

Joanna M Mckittrick

List of Publications by Year in descending order

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208
papers

10,904
citations

44444

50
h-index

39744

98
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218
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docs citations

218
times ranked

11603
citing authors

#	ARTICLE	IF	CITATIONS
1	Structural Biological Materials: Critical Mechanics-Materials Connections. <i>Science</i> , 2013, 339, 773-779.	6.0	878
2	Biological materials: Functional adaptations and bioinspired designs. <i>Progress in Materials Science</i> , 2012, 57, 1492-1704.	16.0	582
3	Keratin: Structure, mechanical properties, occurrence in biological organisms, and efforts at bioinspiration. <i>Progress in Materials Science</i> , 2016, 76, 229-318.	16.0	571
4	Structural Design Elements in Biological Materials: Application to Bioinspiration. <i>Advanced Materials</i> , 2015, 27, 5455-5476.	11.1	472
5	Structure and mechanical properties of crab exoskeletons. <i>Acta Biomaterialia</i> , 2008, 4, 587-596.	4.1	386
6	Review: Down Conversion Materials for Solid-State Lighting. <i>Journal of the American Ceramic Society</i> , 2014, 97, 1327-1352.	1.9	371
7	Multiscale Toughening Mechanisms in Biological Materials and Bioinspired Designs. <i>Advanced Materials</i> , 2019, 31, e1901561.	11.1	342
8	Structure and mechanical properties of selected biological materials. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2008, 1, 208-226.	1.5	332
9	Fluorescence properties of polycrystalline Tm ³⁺ -activated Y ₃ Al ₅ O ₁₂ and Tm ³⁺ -Li ⁺ co-activated Y ₃ Al ₅ O ₁₂ in the visible and near IR ranges. <i>Journal of Luminescence</i> , 1997, 71, 1-11.	1.5	278
10	Synthesis of Red-Emitting, Small Particle Size Luminescent Oxides Using an Optimized Combustion Process. <i>Journal of the American Ceramic Society</i> , 1996, 79, 3257-3265.	1.9	269
11	The Structure, Functions, and Mechanical Properties of Keratin. <i>Jom</i> , 2012, 64, 449-468.	0.9	266
12	The influence of processing parameters on luminescent oxides produced by combustion synthesis. <i>Displays</i> , 1999, 19, 169-172.	2.0	210
13	Phase Development and Luminescence in Chromium-Doped Yttrium Aluminum Garnet (YAG:Cr) Phosphors. <i>Journal of the American Ceramic Society</i> , 1994, 77, 2866-2872.	1.9	180
14	Energy absorbent natural materials and bioinspired design strategies: A review. <i>Materials Science and Engineering C</i> , 2010, 30, 331-342.	3.8	178
15	A Sinusoidally Architected Helicoidal Biocomposite. <i>Advanced Materials</i> , 2016, 28, 6835-6844.	11.1	158
16	Mechanistic aspects of the fracture toughness of elk antler bone. <i>Acta Biomaterialia</i> , 2010, 6, 1505-1514.	4.1	148
17	Armadillo armor: Mechanical testing and micro-structural evaluation. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2011, 4, 713-722.	1.5	138
18	Comparison of the structure and mechanical properties of bovine femur bone and antler of the North American elk (<i>Cervus elaphus canadensis</i>). <i>Acta Biomaterialia</i> , 2009, 5, 693-706.	4.1	134

