НИУ БелГУ
BELGOROD STATE UNIVERSITY (BSU)

Program of the III International Conference and School «Synthesis, structure, and properties of high-entropy materials»

October 11-15, 2021

Institute of Metallurgy, Ural Branch of the Russian Academy of Sciences, 101 Amundsen str., Ekaterinburg, Russia

Assembly Hall, 101 Amundsen str., Ekaterinburg, Russia Institute of Metallurgy, Ural Branch of the Russian Academy of Sciences,

Program of the

III International Conference and School «Synthesis, structure, and properties of high-entropy materials»

October 11-15, 2021

Institute of Metallurgy, Ural Branch of the Russian Academy of Sciences,
101 Amundsen str., Ekaterinburg, Russia

Assembly Hall, 101 Amundsen str., Ekaterinburg, Russia
Institute of Metallurgy, Ural Branch of the Russian Academy of Sciences,

11.10.2021 MONDAY (Time: GMT+5)				
All day	ARRIVAL			
16:00-17:00	ONLINE REGISTRATION FOR VIRTUAL PARTICIPANTS			
12.10.2021 TUESDAY (Time: GMT+5)				
8:30	REGISTRATION			
9:00	Opening. Welcome speech			
				Chairmen: Rempel A.A., Makarov A.V.
9:30	**Makarov A.V.**	Physical	PROSPECTS FOR THE APPLICATION OF LASER SURFACE FOR THE FORMATION OF HEAT-RESISTANT COATINGS FROM HIGH-ENTROPY ALLOYS	M.N. Mikheev Institute of Metal Physics of the IMP UB RAS, Ekaterinburg, Russia
10:00	**Salishchev G.A.**	Physical	SOLID-SOLUTION STRENGTHENING IN HIGH ENTROPY ALLOYS	Belgorod State University, Belgorod, Russia
10:30	**Valiev R. Z.**	Physical	RECENT ADVANCES IN SPD PROCESSING OF NANOSTRUCTURED MATERIALS WITH SUPERIOR PROPERTIES	Ufa State Aviation Technical University, Ufa, Russia
11:00-11:30 Coffee break				
11:30 (8:30)	**Ivanisenko Yu.**	Virtual	PRECIPITATION OF SECONDARY PHASES AT ANNEALING OF NANOCRYSTALLINE Co1Cr0.25Fe1Mn1Ni1 ALLOY WITH 2 AT. % OF CARBON	Institute of Nanotechnology, Karlsruhe Institute of Technology, Karlsruhe, Germany
11:50	Dudorov M.V.	Physical	DEVELOPMENT OF THE THEORY OF GROWTH OF PRODUCTS OF CHEMICAL REACTIONS IN SOLUTIONS BASED ON VARIATION PRINCIPLES OF THERMODYNAMICS	South Ural State University (national research university), Chelyabinsk, Russia
12:00	Okulov A. V.	Physical	AN IMPACT OF B4C IN-SITU ALLOYING ON THE STRUCTURE AND MECHANICAL PROPERTIES OF LASER DEPOSITED MEDIUM-ENTROPY CrFeNi COATINGS	M.N. Mikheev Institute of Metal Physics, Ural Branch of the Russian Academy of Sciences, Ekaterinburg, Russia

