Carlos A GarcÃ-a-GonzÃ¡lez

List of Publications by Year
in descending order

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82 papers	4,858 citations	81839 39 h-index	95218 68 g-index
83 all docs	83 docs citations	83 times ranked	4435 citing authors

#	Article	IF	Citations
1	Combined sterilization and fabrication of drug-loaded scaffolds using supercritical CO2 technology. International Journal of Pharmaceutics, 2022, 612, 121362.	2.6	8
2	3D-Printed, Dual Crosslinked and Sterile Aerogel Scaffolds for Bone Tissue Engineering. Polymers, 2022, 14, 1211.	2.0	24
3	Supercritical CO2 sterilization: An effective treatment to reprocess FFP3 face masks and to reduce waste during COVID-19 pandemic. Science of the Total Environment, 2022, 826, 154089.	3.9	12
4	The AEROPILs Generation: Novel Poly(Ionic Liquid)-Based Aerogels for CO2 Capture. International Journal of Molecular Sciences, 2022, 23, 200.	1.8	6
5	Preparation of Vancomycin-Loaded Aerogels Implementing Inkjet Printing and Superhydrophobic Surfaces. Gels, 2022, 8, 417.	2.1	5
6	Solvent-Free Processing of Drug-Loaded Poly(Îµ-Caprolactone) Scaffolds with Tunable Macroporosity by Combination of Supercritical Foaming and Thermal Porogen Leaching. Polymers, 2021, 13, 159.	2.0	14
7	Aerogels in drug delivery: From design to application. Journal of Controlled Release, 2021, 332, 40-63.	4.8	123
8	Aerogels as porous structures for food applications: Smart ingredients and novel packaging materials. Food Structure, 2021, 28, 100188.	2.3	62
9	A Pathway From Porous Particle Technology Toward Tailoring Aerogels for Pulmonary Drug Administration. Frontiers in Bioengineering and Biotechnology, 2021, 9, 671381.	2.0	18
10	Bioaerogels: Promising Nanostructured Materials in Fluid Management, Healing and Regeneration of Wounds. Molecules, 2021, 26, 3834.	1.7	31
11	Hybrid Methacrylated Gelatin and Hyaluronic Acid Hydrogel Scaffolds. Preparation and Systematic Characterization for Prospective Tissue Engineering Applications. International Journal of Molecular Sciences, 2021, 22, 6758.	1.8	73
12	Supercritical CO2 technology for one-pot foaming and sterilization of polymeric scaffolds for bone regeneration. International Journal of Pharmaceutics, 2021, 605, 120801.	2.6	13
13	Insights on toxicity, safe handling and disposal of silica aerogels and amorphous nanoparticles. Environmental Science: Nano, 2021, 8, 1177-1195.	2.2	23
14	Physicochemical Changes in Loam Soils Amended with Bamboo Biochar and Their Influence in Tomato Production Yield. Agronomy, 2021, 11, 2052.	1.3	5
15	3D-printed alginate-hydroxyapatite aerogel scaffolds for bone tissue engineering. Materials Science and Engineering C, 2021, 131, 112525.	3.8	64
16	A new era for sterilization based on supercritical CO₂ technology. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2020, 108, 399-428.	1.6	68
17	New insights in the morphological characterization and modelling of poly(Îµ-caprolactone) bone scaffolds obtained by supercritical CO2 foaming. Journal of Supercritical Fluids, 2020, 166, 105012.	1.6	15
18	Technologies and Formulation Design of Polysaccharide-Based Hydrogels for Drug Delivery. Molecules, 2020, 25, 3156.	1.7	50

