Lucia Gutierrez

List of Publications by Year
in descending order

89 papers	4,701 citations	117625 34 h-index	98798 67 g-index
93 all docs	93 docs citations	93 times ranked	7489 citing authors

#	Article	IF	Citations
1	Biological applications of magnetic nanoparticles. Chemical Society Reviews, 2012, 41, 4306.	38.1	1,079
2	Serum ferritin is derived primarily from macrophages through a nonclassical secretory pathway. Blood, 2010, 116, 1574-1584.	1.4	364
3	Design strategies for shape-controlled magnetic iron oxide nanoparticles. Advanced Drug Delivery Reviews, 2019, 138, 68-104.	13.7	217
4	Dimercaptosuccinic acid-coated magnetite nanoparticles for magnetically guided in vivo delivery of interferon gamma for cancer immunotherapy. Biomaterials, 2011, 32, 2938-2952.	11.4	170
5	Ferritin is secreted via 2 distinct nonclassical vesicular pathways. Blood, 2018, 131, 342-352.	1.4	143
6	Aggregation effects on the magnetic properties of iron oxide colloids. Nanotechnology, 2019, 30, 112001.	2.6	131
7	Effect of Surface Chemistry and Associated Protein Corona on the Long-Term Biodegradation of Iron Oxide Nanoparticles In Vivo. ACS Applied Materials & Interfaces, 2018, 10, 4548-4560.	8.0	123
8	Long term biotransformation and toxicity of dimercaptosuccinic acid-coated magnetic nanoparticles support their use in biomedical applications. Journal of Controlled Release, 2013, 171, 225-233.	9.9	113
9	Efficient and safe internalization of magnetic iron oxide nanoparticles: Two fundamental requirements for biomedical applications. Nanomedicine: Nanotechnology, Biology, and Medicine, 2014, 10, 733-743.	3.3	101
10	Synthesis methods to prepare single- and multi-core iron oxide nanoparticles for biomedical applications. Dalton Transactions, 2015, 44, 2943-2952.	3.3	96
11	Triggering antitumoural drug release and gene expression by magnetic hyperthermia. Advanced Drug Delivery Reviews, 2019, 138, 326-343.	13.7	92
12	Superparamagnetic iron oxide nanoparticle uptake alters M2 macrophage phenotype, iron metabolism, migration and invasion. Nanomedicine: Nanotechnology, Biology, and Medicine, 2016, 12, 1127-1138.	3.3	87
13	Identification of nonferritin mitochondrial iron deposits in a mouse model of Friedreich ataxia. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 20590-20595.	7.1	85
14	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
15	Formation Mechanism of Maghemite Nanoflowers Synthesized by a Polyol-Mediated Process. ACS Omega, 2017, 2, 7172-7184.	3.5	82
16	Fast synthesis and bioconjugation of ⁶⁸Ga coreâ€doped extremely small iron oxide nanoparticles for PET/MR imaging. Contrast Media and Molecular Imaging, 2016, 11, 203-210.	0.8	68
17	Could a dysfunction of ferritin be a determinant factor in the aetiology of some neurodegenerative diseases?. Biochimica Et Biophysica Acta - General Subjects, 2010, 1800, 770-782.	2.4	64
18	Insight into Serum Protein Interactions with Functionalized Magnetic Nanoparticles in Biological Media. Langmuir, 2012, 28, 4346-4356.	3.5	59

