

Special Issue

New Van der Waals Heterostructures for Opto and Nanoelectronics

Message from the Guest Editor

Van der Waals heterostructures contain few layers of two-dimensional nanomaterials, with weak interaction between layers. Such materials can be composed from graphene, hexagonal boron nitride (hBN), molybdenum disulfide (MoS₂), other transition metal dichalcogenides (TMD), layered oxides, elements of IV and V groups, etc. These structures have outstanding optical, magnetic, and electronic properties that can be tuned by the number of layers and the type of stacking. Van der Waals heterostructures became essential elements of vertical field-effect transistors, ultrasensitive infrared photodetectors, and spin-filtering devices.

Guest Editor

Prof. Dr. Olga E. Glukhova

1. Department of Physics, Saratov State University, Saratov 410012, Russia
2. Institute for Bionic Technologies and Engineering, I.M. Sechenov First Moscow State Medical University, Moscow 119991, Russia

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Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
materials@mdpi.com

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Materials (ISSN 1996-1944) was launched in 2008. The journal covers twenty-five comprehensive topics: biomaterials, energy materials, advanced composites, advanced materials characterization, porous materials, manufacturing processes and systems, advanced nanomaterials and nanotechnology, smart materials, thin films and interfaces, catalytic materials, carbon materials, materials chemistry, materials physics, optics and photonics, corrosion, construction and building materials, materials simulation and design, electronic materials, advanced and functional ceramics and glasses, metals and alloys, soft matter, polymeric materials, quantum materials, mechanics of materials, green materials, general. *Materials* provides a unique opportunity to contribute high quality articles and to take advantage of its large readership.

Editor-in-Chief

Prof. Dr. Maryam Tabrizian

1. Department of Biomedical Engineering, Faculty of Medicine and Health Sciences, McGill University, Montreal, QC H3A 2B6, Canada
2. Faculty of Dentistry and Oral Health Sciences, McGill University, 3640 Rue University, Montreal, QC H3A 0C7, Canada

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