Editorial: Special Issue—NANO 2017

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Published online: 2 July 2019

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This special issue contains the manuscripts with contributions presented at the international research and practice conference “nanotechnology and nanomaterials” (NANO-2017). The NANO-2017 conference was organized by the Institute of Physics of NAS of Ukraine with the participation of the Taras Shevchenko National University of Kyiv (Ukraine), University of Tartu (Estonia), University of Turin (Italy) and Pierre and Marie Curie University—Paris 6 (France). NANO-2017 was the 6th conference in the series of NANO-conferences initiated by the Institute of Physics of NAS of Ukraine since 2012 in the framework of FP7 Nanotwinning project. From year to year, the annual international NANO conference grows and attracts more attention and participants. In 2017 the Organizer Committee of NANO Conference had received more than 800 application forms from about 25 countries of the world. The NANO-2017 conference allowed the participants, including young scientists, to familiarize with current research and application issues in this area and thus to promote further implementation of nanotechnologies into innovations which meet public needs. The conference also gave the opportunity to young and early-career researchers to attend lectures of internationally recognized experts and roundtable discussions on the emerging fields in nanosciences and nanotechnologies.

The NANO-2017 conference brought together leading scientists and young researchers from many countries of the

world. The conference topics were as follows: nanobiotechnology for health-care; nanochemistry and biotechnology; nanocomposites and nanomaterials; nanoobjects microscopy; nanooptics and photonics; nanoplasmonics and surface enhanced spectroscopy; nanoscale physics; nanostructured surfaces; physico-chemical nanomaterials science.

This special issue of NANO-2017 conference consists of top research articles covering all aspects of this multidisciplinary science, including biotechnology, electronics and photonics, quantum phenomena, sensing, patterning and fabrication, nanomaterial synthesis and the properties analysis. Here you can find new knowledge can include, without being limited to, the following themes: plasmonic-based solar and environmental technologies, different optical effects caused by quantum dots, green synthesis of silver nanoparticles, using nanocomplexes for cancer therapy, synthesis of hybrid composites for photodynamic therapy, study photoluminescent properties of nanocomposites, creation of flexible 2D layered material, development of electrochemical biosensors, using the highly efficient photocatalytic conversion of solar energy, etc.

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