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19	Time-course assessment of the aggregation and metabolization of magnetic nanoparticles. Acta Biomaterialia, 2017, 58, 181-195.	8.3	58
20	The speciation of iron in desert dust collected in Gran Canaria (Canary Islands): Combined chemical, magnetic and optical analysis. Atmospheric Environment, 2008, 42, 8987-8996.	4.1	52
21	Biotransformation of magnetic nanoparticles as a function of coating in a rat model. Nanoscale, 2015, 7, 16321-16329.	5.6	52
22	Flower-like Mn-Doped Magnetic Nanoparticles Functionalized with Î±_vÎ²₃-Integrin-Ligand to Efficiently Induce Intracellular Heat after Alternating Magnetic Field Exposition, Triggering Glioma Cell Death. ACS Applied Materials & Interfaces, 2019, 11, 26648-26663.	8.0	52
23	Deferiprone and idebenone rescue frataxin depletion phenotypes in a Drosophila model of Friedreich's ataxia. Gene, 2013, 521, 274-281.	2.2	50
24	Bioinorganic transformations of liver iron deposits observed by tissue magnetic characterisation in a rat model. Journal of Inorganic Biochemistry, 2006, 100, 1790-1799.	3.5	46
25	Safety assessment of chronic oral exposure to iron oxide nanoparticles. Nanotechnology, 2015, 26, 205101.	2.6	45
26	How shape and internal structure affect the magnetic properties of anisometric magnetite nanoparticles. Acta Materialia, 2017, 125, 416-424.	7.9	43
27	One-Step Fast Synthesis of Nanoparticles for MRI: Coating Chemistry as the Key Variable Determining Positive or Negative Contrast. Langmuir, 2017, 33, 10239-10247.	3.5	43
28	The role of dipolar interaction in the quantitative determination of particulate magnetic carriers in biological tissues. Physics in Medicine and Biology, 2007, 52, 5043-5056.	3.0	41
29	Degradation of magnetic nanoparticles mimicking lysosomal conditions followed by AC susceptibility. Biomedizinische Technik, 2015, 60, 417-25.	0.8	41
30	Ac magnetic susceptibility study of in vivo nanoparticle biodistribution. Journal Physics D: Applied Physics, 2011, 44, 255002.	2.8	40
31	Dual Role of Magnetic Nanoparticles as Intracellular Hotspots and Extracellular Matrix Disruptors Triggered by Magnetic Hyperthermia in 3D Cell Culture Models. ACS Applied Materials & Interfaces, 2018, 10, 44301-44313.	8.0	40
32	Biophysical and genetic analysis of iron partitioning and ferritin function in Drosophila melanogaster. Metallomics, 2013, 5, 997.	2.4	38
33	Magnetic characterisation of rat muscle tissues after subcutaneous iron dextran injection. Biochimica Et Biophysica Acta - Molecular Basis of Disease, 2005, 1740, 434-445.	3.8	36
34	Bacteria-Carried Iron Oxide Nanoparticles for Treatment of Anemia. Bioconjugate Chemistry, 2018, 29, 1785-1791.	3.6	36
35	The Intracellular Number of Magnetic Nanoparticles Modulates the Apoptotic Death Pathway after Magnetic Hyperthermia Treatment. ACS Applied Materials & Interfaces, 2020, 12, 43474-43487.	8.0	36
36	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

