Sabino Veintemillas-Verdaguer

List of Publications by Year
in descending order

113 papers	7,444 citations	76326 40 h-index	53230 85 g-index
118 all docs	118 docs citations	118 times ranked	9716 citing authors

#	Article	IF	Citations
1	Unravelling an amine-regulated crystallization crossover to prove single/multicore effects on the biomedical and environmental catalytic activity of magnetic iron oxide colloids. Journal of Colloid and Interface Science, 2022, 608, 1585-1597.	9.4	16
2	Temperature dependence of the magnetic interactions taking place in monodisperse magnetite nanoparticles having different morphologies. AIP Advances, 2021, 11, .	1.3	3
3	Whither Magnetic Hyperthermia? A Tentative Roadmap. Materials, 2021, 14, 706.	2.9	76
4	Engineering Iron Oxide Nanocatalysts by a Microwave-Assisted Polyol Method for the Magnetically Induced Degradation of Organic Pollutants. Nanomaterials, 2021, 11, 1052.	4.1	17
5	Reproducibility and Scalability of Magnetic Nanoheater Synthesis. Nanomaterials, 2021, 11, 2059.	4.1	6
6	Selective Magnetic Nanoheating: Combining Iron Oxide Nanoparticles for Multi-Hot-Spot Induction and Sequential Regulation. Nano Letters, 2021, 21, 7213-7220.	9.1	34
7	Continuous production of magnetic iron oxide nanocrystals by oxidative precipitation. Chemical Engineering Journal, 2020, 393, 124593.	12.7	29
8	Cu-Doped Extremely Small Iron Oxide Nanoparticles with Large Longitudinal Relaxivity: One-Pot Synthesis and in Vivo Targeted Molecular Imaging. ACS Omega, 2019, 4, 2719-2727.	3.5	35
9	Doped-Iron Oxide Nanocrystals Synthesized by One-Step Aqueous Route for Multi-Imaging Purposes. Journal of Physical Chemistry C, 2019, 123, 7356-7365.	3.1	9
10	Slow magnetic relaxation in well crystallized, monodispersed, octahedral and spherical magnetite nanoparticles. AIP Advances, 2019, 9, 125143.	1.3	2
11	Design strategies for shape-controlled magnetic iron oxide nanoparticles. Advanced Drug Delivery Reviews, 2019, 138, 68-104.	13.7	217
12	Improving the reliability of the iron concentration quantification for iron oxide nanoparticle suspensions: a two-institutions study. Analytical and Bioanalytical Chemistry, 2019, 411, 1895-1903.	3.7	22
13	Combined Influence of Reagent Concentrations and Agar Hydrogel Strength on the Formation of Biomimetic Hydrogelâ€“Calcite Composites. Crystal Growth and Design, 2018, 18, 1401-1414.	3.0	25
14	Hydrothermal alteration of aragonitic biocarbonates: assessment of micro- and nanostructural dissolutionâ€“reprecipitation and constraints of diagenetic overprint from quantitative statistical grain-area analysis. Biogeosciences, 2018, 15, 7451-7484.	3.3	16
15	Biomineral Reactivity: The Kinetics of the Replacement Reaction of Biological Aragonite to Apatite. Minerals (Basel, Switzerland), 2018, 8, 315.	2.0	6
16	PEG-copolymer-coated iron oxide nanoparticles that avoid the reticuloendothelial system and act as kidney MRI contrast agents. Nanoscale, 2018, 10, 14153-14164.	5.6	59
17	Effect of the Sodium Polyacrylate on the Magnetite Nanoparticles Produced by Green Chemistry Routes: Applicability in Forward Osmosis. Nanomaterials, 2018, 8, 470.	4.1	11
18	Conversion of biogenic aragonite into hydroxyapatite scaffolds in boiling solutions. CrystEngComm, 2017, 19, 110-116.	2.6	15

