

1. Cold sintering of bioactive glasses
2. Oxynitride glass ceramics: crystallization kinetics, mechanical and optical properties
3. Preparation and characterization of luminescent glass-ceramic materials prepared by sintering in a viscous flow
4. Additive manufacturing of phosphor-in glass structures for enhanced light-emitting applications
5. Grain growth in multi-material ceramics: effects on mechanical and optical properties
6. Method development for evaluation of bioactivity of materials with laser ablation ICP-MS
7. Transparent ceramics with multi-wavelength excitation and emission properties
8. Near-zero and negative thermal-quenching phosphors for NUV converted w-LEDs
9. Luminescent guest materials in Metal-organic Frameworks for optical applications
10. Photocatalytic water splitting using photocatalysts prepared by 3D printing
11. Functionalized melt-quenched metal-organic framework (MOF) glasses for opto-electroactive membrane applications
12. Development of a visible light responsive photocatalysts for green hydrogen production
13. 3D printing of inorganic-biopolymer composites for bone regeneration
14. Metal-organic frameworks (MOFs) as carriers of drugs and other active agents for biomedical applications
15. Therapeutic Ion-Doped Nanoparticle Infused Bioactive Glass Scaffolds with Tunable Textural Properties for Enhanced Bone Regeneration
16. Hybrid magnetic biopolymer beads for sustained drug delivery in theranostic applications
17. Development of novel glass melting technology using advanced laser technology
18. Advanced 3D structures based on glass, ceramics, and glass-ceramics developed by multi-material additive manufacturing printing process
19. Recycling and Upcycling of Waste Glasses with Lightweight Fillers for Sustainable 3D-printed Structural and Architectural Applications
20. Exploring the potential of Bauxite residue as a catalyst for hydrogen production
21. New and Modern Thermal barrier coatings based on high entropy ceramic oxides
22. Effects of mechanical milling and spray drying on flowability of rare earth oxide powders for thermal spray
23. Enhancing mechanical and chemical durability of the Silicon Oxide (SiO_x) Coatings using Hollow cathode plasma enhanced chemical vapor deposition (HC-PECVD)
24. Multilayers prepared by PECVD and PVD for applications as bandpass filters and anti-reflective coatings