Simone Sprio

List of Publications by Year
in descending order

98 papers	4,458 citations	136950 32 h-index	106344 65 g-index
99 all docs	99 docs citations	99 times ranked	4843 citing authors

#	Article	IF	Citations
1	Editorial for the Special Issue on Bioceramic Composites. Journal of Composites Science, 2022, 6, 65.	3.0	0
2	Bio-inspired polymeric iron-doped hydroxyapatite microspheres as a tunable carrier of rhBMP-2. Materials Science and Engineering C, 2021, 119, 111410.	7.3	12
3	Nanotechnological approach and bio-inspired materials to face degenerative diseases in aging. Aging Clinical and Experimental Research, 2021, 33, 805-821.	2.9	7
4	Unconventional, Nature-Inspired Approaches to Develop Bioceramics for Regenerative Medicine. , 2021, , 758-771.		0
5	Bioceramics in Regenerative Medicine. , 2021, , 601-613.		2
6	Biomimetic Mineralization Promotes Viability and Differentiation of Human Mesenchymal Stem Cells in a Perfusion Bioreactor. International Journal of Molecular Sciences, 2021, 22, 1447.	4.1	9
7	Nanostructured Strontium-Doped Calcium Phosphate Cements: A Multifactorial Design. Applied Sciences (Switzerland), 2021, 11, 2075.	2.5	7
8	Bioactive Materials for Soft Tissue Repair. Frontiers in Bioengineering and Biotechnology, 2021, 9, 613787.	4.1	58
9	In Vitro Osteoinductivity Assay of Hydroxylapatite Scaffolds, Obtained with Biomorphic Transformation Processes, Assessed Using Human Adipose Stem Cell Cultures. International Journal of Molecular Sciences, 2021, 22, 7092.	4.1	7
10	Nature-Inspired Unconventional Approaches to Develop 3D Bioceramic Scaffolds with Enhanced Regenerative Ability. Biomedicines, 2021, 9, 916.	3.2	14
11	Bioactive Calcium Phosphate-Based Composites for Bone Regeneration. Journal of Composites Science, 2021, 5, 227.	3.0	46
12	Oxide Bioceramic Composites in Orthopedics and Dentistry. Journal of Composites Science, 2021, 5, 206.	3.0	23
13	Toughening of Bioceramic Composites for Bone Regeneration. Journal of Composites Science, 2021, 5, 259.	3.0	19
14	Bone Regeneration in Load-Bearing Segmental Defects, Guided by Biomorphic, Hierarchically Structured Apatitic Scaffold. Frontiers in Bioengineering and Biotechnology, 2021, 9, 734486.	4.1	19
15	Biomorphic Transformations: A Leap Forward in Getting Nanostructured 3-D Bioceramics. Frontiers in Chemistry, 2021, 9, 728907.	3.6	1
16	Vegetable hierarchical structures as template for bone regeneration: New bioâ€ceramization process for the development of a bone scaffold applied to an experimental sheep model. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2020, 108, 600-611.	3.4	10
17	Hierarchical porosity inherited by natural sources affects the mechanical and biological behaviour of bone scaffolds. Journal of the European Ceramic Society, 2020, 40, 1717-1727.	5.7	15
18	Enhancement of the Biological and Mechanical Performances of Sintered Hydroxyapatite by Multiple Ions Doping. Frontiers in Materials, 2020, 7, .	2.4	33