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19	SAXS analysis of single- and multi-core iron oxide magnetic nanoparticles. Journal of Applied Crystallography, 2017, 50, 481-488.	4.5	36
20	Formation Mechanism of Maghemite Nanoflowers Synthesized by a Polyol-Mediated Process. ACS Omega, 2017, 2, 7172-7184.	3.5	82
21	Colloidal Flowerâ€Shaped Iron Oxide Nanoparticles: Synthesis Strategies and Coatings. Particle and Particle Systems Characterization, 2017, 34, 1700094.	2.3	71
22	Key Parameters on the Microwave Assisted Synthesis of Magnetic Nanoparticles for MRI Contrast Agents. Contrast Media and Molecular Imaging, 2017, 2017, 1-13.	0.8	26
23	Counterion and solvent effects on the size of magnetite nanocrystals obtained by oxidative precipitation. Journal of Materials Chemistry C, 2016, 4, 9482-9488.	5.5	19
24	Detailed magnetic monitoring of the enhanced magnetism of ferrihydrite along its progressive transformation into hematite. Journal of Geophysical Research: Solid Earth, 2016, 121, 4118-4129.	3.4	14
25	Degradation of magnetic nanoparticles mimicking lysosomal conditions followed by AC susceptibility. Biomedizinische Technik, 2015, 60, 417-25.	0.8	41
26	Improving magnetic properties of ultrasmall magnetic nanoparticles by biocompatible coatings. Journal of Applied Physics, 2015, 117, 064311.	2.5	17
27	Synthesis methods to prepare single- and multi-core iron oxide nanoparticles for biomedical applications. Dalton Transactions, 2015, 44, 2943-2952.	3.3	96
28	Particle Interactions in Liquid Magnetic Colloids by Zero Field Cooled Measurements: Effects on Heating Efficiency. Journal of Physical Chemistry C, 2015, 119, 11022-11030.	3.1	49
29	Bismuth labeling for the CT assessment of local administration of magnetic nanoparticles. Nanotechnology, 2015, 26, 135101.	2.6	17
30	Effects of phase transfer ligands on monodisperse iron oxide magnetic nanoparticles. Journal of Colloid and Interface Science, 2015, 437, 147-155.	9.4	66
31	Enantioselective Crystallization of Sodium Chlorate in the Presence of Racemic Hydrophobic Amino Acids and Static Magnetic Fields. Challenges, 2014, 5, 175-192.	1.7	2
32	Magnetic nanocrystals for biomedical applications. Progress in Crystal Growth and Characterization of Materials, 2014, 60, 80-86.	4.0	11
33	Structural determination of Bi-doped magnetite multifunctional nanoparticles for contrast imaging. Physical Chemistry Chemical Physics, 2014, 16, 18301.	2.8	15
34	Size sorting of ultrasmall magnetic nanoparticles and their aggregates behaviour. Materials Research Bulletin, 2013, 48, 4294-4300.	5.2	10
35	Relationship between physico-chemical properties of magnetic fluids and their heating capacity. International Journal of Hyperthermia, 2013, 29, 768-776.	2.5	53
36	Biodistribution and pharmacokinetics of uniform magnetite nanoparticles chemically modified with polyethylene glycol. Nanoscale, 2013, 5, 11400.	5.6	97

