Special Issue

Carbon Based Functional Microwave Shields

Message from the Guest Editor

Overcrowding of the spectral bands allocated for different communication channels has made Electromagnetic Compatibility (EMC) crucial, especially for satellite and airplane communication systems, in which footprint and weight are critical issues. Compared to conventional metal-based EMI shielding materials, using carbon-based conducting composites is advantageous for satellite applications because of their low weight, small thickness, and flexibility. These include polymer composites containing exfoliated graphite, graphene nanoplatelets, carbon black, carbon fibers and nanofibers, carbon nanotubes (CNT), and carbon onions. This Special Issue will address the physics and technology of the carbon-based microwave and THz shields, problems related to interaction of the EM waves graphene, CNT and relevant composites, and also physical mechanisms responsible for attenuation of the EM waves in carbon-based materials. Thank you very much for your consideration.

Guest Editor

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