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19	Magnetic freeze casting inspired by nature. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2012, 556, 741-750.	2.6	121
20	Microstructure, elastic properties and deformation mechanisms of horn keratin. <i>Acta Biomaterialia</i> , 2010, 6, 319-330.	4.1	120
21	Physical properties of Y2O3:Eu luminescent films grown by MOCVD and laser ablation. <i>Applied Surface Science</i> , 1997, 113-114, 509-514.	3.1	117
22	Minerals Form a Continuum Phase in Mature Cancellous Bone. <i>Calcified Tissue International</i> , 2011, 88, 351-361.	1.5	110
23	Bioinspired Scaffolds with Varying Pore Architectures and Mechanical Properties. <i>Advanced Functional Materials</i> , 2014, 24, 1978-1987.	7.8	109
24	Effect of electric current on densification behavior of conductive ceramic powders consolidated by spark plasma sintering. <i>Acta Materialia</i> , 2018, 144, 524-533.	3.8	106
25	Rapid solidification processing. <i>Materials Science and Engineering Reports</i> , 1994, 11, 355-408.	14.8	103
26	Phosphor Selection Considerations for Near-UV LED Solid State Lighting. <i>ECS Journal of Solid State Science and Technology</i> , 2013, 2, R3119-R3131.	0.9	98
27	Improving the efficiency of a blue-emitting phosphor by an energy transfer from Gd ³⁺ to Ce ³⁺ . <i>Journal of Luminescence</i> , 2003, 104, 47-54.	1.5	97
28	Mining Unexplored Chemistries for Phosphors for High-Color-Quality White-Light-Emitting Diodes. <i>Joule</i> , 2018, 2, 914-926.	11.7	97
29	An Overview on Additive Manufacturing of Polymers. <i>Jom</i> , 2018, 70, 275-283.	0.9	97
30	Anisotropy in the compressive mechanical properties of bovine cortical bone and the mineral and protein constituents. <i>Acta Biomaterialia</i> , 2011, 7, 3170-3177.	4.1	96
31	Structure and mechanical properties of selected protective systems in marine organisms. <i>Materials Science and Engineering C</i> , 2016, 59, 1143-1167.	3.8	83
32	Why the seahorse tail is square. <i>Science</i> , 2015, 349, aaa6683.	6.0	82
33	Compressive mechanical properties of demineralized and deproteinized cancellous bone. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2011, 4, 961-973.	1.5	77
34	The role of organic intertile layer in abalone nacre. <i>Materials Science and Engineering C</i> , 2009, 29, 2398-2410.	3.8	64
35	Elastic moduli of untreated, demineralized and deproteinized cortical bone: Validation of a theoretical model of bone as an interpenetrating composite material. <i>Acta Biomaterialia</i> , 2012, 8, 1080-1092.	4.1	64
36	Highly deformable bones: Unusual deformation mechanisms of seahorse armor. <i>Acta Biomaterialia</i> , 2013, 9, 6763-6770.	4.1	64

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37	The armored carapace of the boxfish. <i>Acta Biomaterialia</i> , 2015, 23, 1-10.	4.1	63
38	Luminescence study in Eu-doped aluminum oxide phosphors. <i>Optical Materials</i> , 2005, 27, 1311-1315.	1.7	62
39	Biomimetic Materials by Freeze Casting. <i>Jom</i> , 2013, 65, 720-727.	0.9	60
40	Hierarchical structure and compressive deformation mechanisms of bighorn sheep (<i>Ovis canadensis</i>) horn. <i>Acta Biomaterialia</i> , 2017, 64, 1-14.	4.1	60
41	Microwave sintering of nanocrystalline $\hat{3}$ -Al ₂ O ₃ . <i>Scripta Materialia</i> , 1994, 4, 371-385.	0.5	58
42	High transmittance&low resistivity ZnO:Ga films by laser ablation. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 1996, 14, 791-794.	0.9	58
43	Characterization of Photoluminescent (Y _{1-x} Eu _x) ₂ O ₃ Thin Films Prepared by Metallorganic Chemical Vapor Deposition. <i>Journal of the American Ceramic Society</i> , 2000, 83, 1241-1246.	1.9	58
44	The effects of water and microstructure on the mechanical properties of bighorn sheep (<i>Ovis</i>) Tj ETQq0 0 0 rgBT /Oyerlock 10 Tf 50 462	4.1	58
45	Densification mechanism and mechanical properties of tungsten powder consolidated by spark plasma sintering. <i>International Journal of Refractory Metals and Hard Materials</i> , 2016, 61, 22-29.	1.7	58
46	Potential Bone Replacement Materials Prepared by Two Methods. <i>Materials Research Society Symposia Proceedings</i> , 2012, 1418, 177.	0.1	57
47	Recent advances on the measurement and calculation of the elastic moduli of cortical and trabecular bone: A review. <i>Theoretical and Applied Mechanics</i> , 2011, 38, 209-297.	0.1	57
48	Reproducibility of ZrO ₂ -based freeze casting for biomaterials. <i>Materials Science and Engineering C</i> , 2016, 61, 105-112.	3.8	54
49	Investigation of the physical properties of a blue-emitting phosphor produced using a rapid exothermic reaction. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2003, 97, 265-274.	1.7	52
50	A comparative study of young and mature bovine cortical bone. <i>Acta Biomaterialia</i> , 2013, 9, 5280-5288.	4.1	51
51	Densification mechanisms of spark plasma sintering: multi-step pressure dilatometry. <i>Journal of Materials Science</i> , 2012, 47, 7036-7046.	1.7	50
52	Microstructural Development, Densification, and Hot Pressing of Celsian Ceramics from Ion-Exchanged Zeolite Precursors. <i>Journal of the American Ceramic Society</i> , 1998, 81, 845-852.	1.9	49
53	Phosphor Development and Integration for Near-UV LED Solid State Lighting. <i>ECS Journal of Solid State Science and Technology</i> , 2013, 2, R3138-R3147.	0.9	49
54	Separating the influence of the cortex and foam on the mechanical properties of porcupine quills. <i>Acta Biomaterialia</i> , 2013, 9, 9065-9074.	4.1	48

