

Alejandro G Roca

List of Publications by Year in descending order

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53
papers

4,016
citations

201674

27
h-index

189892

50
g-index

53
all docs

53
docs citations

53
times ranked

6209
citing authors

#	ARTICLE	IF	CITATIONS
1	Synthesis and Applications of Anisotropic Magnetic Iron Oxide Nanoparticles. , 2021, , 65-89.		0
2	Reproducibility and Scalability of Magnetic Nanoheater Synthesis. Nanomaterials, 2021, 11, 2059.	4.1	6
3	Direct Evidence of a Graded Magnetic Interface in Bimagnetic Core/Shell Nanoparticles Using Electron Magnetic Circular Dichroism (EMCD). Nano Letters, 2021, 21, 6923-6930.	9.1	8
4	Zinc blende and wurtzite CoO polymorph nanoparticles: Rational synthesis and commensurate and incommensurate magnetic order. Applied Materials Today, 2019, 16, 322-331.	4.3	8
5	Precise Size Control of the Growth of Fe ₃ O ₄ Nanocubes over a Wide Size Range Using a Rationally Designed One-Pot Synthesis. ACS Nano, 2019, 13, 7716-7728.	14.6	79
6	Design strategies for shape-controlled magnetic iron oxide nanoparticles. Advanced Drug Delivery Reviews, 2019, 138, 68-104.	13.7	217
7	Unravelling the Elusive Antiferromagnetic Order in Wurtzite and Zinc Blende CoO Polymorph Nanoparticles. Small, 2018, 14, e1703963.	10.0	12
8	Application of nanoparticle tracking analysis for characterising the fate of engineered nanoparticles in sediment-water systems. Journal of Environmental Sciences, 2018, 64, 62-71.	6.1	28
9	Atomic-Scale Determination of Cation Inversion in Spinel-Based Oxide Nanoparticles. Nano Letters, 2018, 18, 5854-5861.	9.1	24
10	Combining X-Ray Whole Powder Pattern Modeling, Rietveld and Pair Distribution Function Analyses as a Novel Bulk Approach to Study Interfaces in Heteronanostructures: Oxidation Front in FeO/Fe ₃ O ₄ Core/Shell Nanoparticles as a Case Study. Small, 2018, 14, e1800804.	10.0	15
11	Magnetically amplified photothermal therapies and multimodal imaging with magneto-plasmonic nanodomies. Applied Materials Today, 2018, 12, 430-440.	4.3	20
12	Seeded Growth Synthesis of Au@Fe ₃ O ₄ Heterostructured Nanocrystals: Rational Design and Mechanistic Insights. Chemistry of Materials, 2017, 29, 4022-4035.	6.7	67
13	Correlative Transmission Electron Microscopy of Highly Perfect Fe ₃ O ₄ Nanocubes. Microscopy and Microanalysis, 2017, 23, 1692-1693.	0.4	0
14	Galvanic Replacement onto Complex Metal-Oxide Nanoparticles: Impact of Water or Other Oxidizers in the Formation of either Fully Dense Onion-like or Multicomponent Hollow MnO _x /FeO _x Structures. Chemistry of Materials, 2016, 28, 8025-8031.	6.7	28
15	Origin of the large dispersion of magnetic properties in nanostructured oxides: Fe _x O/Fe ₃ O ₄ nanoparticles as a case study. Nanoscale, 2015, 7, 3002-3015.	5.6	76
16	Applications of exchange coupled bi-magnetic hard/soft and soft/hard magnetic core/shell nanoparticles. Physics Reports, 2015, 553, 1-32.	25.6	391
17	Ex vivo assessment of polyol coated-iron oxide nanoparticles for MRI diagnosis applications: toxicological and MRI contrast enhancement effects. Journal of Nanoparticle Research, 2014, 16, 1.	1.9	18
18	Fe K-Edge X-ray Absorption Spectroscopy Study of Nanosized Nominal Magnetite. Journal of Physical Chemistry C, 2014, 118, 1332-1346.	3.1	93

