Montserrat Colilla

List of Publications by Year
in descending order

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71 papers	5,887 citations	70961 41 h-index	95083 68 g-index
74 all docs	74 docs citations	74 times ranked	6944 citing authors

#	Article	IF	Citations
1	Biopolymerâ^'Clay Nanocomposites Based on Chitosan Intercalated in Montmorillonite. Chemistry of Materials, 2003, 15, 3774-3780.	3.2	612
2	Studies on MCM-41 mesoporous silica for drug delivery: Effect of particle morphology and amine functionalization. Chemical Engineering Journal, 2008, 137, 30-37.	6.6	381
3	Medical applications of organicâ€"inorganic hybrid materials within the field of silica-based bioceramics. Chemical Society Reviews, 2011, 40, 596-607.	18.7	352
4	Mesoporous Silica Nanoparticles for Drug Delivery: Current Insights. Molecules, 2018, 23, 47.	1.7	338
5	Chitosanâ€"clay nanocomposites: application as electrochemical sensors. Applied Clay Science, 2005, 28, 199-208.	2.6	261
6	Advances in mesoporous silica nanoparticles for targeted stimuli-responsive drug delivery. Expert Opinion on Drug Delivery, 2015, 12, 319-337.	2.4	230
7	Mesoporous silicananoparticles for the design of smart delivery nanodevices. Biomaterials Science, 2013, 1, 114-134.	2.6	224
8	Drug delivery from ordered mesoporous matrices. Expert Opinion on Drug Delivery, 2009, 6, 1383-1400.	2.4	164
9	Lectin-conjugated pH-responsive mesoporous silica nanoparticles for targeted bone cancer treatment. Acta Biomaterialia, 2018, 65, 393-404.	4.1	161
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	Advances in mesoporous silica-based nanocarriers for co-delivery and combination therapy against cancer. Expert Opinion on Drug Delivery, 2017, 14, 229-243.	2.4	152
12	Engineering mesoporous silica nanoparticles for drug delivery: where are we after two decades?. Chemical Society Reviews, 2022, 51, 5365-5451.	18.7	138
13	Bone-regenerative bioceramic implants with drug and protein controlled delivery capability. Progress in Solid State Chemistry, 2008, 36, 163-191.	3.9	129
14	Functionalization degree of SBA-15 as key factor to modulate sodium alendronate dosage. Microporous and Mesoporous Materials, 2008, 116, 4-13.	2.2	120
15	Synthesis and Characterization of Zwitterionic SBA-15 Nanostructured Materials. Chemistry of Materials, 2010, 22, 6459-6466.	3.2	94
16	Preparation of 3-D scaffolds in the SiO2â€"P2O5 system with tailored hierarchical meso-macroporosity. Acta Biomaterialia, 2011, 7, 1265-1273.	4.1	94
17	Mesoporous silica nanoparticles decorated with polycationic dendrimers for infection treatment. Acta Biomaterialia, 2018, 68, 261-271.	4.1	92
18	Surface Electrochemistry of Mesoporous Silicas as a Key Factor in the Design of Tailored Delivery Devices. Langmuir, 2010, 26, 5038-5049.	1.6	90

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19	Recent advances in ceramic implants as drug delivery systems for biomedical applications. International Journal of Nanomedicine, 2008, 3, 403.	3.3	89
20	Recent advances in mesoporous silica nanoparticles for antitumor therapy: our contribution. Biomaterials Science, 2016, 4, 803-813.	2.6	87
21	Tuning mesoporous silica dissolution in physiological environments: a review. Journal of Materials Science, 2017, 52, 8761-8771.	1.7	87
22	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
23	L-Trp adsorption into silica mesoporous materials to promote bone formation. Acta Biomaterialia, 2008, 4, 514-522.	4.1	84
24	Novel Method To Enlarge the Surface Area of SBA-15. Chemistry of Materials, 2007, 19, 3099-3101.	3.2	83
25	Smart Mesoporous Nanomaterials for Antitumor Therapy. Nanomaterials, 2015, 5, 1906-1937.	1.9	79
26	In vitro stability of SBA-15 under physiological conditions. Microporous and Mesoporous Materials, 2010, 132, 442-452.	2.2	73
27	A novel visible light responsive nanosystem for cancer treatment. Nanoscale, 2017, 9, 15967-15973.	2.8	72
28	Bioceramics and pharmaceuticals: A remarkable synergy. Solid State Sciences, 2007, 9, 768-776.	1.5	69
29	Nanostructured Mesoporous Silicas for Bone Tissue Regeneration. Journal of Nanomaterials, 2008, 2008, 1-14.	1.5	64
30	Drug Confinement and Delivery in Ceramic Implants. Drug Metabolism Letters, 2007, 1, 37-40.	0.5	63
31	A novel synthetic strategy for covalently bonding dendrimers to ordered mesoporous silica: potential drug delivery applications. Journal of Materials Chemistry, 2009, 19, 9012.	6.7	63
32	Mixed-charge pseudo-zwitterionic mesoporous silica nanoparticles with low-fouling and reduced cell uptake properties. Acta Biomaterialia, 2019, 84, 317-327.	4.1	63
33	Inhibition of bacterial adhesion on biocompatible zwitterionic SBA-15 mesoporous materials. Acta Biomaterialia, 2011, 7, 2977-2985.	4.1	62
34	Targeted Stimuli-Responsive Mesoporous Silica Nanoparticles for Bacterial Infection Treatment. International Journal of Molecular Sciences, 2020, 21, 8605.	1.8	58
35	Aminoâ^'Polysiloxane Hybrid Materials for Bone Reconstruction. Chemistry of Materials, 2006, 18, 5676-5683.	3.2	56
36	Concanavalin A-targeted mesoporous silica nanoparticles for infection treatment. Acta Biomaterialia, 2019, 96, 547-556.	4.1	55

