



Sino-Russian Symposium on Materials Science and Processing Technology

November 25-26, 2021

Online Format

AGENDA

November 25, 2021

Moscow Time	Beijing Time	
8:30 AM	1:30 PM	Connecting to Zoom Video Conference https://us02web.zoom.us/j/82318709491?pwd=Rm80NGFVV3hlMjlxREFEVW4zZDZ5dz09
9:00 AM	2:00 PM	Opening Ceremony. Welcome speeches: <ol style="list-style-type: none">1. Prof. Sergey Mikhaylov Vice-Rector for Research and Innovation Activities of Kazan National Research Technical University named after A.N. Tupolev-KAI, Kazan, Russia2. Prof. Gu Jianzheng Director of Chinese Permanent Secretariat of ASRTU, Harbin Institute of Technology, Harbin, China3. Dr. Sergey Korshunov Russian Chief Executive of ASRTU Vice Rector for Academic and Methodical Work of Bauman Moscow State Technical University, Moscow, Russia



Plenary/Keynote Talks

- 9:30 AM 2:30 PM **Development of Methods for Controlling the Number of Layers in Suspensions of Low-Layer Graphene Particles by Raman Spectroscopy**
V.M. Samoilov, A.V. Nakhodnova, V.A. El'chaninova, E.A. Borisova, E.A. Danilov, K.A. Tarasov
Lead Speaker: Dr. Vladimir Samoilov
Scientific Research Institute of Structural Materials Based on Graphite "Nilgrafit"
- 10:00 AM 3:00 PM **Joining and Application of Ceramics**
Tiesong Lin, Panpan Lin, Peng He, Jian Cao, Jicai Feng
Lead Speaker: Prof. Tiesong Lin
Harbin Institute of Technology
- 10:30 AM 3:30 PM **Thermochemical Treatment of Titanium-based Alloys for Biocompatibility and Wear Resistance Increase**
M.F. Wende, M.Yu. Semenov, A.E. Smirnov, Yu.I. Vinogradov
Lead Speaker: Prof. Mikhail Semyonov
Bauman Moscow State Technical University
- 11:00 AM 4:00 PM **Transparent Ferroelectric Crystals with Ultrahigh Piezoelectricity**
Chaorui Qiu, Fei Li, Xiaoyong Wei, Zhuo Xu
Lead Speaker: Prof. Zhuo Xu
Xi'an Jiaotong University

Section Talks. Day 1		
11:30 AM	4:30 PM	<p>New materials for the production of functional reinforced carbon plastics V.A. Nelyub, G.V. Malisheva Bauman Moscow State Technical University</p>
11:40 AM	4:40 PM	<p>Electron beam welding for refractory metal of molybdenum and Kovar alloy: Microstructure evolution and mechanical property optimization Guoqing Chen Harbin Institute of Technology</p>
11:50 AM	4:50 PM	<p>Cracking defect and its control on arc additive cladding of CoCrW carbide Hongsheng Ding, Qiao Deng, Yongjiu Xi, Xuxing Zhang, Hao Guo Harbin Institute of Technology, Harbin Boshi Automation Co., Ltd.</p>
12:00 PM	5:00 PM	<p>Ablation-resistant heat-insulating material from rayon-based carbon fiber and phenol formaldehyde resin N.N. Goncharova, D.A. Budnik, A.R. Gareyev, V.M. Samoilov, K.A. Tarasov, M.A. Fateeva, E.A. Danilov, Ushakova O.B. JSC Nilgraphite, MIREA — Russian Technological University</p>
12:10 PM	5:10 PM	<p>Ferroelectric and magnetic properties of magnetoelectric composite ceramics with coherent-lattice interfaces Hua Ke, Hongjun Zhang, Dechang Jia, Yu Zhou Harbin Institute of Technology</p>
12:20 PM	5:20 PM	<p>Additive manufacturing of metallic glasses and composites by selective laser melting Lin Liu Huazhong University of Science and Technology</p>
12:30 PM	5:30 PM	<p>Coffee Break (30 min)</p>

