Special Issue

Multiple Applications for Ceramic Materials

Message from the Guest Editor

In the last decade, many efforts have been focused on the fabrication and development of transparent polycrystalline ceramics because they can be used as host materials for solid-state lasers (SSL). Ceramics doped with rare-earth elements (RE) has been considered a promising and attractive way to build up efficient and high-power diode-pumped SSL with short duration pulses. If compared with single crystals, ceramic fabrication processes make it possible to obtain samples with a more uniform dopant distribution, high levels of doping, excellent thermo-mechanical and optical properties. Moreover, they are more economically advantageous than crystals due to lower processing temperatures and shorter processing times. This Special Issue is aimed to cover the recent research work on fabrication, development e characterization of transparent polycrystalline ceramic materials, so as to provide an insight into the current status and future prospects in this field.

Guest Editor

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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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