separation for training the artificial neural network to simulate the spatial distribution of chromium in the surface layer of the soil.

18. *Rakhmatulina Rasilya*, On the problem of software for deep medical examinations of athletes.

19. *Smirnov Mikhail*, Convertation of barclay database in format suitable for use in modern computer analysis means.

20. *Filippova Maria*, Identifying main requirements, searching for analogues of incident management system in ministry of social policy of the Sverdlovsk region.

21. *Shevelina Ekaterina*, Models for prediction of promotion of universities in QS WUR BRICS on the example of UrFU.

22. *Tya-Shen-Tin Yegor*, Fitting of deep neural network hyperparameters by kriging.

23. *Belyaev Alexander*, Mechanisms of generation of spikes in piecewise Rulkov model under a parametric noise.

24. *Marakov Maxim*, Development of web-server's heuristic automatic configuration model.

25. *Dontsov Oleg*, One-factor analysis of the model of IT specialist production.

26. *Vasyutin Nikita*, Developing of supporting program for operator of experimental nuclear reactor.

27. *Zaynullina Elvira*, Optimization of the mechanism of nuclear fuel overload in a reactor on fast neutrons.
28. *Kostarev Vyacheslav*, Simulation of passive removal of residual heat from radioactive wastes subject to weather conditions.
29. *Lukyanenko Vera*, Design codes using in optimization of the radiation-hazardous facilities decommissioning process.
30. *Mikhailova Alina*, Modeling of the management process of individual radiation risks of personnel.
31. *Chernoskutov Alexander*, Morphological stability of the bubble in a fluid. The two-dimensional case.
32. *Rusova Daria*, Dendrites on the surface of NaCl water solution, observed with infrared camera.
33. *Panova Alena*, The influence of the "shading effect" on the rarefied gas cylindrical Kuette flow.
34. *Seitov Dastan*, Sintering UO₂ nanocrystals of octahedral shape contacting along an edge: a molecular dynamics simulation.
35. *Pitskhelauri Sergey*, Molecular dynamic simulation of uranium carbonitride using variable ion charges.
36. *Terentjev Danila*, Influence of the period of meteorological observations on the assessment of effective dose of population exposure from emissions of the atomic industry enterprise.
37. *Shumkov Dmitriy*, Reliability assessment of the irradiated fuel assemblies cooling in the storage pit of a research nuclear reactor.
38. *Ralnikov Pavel*, Numerical study of the flow around single fuel particles in experimental setup.

18:00 – 18:30, Registration for intellectual game “What? Where? When?” Foyer F-201

18:30 – 21:00, Intellectual game “What? Where? When?”.F-201

08:30 – 09:00	Poster Session: Panels 4. Panels 6. Arrangement of display stands, <i>Main Foyer</i>
09:00 – 09:40	Plenary Talk Theory Of Itinerant Electron Magnetism Prof. M.I. Katsnelson, Radboud University, Netherlands, <i>F-201</i>
09:40– 10:20	Plenary Talk Two-Dimensional Materials: Graphene And Beyond Prof. Sanjeev K. Gupta, St. Xavier's College, India, Russia, <i>F-201</i>
10: 20– 10:40	Coffee Break. F-416

10:40 – 13:00, Panel 2. Oral reports, *F-414*

1. *Maltseva Viktoria*, Development of setup for measuring magnetic properties of materials in a closed magnetic circuit.
2. *Nikitin Andrey*, Magnetic defectometry of surface defects in a ferromagnet.
3. *Sergeev Andrey*, Calculation and creation of highly homogeneous magnetic systems using comsol Multiphysics.
4. *Proskurina Irina*, Control of electrical parameters for the evaluation of martensitic transformations in austenitic steels.
5. *Nasyrov R.T.*, Problems of verification in development of microelectronic products.
6. *Serazetdinov Artur*, Current Comparator Design.
7. *Merkulov Oleg*, Development and testing of a tubular thermoelectric generator based on oxide materials.
8. *Melnikova Alexandra*, Automated system for decoding results and automatic tracking of the development of defects when controlling heat exchangers.
9. *Perevalov G.S.*, Requirements for software to ensure the resistance of equipment to ionizing radiation of outer space.
10. *Iurkov Igor*, Methods of measuring the flux density of radon, taking into account advective transfer.

