Isabel Izquierdo-Barba

List of Publications by Year
in descending order

111 papers	7,524 citations	41258 49 h-index	56606 83 g-index
112 all docs	112 docs citations	112 times ranked	7324 citing authors

#	Article	IF	Citations
1	Mesoporous SBA-15 HPLC evaluation for controlled gentamicin drug delivery. Journal of Controlled Release, 2004, 97, 125-132.	4.8	350
2	Mesoporous Silica Nanoparticles for Drug Delivery: Current Insights. Molecules, 2018, 23, 47.	1.7	338
3	Ordered Mesoporous Bioactive Glasses for Bone Tissue Regeneration. Chemistry of Materials, 2006, 18, 3137-3144.	3.2	333
4	Revisiting silica based ordered mesoporous materials: medical applications. Journal of Materials Chemistry, 2006, 16, 26-31.	6.7	308
5	Functionalization of mesoporous materials with long alkyl chains as a strategy for controlling drug delivery pattern. Journal of Materials Chemistry, 2006, 16, 462-466.	6.7	302
6	Bioactivity of a CaOâˆ'SiO2Binary Glasses System. Chemistry of Materials, 2000, 12, 3080-3088.	3.2	214
7	Release evaluation of drugs from ordered three-dimensional silica structures. European Journal of Pharmaceutical Sciences, 2005, 26, 365-373.	1.9	200
8	Tissue regeneration: A new property of mesoporous materials. Solid State Sciences, 2005, 7, 983-989.	1.5	186
9	Hexagonal ordered mesoporous material as a matrix for the controlled release of amoxicillin. Solid State Ionics, 2004, 172, 435-439.	1.3	180
10	Structure and functionalization of mesoporous bioceramics for bone tissue regeneration and local drug delivery. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2012, 370, 1400-1421.	1.6	156
11	Aerosol-Assisted Synthesis of Magnetic Mesoporous Silica Spheres for Drug Targeting. Chemistry of Materials, 2007, 19, 3455-3463.	3.2	149
12	Influence of mesoporous structure type on the controlled delivery of drugs: release of ibuprofen from MCM-48, SBA-15 and functionalized SBA-15. Journal of Sol-Gel Science and Technology, 2009, 50, 421-429.	1.1	136
13	Long term degradation of poly(É›-caprolactone) films in biologically related fluids. Polymer Degradation and Stability, 2006, 91, 1424-1432.	2.7	134
14	Nanomaterials as Promising Alternative in the Infection Treatment. International Journal of Molecular Sciences, 2019, 20, 3806.	1.8	128
15	High-Performance Mesoporous Bioceramics Mimicking Bone Mineralization. Chemistry of Materials, 2008, 20, 3191-3198.	3.2	126
16	Multinuclear Solid-State NMR Studies of Ordered Mesoporous Bioactive Glasses. Journal of Physical Chemistry C, 2008, 112, 5552-5562.	1.5	125
17	Advances in mesoporous silica nanoparticles for targeted stimuli-responsive drug delivery: an update. Expert Opinion on Drug Delivery, 2019, 16, 415-439.	2.4	124
18	In vitro calcium phosphate layer formation on sol-gel glasses of the CaO-SiO2 system. , 1999, 47, 243-250.		115

