

# Gianluca Malavasi

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

77  
papers

3,471  
citations

33  
h-index

57  
g-index

77  
ext. papers

3,876  
ext. citations

5.1  
avg, IF

5  
L-index

#	Paper	IF	Citations
77	The effect of the incorporation of catalase mimetic activity cations on the structural, thermal and chemical durability properties of the 45S5 Bioglass <sup>®</sup> . <i>Acta Materialia</i> , <b>2022</b> , 229, 117801	8.4	0
76	Cerium Containing Bioactive Glasses: A Review. <i>ACS Biomaterials Science and Engineering</i> , <b>2021</b> , 7, 4388-4401	3.9	8
75	Cell Proliferation to Evaluate Preliminarily the Presence of Enduring Self-Regenerative Antioxidant Activity in Cerium Doped Bioactive Glasses. <i>Materials</i> , <b>2020</b> , 13,	3.5	6
74	Composition and morphology effects on catalase mimetic activity of potential bioactive glasses. <i>Ceramics International</i> , <b>2020</b> , 46, 25854-25864	5.1	4
73	Cytocompatibility of Potential Bioactive Cerium-Doped Glasses based on 45S5. <i>Materials</i> , <b>2019</b> , 12,	3.5	14
72	Mesoporous bioactive glasses doped with cerium: Investigation over enzymatic-like mimetic activities and bioactivity. <i>Ceramics International</i> , <b>2019</b> , 45, 20910-20920	5.1	10
71	Preparation and Luminescence Properties of BaSiO <sub>3</sub> Long Persistent Phosphors Doped with Rare-Earth Elements. <i>Materials</i> , <b>2019</b> , 12,	3.5	4
70	An atomic-level look at the structure-property relationship of cerium-doped glasses using classical molecular dynamics. <i>Journal of Non-Crystalline Solids</i> , <b>2018</b> , 498, 331-337	3.9	4
69	Highly-Bioreactive Silica-Based Mesoporous Bioactive Glasses Enriched with Gallium(III). <i>Materials</i> , <b>2018</b> , 11,	3.5	20
68	Role of cerium oxide in bioactive glasses during catalytic dissociation of hydrogen peroxide. <i>Physical Chemistry Chemical Physics</i> , <b>2018</b> , 20, 23507-23514	3.6	2
67	Cerium-doped bioactive 45S5 glasses: spectroscopic, redox, bioactivity and biocatalytic properties. <i>Journal of Materials Science</i> , <b>2017</b> , 52, 8845-8857	4.3	31
66	Structure of active cerium sites within bioactive glasses. <i>Journal of the American Ceramic Society</i> , <b>2017</b> , 100, 5086-5095	3.8	12
65	The effect of composition on structural, thermal, redox and bioactive properties of Ce-containing glasses. <i>Materials and Design</i> , <b>2016</b> , 97, 73-85	8.1	33
64	SiO <sub>2</sub> /CaO-PO <sub>4</sub> Bioactive Glasses: A Promising Curcuminoids Delivery System. <i>Materials</i> , <b>2016</b> , 9,	3.5	9
63	Systematic investigation of the parameters that influence the luminescence properties of photoluminescent pigments. <i>Journal of Luminescence</i> , <b>2016</b> , 175, 141-148	3.8	5
62	Evidence of catalase mimetic activity in Ce(3+)/Ce(4+) doped bioactive glasses. <i>Journal of Physical Chemistry B</i> , <b>2015</b> , 119, 4009-19	3.4	89
61	In vitro antibacterial capacity and cytocompatibility of SiO <sub>2</sub> -CaO-PO <sub>4</sub> meso-macroporous glass scaffolds enriched with ZnO. <i>Journal of Materials Chemistry B</i> , <b>2014</b> , 2, 4836-4847	7.3	70