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37	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
38	Influence of surface porosity and pH on bacterial adherence to hydroxyapatite and biphasic calcium phosphate bioceramics. Journal of Medical Microbiology, 2009, 58, 132-137.	0.7	53
39	A novel zwitterionic bioceramic with dual antibacterial capability. Journal of Materials Chemistry B, 2014, 2, 5639-5651.	2.9	51
40	Zwitterionic ceramics for biomedical applications. Acta Biomaterialia, 2016, 40, 201-211.	4.1	51
41	Selective topotecan delivery to cancer cells by targeted pH-sensitive mesoporous silica nanoparticles. RSC Advances, 2016, 6, 50923-50932.	1.7	46
42	Novel biomaterials for drug delivery. Expert Opinion on Therapeutic Patents, 2008, 18, 639-656.	2.4	42
43	Amine-Functionalized Mesoporous Silica Nanoparticles: A New Nanoantibiotic for Bone Infection Treatment. Biomedical Glasses, 2018, 4, 1-12.	2.4	42
44	Design and preparation of biocompatible zwitterionic hydroxyapatite. Journal of Materials Chemistry B, 2013, 1, 1595.	2.9	40
45	Phosphorus-containing SBA-15 materials as bisphosphonate carriers for osteoporosis treatment. Microporous and Mesoporous Materials, 2010, 135, 51-59.	2.2	35
46	Zinc oxide nanocrystals as a nanoantibiotic and osteoinductive agent. RSC Advances, 2019, 9, 11312-11321.	1.7	34
47	Time-Delayed Release of Bioencapsulates: A Novel Controlled Delivery Concept for Bone Implant Technologies. Chemistry of Materials, 2008, 20, 4826-4834.	3.2	32
48	Application of a Carbon Paste Electrode Modified with a Schiff Base Ligand to Mercury Speciation in Water. Electroanalysis, 2005, 17, 933-940.	1.5	26
49	Amino-polysiloxane hybrid materials as carbon composite electrodes for potentiometric detection of anions. Journal of Materials Chemistry, 2005, 15, 3844.	6.7	26
50	The Role of Zwitterionic Materials in the Fight against Proteins and Bacteria. Medicines (Basel,) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 22	0.7	24
51	Novel method to synthesize ordered mesoporous silica with high surface areas. Solid State Sciences, 2008, 10, 408-415.	1.5	23
52	Amperometric Sensors Based on Mercaptopyridineâ^'Montmorillonite Intercalation Compounds. Chemistry of Materials, 2005, 17, 708-715.	3.2	20
53	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
54	Multisensor device based on Case-Based Reasoning (CBR) for monitoring nutrient solutions in fertigation. Sensors and Actuators B: Chemical, 2009, 135, 530-536.	4.0	19

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55	High resolution transmission electron microscopy: A key tool to understand drug release from mesoporous matrices. Microporous and Mesoporous Materials, 2016, 225, 399-410.	2.2	19
56	Superparamagnetic Iron Oxide Nanoparticles Decorated Mesoporous Silica Nanosystem for Combined Antibiofilm Therapy. Pharmaceutics, 2022, 14, 163.	2.0	19
57	Case-based reasoning (CBR) for multicomponent analysis using sensor arrays: Application to water quality evaluation. Analyst, The, 2002, 127, 1580-1582.	1.7	17
58	Hybrid materials based on lichenâ€“polysiloxane matrices: application as electrochemical sensors. Journal of Materials Chemistry, 2002, 12, 3660-3664.	6.7	16
59	Silica-Based Ordered Mesoporous Materials for Biomedical Applications. Key Engineering Materials, 2008, 377, 133-150.	0.4	14
60	A versatile multicomponent mesoporous silica nanosystem with dual antimicrobial and osteogenic effects. Acta Biomaterialia, 2021, 136, 570-581.	4.1	13
61	Nanoantibiotics Based in Mesoporous Silica Nanoparticles: New Formulations for Bacterial Infection Treatment. Pharmaceutics, 2021, 13, 2033.	2.0	11
62	4.35 Ordered Mesoporous Silica Materials â˜†. , 2017, , 644-685.		9
63	Design of Inâ€…Vitro Bioactive Hybrid Materials from the First Generation of Amine Dendrimers as Nanobuilding Blocks. Chemistry - A European Journal, 2013, 19, 4883-4895.	1.7	7
64	Drug Delivery and Bone Infection. The Enzymes, 2018, 44, 35-59.	0.7	7
65	Smart Drug Delivery from Silica Nanoparticles. RSC Smart Materials, 2013, , 63-89.	0.1	7
66	Novel insights into mesoporous ordered delivery systems for biotechnological applications. Studies in Surface Science and Catalysis, 2008, 174, 13-20.	1.5	5
67	Silacrown modified xerogels as functional hybrid materials for carbon composite electrodes. Comptes Rendus Chimie, 2010, 13, 227-236.	0.2	5
68	Ordered Mesoporous Silica Materials. , 2011, , 497-514.		5
69	Dendritic Macromolecules: New Possibilities for Advanced Bioceramics. Key Engineering Materials, 2010, 441, 235-267.	0.4	2
70	Amine-Functionalized Mesoporous Silica Nanoparticles: A New Nanoantibiotic for Bone Infection Treatment. Biomedical Glasses, 2017, 3, .	2.4	1
71	Commemorative Issue in Honor of Professor MarÃa Vallet RegÃ: 20 Years of Silica-Based Mesoporous Materials. Pharmaceutics, 2022, 14, 125.	2.0	0