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19	Innovative Options for Bone Metastasis Treatment: An Extensive Analysis on Biomaterials-Based Strategies for Orthopedic Surgeons. Frontiers in Bioengineering and Biotechnology, 2020, 8, 589964.	4.1	18
20	Microtopography of Immune Cells in Osteoporosis and Bone Lesions by Endocrine Disruptors. Frontiers in Immunology, 2020, 11, 1737.	4.8	20
21	Mussel Shell-Derived Macroporous 3D Scaffold: Characterization and Optimization Study of a Bioceramic from the Circular Economy. Marine Drugs, 2020, 18, 309.	4.6	26
22	Scaffold-based 3D cellular models mimicking the heterogeneity of osteosarcoma stem cell niche. Scientific Reports, 2020, 10, 22294.	3.3	46
23	Adult Stem Cells for Bone Regeneration and Repair. Frontiers in Cell and Developmental Biology, 2019, 7, 268.	3.7	146
24	Surface Phenomena Enhancing the Antibacterial and Osteogenic Ability of Nanocrystalline Hydroxyapatite, Activated by Multiple-Ion Doping. ACS Biomaterials Science and Engineering, 2019, 5, 5947-5959.	5.2	30
25	Heterogeneous chemistry in the 3-D state: an original approach to generate bioactive, mechanically-competent bone scaffolds. Biomaterials Science, 2019, 7, 307-321.	5.4	29
26	A Composite Chitosan-Reinforced Scaffold Fails to Provide Osteochondral Regeneration. International Journal of Molecular Sciences, 2019, 20, 2227.	4.1	19
27	Composite scaffolds for bone and osteochondral defects. , 2019, , 297-337.		2
28	Nature-Inspired Processes and Structures: New Paradigms to Develop Highly Bioactive Devices for Hard Tissue Regeneration. , 2019, , .		4
29	Superparamagnetic hybrid microspheres affecting osteoblasts behaviour. Materials Science and Engineering C, 2019, 96, 234-247.	7.3	9
30	New hydroxyapatite nanophases with enhanced osteogenic and antiâ€bacterial activity. Journal of Biomedical Materials Research - Part A, 2018, 106, 521-530.	4.0	31
31	Evaluation of different crosslinking agents on hybrid biomimetic collagen-hydroxyapatite composites for regenerative medicine. International Journal of Biological Macromolecules, 2018, 106, 739-748.	7.5	48
32	A Graded Multifunctional Hybrid Scaffold with Superparamagnetic Ability for Periodontal Regeneration. International Journal of Molecular Sciences, 2018, 19, 3604.	4.1	26
33	Zirconia Implants: Is There a Future?. Current Oral Health Reports, 2018, 5, 186-193.	1.6	8
34	Treatment of Biofilm Communities: An Update on New Tools from the Nanosized World. Applied Sciences (Switzerland), 2018, 8, 845.	2.5	22
35	Biomineralization process generating hybrid nano- and micro-carriers. , 2018, , 19-42.		2
36	Strontium doped calcium phosphate coatings on poly(etheretherketone) (PEEK) by pulsed electron deposition. Surface and Coatings Technology, 2017, 319, 191-199.	4.8	38

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37	Luminescent calcium phosphate bioceramics doped with europium derived from fish industry byproducts. Journal of the American Ceramic Society, 2017, 100, 3402-3414.	3.8	19
38	Ribose mediated crosslinking of collagen-hydroxyapatite hybrid scaffolds for bone tissue regeneration using biomimetic strategies. Materials Science and Engineering C, 2017, 77, 594-605.	7.3	51
39	Fe-Doping-Induced Magnetism in Nano-Hydroxyapatites. Inorganic Chemistry, 2017, 56, 4446-4458.	4.0	60
40	New bioactive bone-like microspheres with intrinsic magnetic properties obtained by bio-inspired mineralisation process. Materials Science and Engineering C, 2017, 77, 613-623.	7.3	11
41	Biomineralization of a titanium-modified hydroxyapatite semiconductor on conductive wool fibers. Journal of Materials Chemistry B, 2017, 5, 7608-7621.	5.8	21
42	<sup />Biomineralized Recombinant Collagen-Based Scaffold Mimicking Native Bone Enhances Mesenchymal Stem Cell Interaction and Differentiation. Tissue Engineering - Part A, 2017, 23, 1423-1435.	3.1	21
43	Investigation of different cross-linking approaches on 3D gelatin scaffolds for tissue engineering application: A comparative analysis. International Journal of Biological Macromolecules, 2017, 95, 1199-1209.	7.5	56
44	Tissue engineering and biomimetics with bioceramics. , 2017, , 407-432.		2
45	A New Bioinspired Collagen-Hydroxyapatite Bone Graft Substitute in Adult Scoliosis Surgery: Results at 3-Year Follow-Up. Journal of Applied Biomaterials and Functional Materials, 2017, 15, 262-270.	1.6	11
46	3D porous collagen scaffolds reinforced by glycation with ribose for tissue engineering application. Biomedical Materials (Bristol), 2017, 12, 055002.	3.3	25
47	Sr-substituted bone cements direct mesenchymal stem cells, osteoblasts and osteoclasts fate. PLoS ONE, 2017, 12, e0172100.	2.5	40
48	Nature-Inspired Nanotechnology and Smart Magnetic Activation: Two Groundbreaking Approaches Toward a New Generation of Biomaterials for Hard Tissue Regeneration. , 2016, , .		3
49	Fabrication and Pilot In Vivo Study of a Collagen-BDDGE-Elastin Core-Shell Scaffold for Tendon Regeneration. Frontiers in Bioengineering and Biotechnology, 2016, 4, 52.	4.1	38
50	Novel Osteointegrative Sr-Substituted Apatitic Cements Enriched with Alginate. Materials, 2016, 9, 763.	2.9	24
51	Biomimetic mineralization of recombinant collagen type I derived protein to obtain hybrid matrices for bone regeneration. Journal of Structural Biology, 2016, 196, 138-146.	2.8	33
52	A novel route for the synthesis of macroporous bioceramics for bone regeneration. Journal of the European Ceramic Society, 2016, 36, 2383-2388.	5.7	21
53	Hydroxyapatite: From Nanocrystals to Hybrid Nanocomposites for Regenerative Medicine. , 2016, , 119-144.		4
54	In situ mechanical and molecular investigations of collagen/apatite biomimetic composites combining Raman spectroscopy and stress-strain analysis. Acta Biomaterialia, 2016, 46, 278-285.	8.3	29