10:40 – 13:00, Panel 5. Oral reports, *F-425*

1. *Grigoryev Alexey*, Route optimization during works in non-stationary radiation fields with obstacles.
2. *Zhaksygalı Farabi*, Probabilistic model of error distribution for satellite navigation.
3. *Merezhnikov Artyom*, An improved algorithm of calculation of the thermoluminescence kinetics in the cluster system with deep traps.
4. *Khmara Guzel*, The experience of using the joint control devices of voltage and reactive power regulation on a laboratory bench.
5. *Pozigun Gloria*, Critical analysis of hypothesis about possible variation of the nuclear decay constants.
6. *Litovchenko Vladislav*, Modeling combined radiation protection of containers for transporting isotopes with high-energy beta irradiation.
7. *Sevastyanov Mikhail*, Numerical simulation of residual heat removal from the spent fuel assemblies storage pit.
8. *Buldakova A.*, Application of modular testing in the development of software to formation of requirements for control systems of rocket-space technology products.
9. *Belousov Aleksey*, About implementation of cloud computing for reachable sets calculation for control systems.
10. *Sutormina Maria*, Hypotheses of protocells origin and transport of substances in biomembranes.

10:40 – 13:00, Panel 7. Oral reports, F-310b

1. *Ozornin Stanislav*, Agile project management in Russia: characteristics and modern state.
2. *Tetiukova Evgenia*, Project education - innovative approach to the organization of the educational process in higher educational institutions of the Russian federation.
3. *Kochnev Mikhail*, Analysis of tools and mechanisms of the assessment of innovative start-up companies.
4. *Puchikhina Aleksandra*, Transition from OHSAS 18001 to ISO 45001 at JSC «Institute of Nuclear Materials».
5. *Pakhomova Oksana*, The role of universities in improving the quality of working life of young people.
6. *Sukhorukova Anna*, Quantitative evaluation of students social sufficiency.

7. *Elnikova Anna*, Algorithm for the diagnosis of problematic business processes of the company.
8. *Semkin Mikhail*, Risk management of process of approval reference materials in organization.
9. *Rybina Irina*, Security subsystem for the «Network city» system.
10. *Nuritdinova Aigul*, Documentation support of metrological control process for equipment.
11. *Zeyde Kirill*, The methodology of skills space forming development and testing.
12. *Mysnikova Darya*, Organization unit activities effectiveness assessment in business process management.
13. *Avvakumova Anastasiya*, Social prevention of alcohol abuse by minors.
14. *Pyrkova Tamara*, Speech behavior of social work specialists affecting their professional activity.

13:00 – 14:00, Lunch Break.

14:00 – 15:00, Panel 2. Oral reports, F-414

11. *Tarasov Stepan*, Development of a high-performance extruder for 3D printing with engineering plastics and composites.
12. *Petrenyov Ilya*, Bipolar resistive switching in nanotubular zirconia structures.
13. *Gordeev Gleb*, Instrument equipment for measuring the density of advective radon flux from the soil.
14. *Kupchinskaya Evgeniya*, Methods for obtaining gamma images.

14:00 – 15:00, Panel 5. Oral reports, F-425

11. *Kushner Irina*, Development of a 3D-panorama model with an adaptive level of detail.
12. *Dolganov Anton*, Development of the learning ability classification method based on personality qualities.
13. *Ptukhin Alexander*, Development of a web service for evaluation the level of health.
14. *Lebedev Alexander*, Application of machine learning methods for analyzing data from the nomenclature directory of the enterprise resource planning system, part 1.
15. *Mikhailov Igor*, Detection of buildings on aerial photographs.

14:00 – 16:00, Panel 7. Oral reports, F-310b

15. *Vozchikova Ksenia*, Effectiveness calculation of the nuclear power plant quality management system.

16. *Chekmareva Marina*, Activation of pro-social activity of elderly people.

17. *Abdyushev Nikita*, Opportunities for additional income of retirees in Russia.

18. *Molodnyakova Alena*, Innovative technology three-dimensional modeling in the digital environment ligrogame for the development of the natural – mathematical concepts in preschool children.

19. *Sadridinova Gulraftor*, Social adaptation of women and children migrants in modern Russia.

20. *Safina Elina*, The development of the quality management system of the Ural interregional territorial department.

21. *Pikhtovnikova Yuliya*, The assessment of bachelor students' satisfaction with the quality of linguistic education.

22. *Polovaya Viktoriya*, Management of risks

15:00 – 17:30, Poster Session: Panels 4. Main Foyer

1. *Danilov Sergei*, Effect of special boundaries on recrystallization texture of fcc metals with high packing defect energy.

2. *Sokolov Roman*, Influence of surface voltages arising by thermal treatment on determination of the value of internal voltages of the second kind at x-ray diffractometry.

3. *Nikul'chenkov Nikolai*, Heat treatment parameters optimization for magnetic cores of amorphous Finemet alloy.

4. *Gabdrakhmanova Diana*, Corrosion of type 625 alloys in chloroaluminate melts.