12:10	Panchenko M. Yu.	Virtual	HYDROGEN EMBRITTLEMENT OF 20FE-20Cr-20Mn-20Ni-19Co-1X (X = N, C, AT. %) HIGH-ENTROPY ALLOYS	Institute of Strength Physics and Materials Science SB RAS, Tomsk, Russia
12:20	Sedegov A. S.	Physical	OXIDATION RESISTANCE AND MECHANICAL PROPERTIES OF HIGH ENTROPY CARBIDE BASED ON Hf-W-Mo-Ta-Ti-Nb-Zr-C	National Research Technological University "MISiS", Moscow, Russia
12:30	Ozerov M.S.	Physical	AFFECT OF LASER SHOCK PEENING ON MICROSTRUCTURE EVOLUTION AND RESIDUAL STRESSES OF Ti-6Al-4V ALLOY	Belgorod State University, Belgorod, Russia
12:40	Osintsev K. A.	Virtual	WIRE-ARC ADDITIVE MANUFACTURING OF 25.1Co-15.1Cr-37.8Fe-3.4Mn-16.3Ni NON-EQUIATOMIC HIGH ENTROPY ALLOY	Samara National Research University, Samara, Russia
12:50	Yurchenko N.Yu.	Physical	DEVELOPMENT AND INVESTIGATION OF EUTECTIC Al-Cr-Nb-Ti-Zr REFRACTORY HIGH ENTROPY ALLOYS	Belgorod State University, Belgorod, Russia
13:00 -14:00 Lunch				
Chairmen: Pushin V.G., Valiev R. Z.				
14:00	**Gelchinski B.R.**	Physical	SIMULATION STRACTURE OF HIGH-ENTROPY MATERIALS USING MACHINE LEARNING INTERATOMIC POTENTIALS	Institute of Metallurgy, Ural Branch of the RAS, Ekaterinburg, Russia
14:30	**Ryltsev R. E.**	Physical	MACHINE LEARNING METHODS FOR PREDICTING THE STRUCTURE OF MATERIALS	Institute of Metallurgy of the Ural Branch of the Russian Academy of Sciences, Ekaterinburg, Russia
15:00	**Lipnitskii A.G.**	Virtual	ATOMISTIC SIMULATION OF ORDERING AND DIFFUSION ON THE EXAMPLE OF HIGH-ENTROPY REFRACTORY ALLOYS VCrxNbMoTaW	Belgorod State University, Belgorod, Russia
15:30	**Mirzoev A.A.**	Virtual	MACHINE LEARNING METHODS FOR MODELING THE PROPERTIES OF MULTI-ELEMENT MATERIALS	South Ural State University, Chelyabins, Russia
16:00	Beltyukova K. V.	Virtual	STRUCTURE AND PROPERTIES OF THE TIZRHFVNB HIGH-ENTROPY ALLOY	Institute of Metallurgy of the Ural Branch of the RAS, Ekaterinburg , Russia

16:10	Reunova K. A.	Virtual	TEMPERATURE DEPENDENCE OF MECHANICAL PROPERTIES AND DEFORMATION MECHANISMS OF NITROGEN-CONTAINING HIGH-ENTROPY ALLOYS	Institute of Strength Physics and Materials Science SB RAS, Tomsk, Russia
16:20	Zhivulin V. E.	Virtual	SYNTHESIS OF THE LA(CR0.2MN0.2FE0.2CO0.2 NI0.2)O3, ND(CR0.2MN0.2FE0.2CO0.2 NI0.2)O3, (LA0.5ND0.5)(CR0.2MN0.2F E0.2CO0.2NI0.2)O3 HIGH-ENTROPY OXIDES	South Ural State University, Chelyabinsk, Russia
16:30	Panina E.S.	Physical	NOVEL REFRACTORY HIGH ENTROPY ALLOYS WITH A BCC-B2 STRUCTURE	Belgorod State University, Belgorod, Russia
16:40	Balyakin I.A.	Physical	NEURAL NETWORK ASSISTED MOLECULAR DYNAMICS CALCULATION OF HIGH-ENTROPY ALLOYS MELTING POINT	Institute of Metallurgy UB RAS, Ekaterinburg, Russia
16:50	Shaysultanov D. G.	Physical	EFFECT OF CARBON CONTENT AND THERMOMECHANICAL TREATMENT ON STRUCTURE AND PROPERTIES OF INTERSTITIAL TRIP HIGH-ENTROPY ALLOYS	Belgorod State University, Belgorod, Russia
17:00 **Poster session + Coffee break**				
17:30 – 18:00 **Excursion in Institute of Metallurgy UB RAS**				

