

## СПИСОК СТАТЕЙ, ПОСТУПИВШИХ В ОРГКОМИТЕТ РТЭП-2019

### **1. Evolution of Defective State of Aluminum Oxide Irradiated with Chromium Ions after Annealing in Oxygen Environment**

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### **2. Assessing energy efficiency of electric car bottom furnaces intended for thermal energization of minerals**

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### **3. Considering adaptation of electric furnaces with unit-type releasing to peculiarities of thermal energization of mineral raw materials**

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### **4. Disclosure of the oscillations in kinetics of the reactor pressure vessel steel damage at fast neutron intensity decreasing**

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### **5. The effect of electric exposure on the gas cleaning systems filter efficiency**

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### **6. Intensification of electrochemical properties of the molten chloride electrolytes of the cerium subgroup lanthanides**

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### **7. The effect of a high-current beam of low-energy electrons on the microstructure of the surface layers of ZrO<sub>2</sub> (Y) -Al<sub>2</sub>O<sub>3</sub> composite ceramics.**

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### **8. Calculation of the ion current distribution along the cathode in glow discharge under the existence of a periodic relief and an insulating film of varying thickness on its surface**

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### **9. The formation of nanopores in metal materials after irradiation by beams of Ar<sup>+</sup> with energy of 30 keV**

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### **10. About mechanisms of radiation-induced effect of nanostructurization of near-surface volumes of metals**

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### **11. Laser Initiation of PETN containing Nickel Inclusions**

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### **12. Destruction of humic substances by pulsed electrical discharge**

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### **13. Radioprotective materials with tungsten nanopowder additives**

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### **14. Dynamic model of the threshold displacement energy**

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**15. Study of the influence of filler on the mechanical properties of composites based on polyimide**

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**16. The effect of temperature, static load and electron beam irradiation on the deformation of linear polymers**

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**17. Study of the electron irradiation effect on the structure of treatment systems biomaterials**

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**18. The use of ultrasonic exposure for the modification of synthesized composite materials**

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**19. Studies of the generation mechanisms of steady vortex formations in the channels of nuclear-power installations for purposes of improving the reliability and safety of their work**

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**20. The quasicrystal model of cluster systems in condensed matter**

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**21. Cluster melting in effective potential model**

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**22.ВЛИЯНИЕ ИОННОГО ОБЛУЧЕНИЯ НА ПОВЕРХНОСТНУЮ ЭНЕРГИЮ  
ОСАЖДАЕМЫХ ПОКРЫТИЙ**

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**23.ТЕРМОДИНАМИЧЕСКИЕ МОДЕЛИ РАДИАЦИОННО-ИНДУЦИРОВАННЫХ  
ПРОЦЕССОВ В ТВЕРДЫХ ТЕЛАХ**

Юров В.М.<sup>1</sup>, Еремин Е.Н.<sup>2</sup>, Лауринас В.Ч.<sup>1</sup>, Гынгазова М.С.<sup>3</sup>

**24.Effect of Thermal Exposure on Structure of the Ultrafine-Grained Zr-1Nb Alloy**

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**25. The Investigation of Ion Implantation as a  
Technique for Manufacturing GaAs Magneto-Sensitive Detectors**

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**26.Research of creep deformation in amorphous and nanocrystalline alloys at variable  
temperature field**

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**27.Fractal parameterization analysis of ferroelectric domain structure evolution induced  
by electron beam irradiation**

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**28.Irradiation-Induced Thermal Effects in Alloyed Metal Fuel of Fast Reactors**

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**29.Research of the nonuniform layers by a reflectometry method near the Brewster's angle**  
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**30. Model of convection mass transfer in titanium alloy at low energy high current electron beam action**

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31. Peculiarities of structure and hardening of Ni-Ti alloy surface layers formed by  $^{84}\text{Kr}^{15+}$  ions irradiation at 147 MeV energy at high temperatures

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**32. Effect of irradiation and thermal annealing on quartz materials luminescence**

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**33. Photo-induced currents in the sandwich metal-ferroelectric-metal structure**

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**34. Modernization of electron accelerator with a large cross section beam for radiation effects on materials**

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**35. Crystallization kinetics of rapidly quenched Cu<sub>50</sub>Zr<sub>50</sub> and Cu<sub>46</sub>Zr<sub>46</sub>Al<sub>8</sub> glass-forming alloys**