5. *Gamburg Agata*, Evaluative comparison of “time – temperature - precipitation” and “time – temperature - sensitization” diagrams for application of nickel-based alloys.

6. *Dorosheva Irina*, Synthesis of nanosized titanium dioxide with high adsorptive ability to adsorb gallium ions.

7. *Britt Denis*, Investigation of Ti-6Al-4V titanium alloy mechanical properties, obtained by additive manufacturing method, after hydrogenation.

8. *Barannikova Natalya*, Structure and mechanical properties of seamless tube from the alpha-titanium alloy after cold rolling and annealing.
9. *Kukushkin Dmitriy*, Studying the microstructure of composite Ti-Al-Si-N coating using K_{β} x-ray.
10. *Chernyshov Lev*, Using K_{β} x-ray radiation to study the structural features of surface layers of nitroged austenitic steels.
11. *Tkachenko Yelizaveta*, The hardening of titanium alloy surface by ultrasonic treatment.
12. *Zhilina Ekaterina*, Processing of heat-resistant nickel alloys using sulfuric acid electrolyte.
13. *Vladimirov Alexander*, Functional-gradient materials obtained by a magnetic impulse method.
14. *Zaytsev Evgeniy*, Experimental registration of tubular parts collision under magnetic pulse acceleration.
15. *Khismatullina Anna*, Experimental and theoretical investigations of electrophysical properties of iron based nanocomposites
16. *Goyda Eduard*, The effect of an electric arc on the microstructure of composite Cu-Cr, Cu-W, Cu-Cr-W alloys, obtained after vibrational reactive infiltration of powders by copper melt.
17. *Glukhov Andrey*, Determination of the degree of long-range order in an ordered alloy of gold-copper with application of resistometry and x-ray diffraction methods.
18. *Kalonov Azambek*, Physical and mechanical properties of Cu/Mg composites.
19. *Khardin Danil*, Cu/Mg composite structure after high pressure torsion.
20. *Sergeev Dmitry*, The effect of rotation of electrode on the hardness of various sections of the workpiece obtained by the method of electroslog remelting.
21. *Khaidarshin Marat*, Lamb waves interference in main pipelines.
22. *Kulemina Alena*, Selection of alternative materials for construction of pipelines in the arctic zone.
23. *Sudakova Anastasia*, Estimation of the efficiency of the use of bonded synthetic fabric aimed to improve the durability and frost resistance of road constructions under arctic climate.
24. *Prokopyev Dmitriy*, NMR study of phase composition of carbon encapsulated Ni@C nanoparticles.

25. *Erofeev Mark*, Features of the synthesis of carbon coatings on the installation UNIPA-1-001.
26. *Kapystin Sergey*, Superhydrophobic surface based on xerogel from CNTS.
27. *Begunova Anastasia*, Influence of seymchan meteorite structure on the synthesis of carbon nanotubes.
28. *Frolov Viktor*, The synthesis of fluoride nanopowders with the help of pulse-periodic CO₂-laser.
29. *Chernetskiy Ivan*, Effect of nanopowder additives on the properties of zirconia ceramics.
30. *Yushkov Anton*, Synthesis of thin amorphous films Ag-Sn-Sb-S stable for electron-beam annealing.
31. *Gavrin Vitaly*, Synthesis of long length ceramical matherials based on yttrium aluminum garnet (YAG).
32. *Maksimov Artem*, Synthesis of metal oxide nanopowders by spark discharge.
33. *Shatkovskiy Yaroslav*, Ceramic high-porous composite materials based on ZrO₂-Y₂O₃.
34. *Zakirov Ilsur*, ZrO₂-Y₂O₃-ceramic fiber thermal protective coatings of increased thickness
35. *Popov Nikolay*, Luminescence of nanoporous anodic oxide obtained from rare earth doped aluminum.
36. *Ryabin Aleksandr*, Features of LiFePO₄ degradation during raman spectroscopy.
37. *Maksimchuk Tatiana*, Crystal structure and thermal expansion Nd_{1.6}Ca_{0.4}Ni_{1-x}Cu_xO_{4+δ} solid solutions.
38. *Bazueva Maria*, Crystal structure and properties of solid solutions based on barium ferrite.
39. *Elokhova Alena*, Complex oxides of composition YbA_{1-z}Sr_zFeCuO₅.
40. *Golovachev Ivan*, Investigation of crystal structure and physical and chemical properties of perovskite-like oxides of the general composition Sm_{2-ε}Ba_{3+ε}Fe_{5-x}Co_xO_{15-δ} (ε = 0; 0.125; x = 0; 0.5, 1, 1.5, 2).
41. *Dyagileva Anastasia*, Crystal structure and properties of Sm_{0.9}Ca_{1.1}Fe_{1-x}Co_xO_{4-δ} (0≤x≤0.7) complex oxides.
42. *Moreva Ekaterina*, Study of the Sr₂Ni_{0.7}Mg_{0.3}MoO₆ conditions synthesis.

