Jonathan M Massera

List of Publications by Year
in descending order

83 papers	2,005 citations	201674 27 h-index	276875 41 g-index
84 all docs	84 docs citations	84 times ranked	1845 citing authors

#	Article	IF	Citations
1	Wood-based nanocellulose and bioactive glass modified gelatinâ€“alginate bioinks for 3D bioprinting of bone cells. Biofabrication, 2019, 11, 035010.	7.1	125
2	Crystallization Mechanism of the Bioactive Glasses, 45S5 and S53P4. Journal of the American Ceramic Society, 2012, 95, 607-613.	3.8	119
3	Processing methods for making porous bioactive glassâ€based scaffoldsâ€”A stateâ€ofâ€theâ€art review. International Journal of Applied Ceramic Technology, 2019, 16, 1762-1796.	2.1	93
4	Processing of Tellurite-Based Glass with Low OH Content. Journal of the American Ceramic Society, 2011, 94, 130-136.	3.8	75
5	Compositional dependence of the nonlinear refractive index of new germanium-based chalcogenide glasses. Journal of Solid State Chemistry, 2009, 182, 2756-2761.	2.9	74
6	Influence of SrO substitution for CaO on the properties of bioactive glass S53P4. Journal of Materials Science: Materials in Medicine, 2014, 25, 657-668.	3.6	71
7	Influence of the partial substitution of CaO with MgO on the thermal properties and in vitro reactivity of the bioactive glass S53P4. Journal of Non-Crystalline Solids, 2012, 358, 2701-2707.	3.1	59
8	Crystallization and sintering of borosilicate bioactive glasses for application in tissue engineering. Journal of Materials Chemistry B, 2017, 5, 4514-4525.	5.8	48
9	Phase composition and in vitro bioactivity of porous implants made of bioactive glass S53P4. Acta Biomaterialia, 2012, 8, 2331-2339.	8.3	46
10	Processing and characterization of novel borophosphate glasses and fibers for medical applications. Journal of Non-Crystalline Solids, 2015, 425, 52-60.	3.1	45
11	The effect of S53P4-based borosilicate glasses and glass dissolution products on the osteogenic commitment of human adipose stem cells. PLoS ONE, 2018, 13, e0202740.	2.5	44
12	Estimation of peak Raman gain coefficients for Barium-Bismuth-Tellurite glasses from spontaneous Raman cross-section experiments. Optics Express, 2009, 17, 9071.	3.4	42
13	Tâ€“Tâ€“T behaviour of bioactive glasses 1â€“98 and 13â€“93. Journal of the European Ceramic Society, 2012, 32, 2731-2738.	5.7	39
14	Thermal properties and surface reactivity in simulated body fluid of new strontium ion-containing phosphate glasses. Journal of Materials Science: Materials in Medicine, 2013, 24, 1407-1416.	3.6	39
15	Robocasting of SiO2-Based Bioactive Glass Scaffolds with Porosity Gradient for Bone Regeneration and Potential Load-Bearing Applications. Materials, 2019, 12, 2691.	2.9	39
16	Nucleation and growth behavior of glasses in the TeO2â€“Bi2O3â€“ZnO glass system. Journal of Non-Crystalline Solids, 2010, 356, 2947-2955.	3.1	38
17	Effect of the addition of Al2O3, TiO2 and ZnO on the thermal, structural and luminescence properties of Er3+-doped phosphate glasses. Journal of Non-Crystalline Solids, 2017, 460, 161-168.	3.1	37
18	Crystallization behavior of phosphate glasses and its impact on the glassesâ€™ bioactivity. Journal of Materials Science, 2015, 50, 3091-3102.	3.7	36