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55	Torsional properties of helix-reinforced composites fabricated by magnetic freeze casting. <i>Composite Structures</i> , 2015, 119, 174-184.	3.1	48
56	Luminescence enhancement of Y ₂ O ₃ :Eu ³⁺ and Y ₂ SiO ₅ :Ce ³⁺ ,Tb ³⁺ core particles with SiO ₂ shells. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2011, 176, 436-441.	1.7	47
57	A natural energy absorbent polymer composite: The equine hoof wall. <i>Acta Biomaterialia</i> , 2019, 90, 267-277.	4.1	47
58	New combustion synthesis technique for the production of (In _x Ga _{1-x}) ₂ O ₃ powders: Hydrazine/metal nitrate method. <i>Journal of Materials Research</i> , 2001, 16, 1059-1065.	1.2	46
59	Axial compression of a hollow cylinder filled with foam: A study of porcupine quills. <i>Acta Biomaterialia</i> , 2013, 9, 5297-5304.	4.1	46
60	Impact testing of structural biological materials. <i>Materials Science and Engineering C</i> , 2011, 31, 730-739.	3.8	45
61	Structure dependent luminescence characterization of green-yellow emitting Sr ₂ SiO ₄ :Eu ²⁺ phosphors for near UV LEDs. <i>Journal of Luminescence</i> , 2012, 132, 106-109.	1.5	45
62	Stiff, porous scaffolds from magnetized alumina particles aligned by magnetic freeze casting. <i>Materials Science and Engineering C</i> , 2017, 77, 484-492.	3.8	45
63	White light emission from rare earth activated yttrium silicate nanocrystalline powders and thin films. <i>Optical Materials</i> , 2005, 27, 1221-1227.	1.7	43
64	Flexible Dermal Armor in Nature. <i>Jom</i> , 2012, 64, 475-485.	0.9	41
65	Structural analysis of the tongue and hyoid apparatus in a woodpecker. <i>Acta Biomaterialia</i> , 2016, 37, 1-13.	4.1	41
66	Luminescence enhancement in Eu ³⁺ -doped $\hat{1}\pm$ - and $\hat{1}^3$ -Al ₂ O ₃ produced by pressure-assisted low-temperature combustion synthesis. <i>Applied Physics Letters</i> , 2004, 84, 1296-1298.	1.5	40
67	Correlation of the mechanical and structural properties of cortical rachis keratin of rectrices of the Toco Toucan (<i>Ramphastos toco</i>). <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2011, 4, 723-732.	1.5	40
68	Synthesis of YAG:Cr phosphors by precipitation from aluminum and yttrium sulfate solutions. <i>Materials Chemistry and Physics</i> , 1994, 38, 175-180.	2.0	39
69	A New Combustion Synthesis Method for GaN:Eu ³⁺ and Ga ₂ O ₃ :Eu ³⁺ Luminescent Powders. <i>Physica Status Solidi A</i> , 2001, 188, 179-182.	1.7	37
70	Microstructural Control of Colloidal-Based Ceramics by Directional Solidification Under Weak Magnetic Fields. <i>Journal of the American Ceramic Society</i> , 2016, 99, 1917-1926.	1.9	37
71	Magnetism and microstructure of YBa ₂ Cu ₃ O _{7-x} superconductors produced by rapid solidification. <i>Physical Review B</i> , 1988, 37, 623-626.	1.1	36
72	External Field Assisted Freeze Casting. <i>Ceramics</i> , 2019, 2, 208-234.	1.0	34