13.10.2021 WEDNESDAY (Time: GMT+5)				
Chairmen: Salishchev G.A., Gelchinski B.R.				
9:00	**Astafurova E. G.**	Virtual	THE EFFECT OF NITROGEN AND CARBON ALLOYING ON TEMPERATURE DEPENDENCE OF DEFORMATION BEHAVIOR, STRAIN HARDENING AND DEFORMATION MECHANISMS OF CANTOR ALLOY	Institute of Strength Physics and Materials Science SB RAS, Tomsk, Russia
9:30	**Sanin. V.N.**	Virtual	SHS-METALLURGY OF DISPERSION HARDENED CAST HIGH-ENTROPIC ALLOYS BASED ON TRANSITIONAL AND REFRACTORY METALS	ISMAN, Chernogolovka, Moscow Region, Russia
10:00	**Pushin V.G.**	Physical	HIGH- AND MEDIUM-ENTROPY ALLOYS: PRINCIPLES OF ALLOYING, THE SYNTHESIS AND STRUCTURE	Institute of Metal Physics named after M.N. Mikheev, Ural Branch of the Russian Academy of Sciences, Ekaterinburg, Russia
10:30	**Zherebtsov S.V.**	Physical	DEFORMATION MECHANISMS IN TI-RICH HIGH-ENTROPY ALLOYS	Belgorod State University, Belgorod, Russia
11:00-11:30 Coffee break				
11:30	Panov D.O.	Physical	EFFECT OF GRADIENT STRUCTURE ON MECHANICAL PROPERTIES OF METASTABLE AUSTENITIC STAINLESS STEEL	Belgorod State University, Belgorod, Russia
11:40	Varaksin A.V.	Physical	SYNTHESIS OF HIGH ENTROPY CARBIDE OF TRANSITION METALS IN A MOLTEN SALT	Institute of Metallurgy of the Ural Branch of the RAS, Ekaterinburg, Russia
11:50	Zaitseva O. V.	Physical	THE USING Zr, Sn, Zn AS NEW COMPONENTS OF THE HIGH-ENTROPY PHASE WITH THE M-TYPE HEXAFERRITE STRUCTURE	South Ural State University, Chelyabinsk, Russia
12:00	Baklanov M.N.	Physical	THE METHODS OF OBTAINING COMPOSITE MATERIALS FROM SHOT BLASTING WASTE AL-V LIGATURE	Institute of Solid State Chemistry UB RAS, Ekaterinburg, Russia
12:10	Sidnov K. P.	Physical	ENTROPY FORMING	National Research

			ABILITY DESCRIPTOR FOR MODELING OF N METALLIC CARBIDES	Technological University "MISiS", Moscow, Russia
12:20	Russkih A. S.	Physical	STRUCTURE OF THE HIGH-ENTROPY AlTiZrVNb ALLOY	Institute of Metallurgy of the Ural Branch of the RAS, Ekaterinburg, Russia
12:30	Povolyaeva E. A.	Physical	EFFECT OF THERMOMECHANICAL TREATMENT ON THE STRUCTURE AND MECHANICAL PROPERTIES OF HIGH-ENTROPY ALLOYS OF THE Fe-Co-Ni-Cr-C SYSTEM	Belgorod State University, Belgorod, Russia
12:40	Klimenko D. N.	Physical	PHASE COMPOSITION PREDICTION IN HIGH-ENTROPY ALLOYS BY ARTIFICIAL NEURAL NETWORK	Belgorod State University, Belgorod, Russia
12:50	Istomina E. I.	Physical	CARBOSILICOTHERMIC SYNTHESIS OF HIGH-ENTROPY MX CARBIDES	Institute of Chemistry of Komi SC UB RAS, Syktyvkar, Russia
13:00 -14:00 Lunch				
Chairmen: Zherebtsov S.V., Belov N. A.				
14:00 (18:00)	**Sato K.**	Virtual	THE ROLE OF CE PACKING STATE IN GLASS-FORMING ABILITY FOR Ce-BASED BULK METALLIC GLASSES	Department of Environmental Sciences, Tokyo Gakugei University, Tokyo, Japan
14:30 (18:30)	**Louzguine D. V.**	Virtual	ROOM-TEMPERATURE SHEAR-INDUCED CHEMICAL SEGREGATION IN A Fe-BASED BULK METALLIC GLASS	Advanced Institute for Materials Research (WPI-AIMR), Tohoku University, Japan
15:00 (12:00)	**Kashaev N.**	Virtual	LASER SHOCK PEENING AS RESIDUAL STRESS ENGINEERING TECHNIQUE FOR IMPROVING THE FATIGUE PERFORMANCE OF SAFETY CRITICAL COMPONENTS	Institute of Materials Mechanics, Helmholtz-Zentrum Hereon, Geesthacht, Germany
15:30 (12:30)	**Sprengel W.**	Virtual	POSITRON ANNIHILATION STUDIES IN CONCENTRATED SOLID SOLUTION ALLOYS WITH FCC STRUCTURE TO REVEAL THE PROPERTIES OF THERMAL VACANCIES	Graz University of Technolog, Institute of Materials Physics, Graz, Austria
16:00- 16:30 Coffee break				
16:30 (13:30)	**Okulov I.V.**	Virtual	NANOPOROUS HIGH-ENTROPY ALLOYS BY LIQUID METAL	Leibniz Institute for Materials Engineering – IWT, Bremen, Germany