**T.V.Kulikova<sup>1</sup>, A.A.Ryltseva<sup>1</sup>, V.A.Bykov<sup>1,2</sup>, S.Kh. Estemirova<sup>1,2</sup>, K.Yu Shuhyayev<sup>1,2</sup>**

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**36. Automated test bench for simulation of radiation electrification of spacecraft structural dielectrics**

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**37. Comparative physical-tribological properties of anti-friction ion-plasma Ti-C-Mo-S coating on VT6 alloy or 20X13 and 40X steels**

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**38. Mathematical modelling of convective processes in a weld pool under electric arc surfacing**

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**39. Research into processes of production of hydrides of materials containing rare-earth metals and their corrosion**

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**40. Production of Nd-Fe-B magnets by the hydride technique**

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**41. The Mathematical Model of Image, Generated by Scanning Digital Radiography System**

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**42. Combined surface modification of commercial aluminum**

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#### **43. Numerical simulation of discharge plasma generation and nitriding the metals and alloys**

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#### **44. Analysis and reoperation of the magnetic permeability spectra of textured composite based on Z-type hexaferrite by using Cramers-Kronig relations**

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#### **45. Light-induced thermodiffusion in two-component media**

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#### **46. The methods of receiving coal water suspension and its use as the modifying additive in concrete**

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#### **47. Investigation of radiation influence on LED**

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**48. Processing of ash and slag waste of heating plants by arc plasma to produce construction materials and nanomodifiers**

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**49. Determination of stress concentration coefficients upon cyclic loading by photometric analysis of structure images**

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**50. The accumulation of violations and the strength of composite materials under mechanical loads and promising methods for their control.**

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**51. Laboratory model of a multisensor system for monitoring defectiveness and stress-strain state of composite dielectric materials.**

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**52. Research of the temperature fields influence on the stress state of internal cylindrical surfaces modified by magnetron sputtering**

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**53. Modelling of chemical reactions in plasma**

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**54. Influence of laser irradiation on change properties of bulk amorphous Zr-Pd metallic alloys**

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**55. Study of the physical properties of materials by the photometric analysis of structure images**

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**56. Influence of annealing temperature on optical and photovoltaic properties of nanostructured TiO<sub>2</sub> films**

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**57. Luminescent Response to the Phase Composition of Nd<sup>3+</sup>:Y<sub>2</sub>O<sub>3</sub>-Al<sub>2</sub>O<sub>3</sub> System**

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**58. Ionizing Radiation Effects in Ni Nanotubes**

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**59. Method of stress and measurement current levels for MIS structures researching and modifying under high-field injection of electrons**

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**60. Thermodynamic modelling of phase equilibrium in system Ti-B-Si-C, synthesis and phases composition of borides and carbides layers on titanic alloy VT-1 at electron beam treatment in vacuum**

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**61. Reception carbon nanomodifiers in arc discharge plasma and their application for modifying of building materials**

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**62. Magnetic field effect on recombination luminescence of Rhodamine 6G on semiconductor surface**

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**63. A new approach to produce calcium-phosphate coatings on titanium**

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**64. Patterns of calcium oxalate monohydrate crystallization in complex biological systems**

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**65. Study of the effects of heat-treatment of hydroxyapatite synthesized in gelatine matrix**

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**66. Healing of discontinuities in the ionic crystals under complex thermo-electric influence**

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**67. Thermal stability of brushite with chitosan samples**

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**68. Active medium for dye-lasers based on a matrix of porous Al<sub>2</sub>O<sub>3</sub> with Ag nanoparticles  
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**69. Research of niobium thin films with a predetermined thickness produced by RF magnetron sputtering**

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**70. Low-temperature volume radiation annealing of cold-worked bands of Al-Li-Cu-Mg alloy by 20-40 keV Ar<sup>+</sup> ion**

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**71. Nanowires of iron group metals: fabrication by matrix synthesis technique and investigation of structure and magnetic properties.**

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**72. Electron-ion-plasma modification of the structure and properties of commercial steels**

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**73. Binary phase diagrams based on elements VIIIA and IB periods of the D.I. Mendeleev's table and features of crystallographic parameters**

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**74. Effect of electron beam irradiation on thermal and mechanical properties of epoxy polymer**

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**75. Генерация ионизирующих излучений из кристаллов на основе ниобата лития**

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