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73	Crystallization of a rapidly solidified Al ₂ O ₃ -ZrO ₂ eutectic glass. <i>Journal of Non-Crystalline Solids</i> , 1987, 94, 163-174.	1.5	33
74	Microstructure and mechanical properties of different keratinous horns. <i>Journal of the Royal Society Interface</i> , 2018, 15, 20180093.	1.5	33
75	Densification of zirconium nitride by spark plasma sintering and high voltage electric discharge consolidation: A comparative analysis. <i>Ceramics International</i> , 2015, 41, 14973-14987.	2.3	32
76	Synergistic structures from magnetic freeze casting with surface magnetized alumina particles and platelets. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2017, 76, 153-163.	1.5	32
77	An analysis of Y ₂ O ₃ :Eu ³⁺ thin films for thermographic phosphor applications. <i>Journal of Luminescence</i> , 2011, 131, 41-48.	1.5	30
78	Microstructural properties of Eu-doped GaN luminescent powders. <i>Applied Physics Letters</i> , 2002, 81, 1993-1995.	1.5	29
79	Bioinspired composites from freeze casting with clathrate hydrates. <i>Materials & Design</i> , 2015, 71, 62-67.	5.1	29
80	How Water Can Affect Keratin: Hydration-Driven Recovery of Bighorn Sheep (<i>Ovis Canadensis</i>) Horns. <i>Advanced Functional Materials</i> , 2019, 29, 1901077.	7.8	29
81	Identification and development of nanoscintillators for biotechnology applications. <i>Journal of Luminescence</i> , 2014, 154, 569-577.	1.5	27
82	A novel method for the synthesis of sub-microcrystalline wurtzite-type In _x Ga _{1-x} N powders. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2002, 90, 7-12.	1.7	26
83	Color tunable single-phase Eu ²⁺ and Ce ³⁺ co-activated Sr ₂ LiAlO ₄ phosphors. <i>Journal of Materials Chemistry C</i> , 2019, 7, 7734-7744.	2.7	26
84	Synthesis of celsian ceramics from zeolite precursors. <i>Journal of Non-Crystalline Solids</i> , 1994, 170, 303-307.	1.5	25
85	Growth of nacre in abalone: Seasonal and feeding effects. <i>Materials Science and Engineering C</i> , 2011, 31, 238-245.	3.8	25
86	Comparison of luminescent properties of Y ₂ O ₃ :Eu ³⁺ and LaPO ₄ :Ce ³⁺ , Tb ³⁺ phosphors prepared by various synthetic methods. <i>Materials Characterization</i> , 2015, 103, 162-169.	1.9	25
87	Nano- and Submicron Sized Europium Activated Silicate Phosphors Prepared by a Modified Co-Precipitation Method. <i>ECS Journal of Solid State Science and Technology</i> , 2012, 1, R98-R102.	0.9	24
88	Analysis of (Ba,Ca,Sr) ₃ MgSi ₂ O ₈ :Eu ²⁺ , Mn ²⁺ phosphors for application in solid state lighting. <i>Journal of Luminescence</i> , 2014, 148, 1-5.	1.5	24
89	An integrated first principles and experimental investigation of the relationship between structural rigidity and quantum efficiency in phosphors for solid state lighting. <i>Journal of Luminescence</i> , 2016, 179, 297-305.	1.5	24
90	Bioinspired intrinsic control of freeze cast composites: Harnessing hydrophobic hydration and clathrate hydrates. <i>Acta Materialia</i> , 2016, 114, 67-79.	3.8	24

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91	3D Printed Templating of Extrinsic Freeze-Casting for Macro-“Microporous Biomaterials. ACS Biomaterials Science and Engineering, 2019, 5, 2122-2133.	2.6	24
92	Kinetic studies of bone demineralization at different HCl concentrations and temperatures. Materials Science and Engineering C, 2011, 31, 523-530.	3.8	23
93	Sol-Gel Synthesis of Single Phase, High Quantum Efficiency $\text{LiCaPO}_4:\text{Eu}^{2+}$ Phosphors. ECS Journal of Solid State Science and Technology, 2012, 1, R37-R40.	0.9	23
94	Effect of starch on the mechanical and in vitro properties of collagen-hydroxyapatite sponges for applications in dentistry. Carbohydrate Polymers, 2016, 148, 78-85.	5.1	23
95	Radial-Concentric Freeze Casting Inspired by Porcupine Fish Spines. Ceramics, 2019, 2, 161-179.	1.0	23
96	Predicting and Modeling the Low-Voltage Cathodoluminescent Efficiency of Oxide Phosphors. Journal of the Electrochemical Society, 1998, 145, 3165-3170.	1.3	22
97	$\text{Ba}_0.5\text{Sr}_0.5\text{TiO}_3$ thin films deposited by PLD on SiO_2/Si RuO_2/Si and Pt/Si electrodes. Thin Solid Films, 2000, 373, 49-52.	0.8	22
98	Structural biological materials: Overview of current research. Jom, 2008, 60, 23-32.	0.9	22
99	Europium-Activated K_2SrPO_4 (Ba , Sr) Ba_2SiO_4 Solid Solutions as Color-Tunable Phosphors for Near-UV Light-Emitting Diode Applications. Journal of the American Ceramic Society, 2013, 96, 1526-1532.	1.9	22
100	Review-“Electrophoretic Deposition of Phosphors for Solid-State Lighting. ECS Journal of Solid State Science and Technology, 2016, 5, R3107-R3120.	0.9	22
101	Modeling and Fabrication of Fine-Grain Alumina-Zirconia Composites Produced from Nanocrystalline Precursors. Journal of the American Ceramic Society, 1998, 81, 1773-1780.	1.9	21
102	Creep of trabecular bone from the human proximal tibia. Materials Science and Engineering C, 2014, 40, 219-227.	3.8	21
103	Sintering of bi-porous titanium dioxide scaffolds: Experimentation, modeling and simulation. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2015, 636, 148-156.	2.6	21
104	Preparation of Green-Emitting $\text{Sr}_2\text{SiO}_4:\text{Eu}^{2+}$ Ga_2S_4 Phosphors by a Solid-State Rapid Metathesis Reaction. Journal of the Electrochemical Society, 1999, 146, 4316-4319.	1.3	19
105	Particle morphology and luminescence properties of green emitting $\text{Ba}_2\text{SiO}_4:\text{Eu}^{2+}$ through a hydrothermal reaction route. Journal of Luminescence, 2015, 161, 20-24.	1.5	19
106	Reinforcements in avian wing bones: Experiments, analysis, and modeling. Journal of the Mechanical Behavior of Biomedical Materials, 2017, 76, 85-96.	1.5	19
107	Photo- and radioluminescence characteristics of bismuth germanate nanoparticles by sol-gel and pressure-assisted combustion synthesis. Optical Materials, 2012, 34, 1116-1119.	1.7	18
108	Europium-activated barium/strontium silicates for near-UV light emitting diode applications. Journal of Luminescence, 2013, 133, 184-187.	1.5	18