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19	Incorporation of antimicrobial compounds in mesoporous silica film monolith. Biomaterials, 2009, 30, 5729-5736.	5.7	112
20	Influence of P2O5 on crystallinity of apatite formedin vitro on surface of bioactive glasses. , 1999, 46, 560-565.		105
21	Essential Role of Calcium Phosphate Heterogeneities in 2D-Hexagonal and 3D-Cubic SiO₂âˆ’CaOâˆ’P₂O₅ Mesoporous Bioactive Glasses. Chemistry of Materials, 2009, 21, 5474-5484.	3.2	95
22	Synthesis and Characterization of Zwitterionic SBA-15 Nanostructured Materials. Chemistry of Materials, 2010, 22, 6459-6466.	3.2	94
23	Preparation of 3-D scaffolds in the SiO2â€“P2O5 system with tailored hierarchical meso-macroporosity. Acta Biomaterialia, 2011, 7, 1265-1273.	4.1	94
24	Mesoporous silica nanoparticles decorated with polycationic dendrimers for infection treatment. Acta Biomaterialia, 2018, 68, 261-271.	4.1	92
25	Tuning mesoporous silica dissolution in physiological environments: a review. Journal of Materials Science, 2017, 52, 8761-8771.	1.7	87
26	Advanced Drug Delivery Vectors with Tailored Surface Properties Made of Mesoporous Binary Oxides Submicronic Spheres. Chemistry of Materials, 2010, 22, 1821-1830.	3.2	85
27	Nanocolumnar coatings with selective behavior towards osteoblast and Staphylococcus aureus proliferation. Acta Biomaterialia, 2015, 15, 20-28.	4.1	85
28	Biomimetic Apatite Deposition on Calcium Silicate Gel Glasses. Journal of Sol-Gel Science and Technology, 2001, 21, 13-25.	1.1	82
29	In vitro structural changes in porous HA/Î²-TCP scaffolds in simulated body fluid. Acta Biomaterialia, 2009, 5, 2738-2751.	4.1	82
30	Biomimetic Apatite Mineralization Mechanisms of Mesoporous Bioactive Glasses as Probed by Multinuclear ³¹P, ²⁹Si, ²³Na and ¹³C Solid-State NMR. Journal of Physical Chemistry C, 2010, 114, 19345-19356.	1.5	79
31	Phosphorous-doped MCM-41 as bioactive material. Solid State Sciences, 2005, 7, 233-237.	1.5	78
32	Biomaterials against Bone Infection. Advanced Healthcare Materials, 2020, 9, e2000310.	3.9	75
33	In vitro stability of SBA-15 under physiological conditions. Microporous and Mesoporous Materials, 2010, 132, 442-452.	2.2	73
34	Compositional Variations in the Calcium Phosphate Layer Growth on Gel Glasses Soaked in a Simulated Body Fluid. Chemistry of Materials, 2000, 12, 3770-3775.	3.2	71
35	Bioactive Glasses: From Macro to Nano. International Journal of Applied Glass Science, 2013, 4, 149-161.	1.0	71
36	Solid-State ³¹P and ¹H NMR Investigations of Amorphous and Crystalline Calcium Phosphates Grown Biomimetically From a Mesoporous Bioactive Glass. Journal of Physical Chemistry C, 2011, 115, 20572-20582.	1.5	69

