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Advances in Electric Insulating Materials and Applications

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Message from the Guest Editors

Innovative electrical assets are being developed in electrified transportation, from three-wheelers, to ships to aerospace. In general, power electronics have to master the whole power supply to achieve the high specific power, low weight and volume components, and to enable the flexible and highly variable power flow required for these applications. In these conditions, electrical and electronic insulation systems and materials have to withstand new types and levels of electric stresses, while still having to be reliable for the design life of the apparatus.

This Special Issue advances transportation electrification and renewable generation technology by highlighting the challenges and advances in relevant materials, design criteria, diagnostic and monitoring tools and algorithms. Contributions highlighting the feasibility of robust, reliable and optimized insulation systems for any electrical apparatus involved in electrified transportation and renewable generation assets are particularly relevant. We also encourage contributions dealing with ac and dc supply, according to a hybrid asset paradigm.



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Special Issue



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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.

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