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109	Electric current effects in spark plasma sintering: From the evidence of physical phenomenon to constitutive equation formulation. <i>Scripta Materialia</i> , 2019, 170, 90-94.	2.6	18
110	Pulsed laser deposition of Y3Al5O12:Tb photoluminescent thin films. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 1996, 14, 1694-1696.	0.9	17
111	Spines of the porcupine fish: Structure, composition, and mechanical properties. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2017, 73, 38-49.	1.5	17
112	A Natural Stress Deflector on the Head? Mechanical and Functional Evaluation of the Woodpecker Skull Bones. <i>Advanced Theory and Simulations</i> , 2019, 2, 1800152.	1.3	17
113	Modeling zirconia sintering trajectory for obtaining translucent submicronic ceramics for dental implant applications. <i>Acta Materialia</i> , 2020, 188, 101-107.	3.8	17
114	RAPID SOLIDIFICATION OF OXIDE SUPERCONDUCTORS IN THE Y-Ba-Cu-O SYSTEM. <i>Advanced Ceramic Materials</i> , 1987, 2, 353-363.	2.3	16
115	Deproteinization of Cortical Bone: Effects of Different Treatments. <i>Calcified Tissue International</i> , 2018, 103, 554-566.	1.5	16
116	Long-Ultraviolet-Excited White-Light Emission in Rare-Earth-Activated Yttrium-Oxyorthosilicate. <i>Journal of the American Ceramic Society</i> , 2007, 90, 2484-2488.	1.9	15
117	In situ Wear Study Reveals Role of Microstructure on Self-Sharpening Mechanism in Sea Urchin Teeth. <i>Matter</i> , 2019, 1, 1246-1261.	5.0	15
118	Comparison of different protocols for demineralization of cortical bone. <i>Scientific Reports</i> , 2021, 11, 7012.	1.6	15
119	Consolidation of Molybdenum nanopowders by spark plasma sintering: Densification mechanism and first mirror application. <i>Journal of Nuclear Materials</i> , 2019, 516, 354-359.	1.3	14
120	Radular stylus of <i>Cryptochiton stelleri</i> : A multifunctional lightweight and flexible fiber-reinforced composite. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2020, 111, 103991.	1.5	14
121	Microwave and conventional sintering of rapidly solidified Al2O3-ZrO2 powders. <i>Journal of Materials Science</i> , 1994, 29, 2119-2125.	1.7	13
122	Pressure influenced combustion synthesis of γ - and δ -Al2O3 nanocrystalline powders. <i>Journal of Physics Condensed Matter</i> , 2004, 16, 2585-2591.	0.7	13
123	Development of luminescent materials with strong UV-blue absorption. <i>Optical Materials</i> , 2005, 27, 1301-1304.	1.7	13
124	Microstructural evolution of paramagnetic materials by magnetic freeze casting. <i>Journal of Materials Research and Technology</i> , 2019, 8, 2247-2254.	2.6	13
125	Scale and size effects on the mechanical properties of bioinspired 3D printed two-phase composites. <i>Journal of Materials Research and Technology</i> , 2020, 9, 14944-14960.	2.6	13
126	Advantages of self-propagating combustion reactions for synthesis of oxide phosphors. <i>Journal of the Society for Information Display</i> , 1997, 5, 117.	0.8	12