43. *Chekushina Yana*, Crystal structure of compounds of the general composition $\text{Sr}_{1-x}\text{Ho}_x\text{FeO}_{3-\delta}$.
44. *Saveleva Olga*, Crystalline structure of complex oxydes of general composition $\text{Sr}_{1-x}\text{Pr}_x\text{FeO}_{3-\delta}$.
45. *Vizner Anastasia*, Structure and properties of oxides formed on the basis cobaltite ytterium of $\text{Y}_{1-x}\text{Ca}_x\text{CoO}_{3-\delta}$.
46. *Svishchev Alexander*, Composite solid electrolytes based on phases in $\text{La}_2\text{O}_3\text{--MoO}_3$ system.
47. *Zapadnova Elena*, Ionic conductivity of complex oxides $\text{BaLaIn}_{0.9}\text{M}_{0.1}\text{O}_{4.05}$ ($\text{M}=\text{Ti}, \text{Zr}$) with Ruddlesden-Popper structure.
48. *Tolstykina Anastasia*, Synthesis and transport properties of $\text{BaLa}_{0.9}\text{M}_{0.1}\text{InO}_{3.95}$ ($\text{M}=\text{Ca}, \text{Ba}$).
49. *Obrubova Anastasia*, Complex certification of properties of Zn-doped lanthanum aluminates $\text{LaAl}_{1-x}\text{Zn}_x\text{O}_{3-1/2x}$.
50. *Galisheva Anzhelika*, Chemical stabiity of halogen-substituted oxygen-deficient complex oxides based on $\text{Ba}_2\text{In}_2\text{O}_5$, $\text{Ba}_4\text{In}_2\text{Zr}_2\text{O}_{11}$ and $\text{Ba}_4\text{Ca}_2\text{Nb}_2\text{O}_{11}$.
51. *Pereverzev Danil*, Influence of anion substitution and the introduction of silicon oxide on the properties of the composite based on hydroxyapatite.
52. *Giniyatullin Igor*, The effect of the addition of metallic aluminium and aluminium oxide on the strength properties of composites based on hydroxyapatite.
53. *Razgulyaeva Valeria*, The effect of the addition of metallic zirconium, and zirconia on the mechanical properties of the composite based on hydroxyapatite.
54. *Skachkova Olga*, The influence of anionic substitution in hydroxyapatite, the OH^- by F^- on the properties of suspensions.
55. *Vereshchagin Artem*, Investigation of the influence of precipitation conditions on the sorption properties of freshly-precipitated hydrated zirconium oxide.
56. *Merezhnikova Olga*, Effect of complex-former ion concentration on the sorption of copper (II) ions by sulfoethylated polyaminostyrene with the degree of modification 0.5.
57. *Tokhtueva Maria*, Electrosurfase and catalytic properties hybride systems based on mineral with immibilased enzyme.
58. *Zemlyanskaya Alena*, The study of tim polymer composite materials thermal conductivity.

59. *Zykov Fedor*, The development of magnetic wedges for special-purpose electric motors.
60. *Nosovskiy Yan*, Trace element LA-ICP-MS mapping of authigenic calcite.
61. *Hontsova Svetlana*, Structure and composition of iron sulfides in meteorite Dronino.
62. *Permiakova Anastasia*, Synthesis and catalytic activity of lanthanum manganite doped with alkali metals.
63. *Hanfi Mohamed*, The correction of gross beta measurements of the surface sediment in the different urban zones.
64. *Mahmoud Kareem*, Investigation of Radiation Shielding Properties of building materials reinforced by basalt powder.
65. *Mikriukova Yana*, The effect of temperature of simultaneous curing and polarization on the hardness of epoxyamine materials.
66. *Voronin Vladislav*, Development of technology for the preparation of lightweight cement slurry for wells with the addition of planar nanoparticles improve strength of the adhesive properties of concrete.
67. *Maslennikov Georgy*, Evaluation of the erosion wear of a convection syngas cooler of the SHELL IGCC process using the CFD software.

