

**MATERIALS AND COATINGS UNDER EXTREME
CONDITIONS: INVESTIGATIONS, APPLICATION,
AND ENVIRONMENTALLY SAFE TECHNOLOGIES
FOR THEIR PRODUCTION AND UTILIZATION**

On September 18–22, 2000, the International Conference "Materials and Coatings under Extreme Conditions: Investigations, Application, and Environmentally Safe Technologies for Their Production and Utilization" was held in the sea-resort areas of Ponizovka and Katsiveli in the Crimea (Ukraine); the Conference was dedicated to the memory of Academician Vladimir Fedorovich Utkin, the outstanding scientist and designer of space-rocket systems.

The Conference was attended by about 200 scientists from Belarus, Germany, China, Russia, Ukraine, Sweden, Estonia, and Japan. Among the participants were seven academicians and corresponding members of the National Academies of Sciences, more than 60 doctors of science and over 80 candidates of science. The participants of the Conference represented the leading science and technology centers of Russia, Ukraine, and Belarus ("Yuzhnoe" State Design Office, Dnepropetrovsk, Ukraine, I. N. Frantsevich Institute of Problems of Material Science of the National Academy of Science of Ukraine, Kiev, N. E. Zhukovskii Central Aerohydrodynamics Institute, Zhukovskii, Moscow Region, M. V. Khrunichev State Space Science and Production Center, Moscow, "Molniya" Science and Production Association, Moscow, "Kompozit" Science and Production Association, Korolev, Moscow Region, A. V. Luikov Heat and Mass Transfer Institute of the National Academy of Sciences of Belarus, Minsk) and also the largest universities (N. E. Bauman Moscow State Technical University, T. G. Shevchenko Kiev National University, Moscow Aviation Institute, National Technical University of Ukraine "Kiev Polytechnic Institute," Kharkov Aviation Institute, Belarusian State University (Minsk), etc.) of 34 cites of the countries mentioned. The program of the Conference included 470 papers.

Greetings to the participants were sent by L. D. Kuchma, President of Ukraine, M. M. Kas'yanov, Chairman of the Government of the Russian Federation, Academician of the Russian Academy of Sciences M. P. Kirpichnikov, First Deputy Minister of Industry, Science, and Technologies, Yu. N. Koptev, General Director of the Russian Aviation and Space Agency, V. G. Komarov, First Deputy General Director of the National Space Agency of Ukraine, and I. B. Fedorov, Rector of N. E. Bauman Moscow State Technical University. The opening of the Conference was attended by L. Ovsyatskii, Director of the National Center of Technology in Ukraine.

The work of the Program Committee and the course of the Conference were greatly influenced by Academician of the Russian Academy of Sciences and the National Academy of Sciences of Ukraine V. I. Trefilov. It is sad that this enthusiastic, bright, and charming person passed away so untimely. The main part of the organizing work was done by the staff of I. N. Frantsevich Institute of Problems of Material Science of the National Academy of Sciences of Ukraine and N. E. Bauman Moscow State Technical University. Academician of the National Academy of sciences of Ukraine V. V. Skorokhod and Corresponding Member of the Russian Academy of Sciences Yu. V. Polezhaev were co-chairmen of the Organizing Committee; L. I. Chernyshev, Candidate of Technical Sciences, was appointed scientific secretary.

The program of the Conference included discussions of topical scientific-technical problems, such as computer modeling of the processes of obtaining materials and coatings, modeling of the extreme operating conditions for materials and structural elements, thermal protection, processing of domestic and industrial

waste, industrial ecology, and ecological education of population. Of special interest were papers devoted to the promising environmentally safe energy- and resources-conserving technologies of obtaining materials and coatings, comprehensive investigation of the physical properties of new materials, including composite ones, and instrument monitoring of the ecological parameters of the environment.

The Organizing Committee has published the abstracts of papers in the English, Russian, and Ukrainian languages. A number of papers are published in the present issue of the journal. The next conference is being planned for September 2002; the organizers intend to time it with the 50th anniversary of I. N. Frantsevich Institute of Problems of Material Science of the National Academy of Sciences of Ukraine.

N. V. Pavlyukevich, Doctor of Physical and Mathematical Sciences, Corresponding Member of the National Academy of Sciences of Belarus;

S. V. Reznik, Doctor of Technical Sciences, Professor of N. É. Bauman Moscow State Technical University;

G. A. Frolov, Doctor of Technical Sciences, Supervisor of the "IPM-Kosmos" Science and Production Center of I. N. Frantsevich Institute of Problems of Material Science of the National Academy of Sciences of Ukraine