60	New formulation of functionalized bioactive glasses to be used as carriers for the development of pH-stimuli responsive biomaterials for bone diseases. <i>Langmuir</i> , <b>2014</b> , 30, 4703-15	4	19
59	Conjugation of amino-bioactive glasses with 5-aminofluorescein as probe molecule for the development of pH sensitive stimuli-responsive biomaterials. <i>Journal of Materials Science: Materials in Medicine</i> , <b>2014</b> , 25, 2243-53	4.5	6
58	Study of the structural role of gallium and aluminum in 45S5 bioactive glasses by molecular dynamics simulations. <i>Journal of Physical Chemistry B</i> , <b>2013</b> , 117, 4142-50	3.4	55
57	New insights into the bioactivity of SiO <sub>2</sub> -CaO and SiO <sub>2</sub> -CaO-P <sub>2</sub> O <sub>5</sub> sol-gel glasses by molecular dynamics simulations. <i>Journal of Sol-Gel Science and Technology</i> , <b>2013</b> , 67, 208-219	2.3	15
56	Towards the controlled release of metal nanoparticles from biomaterials: Physico-chemical, morphological and bioactivity features of Cu-containing sol-gel glasses. <i>Applied Surface Science</i> , <b>2013</b> , 283, 240-248	6.7	19
55	Mesoporous bioactive scaffolds prepared with cerium-, gallium- and zinc-containing glasses. <i>Acta Biomaterialia</i> , <b>2013</b> , 9, 4836-44	10.8	103
54	Gold-containing bioactive glasses: a solid-state synthesis to produce alternative biomaterials for bone implantations. <i>Journal of the Royal Society Interface</i> , <b>2013</b> , 10, 20121040	4.1	14
53	Curcumin release from cerium, gallium and zinc containing mesoporous bioactive glasses. <i>Microporous and Mesoporous Materials</i> , <b>2013</b> , 180, 92-101	5.3	48
52	Sr-containing hydroxyapatite: morphologies of HA crystals and bioactivity on osteoblast cells. <i>Materials Science and Engineering C</i> , <b>2013</b> , 33, 1132-42	8.3	81
51	Gallium-containing phosphosilicate glasses: functionalization and in-vitro bioactivity. <i>Materials Science and Engineering C</i> , <b>2013</b> , 33, 3190-6	8.3	18
50	First-principles simulations of the 27Al and 17O solid-state NMR spectra of the CaAl <sub>2</sub> Si <sub>3</sub> O <sub>10</sub> glass. <i>Highlights in Theoretical Chemistry</i> , <b>2013</b> , 87-97		
49	Synthesis and characterization of bioactive glasses functionalized with Cu nanoparticles and organic molecules. <i>Journal of the European Ceramic Society</i> , <b>2012</b> , 32, 2777-2783	6	21
48	Evaluation of the behaviour of fluorine-containing bioactive glasses: reactivity in a simulated body fluid solution assisted by multivariate data analysis. <i>Journal of Materials Science: Materials in Medicine</i> , <b>2012</b> , 23, 639-48	4.5	5
47	Gallium-containing phospho-silicate glasses: synthesis and in vitro bioactivity. <i>Materials Science and Engineering C</i> , <b>2012</b> , 32, 1401-6	8.3	36
46	Structural and in vitro study of cerium, gallium and zinc containing sol-gel bioactive glasses. <i>Journal of Materials Chemistry</i> , <b>2012</b> , 22, 13698		60
45	Synthesis and Characterisation of Strontium and Magnesium Co-Substituted Biphase Calcium Phosphates. <i>Key Engineering Materials</i> , <b>2012</b> , 529-530, 88-93	0.4	3
44	Magnesium- and strontium-co-substituted hydroxyapatite: the effects of doped-ions on the structure and chemico-physical properties. <i>Journal of Materials Science: Materials in Medicine</i> , <b>2012</b> , 23, 2867-79	4.5	85
43	First-principles simulations of the 27Al and 17O solid-state NMR spectra of the CaAl <sub>2</sub> Si <sub>3</sub> O <sub>10</sub> glass. <i>Theoretical Chemistry Accounts</i> , <b>2012</b> , 131, 1	1.9	31