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37	Multifunctional pH sensitive 3D scaffolds for treatment and prevention of bone infection. Acta Biomaterialia, 2018, 65, 450-461.	4.1	68
38	High Specific Surface Area in Nanometric Carbonated Hydroxyapatite. Chemistry of Materials, 2008, 20, 5942-5944.	3.2	66
39	Promising trends of bioceramics in the biomaterials field. Journal of Materials Science: Materials in Medicine, 2009, 20, 447-455.	1.7	65
40	3D scaffold with effective multidrug sequential release against bacteria biofilm. Acta Biomaterialia, 2017, 49, 113-126.	4.1	65
41	Nanostructured Mesoporous Silicas for Bone Tissue Regeneration. Journal of Nanomaterials, 2008, 2008, 1-14.	1.5	64
42	Mixed-charge pseudo-zwitterionic mesoporous silica nanoparticles with low-fouling and reduced cell uptake properties. Acta Biomaterialia, 2019, 84, 317-327.	4.1	63
43	Inhibition of bacterial adhesion on biocompatible zwitterionic SBA-15 mesoporous materials. Acta Biomaterialia, 2011, 7, 2977-2985.	4.1	62
44	Direct Probing of the Phosphate-Ion Distribution in Bioactive Silicate Glasses by Solid-State NMR: Evidence for Transitions between Random/Clustered Scenarios. Chemistry of Materials, 2013, 25, 1877-1885.	3.2	62
45	Synergistic effect of Si-hydroxyapatite coating and VEGF adsorption on Ti6Al4V-ELI scaffolds for bone regeneration in an osteoporotic bone environment. Acta Biomaterialia, 2019, 83, 456-466.	4.1	62
46	Effect of the continuous solution exchange on thein vitro reactivity of a CaO-SiO2 sol-gel glass. , 2000, 51, 191-199.		60
47	Mesoporous bioactive glasses: Relevance of their porous structure compared to that of classical bioglasses. Biomedical Glasses, 2015, 1, .	2.4	58
48	In vitro Evaluation of Potential Calcium Phosphate Scaffolds for Tissue Engineering. Tissue Engineering, 2006, 12, 279-290.	4.9	55
49	Concanavalin A-targeted mesoporous silica nanoparticles for infection treatment. Acta Biomaterialia, 2019, 96, 547-556.	4.1	55
50	Calcium phosphate-based particles influence osteogenic maturation of human mesenchymal stem cells. Acta Biomaterialia, 2009, 5, 1294-1305.	4.1	53
51	Incorporation of Phosphorus into Mesostructured Silicas: A Novel Approach to Reduce the SiO₂ Leaching in Water. Chemistry of Materials, 2009, 21, 4135-4145.	3.2	53
52	Zwitterionic ceramics for biomedical applications. Acta Biomaterialia, 2016, 40, 201-211.	4.1	51
53	A biocompatible calcium bisphosphonate coordination polymer: towards a metal-linker synergistic therapeutic effect?. CrystEngComm, 2013, 15, 9899.	1.3	49
54	Local structures of mesoporous bioactive glasses and their surface alterations <i>in vitro</i> : inferences from solid-state nuclear magnetic resonance. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2012, 370, 1376-1399.	1.6	48

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55	Biocompatibility and levofloxacin delivery of mesoporous materials. European Journal of Pharmaceutics and Biopharmaceutics, 2013, 84, 115-124.	2.0	45
56	Bioactive Carbonateâˆ’Hydroxyapatite Coatings Deposited onto Ti6Al4V Substrate. Chemistry of Materials, 2004, 16, 1451-1455.	3.2	43
57	Novel biopolymer-coated hydroxyapatite foams for removing heavy-metals from polluted water. Journal of Hazardous Materials, 2011, 192, 71-7.	6.5	43
58	Novel biomaterials for drug delivery. Expert Opinion on Therapeutic Patents, 2008, 18, 639-656.	2.4	42
59	Design and preparation of biocompatible zwitterionic hydroxyapatite. Journal of Materials Chemistry B, 2013, 1, 1595.	2.9	40
60	New method to obtain chitosan/apatite materials at room temperature. Solid State Sciences, 2006, 8, 513-519.	1.5	37
61	Alkaline-treated poly(Îµ-caprolactone) films: Degradation in the presence or absence of fibroblasts. Journal of Biomedical Materials Research - Part A, 2006, 76A, 788-797.	2.1	37
62	Bacteria as Nanoparticles Carrier for Enhancing Penetration in a Tumoral Matrix Model. Advanced Materials Interfaces, 2020, 7, 1901942.	1.9	37
63	Proton Environments in Biomimetic Calcium Phosphates Formed from Mesoporous Bioactive CaOâ€“SiO₂â€“P₂O₅ Glasses <i>in Vitro</i>: Insights from Solid-State NMR. Journal of Physical Chemistry C, 2017, 121, 13223-13238.	1.5	36
64	Vitreous SiO2â€“CaO coatings on Ti6Al4V alloys: Reactivity in simulated body fluid versus osteoblast cell culture. Acta Biomaterialia, 2006, 2, 445-455.	4.1	35
65	Phosphorus-containing SBA-15 materials as bisphosphonate carriers for osteoporosis treatment. Microporous and Mesoporous Materials, 2010, 135, 51-59.	2.2	35
66	Biotinylation of silicon-doped hydroxyapatite: A new approach to protein fixation for bone tissue regeneration. Acta Biomaterialia, 2010, 6, 743-749.	4.1	35
67	New Nanocomposite System with Nanocrystalline Apatite Embedded into Mesoporous Bioactive Glass. Chemistry of Materials, 2012, 24, 1100-1106.	3.2	35
68	Tailoring hierarchical mesoâ€“macroporous 3D scaffolds: from nano to macro. Journal of Materials Chemistry B, 2014, 2, 49-58.	2.9	35
69	Zinc oxide nanocrystals as a nanoantibiotic and osteoinductive agent. RSC Advances, 2019, 9, 11312-11321.	1.7	34
70	Room temperature synthesis of chitosan/apatite powders and coatings. Journal of the European Ceramic Society, 2006, 26, 3631-3638.	2.8	32
71	Quantifying apatite formation and cation leaching from mesoporous bioactive glasses in vitro: a SEM, solid-state NMR and powder XRD study. Journal of Materials Chemistry, 2012, 22, 7214.	6.7	32
72	Crystallochemistry, textural properties, and in vitro biocompatibility of different siliconâ€doped calcium phosphates. Journal of Biomedical Materials Research - Part A, 2006, 78A, 762-771.	2.1	31

