XXXIX Siberian Thermophysical Seminar (STS-39)

The Siberian Thermophysical Seminar is traditionally organized by Kutateladze Institute of Thermophysics of Siberian Branch of Russian Academy of Sciences in Novosibirsk since 1960. In 2023, the Seminar was held in Novosibirsk State University and was dedicated to 90th anniversary of Academician Alexey K. Rebrov, who has been working at the Institute of Thermophysics from its founding. His work is inseparably linked with development of thermophysics and rarefied gas dynamics.

The present Conference covers the following topics:

- processes in rarefied gases and plasma, gas-phase synthesis of nanostructures;
- convective flows and heat transfer in single-phase media;
- methods for controlling turbulence and intensifying heat and mass transfer;
- hydrodynamics, heat and mass transfer and wave processes in multiphase media;
- heat and mass transfer during phase transitions;
- transfer processes during physicochemical transformations, including combustion;
- thermophysical problems of energetics, energy efficiency and energy saving;
- thermophysics of micro- and nanosystems;
- thermophysical properties of substances and radiative heat transfer;
- fundamental principles of calculation and construction of energy systems based on the effect of superconductivity.

The number of participants reached 285 researchers from 20 cities in Russia and Kazakhstan with a good share of young members. There were 15 keynote and 25 invited lectures as well as 162 oral and 123 poster presentations. The keynote lectures have been presented by Profs. S.A. Novopashin, V.M. Fomin, G.A. Popov, E.V. Kustova, A.P. Kryukov, S.B. Nesterov, A.S. Dmitriev, Y.A. Bondar, B.I. Nigmatulin, G.V. Kuznetsov, S.S. Sazhin, V.M. Molochnikov, N.M. Bulgakova, A.A. Morozov and D.A. Gubaidullin. The proceedings in this volume contain 98 papers grouped by sections where they were presented.

The Scientific Committee appreciates the enormous work of the editorial board and reviewers in the preparation of this volume. We would like to express our sincere thanks to all authors for their research contributions, and also to organizers of the conference for their valuable spadework.

The Organizing Committee of STS-39
Organizing Committee

Chairman
Markovich D.M.

Vice Chairs
Sikovsky D.F.
Morozov A.A.

Scientific secretary
Pinaev V.A.
Yudin I.B.

Chairman of the Technical Committee
Timoshenko N.I.

Members of the Organizing Committee

Bataev A.A.  Kashinsky O.N.  Parmon V.N.  Fedyaeva O.N.
Berdnikov V.S.  Kozlov V.V.  Pakhomov M.A.  Cheverda V.V.
Bondar E.A.  Kuznetsov V.V.  Plotnikov M.Yu.  Chekmarev S.F.
Gorchakova N.G.  Kubitin P.A.  Pribaturin N.A.  Chernov A.A.
Dulin V.M.  Lukashov V.V.  Smovzh D.V.  Chinnov E.A.
Elisratov S.L.  Makarov M.S.  Stankus S.V.  Sharypov O.V.
Ermayuk E.V.  Marchuk I.V.  Terekhov V.V.  Shitork S.I.
Zhavin A.E.  Naumov I.V.  Terekhov V.I.  Yavorsky N.I.
Zaikovsky A.V.  Nizovtsev M.I.  Tulupov A.A.  Yarygin V.N.
Zaitsev D.V.  Novopashin S.A.  Tupikin A.V.  
Kabov O.A.  Pavlenko A.N.  Fedoruk M.P.  

Program Committee

Co-Chairs
Alekseenko S.V.
Rebrov A.K.

Alifanov O.M.  Khomich V.Yu.  Popov G.A.
Annin B.D.  Klimenko A.V.  Pretechensky M.R.
Aristov V.V.  Kirdyashkin A.G.  Pukhnachev V.V.
Baydakov V.G.  Kovalen K.L.  Rogalev N.D.
Bulakov A.V. (Czech Republic)  Krivtsov A.M.  Sapochnikov S.Z.
Bulgakova N.M. (Czech Republic)  Kuznetsov G.V.  Sazhin S.S.
Burdakov A.P.  Kustova E.V.  Shakhov E.M.
Dedov A.V.  Lengrand J.C. (France)  Sharafutdinov R.G.
Dragunov Yu.G.  Levin V.A.  Shilyupk A.N.
Dmitriev A.S.  Li X. (China)  Shmotin Yu.N.
Egorov I.V.  Lyubimova T.P.  Silnikov M.V.
Fedorov M.P.  Markides C.N. (UK)  Smirnov E.M.
Filippov S.P.  Matvienko V.P.  Stennikov V.A.
Fomin V.M.  Messerle V.E.  Surzhikov S.T.
Geshev P.I.  Milman O.O.  Sukhinin G.I.
Gogonin I.I.  Minaev S.S.  Testoedov N.A.
Golovin S.V.  Mikheev N.I.  Travniecek Z. (Czech Republic)
Goryacheva I.G.  Nagnibeda E.A.  Vasiliev A.A.
Gubaidullin D.A.  Nigmatulin R.I.  Vinogradov A.V.
Hanajlic K. (Netherlands)  Penyazkov O.G.  Vostrikov A.A.
Isaev S.A.  Petrenya Yu.K.  Wang Q. (China)
Jiang P.-X. (China)  Petrov O.F.  Yakush S.E.
Kedrinsky V.K.  Pokuasae B.G.  Zapryagaev V.I.