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127	Experimentally-based multiscale model of the elastic moduli of bovine trabecular bone and its constituents. <i>Materials Science and Engineering C</i> , 2015, 54, 207-216.	3.8	12
128	Mechanical Properties of Model Two-Phase Composites with Continuous Compared to Discontinuous Phases. <i>Advanced Engineering Materials</i> , 2018, 20, 1800505.	1.6	12
129	A comparative analysis of the avian skull: Woodpeckers and chickens. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2018, 84, 273-280.	1.5	12
130	Response of Sea Urchin Fitness Traits to Environmental Gradients Across the Southern California Oxygen Minimum Zone. <i>Frontiers in Marine Science</i> , 2018, 5, .	1.2	12
131	Study of GaN:Eu ³⁺ Thin Films Deposited by Metallorganic Vapor-Phase Epitaxy. <i>Journal of the Electrochemical Society</i> , 2008, 155, J315.	1.3	11
132	Kinetic characterization of the deproteinization of trabecular and cortical bovine femur bones. <i>Materials Science and Engineering C</i> , 2013, 33, 4958-4964.	3.8	11
133	Structure and mechanical implications of the pectoral fin skeleton in the Longnose Skate (<i>Chondrichthyes</i> , <i>Batoidea</i>). <i>Acta Biomaterialia</i> , 2017, 51, 393-407.	4.1	11
134	Time dependent magnetic response in a GdBa ₂ Cu ₃ O _{7-x} superconductor: Flux creep or superconducting glass state?. <i>Physica C: Superconductivity and Its Applications</i> , 1988, 153-155, 310-311.	0.6	10
135	Dynamic Compaction of Al ₂ O ₃ -ZrO ₂ Compositions. <i>Journal of the American Ceramic Society</i> , 1994, 77, 1605-1612.	1.9	9
136	Development of novel microstructures in zirconia-toughened alumina using rapid solidification and shock compaction. <i>Journal of Materials Research</i> , 1996, 11, 110-119.	1.2	9
137	Study of Luminescence from GaN:Tb ³⁺ Powders and Thin Films Deposited by MOVPE and PLD Methods. <i>Journal of the Electrochemical Society</i> , 2009, 156, J158.	1.3	9
138	Dynamic fracture resilience of elk antler: Biomimetic inspiration for improved crashworthiness. <i>Jom</i> , 2010, 62, 41-46.	0.9	9
139	Oxidation effects on spark plasma sintering of molybdenum nanopowders. <i>Journal of the American Ceramic Society</i> , 2019, 102, 801-812.	1.9	9
140	Magnetic susceptibility of rapidly solidified YBa ₂ Cu ₃ O _{7-x} superconductors. <i>Journal of Applied Physics</i> , 1988, 63, 4229-4231.	1.1	8
141	Chemical synthesis of spun-on thick films of oxide superconductors. <i>Thin Solid Films</i> , 1991, 206, 146-150.	0.8	8
142	In situ characterization of Ti-peroxy gel during formation on titanium surfaces in hydrogen peroxide containing solutions. <i>Materials Science and Engineering C</i> , 2006, 26, 1408-1411.	3.8	8
143	Reprint of: Growth of nacre in abalone: Seasonal and feeding effects. <i>Materials Science and Engineering C</i> , 2011, 31, 716-723.	3.8	8
144	Elastic properties of cancellous bone in terms of elastic properties of its mineral and protein phases with application to their osteoporotic degradation. <i>Mechanics of Materials</i> , 2012, 44, 139-150.	1.7	8

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145	Synthesis and characterization of (Lu ¹⁺ Y ³⁺ Ce ³⁺) ₂ SiO ₅ luminescent powders with fast decay time. Journal of Luminescence, 2013, 136, 86-89.	1.5	8
146	Initial anisotropy in demineralized bovine cortical bone in compressive cyclic loading/unloading. Materials Science and Engineering C, 2013, 33, 817-823.	3.8	8
147	Thermally stimulated luminescence and persistent luminescence of ¹³⁷ Cs-irradiated YAG:Pr ³⁺ nanophosphors produced by combustion synthesis. Radiation Measurements, 2016, 94, 35-40.	0.7	8
148	A Protocol for Bioinspired Design: A Ground Sampler Based on Sea Urchin Jaws. Journal of Visualized Experiments, 2016, , .	0.2	8
149	Energy efficient spark plasma sintering: Breaking the threshold of large dimension tooling energy consumption. Journal of the American Ceramic Society, 2019, 102, 706-716.	1.9	8
150	Cholla cactus frames as lightweight and torsionally tough biological materials. Acta Biomaterialia, 2020, 112, 213-224.	4.1	8
151	Photoluminescence of Europium-Activated Hydroxyapatite Nanoparticles in Body Fluids. Science of Advanced Materials, 2012, 4, 558-562.	0.1	8
152	Enhanced photoluminescent emission of thin phosphor films via pulsed excimer laser melting. Journal of Materials Research, 1998, 13, 3019-3021.	1.2	7
153	Rapid processing & characterization of micro-scale functionally graded porous materials. Journal of Materials Processing Technology, 2013, 213, 1251-1257.	3.1	7
154	Electrophoretic Deposition of Phosphors for White Solid State Lighting Using Near UV-Emitting LEDs. ECS Journal of Solid State Science and Technology, 2013, 2, R153-R159.	0.9	7
155	Toward a better understanding of mineral microstructure in bony tissues. Bioinspired, Biomimetic and Nanobiomaterials, 2014, 3, 71-84.	0.7	7
156	The role of collagen in the dermal armor of the boxfish. Journal of Materials Research and Technology, 2020, 9, 13825-13841.	2.6	7
157	Porous Hydroxyapatite-Polyhydroxybutyrate Composites Fabricated by a Novel Method Via Centrifugation. Conference Proceedings of the Society for Experimental Mechanics, 2013, , 63-71.	0.3	7
158	Digital healthcare technologies: Modern tools to transform prosthetic care. Expert Review of Medical Devices, 2021, 18, 129-144.	1.4	7
159	Melting and solidification behavior of YBa ₂ Cu ₃ O _{7-x} . Journal of Applied Physics, 1989, 65, 3662-3666.	1.1	6
160	Gas desorption from FEA-phosphor screen pairs. , 0, , .		6
161	An Investigation of the Chromaticity of Blue Emitting Yttrium Silicate. Materials Research Society Symposia Proceedings, 1999, 558, 15.	0.1	6
162	Synthesis of rare-earth activated AlN and GaN powders via a three-step conversion process. Physica Status Solidi C: Current Topics in Solid State Physics, 2008, 5, 1889-1891.	0.8	6

