## HermÃ-nio C De Sousa

List of Publications by Year in descending order

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127 papers

5,757 citations

42 h-index 71 g-index

130 all docs

130 docs citations

130 times ranked

6649 citing authors

#	Article	IF	CITATIONS
1	Recent advances on the development of wound dressings for diabetic foot ulcer treatmentâ€"A review. Acta Biomaterialia, 2013, 9, 7093-7114.	8.3	572
2	A detailed thermodynamic analysis of [C4mim][BF4] + water as a case study to model ionic liquid aqueous solutions. Green Chemistry, 2004, 6, 369-381.	9.0	334
3	Supercritical carbon dioxide-based technologies for the production of drug nanoparticles/nanocrystals – A comprehensive review. Advanced Drug Delivery Reviews, 2018, 131, 22-78.	13.7	173
4	Preparation and chemical and biological characterization of a pectin/chitosan polyelectrolyte complex scaffold for possible bone tissue engineering applications. International Journal of Biological Macromolecules, 2011, 48, 112-118.	7.5	166
5	Development of natural-based wound dressings impregnated with bioactive compounds and using supercritical carbon dioxide. International Journal of Pharmaceutics, 2011, 408, 9-19.	5.2	159
6	Pressure, Isotope, and Water Co-solvent Effects in Liquidâ^'Liquid Equilibria of (Ionic Liquid + Alcohol) Systems. Journal of Physical Chemistry B, 2003, 107, 12797-12807.	2.6	158
7	Effects of drug solubility, state and loading on controlled release in bicomponent electrospun fibers. International Journal of Pharmaceutics, 2010, 397, 50-58.	<b>5.</b> 2	144
8	Chitosan-based dressings loaded with neurotensin—an efficient strategy to improve early diabetic wound healing. Acta Biomaterialia, 2014, 10, 843-857.	8.3	130
9	Effect of solvent (CO2/ethanol/H2O) on the fractionated enhanced solvent extraction of anthocyanins from elderberry pomace. Journal of Supercritical Fluids, 2010, 54, 145-152.	3.2	109
10	Supercritical solvent impregnation of ophthalmic drugs on chitosan derivatives. Journal of Supercritical Fluids, 2008, 44, 245-257.	3.2	101
11	Neurotensin-loaded collagen dressings reduce inflammation and improve wound healing in diabetic mice. Biochimica Et Biophysica Acta - Molecular Basis of Disease, 2014, 1842, 32-43.	3.8	101
12	Cubic equation-of-state correlation of the solubility of some anti-inflammatory drugs in supercritical carbon dioxide. Fluid Phase Equilibria, 2006, 239, 188-199.	2.5	100
13	Supercritical fluid-assisted preparation of imprinted contact lenses for drug delivery. Acta Biomaterialia, 2011, 7, 1019-1030.	8.3	99
14	Development of therapeutic contact lenses using a supercritical solvent impregnation method. Journal of Supercritical Fluids, 2010, 52, 306-316.	3.2	97
15	Processing cherries (Prunus avium) using supercritical fluid technology. Part 1: Recovery of extract fractions rich in bioactive compounds. Journal of Supercritical Fluids, 2010, 55, 184-191.	3.2	94
16	Anti-glaucoma drug-loaded contact lenses prepared using supercritical solvent impregnation. Journal of Supercritical Fluids, 2010, 53, 165-173.	3.2	86
17	Solubility of Flurbiprofen in Supercritical Carbon Dioxide. Journal of Chemical & Engineering Data, 2004, 49, 449-452.	1.9	84
18	Impregnation of cinnamaldehyde into cassava starch biocomposite films using supercritical fluid technology for the development of food active packaging. Carbohydrate Polymers, 2014, 102, 830-837.	10.2	80