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19	Effect of the substitution of S for Se on the structure and non-linear optical properties of the glasses in the system Ge0.18Ga0.05Sb0.07S0.70âˆ’xSex. Journal of Non-Crystalline Solids, 2006, 352, 5413-5420.	3.1	35
20	Effect of the glass composition on the chemical durability of zinc-phosphate-based glasses in aqueous solutions. Journal of Physics and Chemistry of Solids, 2013, 74, 121-127.	4.0	35
21	The influence of SrO and CaO in silicate and phosphate bioactive glasses on human gingival fibroblasts. Journal of Materials Science: Materials in Medicine, 2015, 26, 196.	3.6	35
22	Effects of Sintering Temperature on Crystallization and Fabrication of Porous Bioactive Glass Scaffolds for Bone Regeneration. Scientific Reports, 2017, 7, 6046.	3.3	35
23	Luminescence of Er 3+ doped oxyfluoride phosphate glasses and glass-ceramics. Journal of Alloys and Compounds, 2018, 751, 224-230.	5.5	35
24	Thermal, structural and optical properties of Er3+ doped phosphate glasses containing silver nanoparticles. Journal of Non-Crystalline Solids, 2016, 438, 67-73.	3.1	34
25	Dissolution behavior of the bioactive glass S53P4 when sodium is replaced by potassium, and calcium with magnesium or strontium. Journal of Non-Crystalline Solids, 2016, 432, 41-46.	3.1	32
26	Robocasting of Bioactive SiO₂-P₂O₅-CaO-MgO-Na₂O-K₂O Glass Scaffolds. Journal of Healthcare Engineering, 2019, 2019, 1-12.	1.9	32
27	Control of the thermal properties of slow bioresorbable glasses by boron addition. Journal of Non-Crystalline Solids, 2011, 357, 3623-3630.	3.1	30
28	Processing and characterization of phosphate glasses containing CaAl2O4:Eu2+,Nd3+ and SrAl2O4:Eu2+,Dy3+ microparticles. Journal of the European Ceramic Society, 2015, 35, 3863-3871.	5.7	28
29	In vitro Evaluation of Porous borosilicate, borophosphate and phosphate Bioactive Glasses Scaffolds fabricated using Foaming Agent for Bone Regeneration. Scientific Reports, 2018, 8, 3699.	3.3	28
30	Phosphate-based glass fiber vs. bulk glass: Change in fiber optical response to probe in vitro glass reactivity. Materials Science and Engineering C, 2014, 37, 251-257.	7.3	27
31	Surface reactivity and silanization ability of borosilicate and Mg-Sr-based bioactive glasses. Applied Surface Science, 2019, 475, 43-55.	6.1	26
32	New alternative route for the preparation of phosphate glasses with persistent luminescence properties. Journal of the European Ceramic Society, 2015, 35, 1255-1261.	5.7	25
33	Structure and in vitro dissolution of Mg and Sr containing borosilicate bioactive glasses for bone tissue engineering. Journal of Non-Crystalline Solids, 2020, 533, 119893.	3.1	24
34	Processing and characterization of coreâ€"clad tellurite glass preforms and fibers fabricated by rotational casting. Optical Materials, 2010, 32, 582-588.	3.6	21
35	Novel oxyfluorophosphate glasses and glass-ceramics. Journal of Non-Crystalline Solids, 2016, 445-446, 40-44.	3.1	21
36	Influence of P2O5 and Al2O3 content on the structure of erbium-doped borosilicate glasses and on their physical, thermal, optical and luminescence properties. Materials Research Bulletin, 2015, 63, 41-50.	5.2	18

