







an Open Access Journal by MDPI

# **Nanodiamond Particles: Properties and Applications**

Guest Editor:

### Dr. Shane Aaron Catledge

Department of Physics, University of Alabama at Birmingham, Birmingham, AL, USA

Deadline for manuscript submissions:

closed (31 May 2019)

## Message from the Guest Editor

Dear Colleagues,

Nanodiamond particles have found their way into a plethora of scientific investigations, with applications ranging from highly-stable fluorescent biomarkers for cellular probes to strengthening additives in composite materials. The surface of these tiny gems can be chemically modified to achieve a desired interaction with their environment, leading to molecular grafting and the ability to be either hydrophilic or hydrophobic, depending on attached functional groups. It is no wonder that the remarkable properties and tailored response of such a sparked tremendous nanoparticle has scientific investigation in recent years. Nanodiamond's excellent mechanical and optical properties, high surface area, nontoxicity and tunable surface structures, combined with refined techniques mass-production for commercialization. has created amazing opportunities and discoveries in fields as diverse as medicine and astrochemistry.

We kindly invite you to submit a manuscript(s) for this Special Issue. Full papers, communications, and reviews are all welcome.

Prof. Dr. Shane Aaron Catledge Guest Editor













an Open Access Journal by MDPI

## **Editor-in-Chief**

#### Prof. Dr. Maryam Tabrizian

1. Department of Biomedical Engineering, Faculty of Medicine and Health Sciences, McGill University, Montreal, QC H3A 2B6, Canada

2. Faculty of Dentistry and Oral Health Sciences, McGill University, 3640 Rue University, Montreal, QC H3A 0C7, Canada

## **Message from the Editor-in-Chief**

Materials (ISSN 1996-1944) was launched in 2008. The iournal covers twenty-five comprehensive biomaterials, energy materials, advanced composites. advanced materials characterization, porous materials, manufacturing processes and svstems. 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.

### **Author Benefits**

**Open Access:** free for readers, with article processing charges (APC) paid by authors or their institutions.

**High Visibility:** indexed within Scopus, SCIE (Web of Science), PubMed, PMC, Ei Compendex, CaPlus / SciFinder, Inspec, Astrophysics Data System, and other databases

**Journal Rank:** JCR - Q1 (Metallurgy and Metallurgical Engineering) / CiteScore - Q2 (*Condensed Matter Physics*)

#### **Contact Us**

Materials Editorial Office MDPI, Grosspeteranlage 5 4052 Basel, Switzerland Tel: +41 61 683 77 34 www.mdpi.com mdpi.com/journal/materials materials@mdpi.com X@Materials\_Mdpi