			DEALLOYING	
17:00 (20:00)	Wang Jiankun	Virtual	RESEARCH ON THE MICROSTRUCTURE AND STRENGTHENING MECHANISM OF COCRFENISIX (X=0, 0.25, 0.5, 0.75) BASED ON ARC ADDITIVE MANUFACTURING	Wenzhou University,Wenzhou, China
17:10	Sokolovsky V.S.	Virtual	THE EFFECT OF INTERLAMELLAR SPACING ON STRENGTH AND DUCTILITY OF β - SOLIDIFIED γ -TIAL BASED ALLOY	Belgorod State University, Belgorod, Russia
17:20	Usmanov E.I.	Virtual	SUPESTRENGTH OF NANOSTRUCTURAL TITANIUM OBTAINED BY COMBINED DEFORMATION-HEAT TREATMENT	Ufa State Aviation Technical University, Ufa, Russia
17:30	Naumov S.V.	Virtual	EFFECTS OF DIFFUSION WELDING MODES ON STRUCTURE AND MECHANICAL PROPERTIES OF DIFFUSION BONDING OF ORTHORHOMBIC TITANIUM ALUMINIDE BASED ALLOY	Belgorod State University, Belgorod, Russia
17:40	Akopyan T.K.	Virtual	INFLUENCE OF TIN TRACE ADDITION ON THE MICROSTRUCTURE AND MECHANICAL PROPERTIES OF Al-Cu(-Si) BASED ALLOYES	National Research Technological University "MISiS", Moscow, Russia
17:50	Savina Ya.N.	Virtual	MECHANICAL PROPERTIES OF ULTRAFINE-GRAINED TITANIUM ALLOY WITH VACUUM-PLASMA PROTECTIVE COATING	Ufa State Aviation Technical University, Ufa, Russia

