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List of Publications by Year
in descending order

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97 papers	3,149 citations	159585 30 h-index	168389 53 g-index
103 all docs	103 docs citations	103 times ranked	4061 citing authors

#	Article	IF	Citations
1	3D printing of composite calcium phosphate and collagen scaffolds for bone regeneration. Biomaterials, 2014, 35, 4026-4034.	11.4	710
2	Synthesis of Red-Emitting, Small Particle Size Luminescent Oxides Using an Optimized Combustion Process. Journal of the American Ceramic Society, 1996, 79, 3257-3265.	3.8	269
3	Luminescence variations in hydroxyapatites doped with Eu2+ and Eu3+ ions. Biomaterials, 2010, 31, 4259-4267.	11.4	121
4	Stability and Comparative Analysis of AOT/Water/Isooctane Reverse Micelle System Using Dynamic Light Scattering and Molecular Dynamics. Journal of Physical Chemistry B, 2011, 115, 2979-2987.	2.6	82
5	A review of solution combustion synthesis: an analysis of parameters controlling powder characteristics. International Materials Reviews, 2021, 66, 188-214.	19.3	72
6	Ionic Concentration Effects on Reverse Micelle Size and Stability: Implications for the Synthesis of Nanoparticles. Langmuir, 2012, 28, 9267-9274.	3.5	71
7	Particle size effects in the thermal conductivity enhancement of copper-based nanofluids. Nanoscale Research Letters, 2011, 6, 217.	5.7	67
8	Distribution of Eu²⁺ and Eu³⁺ Ions in Hydroxyapatite: A Cathodoluminescence and Raman Study. ACS Biomaterials Science and Engineering, 2015, 1, 1306-1313.	5.2	67
9	Polyvinylpyrrolidone (PVP) effects on iron oxide nanoparticle formation. Materials Letters, 2018, 215, 203-206.	2.6	62
10	Synthesis and Characterization of Luminescent Yttrium Oxide Doped with Tm and Yb. Journal of the American Ceramic Society, 2006, 89, 926-931.	3.8	57
11	Surfactant Effects on Dispersion Characteristics of Copper-Based Nanofluids: A Dynamic Light Scattering Study. Chemistry of Materials, 2012, 24, 3299-3306.	6.7	57
12	A comparative study of thermal behavior of iron and copper nanofluids. Journal of Applied Physics, 2009, 106, .	2.5	56
13	Synthesis of carbon nanotubeâ€“TiO₂nanotubular material for reversible hydrogen storage. Nanotechnology, 2008, 19, 445607.	2.6	50
14	Correlation between Particle Size and Raman Vibrations in WO₃ Powders. Journal of Physical Chemistry C, 2014, 118, 9531-9537.	3.1	49
15	Mechanisms of pore formation in high-temperature carbides: Case study of TaC prepared by spark plasma sintering. Acta Materialia, 2015, 84, 472-483.	7.9	46
16	Hexaborides: a review of structure, synthesis and processing. Journal of Materials Research and Technology, 2019, 8, 6321-6335.	5.8	46
17	Spark Plasma Sintering as an Approach to Manufacture Bulk Materials: Feasibility and Cost Savings. Jom, 2015, 67, 29-33.	1.9	45
18	Stiff, porous scaffolds from magnetized alumina particles aligned by magnetic freeze casting. Materials Science and Engineering C, 2017, 77, 484-492.	7.3	45