15:00 – 17:30, Poster Session: Panels 6. Main Foyer

1. *Pankratov Alexandr*, Pattern formation and noise-induced transitions in higgins model with diffusion.
2. *Bazhutina Anastasia*, Electromechanical coupling in cardiomyocytes depends on its electrotonic interaction with fibroblasts.
3. *Maslova Serafima*, The synergy of the combined effects of ionizing radiation and ultrasound on yeast cells.
4. *Shabadrov Pavel*, Research of swelling behavior and mechanical properties of semi-interpenetrating networks based on polymethrylic acid and polyacrylamide.
5. *Grivkov Artem*, Application of artificial neural networks for heart diseases diagnostics.
6. *Vazirov Ruslan*, Radiation processing of food products on installations URT-0.5 and URT-1.0.
7. *Izmozherov Ilya*, Development of pathological ECG and EEG classifier based on neural networks.

8. *Lyubyakina Polina*, Enzymatic decomposition of chitosan using complex enzyme preparation cellulux-A immobilized on aluminum oxide.
9. *Razumov Artem*, Heart segmentation on magnetic resonance imaging data with deep learning methods.
10. *Shchelkanov Alexey*, Experimental stand for phantomic research in medical radiology.
11. *Loginova Daria*, A comparison of the effectiveness of methods for isolation of myocardial single cells.
12. *Shubin Alexandr*, Multifunctional device for monitoring human vital signs.
13. *Lipatnikova Anastasia*, Multifunctional device for monitoring human vital signs.
14. *Bekkulova Regina*, Study of enzyme hydrolysis of castor oil with lipase from *Candida Rugosa* in the energy.
15. *Dzholumbetov Sergey*, The rationale for the use of promising radiopharmaceuticals based on lutetium-177.
16. *Vasilyev Vladimir*, Movement of head and center of mass: joint assessment.
17. *Pankin Savva*, Diagnosing pathologies of the lacrimal gland using the combined methods of transmission and emission diagnostics.
18. *Zlygosteva Olga*, Targeted drug delivery system based on manganese-doped mesoporous silica nanopowder.
19. *Groznykh Matvei*, Electron beam energy continuous measuring device.
20. *Kurzyukova Anastasia*, Radiobiological modelling-based comparison of radiotherapy plans for nasopharyngeal cancer.
21. *Mostafa Mostafa*, Effect of activity particle size distribution on deposition fraction of inhaled radon decay products in human respiratory system.
22. *Geide Irina*, The study of possible use of lactic bacteria in brewing.
23. *Zakaly Hesham*, Radiopharmaceutical dose distribution in different organs and tissues for Lu-177 with different carrier.
24. *Darkazanli Mohamad*, Genetic diversity of *E. coli* O157:H7 isolated from Aleppo river water samples using random amplified polymorphic DNA (RAPD) marker.
25. *Shmarko Dmitriy*, Method of personalization of cardiomyocyte models based on experimental data.
26. *Sholokhov Vladimir*, Personalized according to echocardiography model of the electromechanical function of the left ventricle of the human heart.

27. *Nesterova Tatiana*, In silico study of cardiomyocytes aging in human and canine atriums.
28. *Karimov Alexander*, Segmentation and classification of mast cells at histological images using deep learning.
29. *Donets Irina*, Segmentation and classification of white blood cells using deep learning.
30. *M. Kamal Alkhateeb*, Prospects for the development of green biotechnology.
31. *Mikhailova Yuliya*, Dynamic speckle-interferometry of intact and virus-infected cells.
32. *Nasyrova Venera*, Stochastic oscillations in a two-dimensional discrete map of a neuron.
33. *Ushakova Anastasia*, Program for ECG signal analysis using MATLAB.
34. *Butova Ksenia*, The method of evaluating how the parameters of mechanical deformation affect myocardial contractility.
35. *Pyrkova Alena*, Emissions of noble gases to the atmosphere during normal operation of NPP.
36. *Kolinichenko Alexander*, Analysis of stochastically forced transitions in distributed models with diffusion.
37. *Samburov Anatolii*, Radionuclides in the emissions of beloyarsk npp under normal operation.
38. *Nazarov Evgeniy*, Tritium and carbon-14 in discharges of reactor installations.
39. *Zaitseva Svetlana*, Stochastic multimodal oscillations in nonlinear biochemical model.
40. *Javed Fatima*, Microencapsulation of vitamin D by using natural polymers (pectin & cellulose).

17:30 – 18:30	<p style="text-align: center;">Plenary Talk</p> <p style="text-align: center;">Startup Companies: Hopes And Reality</p> <p style="text-align: center;">Prof. G. Rosenman, Tel Aviv University, <i>F-201</i></p>
18:30 – 19:30	<p style="text-align: center;">Closing. Closing remarks, PTI-2019 announcement, distribution of awards for “Quest”, “What? Where? When?” games, awarding for best reports, photo-shooting. <i>F-201</i></p>