Eduardo Saiz

List of Publications by Year
in descending order

58 papers	12,364 citations	94269 37 h-index	149479 56 g-index
58 all docs	58 docs citations	58 times ranked	14531 citing authors

#	ARTICLE	IF	CITATIONS
1	Fracture toughness of bone at the microscale. Acta Biomaterialia, 2021, 121, 475-483.	4.1	11
2	Conformable green bodies: Plastic forming of robocasted advanced ceramics. Journal of the European Ceramic Society, 2020, 40, 552-557.	2.8	12
3	Super-tough MXene-functionalized graphene sheets. Nature Communications, 2020, 11, 2077.	5.8	289
4	Bioinspired Nacreâ€Like Alumina with a Metallic Nickel Compliant Phase Fabricated by Sparkâ€Plasma Sintering. Small, 2019, 15, 1900573.	5.2	28
5	High temperature strength of an ultra high temperature ceramic produced by additive manufacturing. Ceramics International, 2019, 45, 18210-18214.	2.3	26
6	3-D printing of chitosan-calcium phosphate inks: rheology, interactions and characterization. Journal of Materials Science: Materials in Medicine, 2019, 30, 6.	1.7	40
7	Strong and tough metal/ceramic micro-laminates. Acta Materialia, 2018, 144, 202-215.	3.8	73
8	Nacre-like ceramic refractories for high temperature applications. Journal of the European Ceramic Society, 2018, 38, 2186-2193.	2.8	29
9	SiC porous structures obtained with innovative shaping technologies. Journal of the European Ceramic Society, 2018, 38, 823-835.	2.8	34
10	Ultratough Bioinspired Graphene Fiber <i>via</i> Sequential Toughening of Hydrogen and Ionic Bonding. ACS Nano, 2018, 12, 12638-12645.	7.3	53
11	Bioinspired Supertough Graphene Fiber through Sequential Interfacial Interactions. ACS Nano, 2018, 12, 8901-8908.	7.3	67
12	Using graphene networks to build bioinspired self-monitoring ceramics. Nature Communications, 2017, 8, 14425.	5.8	99
13	Mechanical and biological evaluation of 3D printed 10CeTZP-Al 2 O 3 structures. Journal of the European Ceramic Society, 2017, 37, 3151-3158.	2.8	34
14	3D Printing Bioinspired Ceramic Composites. Scientific Reports, 2017, 7, 13759.	1.6	141
15	Multimaterial 3D Printing of Graphene-Based Electrodes for Electrochemical Energy Storage Using Thermoresponsive Inks. ACS Applied Materials & Interfaces, 2017, 9, 37136-37145.	4.0	148
16	Graphene Oxide: An All-in-One Processing Additive for 3D Printing. ACS Applied Materials & Interfaces, 2017, 9, 32977-32989.	4.0	74
17	Complex ceramic architectures by directed assembly of â€˜responsiveâ€™ particles. Journal of the European Ceramic Society, 2017, 37, 199-211.	2.8	9
18	Osseous differentiation on freeze casted 10CeTZP-Al2O3 structures. Journal of the European Ceramic Society, 2017, 37, 5009-5016.	2.8	5

#	ARTICLE	IF	CITATIONS
19	Light and Strong SiC Networks. Advanced Functional Materials, 2016, 26, 1636-1645.	7.8	109
20	Autonomous self-healing structural composites with bio-inspired design. Scientific Reports, 2016, 6, 25059.	1.6	50
21	Robocasting of structural ceramic parts with hydrogel inks. Journal of the European Ceramic Society, 2016, 36, 2525-2533.	2.8	268
22	Understanding Mechanical Response of Elastomeric Graphene Networks. Scientific Reports, 2015, 5, 13712.	1.6	64
23	Selfâ€Healing Grapheneâ€Based Composites with Sensing Capabilities. Advanced Materials, 2015, 27, 4788-4794.	11.1	136
24	Printing in Three Dimensions with Graphene. Advanced Materials, 2015, 27, 1688-1693.	11.1	266
25	Highly flexible silica/chitosan hybrid scaffolds with oriented pores for tissue regeneration. Journal of Materials Chemistry B, 2015, 3, 7560-7576.	2.9	78
26	Bioinspired structural materials. Nature Materials, 2015, 14, 23-36.	13.3	3,284
27	Mesoscale assembly of chemically modified graphene into complex cellular networks. Nature Communications, 2014, 5, 4328.	5.8	250
28	A novel approach for the fabrication of carbon nanofibre/ceramic porous structures. Journal of the European Ceramic Society, 2013, 33, 2365-2374.	2.8	15
29	Toward Strong and Tough Glass and Ceramic Scaffolds for Bone Repair. Advanced Functional Materials, 2013, 23, 5461-5476.	7.8	183
30	Designing Smart Particles for the Assembly of Complex Macroscopic Structures. Angewandte Chemie - International Edition, 2013, 52, 7805-7808.	7.2	26
31	On the structural, mechanical, and biodegradation properties of HA/Î²-TCP robocast scaffolds. , 2013, 101, 1233-1242.		89
32	Perspectives on the role of nanotechnology in bone tissue engineering. Dental Materials, 2013, 29, 103-115.	1.6	123
33	A two-scale Weibull approach to the failure of porous ceramic structures made by robocasting: Possibilities and limits. Journal of the European Ceramic Society, 2013, 33, 679-688.	2.8	29
34	Modeling of the self-limited growth in catalytic chemical vapor deposition of graphene. New Journal of Physics, 2013, 15, 053012.	1.2	40
35	Nanotechnology for Dental Implants. International Journal of Oral and Maxillofacial Implants, 2013, 28, e535-e546.	0.6	33
36	Role of Molecular Chemistry of Degradable pHEMA Hydrogels in Three-Dimensional Biomimetic Mineralization. Chemistry of Materials, 2012, 24, 1331-1337.	3.2	26