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19	Synthesis and Consolidation of BaAl₂Si₂O₈:Eu: Development of an Integrated Process for Luminescent Smart Ceramic Materials. Journal of the American Ceramic Society, 2009, 92, 2504-2511.	3.8	44
20	Unique Preparation of Hexaboride Nanocubes: A First Example of Boride Formation by Combustion Synthesis. Journal of the American Ceramic Society, 2010, 93, 3136-3141.	3.8	44
21	Reverse micelle synthesis of oxide nanopowders: Mechanisms of precipitate formation and agglomeration effects. Journal of Colloid and Interface Science, 2013, 407, 302-309.	9.4	43
22	Modifications in the rhombohedral degree of distortion and magnetic properties of Ba-doped BiFeO3 as a function of synthesis methodology. Materials Chemistry and Physics, 2014, 146, 73-81.	4.0	43
23	A Solvothermal Approach for the Preparation of Nanostructured Carbide and Boride Ultraâ€Highâ€Temperature Ceramics. Journal of the American Ceramic Society, 2010, 93, 3035-3038.	3.8	41
24	Spark plasma sintering of Fe-based structural amorphous metals (SAM) with Y2O3 nanoparticle additions. Materials Letters, 2008, 62, 2988-2991.	2.6	37
25	Designing in situ and ex situ bulk metallic glass composites via spark plasma sintering in the super cooled liquid state. Materials and Design, 2016, 93, 26-38.	7.0	35
26	Mechanisms of Combustion Synthesis and Magnetic Response of High-Surface-Area Hexaboride Compounds. ACS Applied Materials & Interfaces, 2011, 3, 1093-1100.	8.0	33
27	Synergistic structures from magnetic freeze casting with surface magnetized alumina particles and platelets. Journal of the Mechanical Behavior of Biomedical Materials, 2017, 76, 153-163.	3.1	32
28	Modeling solution for electric field-activated combustion synthesis. Computational Materials Science, 1998, 12, 137-155.	3.0	31
29	Molecular dynamics analysis of the AOT/water/isooctane system: Effect of simulation time, initial configuration, and model salts. Fluid Phase Equilibria, 2007, 262, 264-270.	2.5	31
30	The kinetics of devitrification of amorphous alloys: The timeâ€“temperatureâ€“crystallinity diagram describing the spark plasma sintering of Fe-based metallic glasses. Scripta Materialia, 2013, 69, 143-148.	5.2	30
31	Electrochemical Engineering Assessment of a Novel 3D-Printed Filter-Press Electrochemical Reactor for Multipurpose Laboratory Applications. ACS Sustainable Chemistry and Engineering, 2020, 8, 3896-3905.	6.7	30
32	Shock Wave Response of Iron-based In Situ Metallic Glass Matrix Composites. Scientific Reports, 2016, 6, 22568.	3.3	27
33	Phase Stability and Mechanisms of Transformation of La-Doped Î³-Alumina. Inorganic Chemistry, 2018, 57, 3035-3041.	4.0	26
34	Color tunable single-phase Eu²⁺and Ce³⁺co-activated Sr₂LiAlO₄phosphors. Journal of Materials Chemistry C, 2019, 7, 7734-7744.	5.5	26
35	Development of Mesoporosity in Scandia-Stabilized Zirconia: Particle Size, Solvent, and Calcination Effects. Langmuir, 2014, 30, 5585-5591.	3.5	25
36	Preparation and characterization of rare-earth-doped Y2O3 luminescent ceramics by the use of reverse micelles. Optical Materials, 2006, 29, 24-30.	3.6	24

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37	Zirconia. , 2008, , 169-197.		24
38	An integrated first principles and experimental investigation of the relationship between structural rigidity and quantum efficiency in phosphors for solid state lighting. Journal of Luminescence, 2016, 179, 297-305.	3.1	24
39	Effect of Current on Diffusivity in Metal Hexaborides: A Spark Plasma Sintering Study. ACS Applied Materials & Interfaces, 2017, 9, 37357-37363.	8.0	23
40	Phase Stability of Mixed-Cation Alkaline-Earth Hexaborides. Crystal Growth and Design, 2017, 17, 3450-3461.	3.0	21
41	Surface termination analysis of stoichiometric metal hexaborides: Insights from first-principles and XPS measurements. Acta Materialia, 2018, 144, 187-201.	7.9	21
42	A method to quantify crystallinity in amorphous metal alloys: A differential scanning calorimetry study. PLoS ONE, 2020, 15, e0234774.	2.5	20
43	Analysis of Particle and Crystallite Size in Tungsten Nanopowder Synthesis. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2010, 41, 2691-2697.	2.2	19
44	Microhardness and microstructure correlations in SiC/SiC composites. Materials Letters, 2018, 213, 286-289.	2.6	18
45	Improved high temperature radiation damage tolerance in a three-phase ceramic with heterointerfaces. Scientific Reports, 2018, 8, 13993.	3.3	18
46	Modeling studies of the effect of thermal and electrical conductivities and relative density of field-activated self-propagating combustion synthesis. Journal of Materials Research, 1999, 14, 1949-1958.	2.6	17
47	Spines of the porcupine fish: Structure, composition, and mechanical properties. Journal of the Mechanical Behavior of Biomedical Materials, 2017, 73, 38-49.	3.1	17
48	Formation of vacancy point-defects in hydroxyapatite nanobelts by selective incorporation of Fe3+ ions in Ca(II) sites. A CL and XPS study. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2021, 271, 115308.	3.5	17
49	DYNAMIC LIGHT SCATTERING STUDY OF REVERSE MICELLAR SYSTEMS FOR THE SYNTHESIS OF IRON-BASED NANOFLUIDS. International Journal of Modern Physics B, 2007, 21, 4774-4781.	2.0	16
50	Interatomic pair potentials from DFT and molecular dynamics for Ca, Ba, and Sr hexaborides. Journal of Materials Chemistry C, 2015, 3, 8649-8658.	5.5	16
51	Deproteinization of Cortical Bone: Effects of Different Treatments. Calcified Tissue International, 2018, 103, 554-566.	3.1	16
52	Interconfigurational and intraconfigurational transitions of Yb2+ and Yb3+ ions in hydroxyapatite: A cathodoluminescence study. Acta Materialia, 2017, 135, 35-43.	7.9	16
53	Statistical Experimental Design Approach for the Solvothermal Synthesis of Nanostructured Tantalum Carbide Powders. Journal of the American Ceramic Society, 2011, 94, 1706-1715.	3.8	15
54	Defect-related luminescence properties of hydroxyapatite nanobelts. Applied Materials Today, 2020, 21, 100822.	4.3	15