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73	Surface Reactions of Mesoporous Bioactive Glasses Monitored by Solid-State NMR: Concentration Effects in Simulated Body Fluid. Journal of Physical Chemistry C, 2016, 120, 4961-4974.	1.5	31
74	Mesostructured silica based delivery system for a drug with a peptide as a cell-penetrating vector. Microporous and Mesoporous Materials, 2009, 122, 201-207.	2.2	30
75	Antibacterial Nanostructured Ti Coatings by Magnetron Sputtering: From Laboratory Scales to Industrial Reactors. Nanomaterials, 2019, 9, 1217.	1.9	30
76	Using Aptamerâ€"Nanoparticle Conjugates for Cancer Cells Detection. Journal of Biomedical Nanotechnology, 2008, 4, 400-409.	0.5	29
77	Biological performance of hydroxyapatiteâ€"biopolymer foams: In vitro cell response. Acta Biomaterialia, 2012, 8, 802-810.	4.1	29
78	Tailoring the biological response of mesoporous bioactive materials. Journal of Materials Chemistry B, 2015, 3, 3810-3819.	2.9	28
79	Localized corrosion of 316L stainless steel with SiO2-CaO films obtained by means of sol-gel treatment. Journal of Biomedical Materials Research - Part A, 2003, 67A, 674-678.	2.1	26
80	Biopolymer-coated hydroxyapatite foams: a new antidote for heavy metal intoxication. Journal of Materials Chemistry, 2010, 20, 6956.	6.7	26
81	Fascinating properties of bioactive templated glasses: A new generation of nanostructured bioceramics. Solid State Sciences, 2011, 13, 773-783.	1.5	25
82	Composition-dependent in vitro apatite formation at mesoporous bioactive glass-surfaces quantified by solid-state NMR and powder XRD. RSC Advances, 2015, 5, 86061-86071.	1.7	25
83	The Role of Zwitterionic Materials in the Fight against Proteins and Bacteria. Medicines (Basel,) Tj ETQq1 1 0.784314 rgBT /Overlock 10	0.7	24
84	Lysine-Grafted MCM-41 Silica as an Antibacterial Biomaterial. Bioengineering, 2017, 4, 80.	1.6	22
85	Strontium-releasing mesoporous bioactive glasses with anti-adhesive zwitterionic surface as advanced biomaterials for bone tissue regeneration. Journal of Colloid and Interface Science, 2020, 563, 92-103.	5.0	22
86	Effective reduction of biofilm through photothermal therapy by gold core@shell based mesoporous silica nanoparticles. Microporous and Mesoporous Materials, 2021, 328, 111489.	2.2	22
87	Carbon nanotubesâ€"mesoporous silica composites as controllable biomaterials. Journal of Materials Chemistry, 2009, 19, 7745.	6.7	21
88	In vitro colonization of stratified bioactive scaffolds by pre-osteoblast cells. Acta Biomaterialia, 2016, 44, 73-84.	4.1	20
89	Impact of the antibiotic-cargo from MSNs on gram-positive and gram-negative bacterial biofilms. Microporous and Mesoporous Materials, 2021, 311, 110681.	2.2	20
90	The Role of Precursor Concentration on the Characteristics of SiO2-CaO Films. Journal of Sol-Gel Science and Technology, 2003, 26, 1179-1182.	1.1	19