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19	Supercritical processing of starch aerogels and aerogel-loaded poly(ε-caprolactone) scaffolds for sustained release of ketoprofen for bone regeneration. Journal of CO2 Utilization, 2017, 18, 237-249.	6.8	80
20	Development of Greener Multi-Responsive Chitosan Biomaterials Doped with Biocompatible Ammonium Ionic Liquids. ACS Sustainable Chemistry and Engineering, 2013, 1, 1480-1492.	6.7	78
21	Spilanthol from Spilanthes acmella flowers, leaves and stems obtained by selective supercritical carbon dioxide extraction. Journal of Supercritical Fluids, 2012, 61, 62-70.	3.2	76
22	Effect of calcium and/or barium crosslinking on the physical and antimicrobial properties of natamycin-loaded alginate films. LWT - Food Science and Technology, 2014, 57, 494-501.	5.2	73
23	Chitosan/alginate based multilayers to control drug release from ophthalmic lens. Colloids and Surfaces B: Biointerfaces, 2016, 147, 81-89.	5.0	70
24	Wound dressings loaded with an anti-inflammatory juc $\tilde{A}_i$ (Libidibia ferrea) extract using supercritical carbon dioxide technology. Journal of Supercritical Fluids, 2013, 74, 34-45.	3.2	69
25	Double Critical Phenomena in (Water + Polyacrylamides) Solutions. Macromolecules, 2002, 35, 1887-1895.	4.8	67
26	Phosphonium-based ionic liquids as modifiers for biomedical grade poly(vinyl chloride). Acta Biomaterialia, 2012, 8, 1366-1379.	8.3	62
27	Fractioned High Pressure Extraction of Anthocyanins from Elderberry (Sambucus nigra L.) Pomace. Food and Bioprocess Technology, 2010, 3, 674-683.	4.7	61
28	Supercritical fluid impregnation of a biocompatible polymer for ophthalmic drug delivery. Journal of Supercritical Fluids, 2007, 42, 373-377.	3.2	59
29	Controlled Release of Antibiotics From Vitamin E–Loaded Silicone-Hydrogel Contact Lenses. Journal of Pharmaceutical Sciences, 2016, 105, 1164-1172.	3.3	59
30	Towards wound dressings with improved properties: Effects of poly(dimethylsiloxane) on chitosan-alginate films loaded with thymol and beta-carotene. Materials Science and Engineering C, 2018, 93, 595-605.	7.3	57
31	Preparation of glyceryl monostearate-based particles by PGSS®—Application to caffeine. Journal of Supercritical Fluids, 2007, 43, 120-125.	3.2	55
32	Surface modification of a thermoplastic polyurethane by lowâ€pressure plasma treatment to improve hydrophilicity. Journal of Applied Polymer Science, 2011, 122, 2302-2308.	2.6	54
33	Dexamethasone-loaded poly(É>-caprolactone)/silica nanoparticles composites prepared by supercritical CO2 foaming/mixing and deposition. International Journal of Pharmaceutics, 2013, 456, 269-281.	5.2	53
34	Multifactor analysis on the effect of collagen concentration, cross-linking and fiber/pore orientation on chemical, microstructural, mechanical and biological properties of collagen type I scaffolds. Materials Science and Engineering C, 2017, 77, 333-341.	7.3	53
35	Fractioned SFE of antioxidants from maritime pine bark. Journal of Supercritical Fluids, 2008, 47, 37-48.	3.2	50
36	Porous poly(ε-caprolactone) implants: A novel strategy for efficient intraocular drug delivery. Journal of Controlled Release, 2019, 316, 331-348.	9.9	50

