



energies



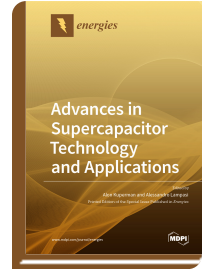
Special Issue Reprint

Advances in Supercapacitor Technology and Applications

www.mdpi.com/books/reprint/2608

Edited by
Alon Kuperman
Alessandro Lampasi

ISBN 978-3-03936-388-9 (Hardback)
ISBN 978-3-03936-389-6 (PDF)



Energy storage is a key topic for research, industry, and business, which is gaining increasing interest. Any available energy-storage technology (batteries, fuel cells, flywheels, and so on) can cover a limited part of the power-energy plane and is characterized by some inherent drawback. Supercapacitors (also known as ultracapacitors, electrochemical capacitors, pseudocapacitors, or double-layer capacitors) feature exceptional capacitance values, creating new scenarios and opportunities in both research and industrial applications, partly because the related market is relatively recent. In practice, supercapacitors can offer a trade-off between the high specific energy of batteries and the high specific power of traditional capacitors. Developments in supercapacitor technology and supporting electronics, combined with reductions in costs, may revolutionize everything from large power systems to consumer electronics. The potential benefits of supercapacitors move from the progresses in the technological processes but can be effective by the availability of the proper tools for testing, modeling, diagnosis, sizing, management and technical-economic analyses. This book collects some of the latest developments in the field of supercapacitors, ranging from new materials to practical applications, such as energy storage, uninterruptible power supplies, smart grids, electrical vehicles, advanced transportation and renewable sources.



Order Your Print Copy
You can order print copies at
www.mdpi.com/books/reprint/2608

MDPI Books offers quality open access book publishing to promote the exchange of ideas and knowledge in a globalized world. MDPI Books encompasses all the benefits of open access – high availability and visibility, as well as wide and rapid dissemination. With MDPI Books, you can complement the digital version of your work with a high quality printed counterpart.



Open Access

Your scholarly work is accessible worldwide without any restrictions. All authors retain the copyright for their work distributed under the terms of the Creative Commons Attribution License.



Author Focus

Authors and editors profit from MDPI's over two decades of experience in open access publishing, our customized personal support throughout the entire publication process, and competitive processing charges as well as unique contributor discounts on book purchases.



High Quality & Rapid Publication

MDPI ensures a thorough review for all published items and provides a fast publication procedure. State-of-the-art research and time-sensitive topics are released with a minimum amount of delay.



High Visibility

Due to our global network and well-known channel partners, we ensure maximum visibility and broad dissemination. Title information of books is sent to international indexing databases and archives, such as the Directory of Open Access Books (DOAB), and the Verzeichnis Lieferbarer Bücher (VLB).



Print on Demand and Multiple Formats

MDPI Books are available for purchase and to read online at any time. Our print-on-demand service offers a sustainable, cost-effective and fast way to publish MDPI Books printed versions.