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55	Electric Field Enhanced Synthesis of Nanostructured Tantalum Carbide. Journal of Materials Research, 2002, 17, 609-613.	2.6	12
56	New Methods for Preparing Submicrometer Powders of The Tungstateâ€Ion Conductor <scp><scp>Sc</scp></scp>₂(<scp><scp>WO</scp></scp>₄)₃ and its <scp><scp>Al</scp></scp> and <scp><scp>In</scp></scp> Analogs. Journal of the American Ceramic Society, 2013, 96, 2402-2410.	3.8	12
57	Phase stability of SiC/SiC fiber reinforced composites: The effect of processing on the formation of Î± and Î² phases. Materials Letters, 2019, 241, 123-127.	2.6	12
58	Hallâ€“Petch effect in binary and ternary alumina / zirconia / spinel composites. Journal of Materials Research and Technology, 2021, 11, 823-832.	5.8	12
59	Synthesis of Mn4+ activated Na2SiF6 red-emitting phosphors using an ionic liquid. Journal of Luminescence, 2020, 218, 116835.	3.1	11
60	Correlations of grain boundary segregation to sintering techniques in a three-phase ceramic. Materialia, 2020, 14, 100890.	2.7	11
61	Modeling of wave configuration during electrically ignited combustion synthesis. Journal of Materials Research, 2001, 16, 93-100.	2.6	10
62	The effect of an electric field on the microstructural development during combustion synthesis of TiNiâ€“TiC composites. Journal of Alloys and Compounds, 2002, 340, 79-87.	5.5	10
63	Ab Initio and Molecular Dynamics-Based Pair Potentials for Lanthanum Hexaboride. Journal of Physical Chemistry C, 2015, 119, 14288-14296.	3.1	10
64	Current assisted extrusion of metallic alloys: Insight into microstructure formation and mechanical properties. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2018, 717, 62-67.	5.6	10
65	Mechanical Properties of an Feâ€Based SAM2Ã—5â€630 Metallic Glass Matrix Composite with Tungsten Particle Additions. Advanced Engineering Materials, 2018, 20, 1800023.	3.5	9
66	Suppressing Î·â€phase development in steelâ€cemented tungsten carbide: A spark plasma sintering study. Journal of the American Ceramic Society, 2019, 102, 595-601.	3.8	9
67	Metal Hexaboride Work Functions: Surface Configurations and the Electrical Double Layer from Firstâ€Principles. Advanced Electronic Materials, 2019, 5, 1800074.	5.1	9
68	Latino engineering faculty in the United States. MRS Bulletin, 2018, 43, 131-147.	3.5	8
69	Optimized scintillator YAG:Pr nanoparticles for X-ray inducible photodynamic therapy. Materials Letters, 2018, 228, 49-52.	2.6	8
70	Fabrication of porous polymeric structures using a simple sonication technique for tissue engineering. Journal of Polymer Engineering, 2017, 37, 943-951.	1.4	7
71	Phase and Morphology Control of Magnesium Nanoparticles via Lithium Doping. Crystal Growth and Design, 2019, 19, 3626-3632.	3.0	7
72	Predicting the size of salt-containing aqueous Na-AOT reverse micellar water-in-oil microemulsions with consideration for specific ion effects. Journal of Colloid and Interface Science, 2021, 586, 830-835.	9.4	7

