

IV International Conference and School



"Advanced High Entropy Materials"

September 26-30, 2022



Belgorod State National Research University
Merzhanov Institute of Structural Macrokinetics and
Materials Science, Russian Academy of Sciences (ISMAN)

Venue

Merzhanov Institute of Structural Macrokinetics and Materials Science,
Russian Academy of Sciences (ISMAN)
Academician Osipyan str., 8, Chernogolovka, Moscow Region, 142432, Russia



FIRST CIRCULAR

Dear Colleagues!

We invite you to participate in the work of the conference and school "Advanced High Entropy Materials", which is planned to be held on 26–30 September 2022.

Main topics

- ✓ High- and medium-entropy alloys, compositionally complex alloys: fabrication and processing methods, structure, mechanical, and functional properties, phase stability and phase transformations, deformation mechanisms, diffusion and ordering;
- ✓ Multicomponent ceramic materials based on high-entropy compounds, methods of their production, structure, and properties;
- ✓ Fabrication, structure, and properties of high entropy and compositionally complex coatings;
- ✓ New compositionally complex materials for technology and medicine, including nanostructured materials, microstructure design of multicomponent materials, practical applications;
- ✓ Advanced methods of fabrication and processing of metallic and non-metallic materials for structural and functional applications, including additive technologies, new methods of casting, powder metallurgy, self-propagating high-temperature synthesis, spark plasma sintering, welding, surface treatment;
- ✓ Thermodynamic analysis and computer simulation of multicomponent materials, coatings and ceramics in various conditions.

Round tables devoted to the discussions of the most cutting-edge problems of new materials development will be held. The participation of young scientists and specialists is especially welcomed.

*The school will be supported under Russian Science Foundation grant No. 19-79-30066
"Advanced alloys and technologies for the aerospace industry."*

Key dates

- ✓ July 1st, 2022 – registration and acceptance of abstracts
- ✓ July 15th, 2022 – confirmation of participation in the conference;
- ✓ August 1st, 2022 – the second circular, the draft of the conference program;
- ✓ September 15th, 2022 – the final program of the conference.

Terms of participation

Participation in the conference does not require any fee.

Offline meeting is planned. Due to the unstable epidemiological situation, the conference format can be changed to a virtual or mixed one. For the foreign or distant participants, it is possible to participate in online format.

There will be a competition for the best scientific report presented by young scientists. The winners and participants of the competition will be awarded with diplomas and certificates. The languages of the conference are *English* and *Russian*. The abstracts and presentation slides should be in English. Conference abstracts will be published and sent for indexing in the RSCI database (elibrary.ru).

The selected reports will be recommended for publication in:
Advanced Materials and Technologies, <http://www.journal.tstu.ru/>
Refractories and Industrial Ceramics, <https://newogneup.elpub.ru/jour>
Physical Mesomechanics, <http://www.ispms.ru/ru/51>

Registration

Registration of participants and submission of abstracts is carried out on the conference website (<http://shea.bsu.edu.ru/shea/2022/>) – July 1st 2022.

The program committee has sole rights to select abstracts for the conference.

Co-chairmen of the conference

M.I. Alymov, Corresponding Member of Russian Academy Of Sciences, *Doctor of Sciences, Professor, Director of Merzhanov Institute of Structural Macrokinetics and Materials Science, Russian Academy of Sciences (ISMAN)*;

G.A. Salishchev, *Doctor of Sciences, Head of the Laboratory and Professor of the Department of Materials Science and Nanotechnology, Belgorod State National Research University.*

Program committee

V.N. Sanin, Doctor of Sciences, Deputy Director of the Merzhanov Institute of Structural Macrokinetics and Problems of Materials Science, RAS;

A.A. Rempel, Academician of the Russian Academy of Sciences, Professor, Doctor of Sciences, Head of the Laboratory and Director, Institute of Metallurgy, RAS Ural Branch;

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E.G. Astafurova, Doctor of Sciences, Associate Professor, Leading Researcher, Laboratory of Physics of Structural Transformations, Institute of Strength Physics and Materials Science, RAS Siberian Branch;

A.V. Makarov, Corresponding Member of the Russian Academy of Sciences, Doctor of Sciences, Head of the Department of Materials Science and the Laboratory of Mechanical Properties, Institute of Physics of Metals, RAS Ural Branch;

Yu.I. Chumlyakov, Doctor of Sciences, Professor of the Department of Physics of Metals and Head of the Laboratory of Physics of High-Strength Crystals, Siberian Institute of Physics and Technology, National Research Tomsk State University;

International organizing committee

I.V. Kireeva, Doctor of Sciences, Professor of the Department of Physics of Metals and Head of the Laboratory of Physics of High-Strength Crystals, Siberian Institute of Physics and Technology, National Research Tomsk State University;

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V.G. Pushin, Doctor of Sciences, Professor, Head of the Laboratory of Nonferrous Alloys, Head of the Department of Electron Microscopy of the Center for Collective Use "Testing Center for Nanotechnologies and Advanced Materials", Institute of Metal Physics, RAS Ural Branch.

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O. Yücel, Prof., Istanbul Technical University, Turkey

B. Derin, Prof., Istanbul Technical University, Turkey

A.S. Mukasyan, Prof., University of Notre Dame, USA

R.G. Abdulkarimova, Al-Farabi Kazakh National University, Kazakhstan

V.V. Savich, Powder Metallurgy Institute named after Academician O.V. Roman, Belarus

Local committee

V.N. Sanin, Doctor of Sciences, Deputy Director of the Merzhanov Institute of Structural Macrokinetics and Problems of Materials Science, RAS (ISMAN) - chairmen;

M.S. Tikhonova, Ph.D., Head of the Department and Senior Researcher, Department of Materials Science and Nanotechnology, Belgorod State National Research University;

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