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37	Solubility of Irgacure® 2959 photoinitiator in supercritical carbon dioxide: Experimental determination and correlation. Journal of Supercritical Fluids, 2008, 45, 272-281.	3.2	48
38	Supercritical solvent impregnation of poly(£)-caprolactone)/poly(£)-caprolactone)/poly(oxyethylene-b-oxypropylene-b-oxyethylene) and poly(£)-caprolactone)/poly(ethylene-vinyl acetate) blends for controlled release applications. Journal of Supercritical Fluids, 2008, 47, 93-102.	3.2	48
39	Novel flexible, hybrid aerogels with vinyl- and methyltrimethoxysilane in the underlying silica structure. Journal of Materials Science, 2016, 51, 6781-6792.	3.7	48
40	Antifouling foldable acrylic IOLs loaded with norfloxacin by aqueous soaking and by supercritical carbon dioxide technology. European Journal of Pharmaceutics and Biopharmaceutics, 2012, 82, 383-391.	4.3	46
41	Influence of natamycin loading methods on the physical characteristics of alginate active films. Journal of Supercritical Fluids, 2013, 76, 74-82.	3.2	46
42	Control of the properties of porous chitosan–alginate membranes through the addition of different proportions of Pluronic F68. Materials Science and Engineering C, 2014, 44, 117-125.	7.3	45
43	Effects of operational conditions on the supercritical solvent impregnation of acetazolamide in Balafilcon A commercial contact lenses. International Journal of Pharmaceutics, 2011, 420, 231-243.	5.2	43
44	Solubility of a spiroindolinonaphthoxazine photochromic dye in supercritical carbon dioxide: Experimental determination and correlation. Fluid Phase Equilibria, 2005, 238, 120-128.	2.5	41
45	Preparation and characterization of flurbiprofen-loaded poly(3-hydroxybutyrate-co-3-hydroxyvalerate) microspheres. Journal of Microencapsulation, 2008, 25, 170-178.	2.8	41
46	Experimental Determination and Correlation of Artemisinin's Solubility in Supercritical Carbon Dioxide. Journal of Chemical & Dioxide. Journal of Chemical	1.9	40
47	Surface grafting of a thermoplastic polyurethane with methacrylic acid by previous plasma surface activation and by ultraviolet irradiation to reduce cell adhesion. Colloids and Surfaces B: Biointerfaces, 2011, 82, 371-377.	5.0	40
48	A continuous polydisperse thermodynamic algorithm for a modified flory-Huggins model: The (polystyrene + nitroethane) example. Journal of Polymer Science, Part B: Polymer Physics, 2000, 38, 632-651.	2.1	38
49	Naphthoquinones from Walnut Husk Residues Show Strong Nematicidal Activities against the Root-knot Nematode <i>Meloidogyne hispanica</i> 3390-3398.	6.7	38
50	Sorption and diffusion of dense carbon dioxide in a biocompatible polymer. Journal of Supercritical Fluids, 2006, 38, 392-398.	3.2	37
51	Measurement and correlation of the solubility of juglone in supercritical carbon dioxide. Fluid Phase Equilibria, 2011, 311, 1-8.	2.5	35
52	Impregnation of an Intraocular Lens for Ophthalmic Drug Delivery. Current Drug Delivery, 2008, 5, 102-107.	1.6	34
53	Processing cherries (Prunus avium) using supercritical fluid technology. Part 2. Evaluation of SCF extracts as promising natural chemotherapeutical agents. Journal of Supercritical Fluids, 2011, 55, 1007-1013.	3.2	34
54	Antibacterial layer-by-layer coatings to control drug release from soft contact lenses material. International Journal of Pharmaceutics, 2018, 553, 186-200.	5.2	33