1:00 PM	6:00 PM	<p>Preparation of hydroxyapatite ceramics as a model of tooth enamel for tribological studies</p> <p>V.A. Matveeva, Y.S. Kozlova, S.N. Razumova, A.I. Plokhikh Bauman Moscow State Technical University</p>
1:10 PM	6:10 PM	<p>Enhancing metallic glasses via oxide interfaces: a molecular dynamics study</p> <p>Mao Zhang, Xinyun Wang Huazhong University of Science and Technology</p>
1:20 PM	6:20 PM	<p>Multiple detection of insulation defects partial discharge in gas insulated equipment</p> <p>Kong Fanjun, Zhu Min, Zhang Chaohai Nanjing University of Aeronautics and Astronautics</p>
1:30 PM	6:30 PM	<p>Technology of engineering software development for computer-aided design of composite materials</p> <p>Alexander Sokolov Bauman Moscow State Technical University</p>
1:40 PM	6:40 PM	<p>Study on multi-scale and multi-factor strengthening mechanism and performance of heat-resistant and damage-resistant calcium-containing aluminum alloy</p> <p>Shasha Zhang, Zhengjun Yao, Torgom Akopyan, Nikolay Belov Nanjing University of Aeronautics and Astronautics, National University of Science and Technology MISiS</p>
1:50 PM	6:50 PM	<p>Preparation and sensor properties of graphitic carbon nitride with nano heterostructures</p> <p>Huiqing Fan, Hailin Tian, Jiangwei Ma, Xiaokun Zhen, Weijia Wang Northwestern Polytechnical University</p>
2:00 PM	7:00 PM	<p>An integrative 3D reconstruction system for in situ repair applications of wire and arc additive manufacturing</p> <p>Yongzhe Li, Yaodong Lin, Guangjun Zhang, Xiaochao Liu, Xianjun Pei Southeast University, Harbin Institute of Technology</p>
2:10 PM	7:10 PM	<p>Production of thermoplastic composites based polyphenylenesulfide by hot pressing</p> <p>G.K. Smirnov, V.A. Sherbina, S.V. Reznik, A.R. Gareev Bauman Moscow State Technical University</p>



2:20 PM	7:20 PM	Fatigue analysis of welded structures using structural stress/strain method and data transferability Xianjun Pei Southeast University
2:30 PM	7:30 PM	Studies on printing organic electronics, and polymer surface and interfaces Wei Ma Xi'an Jiaotong University
2:40 PM	7:40 PM	Ceramic-Matrix Composites: Damage, Fracture and Fatigue Longbiao Li Nanjing University of Aeronautics and Astronautics
2:50 PM	7:50 PM	Laser welding of dissimilar materials Sergey Kuryntsev Kazan National Research Technical University named after A.N. Tupolev-KAI

November 26, 2021

Moscow Time	Beijing Time	
8:30 AM	1:30 PM	Connecting to Zoom Video Conference https://us02web.zoom.us/j/82318709491?pwd=Rm80NGFVV3hlMjlxREFEVW4zZDZ5dz09
Section Talks. Day 2		
9:00 AM	2:00 PM	Influence of intermetallide on the composition and properties of the fusion surface of the Al-Cu composition F.I. Murataev, E.A. Shabalin Kazan National Research Technical University named after A.N. Tupolev-KAI
9:10 AM	2:10 PM	Quantitative analysis of structure and properties of high-strength titanium alloys F.I. Murataev, E.A. Shabalin Kazan National Research Technical University named after A.N. Tupolev-KAI

9:20 AM	2:20 PM	<p>Analysis of composition and properties of titanium alloy during laser hardening F.I. Murataev, E.A. Shabalin Kazan National Research Technical University named after A.N. Tupolev-KAI</p>
9:30 AM	2:30 PM	<p>XPS electronic structure study of bulk CVT-In₂O₃ crystals Dmitry Zatsepin Ural Federal University</p>
9:40 AM	2:40 PM	<p>Complex halides as new materials for optoelectronics Anastasia Grigorieva Lomonosov Moscow State University</p>
9:50 AM	2:50 PM	<p>Development of technology for the production of thermally conductive carbon foams using microspheres and pitches Engel Galimov, Vladimir Fedyaev, El'mira Sharafutdinova, Nazirya Galimova, Irina Kuzmina, Ilgiz Galiev, Vladimir Samoylov, Egor Danilov Kazan National Research Technical University named after A.N. Tupolev-KAI, Federal Research Center "Kazan Scientific Center of Russian Academy of Sciences", Kazan State Agrarian University, JSC "NIIgrafit"</p>
10:00 AM	3:00 PM	<p>Technology for the production of thermally conductive carbon foams by pressure carbonization of pitches Engel Galimov, Vladimir Fedyaev, El'mira Sharafutdinova, Nazirya Galimova, Pavel Shibaev, Irina Kuzmina, Ilgiz Galiev, Vladimir Samoylov, Egor Danilov, Ildus Mavleev Kazan National Research Technical University named after A.N. Tupolev-KAI, Federal Research Center "Kazan Scientific Center of Russian Academy of Sciences", Kazan State Agrarian University, JSC "NIIgrafit", Naberezhnye Chelny Institute of Kazan (Volga Region) Federal University</p>