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37	Critical Parameters to Improve Pancreatic Cancer Treatment Using Magnetic Hyperthermia: Field Conditions, Immune Response, and Particle Biodistribution. ACS Applied Materials & Interfaces, 2021, 13, 12982-12996.	8.0	34
38	Variability and consistency in lung inflammatory responses to particles with a geogenic origin. Respirology, 2014, 19, 58-66.	2.3	32
39	Targeted Nanoparticles for the Treatment of Alzheimer's Disease. Current Pharmaceutical Design, 2017, 23, 1927-1952.	1.9	27
40	The actin-binding protein profilin 2 is a novel regulator of iron homeostasis. Blood, 2017, 130, 1934-1945.	1.4	26
41	Iron speciation study in Hfe knockout mice tissues: Magnetic and ultrastructural characterisation. Biochimica Et Biophysica Acta - Molecular Basis of Disease, 2009, 1792, 541-547.	3.8	25
42	Manipulating directional cell motility using intracellular superparamagnetic nanoparticles. Nanoscale, 2015, 7, 4884-4889.	5.6	25
43	Zinc accumulation in heterozygous mutants of fumble, the pantothenate kinase homologue of Drosophila. FEBS Letters, 2010, 584, 2942-2946.	2.8	24
44	Renal iron load in sickle cell disease is influenced by severity of haemolysis. British Journal of Haematology, 2012, 157, 599-605.	2.5	23
45	Metal Homeostasis Regulators Suppress FRDA Phenotypes in a Drosophila Model of the Disease. PLoS ONE, 2016, 11, e0159209.	2.5	23
46	Ultrasmall Manganese Ferrites for In Vivo Catalase Mimicking Activity and Multimodal Bioimaging. Small, 2022, 18, e2106570.	10.0	23
47	The Iron Distribution and Magnetic Properties of Schistosome Eggshells: Implications for Improved Diagnostics. PLoS Neglected Tropical Diseases, 2013, 7, e2219.	3.0	22
48	New insights into the structural analysis of maghemite and (MFe₂O₄, M = Co,) Tj ETQq0 0 0 rgBT /Overlock 1 Frontiers, 2020, 4, 3063-3073.	5.9	22
49	Quantitative magnetic analysis reveals ferritin-like iron as the most predominant iron-containing species in the murine Hfe-haemochromatosis. Biochimica Et Biophysica Acta - Molecular Basis of Disease, 2012, 1822, 1147-1153.	3.8	21
50	Prospects for magnetic nanoparticles in systemic administration: synthesis and quantitative detection. Physical Chemistry Chemical Physics, 2014, 16, 4456-4464.	2.8	21
51	Unravelling the mechanisms that determine the uptake and metabolism of magnetic single and multicore nanoparticles in aXenopus laevismodel. Nanoscale, 2018, 10, 690-704.	5.6	21
52	The influence of cation incorporation and leaching in the properties of Mn-doped nanoparticles for biomedical applications. Journal of Colloid and Interface Science, 2020, 578, 510-521.	9.4	21
53	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
54	Design of stable magnetic hybrid nanoparticles of Si-entrapped HRP. PLoS ONE, 2019, 14, e0214004.	2.5	19

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55	Magnetostructural study of iron sucrose. Journal of Magnetism and Magnetic Materials, 2005, 293, 69-74.	2.3	18
56	The affinity of magnetic microspheres for Schistosoma eggs. International Journal for Parasitology, 2015, 45, 43-50.	3.1	18
57	Magnetic properties of nanoparticles as a function of their spatial distribution on liposomes and cells. Physical Chemistry Chemical Physics, 2018, 20, 17829-17838.	2.8	18
58	Unambiguous detection of atherosclerosis using bioorthogonal nanomaterials. Nanomedicine: Nanotechnology, Biology, and Medicine, 2019, 17, 26-35.	3.3	18
59	Magnetogenetics: remote activation of cellular functions triggered by magnetic switches. Nanoscale, 2022, 14, 2091-2118.	5.6	17
60	Nuclear Magnetic Resonance: A Tool for Malaria Diagnosis?. American Journal of Tropical Medicine and Hygiene, 2011, 85, 815-817.	1.4	15
61	Effect of Anesthesia on Magnetic Nanoparticle Biodistribution After Intravenous Injection. IEEE Transactions on Magnetics, 2013, 49, 398-401.	2.1	14
62	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
63	Facile microwave synthesis of uniform magnetic nanoparticles with minimal sample processing. Journal of Magnetism and Magnetic Materials, 2017, 421, 283-291.	2.3	14
64	Magnetic study on biodistribution and biodegradation of oral magnetic nanostructures in the rat gastrointestinal tract. Nanoscale, 2016, 8, 15041-15047.	5.6	13
65	Ironâ€“Gold Nanoflowers: A Promising Tool for Multimodal Imaging and Hyperthermia Therapy. Pharmaceutics, 2022, 14, 636.	4.5	13
66	Doseâ€“Response Bioconversion and Toxicity Analysis of Magnetite Nanoparticles. IEEE Magnetics Letters, 2016, 7, 1-5.	1.1	12
67	Nanotechnology in Drug Discovery and Development. , 2017, , 264-295.		12
68	HAP-Multitag, a PET and Positive MRI Contrast Nanotracer for the Longitudinal Characterization of Vascular Calcifications in Atherosclerosis. ACS Applied Materials & Interfaces, 2021, 13, 45279-45290.	8.0	12
69	Tissue Iron Distribution Assessed by MRI in Patients with Iron Loading Anemias. PLoS ONE, 2015, 10, e0139220.	2.5	11
70	In vivo comparison of the biodistribution and long-term fate of colloids â€“ gold nanoprisms and nanorods â€“ with minimum surface modification. Nanomedicine, 2019, 14, 3035-3055.	3.3	11
71	Biological tissue magnetism in the frame of iron overload diseases. Journal of Magnetism and Magnetic Materials, 2007, 316, 126-131.	2.3	10
72	Iron oxide-manganese oxide nanoparticles with tunable morphology and switchable MRI contrast mode triggered by intracellular conditions. Journal of Colloid and Interface Science, 2022, 613, 447-460.	9.4	10