#	ARTICLE	IF	CITATIONS
163	Electrophoretic Deposition of Nano- and Micron-Sized Ba ₂ SiO ₄ :Eu ²⁺ Phosphor Particles. Journal of the Electrochemical Society, 2014, 161, D111-D117.	1.3	6
164	Al ₂ O ₃ -ZrO ₂ Ceramics with Submicron Microstructures Obtained through Microwave Sintering, Plasma Sintering and Shock Compaction. Materials Research Society Symposia Proceedings, 1992, 274, 149.	0.1	5
165	Densification behavior of dynamically shock compacted Al ₂ O ₃ /ZrO ₂ powders synthesized through rapid solidification. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 1995, 26, 2503-2509.	1.1	5
166	EPD of Phosphors for Display and Solid State Lighting Technologies. Key Engineering Materials, 2012, 507, 149-153.	0.4	5
167	Beyond density: Mesostructural features of impact resistant wood. Materials Today Communications, 2020, 22, 100697.	0.9	5
168	Rapid solidification processing of high T _c superconductors: Microstructural features and phase relationships. Physica C: Superconductivity and Its Applications, 1988, 153-155, 369-370.	0.6	4
169	Isolation of Collagen from Cortical Bovine Bone for Preparation of Porous Collagen Sponges. Conference Proceedings of the Society for Experimental Mechanics, 2013, , 73-78.	0.3	4
170	Low Resistivity-Highly Transparent Zn:Ga Tco's Grown by Laser Ablation. Materials Research Society Symposia Proceedings, 1995, 397, 247.	0.1	3
171	Growth and Analysis of Red, Green and Blue Luminescent Oxide Thin Films. Surface Review and Letters, 1998, 05, 413-417.	0.5	3
172	An Investigation of the Chromaticity of Blue Emitting Yttrium Silicate. Materials Research Society Symposia Proceedings, 1999, 560, 15.	0.1	3
173	Eu ³⁺ activated GaN thin films grown on sapphire by pulsed laser deposition. Physica Status Solidi C: Current Topics in Solid State Physics, 2008, 5, 1756-1758.	0.8	3
174	Synthesis and Photoluminescence Properties of Y ₂ O ₃ :Eu ³⁺ /SiO ₂ Core/Shell Phosphor Nanoparticles. ECS Transactions, 2010, 28, 183-190.	0.3	3
175	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.	1.0	3
176	Applying Bio-Inspired hierarchical design to jamming technology: Improving density-efficient mechanical properties and opening application spaces. Journal of Materials Research and Technology, 2020, 9, 15555-15565.	2.6	3
177	Microstructural and Photoluminescence Studies on Europium Doped Yttrium Oxide Films Synthesized by Metallorganic Vapor Deposition. Materials Research Society Symposia Proceedings, 1997, 495, 39.	0.1	2
178	Phase Transformation Kinetics in Pb _{0.91} La _{0.09} Zr _{0.65} Ti _{0.35} O ₃ Films. Journal of Materials Science Letters, 1998, 17, 1445-1447.	0.5	2
179	Fracture Mechanisms of Bone: A Comparative Study between Antler and Bovine Femur. Materials Research Society Symposia Proceedings, 2008, 1132, 1.	0.1	2
180	A novel hybrid pulsed laser deposition/metalorganic vapour deposition method to form rare-earth activated GaN. Journal Physics D: Applied Physics, 2008, 41, 122001.	1.3	2