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37	Ag-doped phosphate bioactive glasses: thermal, structural and in-vitro dissolution properties. Biomedical Glasses, 2016, 2, .	2.4	18
38	Thermal, structural and in vitro dissolution of antimicrobial copper-doped and slow resorbable iron-doped phosphate glasses. Journal of Materials Science, 2017, 52, 8957-8972.	3.7	17
39	In Vitro Degradation of Borosilicate Bioactive Glass and Poly(l-lactide-co-Îµ-caprolactone) Composite Scaffolds. Materials, 2017, 10, 1274.	2.9	17
40	Dissolution, bioactivity and osteogenic properties of composites based on polymer and silicate or borosilicate bioactive glass. Materials Science and Engineering C, 2020, 107, 110340.	7.3	17
41	Materials and Orthopedic Applications for Bioresorbable Inductively Coupled Resonance Sensors. ACS Applied Materials & Interfaces, 2020, 12, 31148-31161.	8.0	17
42	Tellurium: A new active element for innovative multifunctional bioactive glasses. Materials Science and Engineering C, 2021, 123, 111957.	7.3	17
43	Blood and fibroblast responses to thermoset Bis<scp>GMA</scp>â€“<scp>TEGDMA</scp>/glass fiberâ€reinforced composite implants <i>in vitro</i>. Clinical Oral Implants Research, 2014, 25, 843-851.	4.5	16
44	Effect of CeO2 doping on thermal, optical, structural and in vitro properties of a phosphate based bioactive glass. Journal of Non-Crystalline Solids, 2014, 402, 28-35.	3.1	16
45	Do properties of bioactive glasses exhibit mixed alkali behavior?. Journal of Materials Science, 2017, 52, 8986-8997.	3.7	14
46	Core-clad phosphate glass fibers for biosensing. Materials Science and Engineering C, 2019, 96, 458-465.	7.3	14
47	Spatially controlled dissolution of Ag nanoparticles in irradiated SiO2 solâ€“gel film. Journal of Physics and Chemistry of Solids, 2010, 71, 1634-1638.	4.0	12
48	Effect of the glass melting condition on the processing of phosphate-based glassâ€“ceramics with persistent luminescence properties. Optical Materials, 2016, 52, 56-61.	3.6	12
49	Persistent luminescent particles containing bioactive glasses: Prospect toward tracking in-vivo implant mineralization using biophotonic ceramics. Journal of the European Ceramic Society, 2018, 38, 287-295.	5.7	12
50	Viscosity properties of tellurite-based glasses. Materials Research Bulletin, 2010, 45, 1861-1865.	5.2	11
51	In vitro blood and fibroblast responses to BisGMAâ€“TEGDMA/bioactive glass composite implants. Journal of Materials Science: Materials in Medicine, 2014, 25, 151-162.	3.6	11
52	Surface functionalization of phosphate-based bioactive glasses with 3-aminopropyltriethoxysilane (APTS). Biomedical Glasses, 2016, 2, .	2.4	11
53	New Generation of Hybrid Materials Based on Gelatin and Bioactive Glass Particles for Bone Tissue Regeneration. Biomolecules, 2021, 11, 444.	4.0	11
54	In Vivo Evaluation of 3D-Printed Silica-Based Bioactive Glass Scaffolds for Bone Regeneration. Journal of Functional Biomaterials, 2022, 13, 74.	4.4	11

