



Functional and Smart Materials for Industry, Robotics and Sensor technologies

Guest Editor:

Prof. Dr. Roman Szewczyk

Faculty of Mechatronics, Warsaw
University of Technology,
Warsaw, Poland

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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.





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Editors-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

Prof. Dr. Yuguang Ma

State Key Laboratory of Luminescent Materials and Devices, South China University of Technology, Guangzhou 510640, China

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Contact Us

Materials Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

Tel: +41 61 683 77 34
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