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55	Development of innovative hybrid and intrinsically magnetic nanobeads as a drug delivery system. Nanomedicine, 2016, 11, 2119-2130.	3.3	13
56	Biologically Inspired Nanomaterials and Nanobiomagnetism: A Synergy among New Emerging Concepts in Regenerative Medicine. , 2016, , 1-20.		1
57	Osteointegration in Cranial Bone Reconstruction: A Goal to Achieve. Journal of Applied Biomaterials and Functional Materials, 2016, 14, 470-476.	1.6	19
58	Bio-inspired assembling/mineralization process as a flexible approach to develop new smart scaffolds for the regeneration of complex anatomical regions. Journal of the European Ceramic Society, 2016, 36, 2857-2867.	5.7	24
59	Hydroxyapatite: From Nanocrystals to Hybrid Nanocomposites for Regenerative Medicine. , 2015, , 1-26.		1
60	New Bio-ceramization process applied to vegetable hierarchical structures for bone regeneration: an experimental model in sheep.. Tissue Engineering - Part A, 2014, 20, 131007215556003.	3.1	23
61	Growth on poly(l-lactic acid) porous scaffold preserves CD73 and CD90 immunophenotype markers of rat bone marrow mesenchymal stromal cells. Journal of Materials Science: Materials in Medicine, 2014, 25, 2421-2436.	3.6	7
62	Biomimetic magnesiumâ€“carbonate-apatite nanocrystals endowed with strontium ions as anti-osteoporotic trigger. Materials Science and Engineering C, 2014, 35, 212-219.	7.3	64
63	Magnetic Bioinspired Hybrid Nanostructured Collagenâ€“Hydroxyapatite Scaffolds Supporting Cell Proliferation and Tuning Regenerative Process. ACS Applied Materials & Interfaces, 2014, 6, 15697-15707.	8.0	119
64	Pulsed plasma deposition of zirconia thin films on UHMWPE: proof of concept of a novel approach for joint prosthetic implants. Journal of Materials Chemistry B, 2013, 1, 310-318.	5.8	22
65	Study of the hydrothermal transformation of wood-derived calcium carbonate into 3D hierarchically organized hydroxyapatite. Chemical Engineering Journal, 2013, 217, 150-158.	12.7	27
66	Synthesis and mechanical behavior of Î²-tricalcium phosphate/titania composites addressed to regeneration of long bone segments. Journal of the Mechanical Behavior of Biomedical Materials, 2013, 17, 1-10.	3.1	32
67	Biomateriali per la rigenerazione e la funzione endocrina dellâ€™osso. L Endocrinologo, 2013, 14, 163-168.	0.0	0
68	High biocompatibility and improved osteogenic potential of novel Caâ€“P/titania composite scaffolds designed for regeneration of loadâ€bearing segmental bone defects. Journal of Biomedical Materials Research - Part A, 2013, 101A, 1612-1619.	4.0	25
69	Hybrid Scaffolds for Tissue Regeneration: Chemotaxis and Physical Confinement as Sources of Biomimesis. Journal of Nanomaterials, 2012, 2012, 1-10.	2.7	19
70	Human bone regeneration from wood: a novel hierarchically organised nanomaterial. International Journal of Healthcare Technology and Management, 2012, 13, 171.	0.1	2
71	Effect of soft drinks on the physical and chemical features of nickel-titanium-based orthodontic wires. Acta Odontologica Scandinavica, 2012, 70, 49-55.	1.6	14
72	Intrinsic magnetism and hyperthermia in bioactive Fe-doped hydroxyapatite. Acta Biomaterialia, 2012, 8, 843-851.	8.3	253