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55	Solubility of Dexamethasone in Supercritical Carbon Dioxide. Journal of Chemical & Engineering Data, 2012, 57, 3756-3760.	1.9	32
56	High pressure solvent extraction of maritime pine bark: Study of fractionation, solvent flow rate and solvent composition. Journal of Supercritical Fluids, 2012, 62, 135-148.	3.2	32
57	Recovery of Wine-Must Aroma Compounds by Supercritical CO2. Food and Bioprocess Technology, 2008, 1, 74-81.	4.7	30
58	Drug-eluting silicone hydrogel for therapeutic contact lenses: Impact of sterilization methods on the system performance. Colloids and Surfaces B: Biointerfaces, 2018, 161, 537-546.	5.0	30
59	In vitro and in vivo evaluation of an intraocular implant for glaucoma treatment. International Journal of Pharmaceutics, 2011, 415, 73-82.	5.2	28
60	(Liquid + liquid) equilibria of (polystyrene + nitroethane). Molecular weight, pressure, and isotope effects. Journal of Chemical Thermodynamics, 2000, 32, 355-387.	2.0	27
61	Solubility of Diflunisal in Supercritical Carbon Dioxide. Journal of Chemical & Engineering Data, 2008, 53, 1990-1995.	1.9	27
62	Solubility of norfloxacin and ofloxacin in supercritical carbon dioxide. Fluid Phase Equilibria, 2012, 331, 6-11.	2.5	27
63	Alkaloids from Chelidonium majus L.: Fractionated supercritical CO2 extraction with co-solvents. Separation and Purification Technology, 2016, 165, 199-207.	7.9	27
64	Influence of solvent additives on the aqueous extraction of tannins from pine bark: potential extracts for leather tanning. Journal of Chemical Technology and Biotechnology, 2018, 93, 1169-1182.	3.2	27
65	Therapeutic Ophthalmic Lenses: A Review. Pharmaceutics, 2021, 13, 36.	4.5	27
66	Solubility of Acetazolamide in Supercritical Carbon Dioxide in the Presence of Ethanol as a Cosolvent. Journal of Chemical & Samp; Engineering Data, 2005, 50, 216-220.	1.9	25
67	Biodiesel obtained from supercritical carbon dioxide oil of Cynara cardunculus L Journal of Supercritical Fluids, 2012, 68, 52-63.	3.2	25
68	Copaiba oil-loaded commercial wound dressings using supercritical CO 2: A potential alternative topical antileishmanial treatment. Journal of Supercritical Fluids, 2017, 129, 106-115.	3.2	25
69	Moxifloxacin-imprinted silicone-based hydrogels as contact lens materials for extended drug release. European Journal of Pharmaceutical Sciences, 2021, 156, 105591.	4.0	25
70	Improved drug loading/release capacities of commercial contact lenses obtained by supercritical fluid assisted molecular imprinting methods. Journal of Controlled Release, 2010, 148, e102-e104.	9.9	24
71	Supercritical solvent impregnation/deposition of spilanthol-enriched extracts into a commercial collagen/cellulose-based wound dressing. Journal of Supercritical Fluids, 2018, 133, 503-511.	3.2	24
72	Diclofenac sustained release from sterilised soft contact lens materials using an optimised layer-by-layer coating. International Journal of Pharmaceutics, 2020, 585, 119506.	5.2	24

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73	Hydrogels for diabetic eyes: Naltrexone loading, release profiles and cornea penetration. Materials Science and Engineering C, 2019, 105, 110092.	7.3	23
74	Supercritical fluid extraction as a suitable technology to recover bioactive compounds from flowers. Journal of Supercritical Fluids, 2022, 188, 105652.	3.2	23
<b>7</b> 5	Influence of polymer processing technique on long term degradation of poly(ε-caprolactone) constructs. Polymer Degradation and Stability, 2013, 98, 44-51.	5.8	22
76	Semi-interpenetrating chitosan/ionic liquid polymer networks as electro-responsive biomaterials for potential wound dressings and iontophoretic applications. Materials Science and Engineering C, 2021, 121, 111798.	7.3	22
77	Toxicity of the bionematicide 1,4-naphthoquinone on non-target soil organisms. Chemosphere, 2017, 181, 579-588.	8.2	21
78	Imprinted hydrogels with LbL coating for dual drug release from soft contact lenses materials. Materials Science and Engineering C, 2021, 120, 111687.	7.3	21
79	Resveratrol-Loaded Hydrogel Contact Lenses with Antioxidant and Antibiofilm Performance. Pharmaceutics, 2021, 13, 532.	4.5	21
80	Stability of triglyceride liquid films on hydrophilic and hydrophobic glasses. Journal of Colloid and Interface Science, 2006, 299, 274-282.	9.4	20
81	A poly( $\hat{l}\mu$ -caprolactone) device for sustained release of an anti-glaucoma drug. Biomedical Materials (Bristol), 2011, 6, 025003.	3.3	20
82	Statistical mixture design investigation of CO2–Ethanol–H2O pressurized solvent extractions from tara seed coat. Journal of Supercritical Fluids, 2012, 64, 9-18.	3.2	20
83	Effects of supercritical carbon dioxide processing on the properties of chitosan–alginate membranes. Journal of Supercritical Fluids, 2016, 112, 128-135.	3.2	20
84	Atorvastatin-Eluting Contact Lenses: Effects of Molecular Imprinting and Sterilization on Drug Loading and Release. Pharmaceutics, 2021, 13, 606.	4.5	20
85	Intraocular lenses as drug delivery devices. International Journal of Pharmaceutics, 2021, 602, 120613.	5.2	19
86	Experimental determination and correlation of meloxicam sodium salt solubility in supercritical carbon dioxide. Journal of Supercritical Fluids, 2012, 63, 40-45.	3.2	18
87	Two-step high pressure solvent extraction of walnut (Juglans regia L.) husks: scCO2 + CO2/ethanol/H2O. Journal of CO2 Utilization, 2019, 34, 375-385.	6.8	17
88	Moisture Absorption in Ionic Liquid Films. Journal of Physical Chemistry C, 2013, 117, 10454-10463.	3.1	16
89	High Hydrostatic Pressure as Sterilization Method for Drug-Loaded Intraocular Lenses. ACS Biomaterials Science and Engineering, 2020, 6, 4051-4061.	5.2	16
90	Characterization of iron(III) oxide/hydroxide nanostructured materials produced by sol–gel technology based on the Fe(NO3)3·9H2O–C2H5OH–CH3CHCH2O system. Materials Chemistry and Physics, 2011, 130, 548-560.	4.0	15