14.10.2021 THURSDAY (Time: GMT+5)				
				Chairmen: Stepanov N.D., Trofimov E.A.
9:00	**Belov N.A.**	Physical	EFFECT OF HEAT TREATMENT ON THE STRUCTURE, MECHANICAL AND ELECTRICAL PROPERTIES OF WIRE ALLOY Al–3.3Cu–2.5Mn–0.5Zr (wt%) MANUFACTURED BY ELECTROMAGNETIC CASTING	National University of Science and Technology MISiS, Moscow, Russia
9:30	**Stepanov N.D.**	Physical	STRUCTURE AND MECHANICAL PROPERTIES OF HIGH ENTROPY ALLOYS FOR STRUCTURAL APPLICATIONS	Belgorod State University, Belgorod, Russia
10:00	**Uporov S. A.**	Physical	ELECTRONIC STRUCTURE AND ELECTRICAL CONDUCTIVITY OF TIZRHFNB HIGH-ENTROPY ALLOY UNDER PRESSURE	Institute of Metallurgy, Ural Branch of Russian Academy of Sciences, Ekaterinburg, Russia
10:30	**Trofimov E. A.**	Physical	SYNTHESIS OF HIGH-ENTROPY ALLOY COATING BY LASER REMELTING OF COLD SPRAY DEPOSITS	South Ural State University, Chelyabins, Russia
11:05-11:30 Coffee break				
11:30 (9:30)	**Rajeshwar R. Eleti**	Virtual	ANOMALIES IN TEMPERATURE DEPENDENCE OF MECHANICAL BEHAVIOR OF BODY-CENTERED CUBIC NBTIZR MEDIUM-ENTROPY ALLOY	Belgorod State University, Belgorod, Russia
12:00	**Naumova E.A.**	Virtual	HYPEREUTECTIC ALLOYS OF THE Al – Ca-Mn– (Ni) SYSTEM AS AN ALTERNATIVE TO THE FM180 ALLOY	National Research Technological University "MISiS", Moscow, Russia
12:30	Rezyapova L.R.	Virtual	INFLUENCE OF SPD TREATMENT AND ANNEALING ON STRUCTURAL-PHASE TRANSFORMATIONS IN TITANIUM GRADE 4	Ufa State Aviation Technical University, Ufa, Russia
12:40	Semenyuk A. O.	Virtual	EFFECT OF NITROGEN CONTENT ON THE STRUCTURE AND MECHANICAL	Belgorod State University, Belgorod, Russia

			PROPERTIES OF CO-CR-FE-MN-NI HIGH ENTROPY ALLOY	
12:50	Mikhailov D. V.	Virtual	THE SYNTHESIS OF MEDIUM ENTROPY INTERMETALLIC REINFORCED COMPOSITE COATING BY LASER CLADDING	South Ural State University, Chelyabinsk, Russia
13:00 -14:00 Lunch				
14:00-15:00 Closing. Review of poster reports. Awarding of the best oral and poster presentations of young scientists				
15:00-18:00 Excursion in Gallery "Main Avenue"				
15.10.2021 FRIDAY **(Time: GMT+5)** **11:00-13:00 PANEL DISCUSSION ON THE POTENTIAL COLLABORATION IN THE HIGH ENTROPY MATERIALS FIELD**				

	POSTER SESSION		
1.	Boytsova E.L.	THERMAL STABILITY OF Ti-O-N FILMS	Tomsk Polytechnic University, Tomsk, Russia
2.	Vinnik D. A.	SYNTHESIS AND STUDY OF HIGH-ENTROPY OXIDE PHASES WITH THE MAGNETOPLUMBITE STRUCTURE	South Ural State University, Chelyabinsk, Russia
3.	Valiev R.R.	INCREASED EROSION RESISTANCE OF UFG TITANIUM ALLOYS WITH PROTECTIVE ION-PLASMA COATING	Ufa State Aviation Technical University, Ufa, Russia
4.	Zherebtsov S.V.	DEVELOPMENT OF CO-CR ALLOYS FOR MEDICAL APPLICATION	Belgorod State University, Belgorod, Russia
5.	Krotov V.E.	FORMATION MECHANISM OF CRYSTALLINE SOLID SOLUTIONS UO2 - ThO2 AND UO2 - ThO2 - ZrO2 IN MOLTEN SALTS. INFLUENCE OF CURRENT ON THEIR COMPOSITION	IHTE Ural Branch of RAS, Ekaterinburg, Russia
6.	Rusanov B. A.	DENSITY AND ELECTRICAL RESISTIVITY OF Al-Ni-Co-R GLASS-FORMING ALLOYS	Ural State Pedagogical University, Ekaterinburg, Russia
7.	Pleshchev V. G.	THE FREQUENCE DISPERSION FEATURES OF THE DIELECTRIC CHARACTERISTICS OF HAFNIUM DISULFIDE INTERCALED WITH SILVER ATOMS	Ural Federal University named after B.N.Yeltsin, Ekaterinburg, Russia
8.	Skachkov V. M.	COMPOSITE MATERIAL ALUMINUM-TITANIUM	ISSC UB RAS, Ekaterinburg, Russia
9.	Son L.D.	NON-HIBBS THERMODYNAMICS OF GLASSY SYSTEMS	IMET UB RAS, Ekaterinburg, Russia
10.	Al-Bdeiri M.S.	EFFECT OF TECHNOLOGICAL FACTORS OF PREPARATION AND ACTIVATION OF THE PISTON SUBSTRATE SURFACE FOR COATING USING ABRASIVE BLASTING MACHINE	Belgorod State University, Belgorod, Russia
11.	Andreev P.V.	SPARK PLASMA SINTERING OF CERAMICS BASED ON Si3N4 WITH YAG PRECURSOR	Institute of Chemistry of High-Purity Substances RAS, Nizhny Novgorod, Russia
12.	Bodyakova A.I.	EFFECT OF TREATMENT ON THERMAL STABILITY OF CU-CR-ZR ALLOY	Belgorod State University, Belgorod, Russia
13.	Borisova Yu.I.	BEHAVIOR OF THE PORTEVEN-LE CHATELIER BANDS IN AUSTENITIC STEEL	Belgorod State University, Belgorod, Russia
14.	Dolbachev A.P.	EXPERIMENTAL STUDY OF SINGLE TRACKS OBTAINED FROM A MIXTURE OF TI AND AL POWDERS WITH VARYING SELECTIVE LASER MELTING PARAMETERS	National Research Technological University "MISiS", Moscow, Russia
15.	Dolzhenko A.S.	INFLUENCE OF TEMPFORMING TEMPERATURE ON THE MECHANICAL PROPERTIES OF A LOW-ALLOY CHROMIUM-MOLYBDENUM STEEL	Belgorod State University, Belgorod, Russia