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19	Stability Studies of Starch Aerogel Formulations for Biomedical Applications. Biomacromolecules, 2020, 21, 5336-5344.	2.6	12
20	Lidocaine-Loaded Solid Lipid Microparticles (SLMPs) Produced from Gas-Saturated Solutions for Wound Applications. Pharmaceutics, 2020, 12, 870.	2.0	19
21	Modeling of the Production of Lipid Microparticles Using PGSSÂ® Technique. Molecules, 2020, 25, 4927.	1.7	11
22	Solvent-Free Approaches for the Processing of Scaffolds in Regenerative Medicine. Polymers, 2020, 12, 533.	2.0	36
23	Variability of Physical and Chemical Properties of TLUD Stove Derived Biochars. Applied Sciences (Switzerland), 2020, 10, 507.	1.3	14
24	Jet Cutting Technique for the Production of Chitosan Aerogel Microparticles Loaded with Vancomycin. Polymers, 2020, 12, 273.	2.0	43
25	The subdivision behavior of polymeric tablets. International Journal of Pharmaceutics, 2019, 568, 118554.	2.6	7
26	An Opinion Paper on Aerogels for Biomedical and Environmental Applications. Molecules, 2019, 24, 1815.	1.7	115
27	Design of Aerogels, Cryogels and Xerogels of Alginate: Effect of Molecular Weight, Gelation Conditions and Drying Method on Particlesâ€™ Micromeritics. Molecules, 2019, 24, 1049.	1.7	54
28	Sterile and Dual-Porous Aerogels Scaffolds Obtained through a Multistep Supercritical CO2-Based Approach. Molecules, 2019, 24, 871.	1.7	38
29	scCO2-foamed silk fibroin aerogel/poly(Îµ-caprolactone) scaffolds containing dexamethasone for bone regeneration. Journal of CO2 Utilization, 2019, 31, 51-64.	3.3	49
30	From the printer to the lungs: Inkjet-printed aerogel particles for pulmonary delivery. Chemical Engineering Journal, 2019, 357, 559-566.	6.6	62
31	Vancomycin-loaded chitosan aerogel particles for chronic wound applications. Carbohydrate Polymers, 2019, 204, 223-231.	5.1	136
32	Conductive nanostructured materials based on poly-(3,4-ethylenedioxythiophene) (PEDOT) and starch/Îº-carrageenan for biomedical applications. Carbohydrate Polymers, 2018, 189, 304-312.	5.1	48
33	Preparation and stability of dexamethasone-loaded polymeric scaffolds for bone regeneration processed by compressed CO2 foaming. Journal of CO2 Utilization, 2018, 24, 89-98.	3.3	33
34	Antimicrobial Properties and Osteogenicity of Vancomycin-Loaded Synthetic Scaffolds Obtained by Supercritical Foaming. ACS Applied Materials & Interfaces, 2018, 10, 3349-3360.	4.0	42
35	Chapter 16. Biomedical Applications of Polysaccharide and Protein Based Aerogels. RSC Green Chemistry, 2018, , 295-323.	0.0	13
36	Supercritical processing of starch aerogels and aerogel-loaded poly(Îµ-caprolactone) scaffolds for sustained release of ketoprofen for bone regeneration. Journal of CO2 Utilization, 2017, 18, 237-249.	3.3	80

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37	Synthetic scaffolds with full pore interconnectivity for bone regeneration prepared by supercritical foaming using advanced biofunctional plasticizers. Biofabrication, 2017, 9, 035002.	3.7	29
38	Biodegradable PCL/fibroin/hydroxyapatite porous scaffolds prepared by supercritical foaming for bone regeneration. International Journal of Pharmaceutics, 2017, 527, 115-125.	2.6	42
39	Cyclodextrins as versatile building blocks for regenerative medicine. Journal of Controlled Release, 2017, 268, 269-281.	4.8	67
40	Stimuli-responsive polymers for antimicrobial therapy: drug targeting, contact-killing surfaces and competitive release. Expert Opinion on Drug Delivery, 2016, 13, 1109-1119.	2.4	38
41	Prilling and supercritical drying: A successful duo to produce core-shell polysaccharide aerogel beads for wound healing. Carbohydrate Polymers, 2016, 147, 482-489.	5.1	84
42	Low viscosity-PLGA scaffolds by compressed CO₂foaming for growth factor delivery. RSC Advances, 2016, 6, 70510-70519.	1.7	14
43	Synthesis and biomedical applications of aerogels: Possibilities and challenges. Advances in Colloid and Interface Science, 2016, 236, 1-27.	7.0	270
44	Polyamide 6/chitosan nanofibers as support for the immobilization of Trametes versicolor laccase for the elimination of endocrine disrupting chemicals. Enzyme and Microbial Technology, 2016, 89, 31-38.	1.6	77
45	Growth factors delivery from hybrid PCL-starch scaffolds processed using supercritical fluid technology. Carbohydrate Polymers, 2016, 142, 282-292.	5.1	38
46	Patent Survey on Current Applications of Supercritical Fluid Technology in Regenerative Medicine. Recent Patents on Nanomedicine, 2015, 5, 48-58.	0.5	8
47	Processing of Materials for Regenerative Medicine Using Supercritical Fluid Technology. Bioconjugate Chemistry, 2015, 26, 1159-1171.	1.8	89
48	Polysaccharide-based aerogel microspheres for oral drug delivery. Carbohydrate Polymers, 2015, 117, 797-806.	5.1	234
49	Synthesis of an organic conductive porous material using starch aerogels as template for chronic invasive electrodes. Materials Science and Engineering C, 2014, 37, 177-183.	3.8	40
50	Use of supercritical fluid technology for the production of tailor-made aerogel particles for delivery systems. Journal of Supercritical Fluids, 2013, 79, 152-158.	1.6	110
51	Hydrothermal synthesis of highly porous carbon monoliths from carbohydrates and phloroglucinol. RSC Advances, 2013, 3, 17088.	1.7	42
52	Dried chitosan-gels as organocatalysts for the production of biomass-derived platform chemicals. Applied Catalysis A: General, 2012, 445-446, 180-186.	2.2	52
53	Preparation of novel whey protein-based aerogels as drug carriers for life science applications. Journal of Supercritical Fluids, 2012, 72, 111-119.	1.6	154
54	Design of biocompatible magnetic pectin aerogel monoliths and microspheres. RSC Advances, 2012, 2, 9816.	1.7	58