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91	Solubility of all-trans retinoic acid in supercritical carbon dioxide. Journal of Supercritical Fluids, 2015, 98, 70-78.	3.2	15
92	Improving cell adhesion: development of a biosensor for cell behaviour monitoring by surface grafting of sulfonic groups onto a thermoplastic polyurethane. Journal of Materials Science: Materials in Medicine, 2014, 25, 2017-2026.	3.6	14
93	Measurement and Correlation of 1,4-Naphthoquinone and of Plumbagin Solubilities in Supercritical Carbon Dioxide. Journal of Chemical & Engineering Data, 2011, 56, 4173-4182.	1.9	13
94	Temperature and density effects of the scCO2extraction of spilanthol from Spilanthes acmella flowers. Journal of Supercritical Fluids, 2017, 121, 32-40.	3.2	13
95	Supercritical solvent impregnation of natural bioactive compounds in N -carboxybutyl chitosan membranes for the development of topical wound healing applications. Journal of Controlled Release, 2010, 148, e33-e35.	9.9	10
96	Synthesis and Characterization of Co-polymers Based on Methyl Methacrylate and 2-Hexyl Acrylate Containing Naphthopyrans for a Light-Sensitive Contact Lens. Journal of Biomaterials Science, Polymer Edition, 2011, 22, 139-152.	3.5	10
97	Surface grafting of carboxylic groups onto thermoplastic polyurethanes to reduce cell adhesion. Applied Surface Science, 2013, 283, 744-750.	6.1	10
98	Osteogenic poly(ϵ-caprolactone)/poloxamine homogeneous blends prepared by supercritical foaming. International Journal of Pharmaceutics, 2015, 479, 11-22.	5.2	10
99	Sustainable Electro-Responsive Semi-Interpenetrating Starch/Ionic Liquid Copolymer Networks for the Controlled Sorption/Release of Biomolecules. ACS Sustainable Chemistry and Engineering, 2019, 7, 10516-10532.	6.7	10
100	Greening perfluorocarbon based nanoemulsions by direct membrane emulsification: Comparative studies with ultrasound emulsification. Journal of Cleaner Production, 2022, 357, 131966.	9.3	10
101	Hypercritically enhanced distortion of a phase diagram: The (polystyrene + acetaldehyde) system. Journal of Polymer Science, Part B: Polymer Physics, 1997, 35, 631-637.	2.1	9
102	Effect of scCO2 sorption capacity on the total amount of borage oil loaded by scCO2 impregnation/deposition into a polyurethane-based wound dressing. Journal of Supercritical Fluids, 2016, 115, 1-9.	3.2	9
103	Drug-Loaded Hydrogels for Intraocular Lenses with Prophylactic Action against Pseudophakic Cystoid Macular Edema. Pharmaceutics, 2021, 13, 976.	4.5	9
104	Surface modification of thermoplastic polyurethane in order to enhance reactivity and avoid cell adhesion. Colloid and Polymer Science, 2009, 287, 1469-1474.	2.1	8
105	Electrospun Drug-Eluting Fibers for Biomedical Applications. Studies in Mechanobiology, Tissue Engineering and Biomaterials, 2011, , 57-85.	1.0	8
106	Effects of Two Phosphonium-Type Ionic Liquids on the Rheological and Thermomechanical Properties of Emulsion Poly(vinyl chloride)-Based Formulations Plasticized with DINP and CITROFOL. Industrial & Engineering Chemistry Research, 2014, 53, 16061-16071.	3.7	8
107	Impact of the pinewood nematode on naturally-emitted volatiles and scCO2 extracts from Pinus pinaster branches: a comparison with P. pinea. Journal of Supercritical Fluids, 2020, 159, 104784.	3.2	8
108	The effects of addition of functional monomers and molecular imprinting on dual drug release from intraocular lens material. International Journal of Pharmaceutics, 2021, 600, 120513.	5.2	8

