Special Issue

Functional and Smart Materials for Industry, Robotics and Sensor technologies

Message from the Guest Editor

The fourth industrial revolution has arrived, codenamed Industry 4.0. The ideas related to this new industrial wave, focused on cyberphysical systems, artificial intelligence, and big data processing, will soon change our lives and social relations. However, in addition to high-tech IT solutions, cyberphysical systems cannot exist as pure software and demand equally advanced physical components. Advanced materials with extraordinary tribological properties will decide on the efficiency of robots, whereas smart and sensitive materials will determine the efficiency of sensing systems feeding artificial intelligence with necessary data. Robust and adaptive structures will enable flexibility of industrial production lines, while self-healing materials will cut the time costs of maintenance procedures. Functional and smart materials will be the key elements of the industry of the future. Nonetheless, the importance of efforts on materials development seems to be underestimated in the implementation of Industry 4.0 ideas. This Special Issue will be a step toward filling this gap, enabling the exchange of ideas and presentation of new achievements to the global scientific community.

Guest Editor

Prof. Dr. Roman Szewczyk
Faculty of Mechatronics, Warsaw University of Technology, Warsaw, Poland

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

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Message from the Editor-in-Chief

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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