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37	Large scale production of biocompatible magnetite nanocrystals with high saturation magnetization values through green aqueous synthesis. Journal of Materials Chemistry B, 2013, 1, 5995.	5.8	51
38	Short-chain PEG molecules strongly bound to magnetic nanoparticle for MRI long circulating agents. Acta Biomaterialia, 2013, 9, 6421-6430.	8.3	79
39	Bulk metastable cobalt in fcc crystal structure. Journal of Alloys and Compounds, 2013, 580, 187-190.	5.5	39
40	Achiralâ€toâ€Chiral Transition in Benzil Solidification: Analogies with Racemic Conglomerates Systems Showing Deracemization. Chirality, 2013, 25, 393-399.	2.6	10
41	On the effect of carbonate on barite growth at elevated temperatures. American Mineralogist, 2013, 98, 1235-1240.	1.9	6
42	The Viedma Deracemization of Racemic Conglomerate Mixtures as a Paradigm of Spontaneous Mirror Symmetry Breaking in Aggregation and Polymerization. ChemPhysChem, 2013, 14, 3982-3993.	2.1	35
43	Fighting cancer with magnetic nanoparticles and immunotherapy. , 2012, , .		3
44	Ultrasmall Iron Oxide Nanoparticles for Biomedical Applications: Improving the Colloidal and Magnetic Properties. Langmuir, 2012, 28, 178-185.	3.5	88
45	Core/Shell Magnetite/Bismuth Oxide Nanocrystals with Tunable Size, Colloidal, and Magnetic Properties. Chemistry of Materials, 2012, 24, 319-324.	6.7	25
46	Magnetic Capsules for NMR Imaging: Effect of Magnetic Nanoparticles Spatial Distribution and Aggregation. Journal of Physical Chemistry C, 2011, 115, 6257-6264.	3.1	83
47	Ac magnetic susceptibility study of in vivo nanoparticle biodistribution. Journal Physics D: Applied Physics, 2011, 44, 255002.	2.8	40
48	One step production of magnetic nanoparticle films by laser pyrolysis inside a chemical vapour deposition reactor. Thin Solid Films, 2011, 519, 7677-7682.	1.8	5
49	The Iron Oxides Strike Back: From Biomedical Applications to Energy Storage Devices and Photoelectrochemical Water Splitting. Advanced Materials, 2011, 23, 5243-5249.	21.0	211
50	Metastability in Supersaturated Solution and Transition towards Chirality in the Crystallization of NaClO₃. Angewandte Chemie - International Edition, 2011, 50, 2359-2363.	13.8	49
51	Iron Oxide Materials Produced by Laser Pyrolysis. AIP Conference Proceedings, 2010, , .	0.4	3
52	Reproducibility of the Synthesis of Iron Oxide Nanoparticles Produced by Laser Pyrolysis. , 2010, , .		2
53	The endocytic penetration mechanism of iron oxide magnetic nanoparticles with positively charged cover: A morphological approach. International Journal of Molecular Medicine, 2010, 26, 533-9.	4.0	20
54	Modeling of the laser pyrolysis process by means of the aerosol theory: Case of iron nanoparticles. Journal of Applied Physics, 2010, 107, 014906.	2.5	11

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55	Liver and brain imaging through dimercaptosuccinic acid-coated iron oxide nanoparticles. Nanomedicine, 2010, 5, 397-408.	3.3	64
56	Synthesis of Pyrimidines and Triazines in Ice: Implications for the Prebiotic Chemistry of Nucleobases. Chemistry - A European Journal, 2009, 15, 4411-4418.	3.3	83
57	Thermal Wet Decomposition of Prussian Blue: Implications for Prebiotic Chemistry. Chemistry and Biodiversity, 2009, 6, 1309-1322.	2.1	27
58	CH4/N2/H2-spark hydrophobic tholins: A systematic approach to the characterisation of tholins. Part II. Icarus, 2009, 204, 672-680.	2.5	30
59	Progress in the preparation of magnetic nanoparticles for applications in biomedicine. Journal Physics D: Applied Physics, 2009, 42, 224002.	2.8	342
60	The influence of surface functionalization on the enhanced internalization of magnetic nanoparticles in cancer cells. Nanotechnology, 2009, 20, 115103.	2.6	299
61	Spontaneous Transition toward Chirality in the NaClO₃ Crystallization in Boiling Solutions. Crystal Growth and Design, 2009, 9, 4802-4806.	3.0	43
62	Effect of Nanoparticle and Aggregate Size on the Relaxometric Properties of MR Contrast Agents Based on High Quality Magnetite Nanoparticles. Journal of Physical Chemistry B, 2009, 113, 7033-7039.	2.6	131
63	Size Dependent Allotropic Transition of Co Fine Particles. Journal of Nanoscience and Nanotechnology, 2009, 9, 4472-4477.	0.9	5
64	Total-reflection X-ray fluorescence: An alternative tool for the analysis of magnetic ferrofluids. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2008, 63, 1387-1394.	2.9	20
65	Synthesis of Polycyclic Aromatic Hydrocarbons and Acetylene Polymers in Ice: A Prebiotic Scenario. Chemistry and Biodiversity, 2008, 5, 2729-2739.	2.1	17
66	CH4/N2/H2 spark hydrophilic tholins: A systematic approach to the characterization of tholins. Icarus, 2008, 198, 232-241.	2.5	27
67	Cytokine adsorption/release on uniform magnetic nanoparticles for localized drug delivery. Journal of Controlled Release, 2008, 130, 168-174.	9.9	38
68	Calorimetric Study of Maghemite Nanoparticles Synthesized by Laser-Induced Pyrolysis. Chemistry of Materials, 2008, 20, 591-598.	6.7	94
69	Asymmetric Chiral Growth of Micron-Size<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mi>NaClO</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:math>Crystals in Water Aerosols. Physical Review Letters, 2008, 100, 146102.	7.8	19
70	Behavior of TiO₂ Thin Film in a Nanocapacitor. Journal of Nanoscience and Nanotechnology, 2008, 8, 1234-1237.	0.9	1
71	Comments on a Possible Transition to Solidâ€Phase Homochirality. Chemistry - A European Journal, 2007, 13, 10303-10305.	3.3	14
72	Comparative analysis of the 1H NMR relaxation enhancement produced by iron oxide and core-shell ironâ€“iron oxide nanoparticles. Magnetic Resonance Imaging, 2007, 25, 1437-1441.	1.8	32