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109	Intraocular implants loaded with A3R agonist rescue retinal ganglion cells from ischemic damage. Journal of Controlled Release, 2022, 343, 469-481.	9.9	8
110	Sequential scCO2 drying and sterilisation of alginate-gelatine aerogels for biomedical applications. Journal of Supercritical Fluids, 2022, 184, 105570.	3.2	8
111	Thermal Stability and Non-isothermal Kinetic Analysis of Suspension Poly(vinyl chloride) Films Formulated with Phosphonium-Based Ionic Liquids. Industrial & Engineering Chemistry Research, 2019, 58, 8525-8535.	3.7	7
112	Studies on the formation and stability of perfluorodecalin nanoemulsions by ultrasound emulsification using novel surfactant systems. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2021, 616, 126315.	4.7	7
113	Eco-friendlier and sustainable natural-based additives for poly(vinyl chloride)-based composites. Journal of Industrial and Engineering Chemistry, 2022, 110, 248-261.	5.8	7
114	Juglone and 1,4-Naphthoquinoneâ€"Promising Nematicides for Sustainable Control of the Root Knot Nematode Meloidogyne luci. Frontiers in Plant Science, 2022, 13, .	3.6	7
115	Adsorbent Derived from <i>Pinus pinaster </i> Io	1.7	6
116	Phosphonium ionic liquids as greener electrolytes for poly(vinyl chloride)-based ionic conducting polymers. RSC Advances, 2016, 6, 88979-88990.	3.6	6
117	Moxifloxacin imprinted silicon based hydrogels for sustained ocular release. Annals of Medicine, 2024, 51, 103-103.	3.8	6
118	Effect of mold assemblies-induced interfaces in the mechanical actuation of electro-responsive ionic liquid-based polycationic hydrogels. Applied Materials Today, 2020, 20, 100711.	4.3	6
119	Effects of Poly(vinyl chloride) Morphological Properties on the Rheology/Aging of Plastisols and on the Thermal/Leaching Properties of Films Formulated Using Nonconventional Plasticizers. Industrial & Engineering Chemistry Research, 2018, 57, 1454-1467.	3.7	5
120	Environmentally-safe scCO2 P. pinaster branches extracts: Composition and properties. Journal of CO2 Utilization, 2020, 37, 74-84.	6.8	4
121	Using High-Pressure Technology to Develop Antioxidant-Rich Extracts from Bravo de Esmolfe Apple Residues. Antioxidants, 2021, 10, 1469.	5.1	4
122	Evaluation of the Microbiological Effectiveness of Three Accessible Mask Decontamination Methods and Their Impact on Filtration, Air Permeability and Physicochemical Properties. International Journal of Environmental Research and Public Health, 2022, 19, 6567.	2.6	2
123	Hypercritically enhanced distortion of a phase diagram: The (polystyrene + acetaldehyde) system. Journal of Polymer Science, Part B: Polymer Physics, 1997, 35, 631-637.	2.1	1
124	Biomateriais aplicados ao desenvolvimento de sistemas terapêuticos avançados. , 2015, , .		1
125	Diclofenac sustained release using an LbL coated silicon based hydrogel. Annals of Medicine, 2024, 51, 104-104.	3.8	0
126	Desenvolvimento de aplicações farmacêuticas e biomédicas através de métodos de impregnação/deposição com fluidos supercrÃŧicos., 0,, 309-383.		0

#	Article	IF	CITATIONS
127	Extração de fitoquÃmicos com fluidos pressurizados/supercrÃticos e impregnação destes em biomateriais. , 0, , 555-597.		O