42	Novel bio-conjugate materials: soybean peroxidase immobilized on bioactive glasses containing Au nanoparticles. <i>Journal of Materials Chemistry</i> , <b>2011</b> , 21, 10970		13
41	The role of coordination chemistry in the development of innovative gallium-based bioceramics: the case of curcumin. <i>Journal of Materials Chemistry</i> , <b>2011</b> , 21, 5027		25
40	Influence of the Chemical Composition on Nature and Activity of the Surface Layer of Zn-Substituted Sol-Gel (Bioactive) Glasses. <i>Journal of Physical Chemistry C</i> , <b>2011</b> , 115, 2196-2210	3.8	22
39	The toxic effect of fluoride on MG-63 osteoblast cells is also dependent on the production of nitric oxide. <i>Chemico-Biological Interactions</i> , <b>2011</b> , 190, 179-86	5	15
38	Ga-Modified (Si <sub>3</sub> N <sub>4</sub> ) Sol-Gel Glasses: Possible Relationships between Surface Chemical Properties and Bioactivity. <i>Journal of Physical Chemistry C</i> , <b>2011</b> , 115, 22461-22474	3.8	16
37	Substitutions of cerium, gallium and zinc in ordered mesoporous bioactive glasses. <i>Acta Biomaterialia</i> , <b>2011</b> , 7, 3452-8	10.8	128
36	On the dissolution/reaction of small-grain Bioglass <sup>®</sup> 45S5 and F-modified bioactive glasses in artificial saliva (AS). <i>Applied Surface Science</i> , <b>2011</b> , 257, 4185-4195	6.7	30
35	Functionalization of sol gel bioactive glasses carrying Au nanoparticles: selective Au affinity for amino and thiol ligand groups. <i>Langmuir</i> , <b>2010</b> , 26, 18600-5	4	28
34	New Insights into the Atomic Structure of 45S5 Bioglass by Means of Solid-State NMR Spectroscopy and Accurate First-Principles Simulations. <i>Chemistry of Materials</i> , <b>2010</b> , 22, 5644-5652	9.6	112
33	Bioactive glasses containing Au nanoparticles. Effect of calcination temperature on structure, morphology, and surface properties. <i>Langmuir</i> , <b>2010</b> , 26, 10303-14	4	28
32	Molecular dynamics simulations of sodium silicate glasses: Optimization and limits of the computational procedure. <i>Computational Materials Science</i> , <b>2010</b> , 47, 739-751	3.2	23
31	Fluoride-containing bioactive glasses inhibit pentose phosphate oxidative pathway and glucose 6-phosphate dehydrogenase activity in human osteoblasts. <i>Chemico-Biological Interactions</i> , <b>2010</b> , 183, 405-15	5	34
30	Zinc-containing bioactive glasses: surface reactivity and behaviour towards endothelial cells. <i>Acta Biomaterialia</i> , <b>2009</b> , 5, 1211-22	10.8	141
29	Fluoride-containing bioactive glasses: surface reactivity in simulated body fluids solutions. <i>Acta Biomaterialia</i> , <b>2009</b> , 5, 3548-62	10.8	103
28	In vitro and in vivo behaviour of zinc-doped phosphosilicate glasses. <i>Acta Biomaterialia</i> , <b>2009</b> , 5, 419-28	10.8	64
27	Quantitative structure-property relationships of potentially bioactive fluoro phospho-silicate glasses. <i>Journal of Physical Chemistry B</i> , <b>2009</b> , 113, 10331-8	3.4	67
26	Computational Insight into the Effect of CaO/MgO Substitution on the Structural Properties of Phospho-Silicate Bioactive Glasses. <i>Journal of Physical Chemistry C</i> , <b>2009</b> , 113, 15723-15730	3.8	82
25	Role of Magnesium in Soda-Lime Glasses: Insight into Structural, Transport, and Mechanical Properties through Computer Simulations. <i>Journal of Physical Chemistry C</i> , <b>2008</b> , 112, 11034-11041	3.8	73