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73	Continuous production of water dispersible carbonâ€“iron nanocomposites by laser pyrolysis: Application as MRI contrasts. Journal of Colloid and Interface Science, 2007, 313, 511-518.	9.4	31
74	The effect of stirring on sodium chlorate crystallization under symmetry breaking conditions. Journal of Crystal Growth, 2007, 303, 562-567.	1.5	29
75	Prebiotic Microreactors: A Synthesis of Purines and Dihydroxy Compounds in Aqueous Aerosol. Origins of Life and Evolution of Biospheres, 2007, 37, 123-142.	1.9	42
76	The Effects of Ferrous and other Ions on the Abiotic Formation of Biomolecules using Aqueous Aerosols and Spark Discharges. Origins of Life and Evolution of Biospheres, 2007, 37, 507-521.	1.9	31
77	Continuous production of inorganic magnetic nanocomposites for biomedical applications by laser pyrolysis. Journal of Magnetism and Magnetic Materials, 2007, 311, 120-124.	2.3	32
78	Contributions to the application of the transferability principle and the multipolar modeling of HÂatoms: electron-density study ofL-histidinium dihydrogen orthophosphate orthophosphoric acid. I. Acta Crystallographica Section A: Foundations and Advances, 2006, 62, 365-378.	0.3	23
79	Coreâ€“Shell Ironâ€“Iron Oxide Nanoparticles Synthesized by Laser-Induced Pyrolysis. Small, 2006, 2, 1476-1483.	10.0	62
80	chapter 5 Synthesis, Properties and Biomedical Applications of Magnetic Nanoparticles. Handbook of Magnetic Materials, 2006, 16, 403-482.	0.6	67
81	Homochirality as a Consequence of Thermodynamic Equilibrium?. Chemistry - A European Journal, 2006, 12, 7776-7781.	3.3	82
82	Analysis of the NMR Relaxation Enhancement by Core/shell Fe/iron Oxide Nanoparticles. , 2006, , .		0
83	Surface characterisation of dextran-coated iron oxide nanoparticles prepared by laser pyrolysis and coprecipitation. Journal of Magnetism and Magnetic Materials, 2005, 293, 20-27.	2.3	162
84	Advances in magnetic nanoparticles for biotechnology applications. Journal of Magnetism and Magnetic Materials, 2005, 290-291, 28-34.	2.3	233
85	Laser pyrolysis preparation of SiO2-coated magnetic nanoparticles for biomedical applications. Journal of Magnetism and Magnetic Materials, 2005, 290-291, 272-275.	2.3	25
86	Fe-based nanoparticulate metallic alloys as contrast agents for magnetic resonance imaging. Biomaterials, 2005, 26, 5695-5703.	11.4	115
87	Thermal history dependence of the crystal structure of Co fine particles. Physical Review B, 2005, 71, .	3.2	65
88	Comparative study of ferrofluids based on dextran-coated iron oxide and metal nanoparticles for contrast agents in magnetic resonance imaging. Nanotechnology, 2004, 15, S154-S159.	2.6	88
89	Colloidal dispersions of maghemite nanoparticles produced by laser pyrolysis with application as NMR contrast agents. Journal Physics D: Applied Physics, 2004, 37, 2054-2059.	2.8	54
90	The preparation of magnetic nanoparticles for applications in biomedicine. Journal Physics D: Applied Physics, 2003, 36, R182-R197.	2.8	1,673