16.	Doroshenko V.V.	A POSSIBILITY OF OBTAINING CORROSION-RESISTANT DEFORMED SEMIFINISHED PRODUCTS FROM AN ALLOY BASED ON THE AL-CA-MG SYSTEM	National Research Technological University "MISiS", Moscow, Russia
17.	Drozhilkin P.D.	PRODUCTION OF CERAMIC MATERIALS BASED ON Si3N4 NANOSIZED POWDER BY SPARK PLASMA SINTERING METHOD	N.I. Lobachevsky State University of Nizhny Novgorod, Nizhny Novgorod, Russia
18.	Korotkova N.O.	STRUCTURE AND PROPERTIES OF ALUMINUM-CALCIUM CONDUCTIVE ALLOYS	National Research Technological University "MISiS", Moscow, Russia
19.	Kuznetsova Yu. V.	NEW LUMINESCENT CERAMIC MATERIAL BASED ON GLASS WITH CADMIUM SULFIDE NANOPARTICLES	Institute of Solid State Chemistry, Ural Branch of the Russian Academy of Sciences, Ekaterinburg, Russia
20.	Lantsev E. A.	EFFECT OF CARBON ON THE SINTERING BEHAVIOR AND MICROSTRUCTURE OF HARD ALLOYS WITH LOW COBALT CONTENT	Lobachevsky State University of Nizhny Novgorod, Nizhny Novgorod, Russia
21.	Medyankina I.S.	HYDROFLUORIDE TECHNOLOGY FOR PRODUCING NANOSIZED SILICON DIOXIDE FROM INDUSTRIAL WASTE	Institute of Solid State Chemistry UB RAS, Ekaterinburg, Russia
22.	Mikheeva P. V.	PREPARATION OF FINELY DIVIDED CALCIUM PHOSPHATE COMPOUNDS FROM DICALCIUM PHOSPHATE DIHYDRATE TO HYDROXYAPATITE AT LOW TEMPERATURE CONDITIONS	Baikov Institute of Metallurgy and Materials Science RAS, Moscow, Russia
23.	Mishnev R. V.	EFFECT OF 1 000 H AGING AT 650°C ON THE IMPACT TOUGHNESS OF ADVANCED 10% Cr MARTENSITIC STEEL	Belgorod State University, Belgorod, Russia
24.	Murashov A.A.	EXPERIMENTAL STUDY OF THE INFLUENCE OF HIGH-TEMPERATURE ANNEALING ON THE STRUCTURE, MECHANICAL PROPERTIES AND RESISTANCE OF ULTRAFINE-GRAINED TITANIUM ALLOY PT3V TO CORROSION-FATIGUE FAILURE	Lobachevsky State University of Nizhny Novgorod, Nizhny Novgorod, Russia
25.	Nazarov A.A.	DIFFERENT APPROACHES TO DETERMINATION OF INTERNAL STRESSES BY X-RAY DIFFRACTION METHODS USING TITANIUM ALLOY SAMPLES	Lobachevsky State University of Nizhny Novgorod, Nizhny Novgorod, Russia
26.	Nezhencev A. V.	ELECTRICAL PROPERTIES OF AMORPHOUS (Cd0.9Zn0.08Mn0.02)3As2 FILMS	Belgorod State University, Belgorod, Russia
27.	Neulybin S. D.	APPLICATION OF PLASMA METALLIZATION TECHNOLOGY FOR RAPID PROTOTYPING OF PRODUCTS	Perm National Research Polytechnic University, Perm, Russia
28.	Nikitin I.S.	EFFECT OF AGEING TIME ON THE TENSILE PROPERTIES AND STRUCTURE OF THE HIGH-CHROMIUM MARTENSITIC STEEL	Belgorod State University, Belgorod, Russia

