

Special Issue

Advances in Diamond-Like Carbon (DLC) Films

Message from the Guest Editor

Diamond-like carbon (DLC) is a metastable amorphous allotrope of carbon. It consists of carbon atoms bonded by sp^3 -type bonds (like in diamond) and sp^2 -type bonds (like in graphite).

DLC films have received considerable interest from researchers because of the intriguing combination of the mechanical, optical, electrical, and piezoresistive properties and biocompatibility. Properties of the films can be additionally controlled by doping them with different chemical elements. The range of DLC applications is very broad—from car engines to PC hard disks and beer bottles.

The aim of this Special Issue is to present the most recent and most significant research related with this important area. Topics covered include but are not limited to:

- Novel deposition methods of diamond-like carbon films and related nanocomposites, such as high-power impulse magnetron sputtering;
- Deposition effects on the structure and composition of different DLC films and nanocomposites;
- Mechanical, optical, electrical, piezoresistive, biomedical properties of DLC;
- DLC films and DLC nanocomposites for sensor and electronic, as well as optoelectronic device applications.

Guest Editor

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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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