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37	Activation Energy Paths for Graphene Nucleation and Growth on Cu. ACS Nano, 2012, 6, 3614-3623.	7.3	370
38	Solâ€"gel method to fabricate CaP scaffolds by robocasting for tissue engineering. Journal of Materials Science: Materials in Medicine, 2012, 23, 921-930.	1.7	33
39	Lamellar Spacing in Cuboid Hydroxyapatite Scaffolds Regulates Bone Formation by Human Bone Marrow Stromal Cells. Tissue Engineering - Part A, 2011, 17, 1615-1623.	1.6	20
40	Bioactive glass scaffolds for bone tissue engineering: state of the art and future perspectives. Materials Science and Engineering C, 2011, 31, 1245-1256.	3.8	546
41	Direct ink writing of highly porous and strong glass scaffolds for load-bearing bone defects repair and regeneration. Acta Biomaterialia, 2011, 7, 3547-3554.	4.1	302
42	Bioinspired Strong and Highly Porous Glass Scaffolds. Advanced Functional Materials, 2011, 21, 1058-1063.	7.8	215
43	Nanotechnology approaches to improve dental implants. International Journal of Oral and Maxillofacial Implants, 2011, 26 Suppl, 25-44; discussion 45-9.	0.6	15
44	A novel biomimetic approach to the design of high-performance ceramicâ€"metal composites. Journal of the Royal Society Interface, 2010, 7, 741-753.	1.5	247
45	Elastomeric highâ€mineral content hydrogelâ€hydroxyapatite composites for orthopedic applications. Journal of Biomedical Materials Research - Part A, 2009, 89A, 1098-1107.	2.1	55
46	Architectural Control of Freezeâ€Cast Ceramics Through Additives and Templating. Journal of the American Ceramic Society, 2009, 92, 1534-1539.	1.9	240
47	Three-Dimensional Biomimetic Mineralization of Dense Hydrogel Templates. Journal of the American Chemical Society, 2009, 131, 9937-9939.	6.6	45
48	Mechanical properties of calcium phosphate scaffolds fabricated by robocasting. Journal of Biomedical Materials Research - Part A, 2008, 85A, 218-227.	2.1	246
49	Artificial Bone and Teeth through Controlled Ice Growth in Colloidal Suspensions. AIP Conference Proceedings, 2007, , .	0.3	2
50	Fracture modes under uniaxial compression in hydroxyapatite scaffolds fabricated by robocasting. Journal of Biomedical Materials Research - Part A, 2007, 83A, 646-655.	2.1	79
51	Ice-templated porous alumina structures. Acta Materialia, 2007, 55, 1965-1974.	3.8	647
52	Freezing as a Path to Build Complex Composites. Science, 2006, 311, 515-518.	6.0	1,676
53	Sintering and robocasting of Î²-tricalcium phosphate scaffolds for orthopaedic applications. Acta Biomaterialia, 2006, 2, 457-466.	4.1	291
54	Freeze casting of hydroxyapatite scaffolds for bone tissue engineering. Biomaterials, 2006, 27, 5480-5489.	5.7	779

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55	Strong Biomimetic Hydroxyapatite Scaffolds. Advances in Science and Technology, 2006, 49, 148-152.	0.2	19
56	A New Approach to Mineralization of Biocompatible Hydrogel Scaffolds:Â An Efficient Process toward 3-Dimensional Bonelike Composites. Journal of the American Chemical Society, 2003, 125, 1236-1243.	6.6	245
57	Kinetics of Metalâ€Ceramic Composite Formation by Reactive Penetration of Silicates with Molten Aluminum. Journal of the American Ceramic Society, 1998, 81, 2381-2393.	1.9	50
58	Using Ice to Mimic Nacre: From Structural Applications to Artificial Bone. , 0, , 174-192.		1