

Special Issue

Interfaces in Memristor

Message from the Guest Editor

Memristor properties are often governed by their interfaces to electrodes. These interfaces determine built-in electrical potentials and barriers, the fundamentals of electrical transport. Resistive switching involves modification of barriers, mainly by changes in intrinsic defect concentrations (valence change mechanism) or by the transport of material from the contacts (electrochemical mechanism). The lack of industrial applications of memristors shows that we are still far from effective memristor design rules. Since “The interface is the device” (Nobel laureate Herbert Kroemer), this Special Issue is focused on novel experimental and theoretic insight into the chemical and electronic nature of interfaces in memristors.

Guest Editor

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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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