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19	Structural determination of Bi-doped magnetite multifunctional nanoparticles for contrast imaging. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 18301.	2.8	15
20	Mechanisms of hyperthermia in magnetic nanoparticles. <i>Journal Physics D: Applied Physics</i> , 2013, 46, 312001.	2.8	197
21	Key Parameters for Scaling up the Synthesis of Magnetite Nanoparticles in Organic Media: Stirring Rate and Growth Kinetic. <i>Industrial & Engineering Chemistry Research</i> , 2013, 52, 17841-17847.	3.7	20
22	INFLUENCE OF AGGREGATE COATING ON RELAXATIONS IN THE SYSTEMS OF IRON OXIDE NANOPARTICLES. <i>Nano</i> , 2012, 07, 1250004.	1.0	6
23	Effect of Frequency and Field Amplitude in Magnetic Hyperthermia. <i>IEEE Transactions on Magnetism</i> , 2012, 48, 4054-4057.	2.1	8
24	Surface functionalization for tailoring the aggregation and magnetic behaviour of silica-coated iron oxide nanostructures. <i>Nanotechnology</i> , 2012, 23, 155603.	2.6	32
25	Synthesis of Magnetic Nanocrystals by Thermal Decomposition in Glycol Media: Effect of Process Variables and Mechanistic Study. <i>Industrial & Engineering Chemistry Research</i> , 2012, 51, 8348-8357.	3.7	43
26	Relaxation phenomena in ensembles of CoFe ₂ O ₄ nanoparticles. <i>Journal of Magnetism and Magnetic Materials</i> , 2012, 324, 1182-1188.	2.3	20
27	Magnetic nanoparticles with bulklike properties (invited). <i>Journal of Applied Physics</i> , 2011, 109, .	2.5	105
28	An Analysis of Minor Hysteresis Loops of Nanoparticles for Hyperthermia. <i>IEEE Transactions on Magnetism</i> , 2011, 47, 2878-2881.	2.1	6
29	Magnetic behaviour of a magnetite/silicon nanocomposite. <i>Journal of Nanoparticle Research</i> , 2011, 13, 5685-5690.	1.9	7
30	Magnetically separable photocatalytic composite $\text{Fe}_3\text{O}_4/\text{TiO}_2$ synthesized by heterogeneous precipitation. <i>Applied Surface Science</i> , 2011, 257, 4844-4848.	6.1	38
31	The endocytic penetration mechanism of iron oxide magnetic nanoparticles with positively charged cover: A morphological approach. <i>International Journal of Molecular Medicine</i> , 2010, 26, 533-9.	4.0	20
32	Investigation of a Mesoporous Silicon Based Ferromagnetic Nanocomposite. <i>Nanoscale Research Letters</i> , 2010, 5, 374-378.	5.7	10
33	Magnetite nanoparticles embedded in biodegradable porous silicon. <i>Journal of Magnetism and Magnetic Materials</i> , 2010, 322, 1343-1346.	2.3	10
34	Liver and brain imaging through dimercaptosuccinic acid-coated iron oxide nanoparticles. <i>Nanomedicine</i> , 2010, 5, 397-408.	3.3	64
35	A Porous Silicon/Iron Oxide Nanocomposite with Superparamagnetic and Ferromagnetic Behavior. <i>ECS Transactions</i> , 2010, 33, 95-99.	0.5	1
36	Magnetic properties and energy absorption of CoFe ₂ O ₄ nanoparticles for magnetic hyperthermia. <i>Journal of Physics: Conference Series</i> , 2010, 200, 072101.	0.4	46

#	ARTICLE	IF	CITATIONS
37	Magnetic Study of Fe ₃ O ₄ Nanoparticles Incorporated within Mesoporous Silicon. Journal of the Electrochemical Society, 2010, 157, K145.	2.9	50
38	Effects of coating on magnetic properties in iron oxide nanoparticles. Journal of Physics: Conference Series, 2010, 200, 072012.	0.4	12
39	Progress in the preparation of magnetic nanoparticles for applications in biomedicine. Journal Physics D: Applied Physics, 2009, 42, 224002.	2.8	342
40	The influence of surface functionalization on the enhanced internalization of magnetic nanoparticles in cancer cells. Nanotechnology, 2009, 20, 115103.	2.6	299
41	Magnetite nanoparticles with no surface spin canting. Journal of Applied Physics, 2009, 105, .	2.5	87
42	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
43	Relaxation times of colloidal iron platinum in polymer matrixes. Journal of Materials Chemistry, 2009, 19, 6381.	6.7	19
44	A New Method for the Rapid Synthesis of Water Stable Superparamagnetic Nanoparticles. Chemistry - A European Journal, 2008, 14, 9126-9130.	3.3	32
45	A new method for the aqueous functionalization of superparamagnetic Fe ₂ O ₃ nanoparticles. Contrast Media and Molecular Imaging, 2008, 3, 215-222.	0.8	26
46	Cytokine adsorption/release on uniform magnetic nanoparticles for localized drug delivery. Journal of Controlled Release, 2008, 130, 168-174.	9.9	38
47	Uniform and water stable magnetite nanoparticles with diameters around the monodomain-multidomain limit. Journal Physics D: Applied Physics, 2008, 41, 134003.	2.8	208
48	Surface anisotropy broadening of the energy barrier distribution in magnetic nanoparticles. Nanotechnology, 2008, 19, 475704.	2.6	75
49	Effect of Nature and Particle Size on Properties of Uniform Magnetite and Maghemite Nanoparticles. Journal of Physical Chemistry C, 2007, 111, 18577-18584.	3.1	278
50	Surfactant effects in magnetite nanoparticles of controlled size. Journal of Magnetism and Magnetic Materials, 2007, 316, e756-e759.	2.3	273
51	Biomedical Applications of Magnetic Nanoparticles. , 2007, , 1-7.		2
52	Structural and magnetic properties of uniform magnetite nanoparticles prepared by high temperature decomposition of organic precursors. Nanotechnology, 2006, 17, 2783-2788.	2.6	336
53	Synthesis of Monodispersed Magnetite Particles From Different Organometallic Precursors. IEEE Transactions on Magnetics, 2006, 42, 3025-3029.	2.1	70