

# Special Issue

## Electromagnetic Wave Absorbing Properties and Structures of Composites

### Message from the Guest Editors

Carbon-based composites are a kind of electromagnetic wave (EMW) absorption materials that have been widely studied. The carbon components can be roughly divided into graphene, carbon fiber, carbon nanotubes, carbon black and other materials. Normally, a single carbon material tends to cause a "skin effect" due to its high electrical conductivity, which causes a large number of EMW to be reflected on the surface of the carbon material, resulting in negative EMW absorption properties. Based on this, surface modification treatment, compounding, structural design and other methods are often used to achieve impedance matching, thereby improving the EMW absorption performance of carbon materials. Carbon-based composites are considered as potential candidates for high-performance EMW absorption due to its synergistic loss mechanism and diverse composition and microstructural designs. The purpose of this Special Issue is to provide an international platform for academic exchange on the design, preparation, characterization and application of carbon-based composites, thus promoting the development of carbon-based composites in the field of high-performance EMW absorption.

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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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