29.	Ozerov M.S.	MICROSTRUCTURE AND MECHANICAL PROPERTIES OF THE MEDIUM-ENTROPY NBTIZR ALLOY-BASED COMPOSITE, REINFORCED WITH BORIDE PARTICLES	Belgorod State University, Belgorod, Russia
30.	Permyakov G. L.	WIRE ARC ADDITIVE MANUFACTURING AS FABRICATION METHOD FOR BLANKS FROM CHROMIUM BRONZE	Perm National Research Polytechnic University, Perm, Russia
31.	Popov A.A.	INTERNAL STRESSES AT POWER-LAW CREEP	Lobachevsky State University of Nizhny Novgorod, Nizhny Novgorod, Russia
32.	Rubannikova Y.A.	EVOLUTION OF THE PERLITE STEEL STRUCTURE AT MULTIPLE LONG-TERM DEFORMATION IMPACT	Siberian State Industrial University, Novokuznetsk, Russia
33.	Sidorov V. E.	GLASS-FORMING ABILITY AND MAGNETIC SUSCEPTIBILITY OF Co-Fe-Si-B-Nb AMORPHOUS ALLOYS	Ural State Pedagogical University, Ekaterinburg, Russia
34.	Sarkisov T.S.	IMPROVING THE PHYSICAL AND MECHANICAL PROPERTIES OF THE FOIL FOR HIGH-VOLTAGE ELECTROLYTIC ANODES CAPACITORS BY INTRODUCING AN INTERMEDIATE ANNEALING	National Research Technological University "MISiS", Moscow, Russia
35.	Ostovari M. A.	HIGH TEMPERATURE OXIDATION RESISTANCE OF REFRACTORY HIGH ENTROPY ALLOYS	South Ural State University, Chelyabinsk, Russia
36.	Pilipenko A.G.	MICROSTRUCTURE, MECHANICAL AND ELECTRICAL PROPERTIES OF COPPER ALLOY AFTER COLD PLASTIC DEFORMATION	Belgorod State University, Belgorod, Russia
37.	Fedoseeva A. E.	EFFECT OF COPPER ON THE SHORT-TERM CREEP PROPERTIES OF THE RE-CONTAINING 10%Cr-3%Co-2W STEELS	Belgorod State University, Belgorod, Russia
38.	Semin V.O.	CRYSTALLIZATION OF Ti-Ni-Ta METALLIC GLASS SURFACE ALLOY FABRICATED ON TINI SMA SUBSTRATE BY ADDITIVE THIN-FILM ELECTRON-BEAM SYNTHESIS	Institute of Strength Physics and Materials Science SB RAS, Tomsk, Russia
39.	Smetanina K. E.	X-RAY STUDY OF THE PHASE HOMOGENEITY OF TUNGSTEN CARDIBE CERAMICS PRODUCED BY THE SPARK PLASMA SINTERING METHOD	Lobachevsky State University of Nizhny Novgorod, Nizhny Novgorod, Russia
40.	Smirnov A. S.	THERMODYNAMICS OF VAPORIZATION PROCESSES IN THE GeO2–ZnO SYSTEM	Kurnakov institute of general and inorganic chemistry of the Russian Academy of Sciences, Moscow, Russia
41.	Smirnov I. V.	SOLUTION DEPOSITION OF BIOACTIVE CALCIUM PHOSPHATE COATINGS ON TITANIUM IMPLANTS	Baikov Institute of Metallurgy and Materials Science RAS, Moscow, Russia

