Special Issue

Trojan Materials in Science, Technology and Biomedicine: Invisibility Leading to Success

Message from the Guest Editors

Natural and artificial materials commonly behave as 'Trojan horses' to efficiently protect their cargo from being detected by any outside observer. A less known paradigm originates from the immunology of the microworld; specific pathogens, for instance viruses, can biochemically remodel their surface to deceive physiological cells, thus recruiting them as host carriers to invade the living organism. Science, when biomimetic, greatly benefits from this: relatively simple and quite complex materials such as photonic crystals, magnetic and dielectric micro/nano-particles, plasmonic nanomaterials and liquid crystals, can be farther empowered through their combination with biological substances and cellular units on demand, for the construction of new kinds of artificial (bio)metamaterials. This Special Issue is dedicated to artificial (bio)metamaterials which succeed thanks to their invisibility\(\text{\mathbb{Z}}\) and are thus termed Trojan materials. .

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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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