#	ARTICLE	IF	CITATIONS
181	COMPARISON OF DEMINERALIZED AND DEPROTEINIZED BONE. Materials Research Society Symposia Proceedings, 2011, 1301, 27.	0.1	2
182	White-emitting solid state lighting by electrophoretic deposition of phosphors. , 2012, , .		2
183	Deproteinized young bone reveals a continuous mineral phase and its contribution to mechanical properties with age. Journal of Materials Research and Technology, 2020, 9, 15421-15432.	2.6	2
184	Luminescence Properties and Stability Improvement by SiO ₂ Coating on Various Phosphors for Near UV-Emitting LEDs. ECS Meeting Abstracts, 2012, , .	0.0	2
185	Aligned gadolinium barium copper oxide thick films formed by in situ crystallization in a magnetic field. Journal of Materials Research, 1993, 8, 2440-2444.	1.2	1
186	Luminescent oxide thin films grown by pulsed laser deposition. Journal of the Society for Information Display, 1996, 4, 347.	0.8	1
187	Phosphor Synthesis Routes and their Effect on the Performance of Garnet Phosphors At Low-Voltages. Materials Research Society Symposia Proceedings, 1996, 424, 409.	0.1	1
188	Low-Voltage Cathodoluminescent Properties of Blue-Emitting Yttrium Silicates Doped With Cerium. Materials Research Society Symposia Proceedings, 1998, 508, 269.	0.1	1
189	A NEW COMBUSTION SYNTHESIS TECHNIQUE FOR RARE EARTH-DOPED III-NITRIDE LUMINESCENT POWDERS. Modern Physics Letters B, 2001, 15, 655-658.	1.0	1
190	Laser melting of photoluminescent (Y _{0.92} Eu _{0.08}) ₂ O ₃ films. Journal of Applied Physics, 2001, 90, 3919-3924.	1.1	1
191	Nanocrystalline Rare Earth-doped Gallium Nitride Phosphor Powders. Materials Research Society Symposia Proceedings, 2005, 866, 184.	0.1	1
192	A Study of Oxygen Content in GaN, AlN, and GaAlN Powders. Journal of the Electrochemical Society, 2008, 155, J137.	1.3	1
193	Hierarchical Structure of Porosity in Cortical and Trabecular Bones. Materials Research Society Symposia Proceedings, 2012, 1420, 24.	0.1	1
194	Effect of SiO ₂ coatings on halophosphate phosphors for near UV-emitting LEDs. , 2012, , .		1
195	Mechanical Optimization of Diatomite Monoliths from Freeze Casting for High-Throughput Applications. ACS Applied Bio Materials, 2020, 3, 4444-4453.	2.3	1
196	Rapid Solidification of YBa ₂ Cu ₃ O _{7-x} , EuBa ₂ Cu ₃ O _{7-x} , and GdBa ₂ Cu ₃ O _{7-x} . Materials Research Society Symposia Proceedings, 1987, 99, 567.	0.1	0
197	Magnetic Alignment of Amorphous Coatings of GD:123. Materials Research Society Symposia Proceedings, 1992, 275, 425.	0.1	0
198	<title>Improvement of luminescent properties of thin-film phosphors by excimer laser processing</title>. , 1998, , .		0

#	ARTICLE	IF	CITATIONS
199	Ferroelectric and microstructure properties of Ba _{1-x} Sr _x TiO ₃ films grown on different electrodes. Integrated Ferroelectrics, 1999, 24, 85-94.	0.3	0
200	Interaction Between Titanium Implant Surfaces and Hydrogen Peroxide in Biologically Relevant Environments. Materials Research Society Symposia Proceedings, 2004, 823, W11.17.1.	0.1	0
201	Bioinspired Inorganic/polymer Thin Films. Materials Research Society Symposia Proceedings, 2009, 1239, 1.	0.1	0
202	Investigations into Demineralized Cortical Bone. Materials Research Society Symposia Proceedings, 2011, 1301, 33.	0.1	0
203	Comparison of Electrophoretic Deposition of Nano- and Micron-Sized Ba ₂ SiO ₄ :Eu ²⁺ Phosphor Particles. ECS Meeting Abstracts, 2013, , .	0.0	0
204	Development of Phosphors for White Emitting Near UV LEDs. ECS Meeting Abstracts, 2013, , .	0.0	0
205	Porous Scaffolds: Bioinspired Scaffolds with Varying Pore Architectures and Mechanical Properties (Adv. Funct. Mater. 14/2014). Advanced Functional Materials, 2014, 24, 2108-2108.	7.8	0
206	Correlation of Multi-scale Modeling and Experimental Results for the Elastic Modulus of Trabecular Bone. Conference Proceedings of the Society for Experimental Mechanics, 2014, , 59-65.	0.3	0
207	Compaction of Submicron and Nanocrystalline Al ₂ O ₃ -ZrO ₂ Ceramics. , 1993, , 559-564.		0
208	Computer modelling and biomimetics for understanding the evolution of tail grasping in seahorses. FASEB Journal, 2015, 29, 342.3.	0.2	0