42.	Smorchkov K.G.	THERMODYNAMICS OF COMPLEX COMPOUNDS BASED ON ZnO AND Nb2O5	IGIC RAS, Moscow, Russia
43.	Tkcahev E. S.	EFFECT OF TEMPERING ON FRACTURE TOUGHNESS OF B-ADDED 9%CR MARTENSITIC STEELS	Belgorod State University, Belgorod, Russia
44.	Fetisova V.E.	DEGRADATION KINETICS OF TWO-LAYER TISSUE EQUIVALENTS BASED ON SODIUM ALGINATE IN FLUIDS SIMULATING EXTRACELLULAR BODY FLUIDS	Federal State Budgetary Institution of Science Baikov Institute of Metallurgy and Materials Science of the Russian Academy of Sciences, Moscow, Russia
45.	Chernichenko R. S.	EFFECT OF SWAGING ON IMPACT TOUGHNESS OF AUSTENITIC STAINLESS STEEL	Belgorod State University, Belgorod, Russia
46.	Churakova A.A.	STUDY OF THE INFLUENCE OF THE INITIAL STATE ON THE MICROSTRUCTURE AND MECHANICAL BEHAVIOR OF THE Ti49.0Ni51.0 ALLOY UNDER DEFORMATION AND THERMAL EFFECTS	Institute of Molecule and Crystal Physics - Subdivision of the Ufa Federal Research Centre of the Russian Academy of Sciences, Ufa, Russia
47.	Yuzbekova D. Y.	EFFECT OF GRAIN REFINEMENT ON CRYOGENIC BEHAVIOR OF AN Al-Mg-Sc-Zr ALLOY	Belgorod State University, Belgorod, Russia
48.	Yurchenko N.Yu.	YIELD STRENGTH ANOMALY IN A B2 MATRIX AlNbTiVZr0.25 REFRACTORY HIGH ENTROPY ALLOY	Belgorod State University, Belgorod, Russia
49.	Yaprintseva E.N.	PREPARATION, MICROSTRUCTURE AND THERMOELECTRIC PROPERTIES OF MEDIUM-ENTROPY BiSbTe1.5Se1.5 AND PbSnTeSe ALLOYS	Belgorod State University, Belgorod, Russia
50.	Novoselova A. V.	SYNTHESIS AND THERMODYNAMICS OF DOUBLE DY-GA AND TRIPLE DY-GA-AL, PR-GA-IN ALLOYS IN MOLTEN SALT/LIQUID METAL SYSTEMS	Institute of High-Temperature Electrochemistry UB RAS, Ekaterinburg, Russia
51.	Pervikov A.V.	OBTAINING OF HEA NANOPARTICLES BY JOINT ELECTRIC EXPLOSION OF WIRES FROM DISSIMILAR METALS/ALLOYS	Institute of Strength Physics and Materials Science Siberian Branch of Russian Academy of Sciences, Tomsk, Russia
52.	Tikhonova M. S.	MICROSTRUCTURE AND PROPERTIES OF AN AUSTENITIC STAINLESS STEEL DURING AGING AT 923K	Belgorod State University, Belgorod, Russia
53.	Kurbanova E.D.	THERMAL STABILITY IN MULTICOMPONENT ALLOYS BASED ON DMETALS	Institute of Metallurgy of the Ural Branch of the Russian Academy of Sciences Ekaterinburg, Russia