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91	SiO2-CaO Vitreous Films Deposited onto Ti6Al4V Substrates. European Journal of Inorganic Chemistry, 2003, 2003, 1608-1613.	1.0	19
92	Nanocrystalline bioactive apatite coatings. Solid State Sciences, 2006, 8, 685-691.	1.5	19
93	Superparamagnetic Iron Oxide Nanoparticles Decorated Mesoporous Silica Nanosystem for Combined Antibiofilm Therapy. Pharmaceutics, 2022, 14, 163.	2.0	19
94	Textural properties of CaO?SiO2 glasses for use in implants. Solid State Ionics, 2004, 172, 441-444.	1.3	17
95	Surface zwitterionization of customized 3D Ti6Al4V scaffolds: a promising alternative to eradicate bone infection. Journal of Materials Chemistry B, 2016, 4, 4356-4365.	2.9	16
96	Preventing bacterial adhesion on scaffolds for bone tissue engineering. International Journal of Bioprinting, 2016, 2, .	1.7	16
97	Incorporation of Superparamagnetic Iron Oxide Nanoparticles into Collagen Formulation for 3D Electrospun Scaffolds. Nanomaterials, 2022, 12, 181.	1.9	15
98	Silica-Based Ordered Mesoporous Materials for Biomedical Applications. Key Engineering Materials, 2008, 377, 133-150.	0.4	14
99	Effects of 3D nanocomposite bioceramic scaffolds on the immune response. Journal of Materials Chemistry B, 2014, 2, 3469.	2.9	14
100	A versatile multicomponent mesoporous silica nanosystem with dual antimicrobial and osteogenic effects. Acta Biomaterialia, 2021, 136, 570-581.	4.1	13
101	Nanoantibiotics Based in Mesoporous Silica Nanoparticles: New Formulations for Bacterial Infection Treatment. Pharmaceutics, 2021, 13, 2033.	2.0	11
102	Synthesis of ?-tricalcium phosphate in layered or powdered forms for biomedical applications. Solid State Ionics, 2004, 172, 445-449.	1.3	9
103	Bimodal meso/macro porous hydroxyapatite coatings. Journal of Sol-Gel Science and Technology, 2011, 57, 109-113.	1.1	9
104	Drug Delivery and Bone Infection. The Enzymes, 2018, 44, 35-59.	0.7	7
105	Effects of bleaching on osteoclast activity and their modulation by osteostatin and fibroblast growth factor 2. Journal of Colloid and Interface Science, 2016, 461, 285-291.	5.0	5
106	New approach to determine the morphological and structural changes in the enamel as consequence of dental bleaching. Materials Letters, 2015, 141, 302-306.	1.3	4
107	Apatite Layers by a Sol-Gel Route. Key Engineering Materials, 2004, 254-256, 363-366.	0.4	2
108	Calcium Phosphate Porous Coatings onto Alumina Substrates by Liquid Mix Method. Key Engineering Materials, 0, 254-256, 359-362.	0.4	1

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109	Nanocarriers Tumor Penetration: Bacteria as Nanoparticles Carrier for Enhancing Penetration in a Tumoral Matrix Model (Adv. Mater. Interfaces 11/2020). Advanced Materials Interfaces, 2020, 7, 2070063.	1.9	1
110	Amine-Functionalized Mesoporous Silica Nanoparticles: A New Nanoantibiotic for Bone Infection Treatment. Biomedical Glasses, 2017, 3, .	2.4	1
111	Commemorative Issue in Honor of Professor MarÃa Vallet RegÃ: 20 Years of Silica-Based Mesoporous Materials. Pharmaceutics, 2022, 14, 125.	2.0	0