24	FFSiOH: a New Force Field for Silica Polymorphs and Their Hydroxylated Surfaces Based on Periodic B3LYP Calculations. <i>Chemistry of Materials</i> , <b>2008</b> , 20, 2522-2531	9.6	65
23	Molecular Dynamics Studies of Stress-Strain Behavior of Silica Glass under a Tensile Load. <i>Chemistry of Materials</i> , <b>2008</b> , 20, 4356-4366	9.6	93
22	Medium-range order in phospho-silicate bioactive glasses: Insights from MAS-NMR spectra, chemical durability experiments and molecular dynamics simulations. <i>Journal of Non-Crystalline Solids</i> , <b>2008</b> , 354, 84-89	3.9	50
21	Elucidation of the structural role of fluorine in potentially bioactive glasses by experimental and computational investigation. <i>Journal of Physical Chemistry B</i> , <b>2008</b> , 112, 12730-9	3.4	92
20	Properties of zinc releasing surfaces for clinical applications. <i>Journal of Biomaterials Applications</i> , <b>2008</b> , 22, 505-26	2.9	46
19	Elastic and dynamical properties of alkali-silicate glasses from computer simulations techniques. <i>Theoretical Chemistry Accounts</i> , <b>2008</b> , 120, 557-564	1.9	40
18	Deflocculant effects on the surface properties of kaolinite investigated through malachite green adsorption. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , <b>2008</b> , 329, 31-37	5.1	18
17	Insight into Elastic Properties of Binary Alkali Silicate Glasses; Prediction and Interpretation through Atomistic Simulation Techniques. <i>Chemistry of Materials</i> , <b>2007</b> , 19, 3144-3154	9.6	102
16	Crystallization kinetics of bioactive glasses in the ZnO-Na <sub>2</sub> O-CaO-SiO <sub>2</sub> system. <i>Journal of Physical Chemistry A</i> , <b>2007</b> , 111, 8401-8	2.8	17
15	Cytotoxicity of zinc-containing bioactive glasses in contact with human osteoblasts. <i>Chemico-Biological Interactions</i> , <b>2007</b> , 167, 207-18	5	108
14	A computational multiscale strategy to the study of amorphous materials. <i>Theoretical Chemistry Accounts</i> , <b>2007</b> , 117, 933-942	1.9	29
13	Density of multicomponent silica-based potential bioglasses: Quantitative structure-property relationships (QSPR) analysis. <i>Journal of the European Ceramic Society</i> , <b>2007</b> , 27, 499-504	6	12
12	Multitechnique approach to V <sub>2</sub> O <sub>5</sub> /SiO <sub>4</sub> pigment characterization and synthesis optimization. <i>Journal of the European Ceramic Society</i> , <b>2007</b> , 27, 1743-1750	6	17
11	An ab initio parameterized interatomic force field for hydroxyapatite. <i>Journal of Materials Chemistry</i> , <b>2007</b> , 17, 2061		31
10	A new self-consistent empirical interatomic potential model for oxides, silicates, and silica-based glasses. <i>Journal of Physical Chemistry B</i> , <b>2006</b> , 110, 11780-95	3.4	362
9	Towards a quantitative rationalization of multicomponent glass properties by means of molecular dynamics simulations. <i>Molecular Simulation</i> , <b>2006</b> , 32, 1045-1055	2	19
8	Void size distribution in MD-modelled silica glass structures. <i>Journal of Non-Crystalline Solids</i> , <b>2006</b> , 352, 285-296	3.9	58
7	Qualitative and quantitative structure-property relationships analysis of multicomponent potential bioglasses. <i>Journal of Physical Chemistry B</i> , <b>2005</b> , 109, 4989-98	3.4	92

6	A computational tool for the prediction of crystalline phases obtained from controlled crystallization of glasses. <i>Journal of Physical Chemistry B</i> , <b>2005</b> , 109, 21586-92	3.4	29
5	Thermodynamic aspects of the adsorption of hexametaphosphate on kaolinite. <i>Journal of Colloid and Interface Science</i> , <b>2005</b> , 292, 322-9	9.3	31
4	A combined experimental and computational approach to $(\text{Na}_2\text{O})_{1-x} \text{CaO} \text{-(ZnO)}_x \text{-2SiO}_2$ glasses characterization. <i>Journal of Non-Crystalline Solids</i> , <b>2004</b> , 345-346, 710-714	3.9	21
3	Synthesis and characterization of cerium-doped glasses and in vitro evaluation of bioactivity. <i>Journal of Non-Crystalline Solids</i> , <b>2003</b> , 316, 198-216	3.9	84
2	Removal of cadmium ion by means of synthetic hydroxyapatite. <i>Waste Management</i> , <b>2002</b> , 22, 853-7	8.6	43
1	Synthesis, Characterization, and Molecular Dynamics Simulation Of $\text{Na}_2\text{O-CaO-Bi}_2\text{O}_3\text{-ZnO}$ Glasses. <i>Journal of Physical Chemistry B</i> , <b>2002</b> , 106, 9753-9760	3.4	68