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73	Shell mineralogy of a foundational marine species, Mytilus californianus , over half a century in a changing ocean. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	7
74	Bulk Mechanical Properties Testing of Metallic Marginal Glass Formers. Journal of Metallurgy, 2016, 2016, 1-8.	1.1	6
75	Phase Stability and Miscibility in Ethanol/AOT/n-Heptane Systems: Evidence of Multilayered Cylindrical and Spherical Microemulsion Morphologies. Langmuir, 2020, 36, 11274-11283.	3.5	6
76	Morphology Control of Tantalum Carbide Nanoparticles through Dopant Additions. Journal of Physical Chemistry C, 2021, 125, 10665-10675.	3.1	6
77	Interaction of Hydrogen with MB6 (M = Ba, Ca, La, and Sr) Surfaces from First Principles. ACS Omega, 2019, 4, 65-72.	3.5	5
78	Nanodomains and local structure in ternary alkaline-earth hexaborides. Journal of Applied Crystallography, 2018, 51, 1445-1454.	4.5	4
79	Predicting Destabilization in Salt-Containing Aqueous Reverse Micellar Colloidal Systems. ACS Earth and Space Chemistry, 2021, 5, 2223-2232.	2.7	4
80	Effect of Oxygen Vacancies on the Mechanoluminescence Response of Magnesium Oxide. Journal of Physical Chemistry C, 2021, 125, 854-864.	3.1	4
81	Exploring the Synthesis Parameters and Spark Plasma Sintering of Tantalum Carbide Powders Prepared by Solvothermal Synthesis. Materials Research Society Symposia Proceedings, 2012, 1373, 7.	0.1	3
82	Recent Advances on Bulk Tantalum Carbide Produced by Solvothermal Synthesis and Spark Plasma Sintering. Materials Research Society Symposia Proceedings, 2012, 1485, 9-20.	0.1	3
83	A Facile Method Using a Flux to Improve Quantum Efficiency of Submicron Particle Sized Phosphors for Solid-State Lighting Applications. Ceramics, 2018, 1, 38-53.	2.6	3
84	Densification and Fracture Responses of (Ta_{1â^'x}W_x)Câ€“WC Composites. Advanced Engineering Materials, 2022, 24, .	3.5	3
85	Addition of new catalytic sites on the surface of versatile peroxidase for enhancement of LRET catalysis. Enzyme and Microbial Technology, 2019, 131, 109429.	3.2	2
86	No compromise between metabolism and behavior of decorator crabs in reduced pH conditions. Scientific Reports, 2019, 9, 6262.	3.3	2
87	Phase Stability Analysis of Ternary Alkaline-Earth Hexaborides: Insights from DFT Calculations. ACS Applied Electronic Materials, 2019, 1, 105-112.	4.3	2
88	Effect of SiO2 on the sintering of cerium-doped lutetium oxyorthosilicate. Optical Materials, 2020, 100, 109650.	3.6	2
89	Fabrication of continuous linear pores in an SOFC anode using unidirectional carbon fibers as sacrificial templates. Journal of the American Ceramic Society, 2021, 104, 3030-3041.	3.8	2
90	Reverse Micelle Synthesis of Zirconia Powders: The Use of Hydrogen Peroxide as Washing Solvent. Materials Research Society Symposia Proceedings, 2005, 879, 1.	0.1	1

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91	Comment on â€œPhotoluminescence Efficiencies of Nanocrystalline Versus Bulk Y2O3:Eu Phosphor-Revisitedâ€• Journal of the American Ceramic Society, 2011, 94, 2694-2695.	3.8	1
92	Mechanical Optimization of Diatomite Monoliths from Freeze Casting for High-Throughput Applications. ACS Applied Bio Materials, 2020, 3, 4444-4453.	4.6	1
93	Nonlinear charge regulation for the deposition of silica nanoparticles on polystyrene spherical surfaces. Journal of Colloid and Interface Science, 2022, 613, 747-763.	9.4	1
94	Shock Wave Response of Iron-Based Metallic Glass Matrix Composites. , 2017, , 913-915.		0
95	Latino engineering faculty in the United States - Erratum. MRS Bulletin, 2018, 43, 155-155.	3.5	0
96	DYNAMIC LIGHT SCATTERING STUDY OF REVERSE MICELLAR SOLUTIONS FOR THE SYNTHESIS OF MAGNETIC NANOPARTICLES. , 2007, , .		0
97	Building Compassion and Human Bridges through Research Collaborations. ACS Omega, 2022, 7, 1542-1546.	3.5	0