

Results of the VI International Conference “NFM”

In June, 21 – 25 Peter the Great St. Petersburg Polytechnic University held the IV International Conference "Nanotechnology of Functional Materials". The event has successfully continued the series of scientific meetings, and has attracted both the leading experts in the field of new nanomaterials and young researchers.



It should be noted that a great contribution to the strengthening the authority of the conference is made by its Chairman, a corresponding member of the Russian Academy of Sciences, M.V. Kovalchuk; the Chairman of the Program Committee, a corresponding member of the Russian Academy of Sciences, M.I. Karpov; the Chairman of the Organizing Committee, SPbPU Rector, a corresponding member of the Russian Academy of Sciences, A.I. Rudskoy, as well as a pleiad of eminent scientists in the field of modern nanotechnology of metal and composite materials.

During the conference the participants (this time their number was more than 170 scientists from different regions of Russia, CIS and foreign countries) presented more than 150 reports and discussed the latest scientific results of basic research and practical achievements in the development of new nanostructured metal and composite materials, as well as their production technology.



On the first day SPbPU held the opening ceremony of the conference, and then in the plenary sessions there were the reports of the Academician of the Russian Academy of Sciences, V.Y. Shevchenko; a corresponding member of the Russian Academy of Sciences, V.V. Rybin; a corresponding member of the Russian Academy of Sciences, M.I. Karpov; Doctor of Technical Science, Professor, A.M. Gleser; Doctor of Technical Science, Professor, A.A. Popovich, etc. On the first day of the conference we asked V.Y. Shevchenko, the Academician of the Russian Academy of Science, whether at its time the transition to the study of the nano level was a revolutionary or natural development of science. He replied: "Formally, the word nano appeared in 2000, when the United States published the American National Nanotechnology Initiative. Nano is a qualitatively different state of substance, which is not observed on a larger scale. In the nanoworld there are many interesting processes. Therefore, the study of the nano level is a logical transition of a long period of scientists' research, when they have discovered the laws that are not observed in the usual environment."



After that the conference events took place on the ship "Mikhail Sholokhov", which made a cruise on Lake Ladoga. During the three days of the conference the participants had an intense work in five different sections: "The physico-chemical features of nanostructured state" (section moderators: O.V. Tolochko, Doctor of Technical Science, Professor; S.U. Kondratiev, Doctor of Technical Science, Professor); "Amorphous, nanocrystal and nanostructured metal materials" (section moderators: G.E. Kodzhaspirov, Doctor of Technical Science, Professor; A.M. Gleser, Dr. Sci. in Physics and Mathematics, Professor); "Nanostructured powders, composites, ceramics and coatings" (section moderators: A.A. Popovich, Doctor of Technical Science, Professor; V.N. Tsemenko, Doctor of Technical Science, Professor); "Nanobiotechnology of functional materials" (section moderator: S.V. Kozyrev, Doctor of Technical Science, Professor); "Methods of nanostructured materials study, modeling and information support of nanotechnology" (section moderators: A.K. Belyaev, Doctor of Technical Science, Professor; V.N. Kozlov, Doctor of Technical Science, Professor).



The topics of the section sessions covered a wide range of problems, caused by the analysis of different directions in the field of modern material engineering and relevant issues. For example, on the third day of the conference, more than 20 presentations were made. Professor A.A. Popovich and Professor T.I. Bobkova made extensional and informative reports. Their themes respectively were "Experience of Use and Prospects for Development of Additive Technologies" and "Functionally graded, nanostructured, wear and corrosion resistant covers with controlled micro-hardness on the basis of composite powder system "metal-nonmetal"". Both topics are of great interest among the scientific community and caused a serious discussion.



The report of Professor V.V. Korableva evoked a response among young researchers. Together with the professor, they discussed the directions of the development of new materials and technologies, energy issues, including renewable energy sources and energy storage, as well as the problems private space exploration, which is booming at the moment. In general, the youth participation of the III All-Russian School for Young Scientists within the framework of the conference "NFM -2016" should be given special prominence.



On the first day of the conference, the participants of the School attended the lecture of the Executive Director of the Institute of Advanced Manufacturing Technology, S.V. Salkutsan. The theme of the lecture was "TechNet Roadmap - Advanced Manufacturing Technologies" and it was dedicated to the National Technological Initiative (NTI) and the activities of SPbPU Institute of Advanced Manufacturing Technology (IAMT). The students learned about the promising markets in the NTI system and the phenomenon of "the factories of the future".

Over the next three days the participants of the School for Young Scientists had a busy agenda on commercialization, which culminated with the awarding ceremony of the winners.



Young researchers and students, especially those who took part in the Youth School for the first time, did not hesitate to share their impressions: "I loved it. It was a perfect combination of the cultural, scientific and in particular training programs. I think for many participants this conference will be very useful to understand their own projects from the point of view of business and its commercialization," said the SPbPU postgraduate student Vadim Baygildin.



Returning to the conference "NFM -2016", it is worth noting in conclusion that all the participants emphasized the relevance, the importance and the need for such highly professional scientific forums. The conference helps to solve the fundamental problems in the field of nanotechnology of new functional materials, as well as makes a significant contribution to the education of the pleiad of young scientists working in this direction.

Media Center, SPbPU

Дата публикации: 2016.07.04

[>>Перейти к новости](#)

[>>Перейти ко всем новостям](#)