



Synthesis and Characterization of Advanced Adsorption Materials and Their Role in Environmental Applications

Guest Editor:

Dr. Aljoša Košak

1. The Faculty of Mechanical Engineering, University of Maribor, Smetanova 17, SI-2000 Maribor, Slovenia
2. Institute for Environmental Protection and Sensors (IOS) Ltd., Beloruska 7, SI-2000 Maribor, Slovenia

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Message from the Guest Editor

Potential topics of this Special Issue include, but are not limited to the following: development of new adsorption materials (porous micro-/nano-structured inorganic materials, organic/inorganic hybrid materials, polymeric materials, natural materials); new synthesis strategies and techniques; scale-up synthesis; characterization of structural, surface, and other physicochemical properties and ecotoxicity of adsorbents, and their adsorption applications in the removal of pollutants from air, soil and water (removal and purification of chemicals, drugs, pharmaceuticals and biological substances, pesticides, herbicides, fumigants, polycyclic aromatics hydrocarbons, organic micropollutants, microplastics, heavy metals, rare-earth elements, radionuclides, impurities from liquids and gases, air pollutants, removal of dyes in decolorization processes, separation and storage of gases); basic and practical aspects of adsorption and adsorption processes (adsorption mechanisms, desorption, regeneration, equilibrium data, adsorption isotherms, kinetic models, thermodynamics, batch methods, fixed-bed type processes, fluidized beds, pulsed beds, new measurement techniques).





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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

Message from the Editor-in-Chief

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Materials Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

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