

Tentative Outline

Special/ Thematic Issue for the journal Current Materials Science

Title of the Thematic Issue: "Multifunctional Advanced Materials"

Guest Editor: Prof. Atul Thakur

- **Scope of the Thematic Issue:**

The advancement in materials science is making the world a better place. Thus, the role of materials and especially multifunctional materials cannot be negated from our lives. Materials are now a days utilized in electronic industry, waste water treatment, biomedical industry, defense technology, and many more. Therefore, this issue will focus on the advanced multifunctional materials that can be a potential candidate for future applications. In this issue we will be publishing 30 research and review articles related to the scope of this special issue. The issue will cover the articles related to nanotechnology, composite materials, biomaterials, ferroelectric materials, functional oxides, thin films, materials for energy applications, materials for defense technology, materials for waste water treatment etc. The collection of the articles will serve the scientific community by providing them a pool of high-quality research and review papers.

Keywords: Nanotechnology, Functional oxides, Biomaterials, Ferroelectrics, Nano-composites.

Sub-topics:

- Nanostructured Materials
- Functional Oxide Materials
- Smart Materials
- Shockwave induced Materials
- Microwave Materials
- Biomaterials
- Ferrite Materials
- Ferroelectric Materials
- Bio Sensors
- Composite Materials
- Metallic Materials
- Thin Films
- Magnetic Nanomaterial
- Bio-nano composites
- MXene

Tentative titles of the articles:

- Photoluminescence and Cyclic Voltammetry Studies of Ag-doped ZnO Nanoparticles
- Effect of ground in V-folding flexible antenna for sharp curved objects
- Influence of Annealing Temperature on Microstructural Properties of $Mn_{0.5}Zn_{0.5}Fe_2O_4$ Nanoferrites
- Structural and optical properties of copper ferrite using auto combustion synthesis approach

- La-Doped Mn-Zn Nano ferrites: Synthesis, Structure, and Morphology
- Green Synthesis of $Mn_{0.5}Zn_{0.5}Fe_2O_4$
- Forest industrial biomass residue-mediated green synthesized copper oxide nanoparticles for efficient wastewater treatment
- Structural, Morphological, Spectroscopic, and dielectric Properties of Mg-Ca Nanoferrite
- Green synthesis of $Zn_{0.5}Cu_{0.5}Fe_2O_4$ nano particles using Phyllanthus emblica (amla) bark extract
- To Study the effect of Cobalt as a dopant in copper oxide Nanoparticles
- Investigation of Structural properties of Fe_2O_3 nanoparticles
- Investigation of the photocatalytic and antimicrobial application of MgO nanoparticles
- Study on the numerical modelling of CdTe-based thin film solar cells for efficiency enhancement by optimization of CdTe layer Thickness using SCAPS-1D
- Pathophysiology of Haemopoietic Genetic disorder and Epigenetic treatment modalities of Thalassemia.
- Photocatalytic Performances of Reduced Graphene Oxide/Zinc Oxide Nanocomposites for the Degradation of Brilliant Green Dye.

Schedule:

- Thematic issue submission deadline: **July 2023**

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