10:10 AM	3:10 PM	<p>Carbon foam production technology by carbonization of pitches with a volatile blowing agent</p> <p>Engel Galimov, Vladimir Fedyaev, El'mira Sharafutdinova, Nazirya Galimova, Pavel Shibaev, Irina Kuzmina, Ilgiz Galiev, Vladimir Samoylov, Egor Danilov</p> <p>Kazan National Research Technical University named after A.N. Tupolev-KAI, Federal Research Center "Kazan Scientific Center of Russian Academy of Sciences", Kazan State Agrarian University, JSC "NIIgrafit"</p>
10:20 AM	3:20 PM	<p>Description and mathematical simulation of electronic beam welding processes</p> <p>Dmitry Kolesnikov, Artur Mahmutyanov</p> <p>Kazan National Research Technical University named after A.N. Tupolev-KAI</p>
10:30 AM	3:30 PM	<p>Mathematical description of physicochemical processes occurring during the application of polymer powder coatings by jet methods</p> <p>Vladimir Fedyaev, Ildar Gimranov, Nazira Galimova, Alexey Belyaev, Irina Kuzmina, Ilgiz Galiev</p> <p>Federal Research Center "Kazan Scientific Center of Russian Academy of Sciences", Kazan National Research Technical University named after A.N. Tupolev-KAI, Kazan State Agrarian University</p>
10:40 AM	3:40 PM	<p>Piezoelectric film composite based on polyvinylidene fluoride (PVDF) and lead zirconate-titanate (PZT) piezoceramic: rational choice of particle size</p> <p>E.A. Danilov, N.D. Paramonova, D.A. Mikheev, M.I. Golovchenko</p> <p>JSC "NIIgraphite", Mendeleev University of Chemical Technology of Russia</p>
10:50 AM	3:50 PM	<p>Modification of heat-shielding polymer composite materials with inorganic additives</p> <p>K.S. Panina, E.A. Danilov, A.R. Gareyev, O.N. Nikolaeva, Y.A. Kurganova</p> <p>JSC "NIIgraphite", Bauman Moscow State Technical University</p>

11:00 AM	4:00 PM	<p>Influence of the shape of particle filler on thermal conductivity and strength of pan-based carbon/epoxy composites</p> <p>S.A. Varlamov, E.A. Danilov, V.L. Fed'ayev, V.M. Samoilov, A.R. Gareyev, E.R. Galimov JSC "Nilgraphite", Bauman Moscow State Technical University, Kazan National Research Technical University named after A.N. Tupolev-KAI</p>
11:10 AM	4:10 PM	<p>Nanomedicine combined nanosecond pulsed electrical field for efficient anti-tumors</p> <p>Song Yujun University of Science and Technology Beijing</p>
11:20 AM	4:20 PM	<p>Micro- and Nano-domain Engineering of Ferroelectrics Crystals</p> <p>Vladimir Shur Ural Federal University</p>
11:30 AM	4:30 PM	<p>Application of the asymptotic homogenization to dispersed composites and metamaterials</p> <p>Sergey Sheshenin, Nina Artamonova, Petr Klement'ev, Minghui Fu, Quang Zhang Lomonosov Moscow State University, Sun Yat-Sen University, Harbin Institute of Technology</p>
11:40 AM	4:40 PM	<p>Effect of surfactants on the structure and mechanical properties of silicate fillers</p> <p>Elena Gotlib, Alina Valeeva, Rut Ntsoumou, Ekaterina Yamaleeva Kazan National Research Technological University, Kazan National Research Technical University named after A.N. Tupolev-KAI</p>
11:50 AM	4:50 PM	<p>Modified anti-friction and adhesive epoxy compositions</p> <p>Gimranova A.R., Gotlib E.M., Galimov E.R., Galimova N.Ya., Valeeva A.R. Kazan National Research Technological University, Kazan National Research Technical University named after A.N. Tupolev-KAI</p>
12:00 PM	5:00 PM	<p>Coffee Break (30 min)</p>

12:30 PM	5:30 PM	<p>Secondary use of components of obsolete powders in compositions with non-toxic compounds</p> <p>Khamzina L.F., Shipina O.T., Treskova V.I. Kazan National Research Technological University, Kazan National Research Technical University named after A.N. Tupolev-KAI</p>
12:40 PM	5:40 PM	<p>The study of the stabilizing effect of camphor derivatives in nitrate-cellulose compositions</p> <p>Khamzina L.F., Shipina O.T., Garaeva M.R., Treskova V.I. Kazan National Research Technological University, Kazan National Research Technical University named after A.N. Tupolev-KAI</p>
12:50 PM	5:50 PM	<p>Phase equilibria in ternary systems of CsBr-AgBr-InBr₃ and CsBr-CuBr-InBr₃</p> <p>Kamilov R.Kh., Yuldoshev J.Z., Knotko A.V, Grigorieva A.V. Lomonosov Moscow State University</p>
1:00 PM	6:00 PM	<p>Influence of blast-furnace slag on some properties of foam concrete</p> <p>Dien Vu Kim, S.I. Bazhenova, M.G. Bruyako, Hai Hoang Minh, Ly Nguyen Cong Moscow State University of Civil Engineering</p>
1:10 PM	6:10 PM	<p>Mathematical modeling of the technology of processing metal products with a vapor-gas discharge</p> <p>Anastasia Konstantinova, Rufina Galimova, Zufar Yakupov Kazan National Research Technical University named after A.N. Tupolev-KAI</p>
1:20 PM	6:20 PM	<p>Summing up & Closing of the Symposium</p>