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73	Comparative study of iron-containing haematinics from the point of view of their magnetic properties. Journal of Magnetism and Magnetic Materials, 2007, 316, 136-139.	2.3	9
74	A Roadmap to the Standardization of In Vivo Magnetic Hyperthermia. , 2019, , 317-337.		9
75	Magneto-optical hyperthermia agents based on probiotic bacteria loaded with magnetic and gold nanoparticles. Nanoscale, 2022, 14, 5716-5724.	5.6	9
76	Whole tissue AC susceptibility after superparamagnetic iron oxide contrast agent administration in a rat model. Journal of Magnetism and Magnetic Materials, 2007, 311, 460-463.	2.3	8
77	Tunable Control of the Structural Features and Related Physical Properties of Mn_xFe_{3â€“x}O₄ Nanoparticles: Implication on Their Heating Performance by Magnetic Hyperthermia. Journal of Physical Chemistry C, 2022, 126, 10110-10128.	3.1	8
78	Toxicity and biodegradation of zinc ferrite nanoparticles in Xenopus laevis. Journal of Nanoparticle Research, 2019, 21, 1.	1.9	6
79	Smartphoneâ€Based Colorimetric Method to Quantify Iron Concentration and to Determine the Nanoparticle Size from Suspensions of Magnetic Nanoparticles. Particle and Particle Systems Characterization, 2020, 37, 2000032.	2.3	6
80	Iron Speciation in Animal Tissues Using AC Magnetic Susceptibility Measurements: Quantification of Magnetic Nanoparticles, Ferritin, and Other Iron-Containing Species. ACS Applied Bio Materials, 2022, 5, 1879-1889.	4.6	6
81	Triphenylene-ethylammonium tetrachlorometallate salts: multicolumnar mesophases, thermochromism and Langmuir films. Journal of Materials Chemistry C, 2022, 10, 9222-9231.	5.5	4
82	Fighting cancer with magnetic nanoparticles and immunotherapy. , 2012, , .		3
83	Controlling the Size and Shape of Uniform Magnetic Iron Oxide Nanoparticles for Biomedical Applications. , 2018, , 3-24.		3
84	Magnetic and structural study of the state of iron in the oral haematinic ferrimannitol ovoalbumin. Journal of Inorganic Biochemistry, 2006, 100, 413-417.	3.5	2
85	Magnetic Nanoparticle Location and Quantification in Mice Tissues after Intravenous Injection. , 2010, , .		1
86	Challenges for Diagnosis of Malaria and Neglected Tropical Diseases in Elimination Settings. BioMed Research International, 2015, 2015, 1-2.	1.9	1
87	Novel, simple, and environmentally safe method for wastewater pollutant removal. Journal of Water Process Engineering, 2021, 42, 102181.	5.6	1
88	Synthesis and Applications of Anisotropic Magnetic Iron Oxide Nanoparticles. , 2021, , 65-89.		0
89	Profilin2 Is Controlled By the Iron Regulatory Proteins and Modulates Iron Homeostasis. Blood, 2014, 124, 749-749.	1.4	0