



Advanced Research on Electrode Materials for Supercapacitors

Guest Editors:

Dr. Vanaraj Ramkumar

Materials Chemistry Laboratory,
School of Chemical Engineering,
Yeungnam University, Gyeonsan
38541, Republic of Korea

Dr. Gopiraman Mayakrishnan

Division of Molecules and
Polymers, Institute for Fiber
Engineering (IFES),
Interdisciplinary Cluster for
Cutting Edge Research (ICCER),
Shinshu University, Tokida 3-15-
1, Ueda, Nagano 386-8567, Japan

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Message from the Guest Editors

Supercapacitor materials prepared with amazing properties, such as unique structure, high surface area and well-defined porosity, are much needed to produce high power and energy density. A uniform crystal structure and formation of the targeted material can enhance the specific capacitance of a material. The materials' characterization involves the description of a molecular crystal structure that is very important to the supercapacitor. Several types of materials are being used to achieve high-performance supercapacitors, such as MOFs, metal oxides, carbon and nano-composite materials. The XRD is the most significant tool to explain the crystal structure of the above. The aim of this Special Issue is to produce a discussion on the latest advances in the crystal structure role in advanced research on electrode materials for high-performance supercapacitors.

Topics of interest include, but are not limited to, the following:

- High-performance supercapacitor;
- Carbon and its composites materials;
- Metal-oxide materials;
- Organic materials for energy production;
- Crystal structure of supercapacitor;
- Novel electrode materials;
- Molecular crystal structure of energy application.





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Editor-in-Chief

Prof. Dr. Alessandra Toncelli

Department of Physics, University
of Pisa, 56126 Pisa, Italy

Message from the Editor-in-Chief

Welcome to *Crystals*, the journal dedicated to the fascinating world of crystallographic research! Crystals are more than mere decorative elements; they hold the key to understanding the fundamental structure of matter. Our mission is to explore the crucial significance of this research across various fields. From medicine to technology, chemistry to geology, crystals play a vital role. Their structure provides insights into new advanced materials, innovative drugs, and groundbreaking technologies. Through *Crystals*, we delve into the microscopic world to discover solutions that will shape the future. Join us on a journey through the *Crystals*, where science merges with beauty and innovation.

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Crystals Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

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