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73	Biomimesis and biomorphic transformations: New concepts applied to bone regeneration. Journal of Biotechnology, 2011, 156, 347-355.	3.8	48
74	Mimicking natural bio-mineralization processes: A new tool for osteochondral scaffold development. Trends in Biotechnology, 2011, 29, 526-535.	9.3	111
75	Effects of manganese doping on properties of solâ€“gel derived biphasic calcium phosphate ceramics. Ceramics International, 2011, 37, 3703-3715.	4.8	60
76	Assessment of chemical species of lead accumulated in tidemarks of human articular cartilage by X-ray absorption near-edge structure analysis. Journal of Synchrotron Radiation, 2011, 18, 238-244.	2.4	21
77	Human osteoblast behavior on asâ€synthesized SiO₄ and Bâ€CO₃ coâ€substituted apatite. Journal of Biomedical Materials Research - Part A, 2010, 94A, 59-70.	4.0	46
78	Development of hydroxyapatite/calcium silicate composites addressed to the design of load-bearing bone scaffolds. Journal of the Mechanical Behavior of Biomedical Materials, 2009, 2, 147-155.	3.1	47
79	From wood to bone: multi-step process to convert wood hierarchical structures into biomimetic hydroxyapatite scaffolds for bone tissue engineering. Journal of Materials Chemistry, 2009, 19, 4973.	6.7	140
80	Development of Multisubstituted Apatites for Bone Reconstruction. Key Engineering Materials, 2008, 361-363, 171-174.	0.4	8
81	Biomimetic Mg-substituted hydroxyapatite: from synthesis to inÂvivo behaviour. Journal of Materials Science: Materials in Medicine, 2008, 19, 239-247.	3.6	337
82	Structure and superconducting properties of pure and variously doped bulk MgB2 obtained by uniaxial and isostatic hot pressing. Journal of Materials Science: Materials in Electronics, 2008, 19, 1012-1022.	2.2	2
83	Development of Sr and CO3 co-substituted hydroxyapatites for biomedical applications. Acta Biomaterialia, 2008, 4, 656-663.	8.3	111
84	Physico-chemical properties and solubility behaviour of multi-substituted hydroxyapatite powders containing silicon. Materials Science and Engineering C, 2008, 28, 179-187.	7.3	126
85	Sr-substituted hydroxyapatites for osteoporotic bone replacement. Acta Biomaterialia, 2007, 3, 961-969.	8.3	231
86	Yttria-stabilized zirconia films grown by radiofrequency magnetron sputtering: Structure, properties and residual stresses. Surface and Coatings Technology, 2006, 200, 4579-4585.	4.8	20
87	Crystallinity in apatites: how can a truly disordered fraction be distinguished from nanosize crystalline domains?. Journal of Materials Science: Materials in Medicine, 2006, 17, 1079-1087.	3.6	49
88	Nucleation of biomimetic apatite in synthetic body fluids: dense and porous scaffold development. Biomaterials, 2005, 26, 2835-2845.	11.4	91
89	Raman and cathodoluminescence spectroscopies of magnesium-substituted hydroxyapatite powders. Journal of Materials Research, 2005, 20, 1009-1016.	2.6	23
90	Study of the sintering behaviour of MgB2 superconductor during hot-pressing. Physica C: Superconductivity and Its Applications, 2004, 400, 97-104.	1.2	35

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91	Properties of MgB/sub 2/ films grown by means of different vapor phase techniques. IEEE Transactions on Applied Superconductivity, 2003, 13, 3305-3308.	1.7	2
92	Effects of copper doping in MgB2 superconductor. Solid State Communications, 2002, 121, 497-500.	1.9	47
93	Title is missing!. Journal of Materials Science Letters, 2002, 21, 1089-1092.	0.5	0
94	Porosity-graded hydroxyapatite ceramics to replace natural bone. Biomaterials, 2001, 22, 1365-1370.	11.4	261
95	Densification behaviour and mechanisms of synthetic hydroxyapatites. Journal of the European Ceramic Society, 2000, 20, 2377-2387.	5.7	644
96	Characteristics of synthetic hydroxyapatites and attempts to improve their thermal stability. Materials Chemistry and Physics, 2000, 64, 54-61.	4.0	49
97	Composite Calcium Phosphate/Titania Scaffolds in Bone Tissue Engineering. , 0, , .		3
98	Synthesis of Nanostructured Hydroxyapatite via Controlled Hydrothermal Route. , 0, , .		6