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55	Design, processing, and characterization of an optical coreâ€bioactive clad phosphate fiber for biomedical applications. Journal of the American Ceramic Society, 2019, 102, 6882-6892.	3.8	10
56	Nucleation and growth behavior of Er³⁺ doped oxyfluorophosphate glasses. RSC Advances, 2020, 10, 25703-25716.	3.6	10
57	Polymer-Based Honeycomb Films on Bioactive Glass: Toward a Biphasic Material for Bone Tissue Engineering Applications. ACS Applied Materials & Interfaces, 2021, 13, 29984-29995.	8.0	10
58	Surface Modification of Bioresorbable Phosphate Glasses for Controlled Protein Adsorption. ACS Biomaterials Science and Engineering, 2021, 7, 4483-4493.	5.2	10
59	Effect of partial crystallization on the thermal, optical, structural and Er3+ luminescence properties of silicate glasses. Materials Chemistry and Physics, 2014, 147, 1099-1109.	4.0	9
60	Effect of Melt-Derived Bioactive Glass Particles on the Properties of Chitosan Scaffolds. Journal of Functional Biomaterials, 2019, 10, 38.	4.4	9
61	Micro computed tomography based finite element models for elastic and strength properties of 3D printed glass scaffolds. Acta Mechanica Sinica/Lixue Xuebao, 2021, 37, 292-306.	3.4	9
62	Formation and dissolution of copper-based nanoparticles in SiO2 solâ€“gel film using heat treatment and/or UV light exposure. Materials Research Bulletin, 2008, 43, 3130-3139.	5.2	8
63	Er3+â€“Al2O3 nanoparticles doping of borosilicate glass. Bulletin of Materials Science, 2015, 38, 1407-1410.	1.7	8
64	Phosphate/oxyfluorophosphate glass crystallization and its impact on dissolution and cytotoxicity. Materials Science and Engineering C, 2020, 117, 111269.	7.3	8
65	Surface Modification of Bioactive Glass Promotes Cell Attachment and Spreading. ACS Omega, 2021, 6, 22635-22642.	3.5	8
66	Bioactive phosphate glass-based fiber with green persistent luminescence. Materials Research Bulletin, 2022, 153, 111899.	5.2	8
67	Impact of Glass Composition on Hydrolytic Degradation of Polylactide/Bioactive Glass Composites. Materials, 2021, 14, 667.	2.9	7
68	Effect of Ga and Se addition on the â€œnear-surfaceâ€•photo-response of new Ge-based chalcogenide glasses under IR femtosecond laser exposure. Optical Materials, 2009, 31, 965-969.	3.6	6
69	Erbium-doped borosilicate glasses containing various amounts of P2O5 and Al2O3: Influence of the silica content on the structure and thermal, physical, optical and luminescence properties. Materials Research Bulletin, 2015, 70, 47-54.	5.2	6
70	Effect of partial crystallization on the structural and Er 3+ luminescence properties of phosphate-based glasses. Optical Materials, 2017, 64, 230-238.	3.6	5
71	Changes in the mechanical properties of bioactive borophosphate fiber when immersed in aqueous solutions. International Journal of Applied Glass Science, 2020, 11, 622-631.	2.0	5
72	Thermal and structural characterization of erbium-doped borosilicate fibers with low silica content containing various amounts of P2O5 and Al2O3. Optical Materials, 2014, 37, 87-92.	3.6	4

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73	Heat capacities of crystalline and glassy lithium metaphosphate up to the transition region. Journal of Thermal Analysis and Calorimetry, 2016, 123, 401-407.	3.6	4
74	Inâ€vitro dissolution characteristics and human adipose stem cell response to novel borophosphate glasses. Journal of Biomedical Materials Research - Part A, 2019, 107, 2099-2114.	4.0	4
75	Specific trends in phosphate glass crystallization. Journal of Non-Crystalline Solids, 2021, 551, 120431.	3.1	4
76	Nano-imaging confirms improved apatite precipitation for high phosphate/silicate ratio bioactive glasses. Scientific Reports, 2021, 11, 19464.	3.3	3
77	Building wireless sensor networks with biological cultures: components and integration challenges. International Journal of Parallel, Emergent and Distributed Systems, 2017, 32, 56-73.	1.0	2
78	Bioactive glass-ceramics: From macro to nano. , 2020, , 275-292.		2
79	Application of Micro-thermal Analysis for Metal, Oxide, and Non-oxide Thin Film Materials. , 2009, , .		1
80	Processing and Characterization of Bioactive Borosilicate Glasses and Scaffolds with Persistent Luminescence. , 2018, , .		1
81	Formation/dissolution of metallic nanoparticles in SiO2 film using cw and ns UV exposure. , 2007, , .		0
82	Glass and Glass-Ceramic Scaffolds: Manufacturing Methods and the Impact of Crystallization on In-Vitro Dissolution. , 2017, , .		0
83	Fabrication and Characterization of New Phosphate Glasses and Glass-Ceramics Suitable for Drawing Optical and Biophotonic Libers. , 2019, , .		0