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## Physical Synthesis, Properties and Applications of Nanoparticles

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Deadline for manuscript  
submissions:

**20 October 2024**

### Message from the Guest Editor

Dear Colleagues,

This is an invitation to contribute to this Special Issue of *Materials* focused on nanoparticles (NPs) realized with physical synthesis, in particular, with gas phase synthesis, physical vapor deposition, pulsed laser ablation, supersonic cluster beam methods, mechanical grinding and others. NPs can now be considered an essential aspect of contemporary technology. Their application spans from drug delivery, medical imaging, plasmonics and photocatalysis to the realization of wide-screen TV sets. Most NP production methods are based on chemical synthesis. However, the physical methods can present some important advantages in fundamental studies on the properties of nanosized objects. Physical synthesis can be single-step and ligand-free, which results in a more accurate analysis of the NPs' structure and of their electronic, optical and magnetic behavior.

In this Special Issue, contributions regarding the physical synthesis of NPs and their properties are welcome. Theoretical papers on this vast subject will also be taken into consideration.



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# Special Issue



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## Editor-in-Chief

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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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