

Russian universities and research institutions for the second time to take part in the International Forum «ImagineNano 2013»

Russia is again to take part in the major specialized international nanoindustrial Forum with a unified national exposition organized by the Ministry of Education and Science of the Russian Federation.

The acknowledged leaders of the research market – major Russian Universities and Research Institutes: *Moscow State Institute of Radio-engineering, Electronics and Automation, National University of Science and Technology (MISIS), Southern Federal University, Russian State Technological University of K.E. Tsiolkovsky, Institute of Applied Nanotechnology, D.I. Mendeleev Russian University of Chemical Technology, Russian Research Institute of Agricultural Instruments* and others will present their new research results on the exposition area of 60 sq. m.

The Russian science is represented at this forum by several presentations, which were included in the programs of conferences, dealing with various spheres of nanotechnological studies.

A specialist from St. Petersburg National Research University of Information Technologies, Mechanics and Optics, Anna Orlova will make her report at the 10th conference “Nanospain” that has become a widely known event enabling an exchange of ideas, establishment of new contacts and interaction in keeping with the latest achievements and problems of nano-science and nano-technology.

Tatiana Zimina a researcher of St. Petersburg Electrotechnical University will present the University’ scientific research results at the conference “**NanoBio&Med**”. Within the frames of the conference, companies from all over the world will represent their recent research results in the field of nano-medicine and bio-nano-technologies, numerous innovations significantly improving medical diagnosis and treatment methods that will result in a better quality of life and longer life expectancy.

National University of Science and Technology (MISIS) will show the visitors and participants a example of a medical mask on its stand. The manufacturing method of this mask consists of a tailoring the intermediate product of woven fabric, with a subsequent soaking in a colloid solution of silver nanoparticles, increase of the adhesive action of silver particles and the mask fabric. Another exhibit is also connected with innovations in medicine – extravasal corrector of the valves functions of the main veins made of nanostructured titanium nickelide with a shape memory effect to treat varicose vein disease. Then third interesting exhibit will be an oxide-ceramic nano-crystal coating, applied by the method of microplasma oxidation, which is meant to purify gases of heating and power stations.

One can see a Teflon tape with thin-film electrodes nm-thick, electrochemical sensor to detect toxic and explosive gases, with a nanostructured electrode at the stand of the Federal State Unitary Enterprise “Research department “MATI” - D.I. Mendeleev Russian University of Chemical Technology.

Open JSC “Russian Research Institute “Agropribor” will demonstrate the instrument jacket made of a nanostructured fabric with dirt and water repellent functions to the guests and participants of the exhibition. This innovative product is meant to improve the protection of high-precision instruments in natural environment.

If you approach the stand of Moscow State University of Design and Technology of A.N. Kosygin you will see a unique polyester fabric, soaked in the solution of metallic salts. It has increased electrical conductivity and hygroscopic property to be used in medical institutions, as well as for tyres production and non-woven fabrics.

The exhibition visitors, who will come to the stand of the Research Institute Close JSC “Institute of applied nanotechnology” will see a paper with biocidal properties and meant for wide use, including the manufacture of printing paper, securities and toilet paper, especially in such cases when paper products are in direct contact with skin and this paper should meet the strict demands of toxicity and sterility.

D.I. Mendeleev Russian University of Chemical Technology will offer nanomaterials for protection and health of people, with high stability and biocompatibility.

The innovation of Moscow State Construction University will be interesting for representatives of the industrial sector and construction companies. It is a high-strength light nanomodified concrete. This invention is for construction of industrial and civil buildings and unique structures. The high-strength light nanomodified concrete has an optimal combination of high strength and low density, which enables to increase the number of storeys in buildings, keeping the same foundation load.

A Hybrid (electronic and X-ray) nano-microscope ГНОМ-40 will be at the stand of Moscow State Technological University Moscow State Institute of Radio-engineering, Electronics and Automation. This microscope is to study nano-structured objects in electrons and high-resolution X-radiation. It will help solve numerous nanotechnological tasks in Physics, Chemistry, Geology, Material science, Biology, Medicine, ecology, Pharmacology etc.

Nanotechnologies have become one of the main scientific achievements of the recent decades, and their application range is already far beyond purely scientific limits. Gradually, these technologies have come to the industry, medicine, high-performance equipment etc. However, in the first instance, innovations in the nano-sphere are aimed at reaching totally new living standards of the humankind and bring it to a radically new level of development.

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