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55	Preparation of tailor-made starch-based aerogel microspheres by the emulsion-gelation method. Carbohydrate Polymers, 2012, 88, 1378-1386.	5.1	149
56	Supercritical drying of aerogels using CO2: Effect of extraction time on the end material textural properties. Journal of Supercritical Fluids, 2012, 66, 297-306.	1.6	266
57	Polysaccharide-based aerogelsâ€"Promising biodegradable carriers for drug delivery systems. Carbohydrate Polymers, 2011, 86, 1425-1438.	5.1	602
58	Characterization of new topical ketoprofen formulations prepared by drug entrapment in solid lipid matrices. Journal of Pharmaceutical Sciences, 2011, 100, 4783-4789.	1.6	12
59	Preparation of biodegradable nanoporous microspherical aerogel based on alginate. Carbohydrate Polymers, 2011, 84, 1011-1018.	5.1	148
60	Preparation of trityl cations in faujasite micropores through supercritical CO2 impregnation. Microporous and Mesoporous Materials, 2010, 132, 357-362.	2.2	10
61	A breakthrough technique for the preparation of high-yield precipitated calcium carbonate. Journal of Supercritical Fluids, 2010, 52, 298-305.	1.6	45
62	Encapsulation efficiency of solid lipid hybrid particles prepared using the PGSSÂ® technique and loaded with different polarity active agents. Journal of Supercritical Fluids, 2010, 54, 342-347.	1.6	42
63	Assessment of scCO2 techniques for surface modification of micro- and nanoparticles: Process design methodology based on solubility. Journal of Supercritical Fluids, 2010, 54, 362-368.	1.6	13
64	Towards the synthesis of Schiff base macrocycles under supercritical CO2 conditions. Chemical Communications, 2010, 46, 4315.	2.2	27
65	Preparation of Nanostructured Organicâ€"Inorganic Hybrid Materials Using Supercritical Fluid Technology. Composite Interfaces, 2009, 16, 143-155.	1.3	9
66	Solventâ€•and thermalâ€•induced crystallization of polyâ€•scp›L‹/scp›â€•lactic acid in supercritical CO‹sub›2‹/sub› medium. Journal of Applied Polymer Science, 2009, 111, 291-300.	1.3	19
67	Production of hybrid lipid-based particles loaded with inorganic nanoparticles and active compounds for prolonged topical release. International Journal of Pharmaceutics, 2009, 382, 296-304.	2.6	39
68	Impregnation of a biocompatible polymer aided by supercritical CO2: Evaluation of drug stability and drugâ€"matrix interactions. Journal of Supercritical Fluids, 2009, 48, 56-63.	1.6	65
69	Impregnation of a triphenylpyrylium cation into zeolite cavities using supercritical CO2. Journal of Supercritical Fluids, 2009, 50, 305-312.	1.6	10
70	Spectroscopic analysis of triflusal impregnated into PMMA from supercritical CO2 solution. Vibrational Spectroscopy, 2009, 49, 183-189.	1.2	12
71	Preparation of silane-coated TiO2 nanoparticles in supercritical CO2. Journal of Colloid and Interface Science, 2009, 338, 491-499.	5.0	44
72	Application of principal component analysis to the thermal characterization of silanized nanoparticles obtained at supercritical carbon dioxide conditions. Analytica Chimica Acta, 2009, 635, 227-234.	2.6	12

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73	Composite fibrous biomaterials for tissue engineering obtained using a supercritical CO2 antisolvent process. Acta Biomaterialia, 2009, 5, 1094-1103.	4.1	34
74	Interaction of bentonite with supercritically carbonated concrete. Applied Clay Science, 2009, 42, 488-496.	2.6	20
75	Preparation and Characterization of Surface Silanized TiO₂ Nanoparticles under Compressed CO₂: Reaction Kinetics. Journal of Physical Chemistry C, 2009, 113, 13780-13786.	1.5	35
76	Measurements and Correlation of Octyltriethoxysilane Solubility in Supercritical CO₂and Assembly of Functional Silane Monolayers on the Surface of Nanometric Particles. Industrial & Engineering Chemistry Research, 2009, 48, 9952-9960.	1.8	28
77	Supercritical CO2 processing of polymers for the production of materials with applications in tissue engineering and drug delivery. Journal of Materials Science, 2008, 43, 1939-1947.	1.7	38
78	Microstructural changes induced in Portland cement-based materials due to natural and supercritical carbonation. Journal of Materials Science, 2008, 43, 3101-3111.	1.7	116
79	Supercritical CO2 antisolvent precipitation of polymer networks of l-PLA, PMMA and PMMA/PCL blends for biomedical applications. European Polymer Journal, 2008, 44, 1081-1094.	2.6	37
80	New insights on the use of supercritical carbon dioxide for the accelerated carbonation of cement pastes. Journal of Supercritical Fluids, 2008, 43, 500-509.	1.6	55
81	Porosity and Water Permeability Study of Supercritically Carbonated Cement Pastes Involving Mineral Additions. Industrial & Engineering Chemistry Research, 2007, 46, 2488-2496.	1.8	30
82	Modification of Composition and Microstructure of Portland Cement Pastes as a Result of Natural and Supercritical Carbonation Procedures. Industrial & Engineering Chemistry Research, 2006, 45, 4985-4992.	1.8	63