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91	Contrast agents for MRI based on iron oxide nanoparticles prepared by laser pyrolysis. Journal of Magnetism and Magnetic Materials, 2003, 266, 102-109.	2.3	105
92	Magnetic nanoparticles prepared by laser pyrolysis. IEEE Transactions on Magnetics, 2002, 38, 2616-2618.	2.1	22
93	Effect of the process conditions on the structural and magnetic properties of Î³-Fe2O3 nanoparticles produced by laser pyrolysis. Scripta Materialia, 2002, 47, 589-593.	5.2	49
94	Synthesis of Feâ€“Si nanoparticles by cw CO2 laser assisted pyrolysis from gaseous precursors. Applied Surface Science, 2002, 186, 562-567.	6.1	14
95	Spin frustration in maghemite nanoparticles. Solid State Communications, 2001, 118, 437-440.	1.9	64
96	Effect of the oxidation conditions on the maghemites produced by laser pyrolysis. Applied Organometallic Chemistry, 2001, 15, 365-372.	3.5	31
97	Metastability in drowning-out crystallisation: precipitation of highly soluble sulphates. Journal of Crystal Growth, 2001, 222, 317-327.	1.5	26
98	Surface and Internal Spin Canting in Î³-Fe2O3 Nanoparticles. Chemistry of Materials, 1999, 11, 3058-3064.	6.7	606
99	Continuous production of Î³-Fe2O3 ultrafine powders by laser pyrolysis. Materials Letters, 1998, 35, 227-231.	2.6	127
100	Chemical aspects of the effect of impurities in crystal growth. Progress in Crystal Growth and Characterization of Materials, 1996, 32, 75-109.	4.0	47
101	On the formation of dislocation etch pits on L-arginine phosphate monohydrate single crystals. Journal of Crystal Growth, 1995, 154, 364-369.	1.5	16
102	Growth habit and surface morphology of L-arginine phosphate monohydrate single crystals. Journal of Crystal Growth, 1995, 155, 135-143.	1.5	30
103	Some observations of growth hillocks and growth layers on potassium hydrogen tartrate crystals. Crystal Research and Technology, 1994, 29, 639-645.	1.3	11
104	Decoration of growth and dissolution steps on the surfaces of L-arginine phosphate monohydrate crystals. Journal of Crystal Growth, 1994, 140, 447-450.	1.5	6
105	Lead chloride crystal growth from boiling solutions. Journal of Crystal Growth, 1993, 128, 1282-1287.	1.5	2
106	A thermodynamical approach to tetramethylsilane (TMS) pyrolysis; application to SiC coatings obtained by MOCVD. Journal of Crystal Growth, 1993, 128, 349-353.	1.5	19
107	Solubility and activity coefficients of lead chloride in potassium nitrate solutions at 25 Â°C and at boiling. Calculation of the supersaturation. Canadian Journal of Chemistry, 1993, 71, 1259-1264.	1.1	4
108	Dipyramidal habit of flux-grown cobalt-tin doped barium ferrite. Journal of Crystal Growth, 1992, 121, 247-249.	1.5	3

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109	Crystal growth of potassium hydrogen tartrate from aqueous solution. Journal of Crystal Growth, 1990, 99, 211-216.	1.5	7
110	Crystal growth from boiling solutions. Progress in Crystal Growth and Characterization, 1988, 17, 1-40.	0.8	13
111	Criteria for growing crystals from boiling solutions. Journal of Crystal Growth, 1987, 83, 367-375.	1.5	10
112	Surface microtopographic study of KDP crystals grown at the boiling point. Journal of Crystal Growth, 1986, 78, 144-154.	1.5	23
113	KDP (KH2PO4) growth from boiling solutions. Ferroelectrics, 1984, 56, 41-44.	0.6	10