
Editorial

Denis S. Andreyuk

Faculty of Economics,
Lomonosov Moscow State University,
GSP-1, 1-46 Leninskiye Gory,
Moscow, 119991, Russia

and

Mental Health Clinical Hospital No. 1,
N.A. Alekseev of Moscow Health Department,
Moscow, 117152, Russia
Email: denis.s.andreyuk@yandex.ru

Biographical notes: Denis S. Andreyuk graduated in 1997 from the Biological Faculty of the Moscow State University named after M.V. Lomonosov (MSU). After getting a PhD in Biology (1999), he worked in the Biological Faculty of MSU. From 2004 till 2012, he worked in the NT-MDT Group, the last position was Director of Marketing. Now he works as Executive Vice-President of the Nanotechnological Society of Russia (NSR) and Executive Director of the Russian Association for the Advancement to Science (RAAS). His academic positions are in MSU Faculty of Economics, and in Mental Health Clinical Hospital No.1 named after N.A. Alekseev of Moscow Health Department.

I am happy to introduce this special issue of the *International Journal of Nanotechnology* because it represents the best reports from members of the Nanotechnological Society of Russia (NSR). NSR celebrated its 10th anniversary in 2019 and the annual conference was recognised as a remarkable scientific event in the post-soviet territories. So, this issue can be viewed as gallery of contemporary science and technologies at the nanometre size scale in Russia and most of the CIS countries.

All the most important areas of nanoscience are present in this issue.

Nanostructured metallurgy is represented by the papers of Ivanov et al., Gromovykh et al., and Yashin et al. Al alloys are in the attention focus of both teams.

Coatings: The paper of Raiymkhanov et al. can be mentioned in this area. The authors adopted a pulsed plasma deposition method to form carbon nanocoatings with controlled properties.

New analytical technologies and equipment: An original device setup for X-ray focusing has been suggested by Egorov and Egorov. Antsiferova et al. have developed an interesting approach for trace analysis. The authors induce radioactivity in synthetic carbon nanotubes to detect minor traces of them.

Self-organising nanosystems: Palamarchuk et al. have developed an approach to form very stable multilayer emulsion nanoparticles with controlled properties. An electrochemical method of ZnO photon crystal growth is described by Martynova et al., together with in-depth characteristics of the resulting nanosystems.

Mathematical modelling of nano-sized phenomena: Beznosyuk et al. have performed modelling of energy transformations in nanomaterials.

Nanoelectronics: Lapshinsky and Patrikeev review the taxonomy of resistive random-access memory; Udovichenko et al. have developed a new architecture of memristor-based neuromorphic processors.

Nanobiomedicine: Lutsenko et al. have developed a very promising new antiseptic material based on bacterial cellulose combined with nanoparticles.

Biosafety and hazard assay of different nanoparticles: This is the main point in two papers, by Churilov, Polyschuk et al. and Churilov, Churilova et al.

Social sciences: The semantic analysis method has been described by Andreyuk and Khrabrovskaya, which can be used for visualising and co-alignment of different groups of motivation vectors, for example in multidiscipline team formation.

Educational techniques in nanotechnology-related disciplines are the topic of several papers: Shachnov et al. can be named as an example.

Of course, this is not a full list of papers and topics presented at the *Nanotechnological Society of Russia Annual Conference*. But even this short introduction shows that the coverage of different scientific areas is very broad. This broadness is reflected in the paper diversity in this special issue.

Have a nice reading!