German Salazar-Alvarez

List of Publications by Year
in descending order

94 papers	7,474 citations	66234 42 h-index	53109 85 g-index
113 all docs	113 docs citations	113 times ranked	10699 citing authors

#	Article	IF	Citations
1	Thermally insulating and fire-retardant lightweight anisotropic foams based on nanocellulose and graphene oxide. Nature Nanotechnology, 2015, 10, 277-283.	15.6	1,103
2	Making flexible magnetic aerogels and stiff magnetic nanopaper using cellulose nanofibrils as templates. Nature Nanotechnology, 2010, 5, 584-588.	15.6	753
3	Applications of exchange coupled bi-magnetic hard/soft and soft/hard magnetic core/shell nanoparticles. Physics Reports, 2015, 553, 1-32.	10.3	391
4	Synthesis and Size-Dependent Exchange Bias in Inverted Coreâ^'Shell MnO|Mn3O4Nanoparticles. Journal of the American Chemical Society, 2007, 129, 9102-9108.	6.6	261
5	Dispersion and surface functionalization of oxide nanoparticles for transparent photocatalytic and UV-protecting coatings and sunscreens. Science and Technology of Advanced Materials, 2013, 14, 023001.	2.8	252
6	Cubic versus Spherical Magnetic Nanoparticles: The Role of Surface Anisotropy. Journal of the American Chemical Society, 2008, 130, 13234-13239.	6.6	226
7	High strength, flexible and transparent nanofibrillated celluloseâ€“nanoclay biohybrid films with tunable oxygen and water vapor permeability. Nanoscale, 2012, 4, 6622.	2.8	224
8	Novel flow injection synthesis of iron oxide nanoparticles with narrow size distribution. Chemical Engineering Science, 2006, 61, 4625-4633.	1.9	206
9	Rod Packing in Chiral Nematic Cellulose Nanocrystal Dispersions Studied by Small-Angle X-ray Scattering and Laser Diffraction. Langmuir, 2015, 31, 6507-6513.	1.6	177
10	Robust antiferromagnetic coupling in hard-soft bi-magnetic core/shell nanoparticles. Nature Communications, 2013, 4, 2960.	5.8	160
11	Anomalous Magnetic Properties of Nanoparticles Arising from Defect Structures: Topotaxial Oxidation of Fe_{1â€“x}O|Fe_{3â^Î´}O₄ Core|Shell Nanocubes to Single-Phase Particles. ACS Nano, 2013, 7, 7132-7144.	7.3	159
12	Mesocrystals in Biominerals and Colloidal Arrays. Accounts of Chemical Research, 2015, 48, 1391-1402.	7.6	156
13	Shape Induced Symmetry in Self-Assembled Mesocrystals of Iron Oxide Nanocubes. Nano Letters, 2011, 11, 1651-1656.	4.5	147
14	Macroscopic Control of Helix Orientation in Films Dried from Cholesteric Liquidâ€Crystalline Cellulose Nanocrystal Suspensions. ChemPhysChem, 2014, 15, 1477-1484.	1.0	136
15	Fe3O4 and Î³-Fe2O3 nanoparticles for the adsorption of Co2+ from aqueous solution. Journal of Colloid and Interface Science, 2006, 298, 501-507.	5.0	133
16	Carbon aerogels from bacterial nanocellulose as anodes for lithium ion batteries. RSC Advances, 2014, 4, 17549.	1.7	129
17	Hamaker Constants of Iron Oxide Nanoparticles. Langmuir, 2011, 27, 8659-8664.	1.6	115
18	Size-Dependent Passivation Shell and Magnetic Properties in Antiferromagnetic/Ferrimagnetic Core/Shell MnO Nanoparticles. Journal of the American Chemical Society, 2010, 132, 9398-9407.	6.6	106

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19	Quantitative spatial magnetization distribution in iron oxide nanocubes and nanospheres by polarized small-angle neutron scattering. New Journal of Physics, 2012, 14, 013025.	1.2	100
20	Controlled Synthesis of Near-Stoichiometric Cobalt Ferrite Nanoparticles. Chemistry of Materials, 2005, 17, 5109-5118.	3.2	90
21	Precise control over shape and size of iron oxide nanocrystals suitable for assembly into ordered particle arrays. Science and Technology of Advanced Materials, 2014, 15, 055010.	2.8	90
22	Magnetic Proximity Effect Features in Antiferromagnetic/Ferrimagnetic Core-Shell Nanoparticles. Physical Review Letters, 2009, 102, 247201.	2.9	85
23	A transparent hybrid of nanocrystalline cellulose and amorphous calcium carbonate nanoparticles. Nanoscale, 2011, 3, 3563.	2.8	80
24	Transport characterisation of a PIM system used for the extraction of Pb(II) using 2 as carrier. Journal of Membrane Science, 2005, 250, 247-257.	4.1	78
25	Hard and Transparent Films Formed by Nanocelluloseâ€“TiO2 Nanoparticle Hybrids. PLoS ONE, 2012, 7, e45828.	1.1	78
26	Strongly exchange coupled inverse ferrimagnetic soft/hard, MnxFe3â^'xO4/FexMn3â^'xO4, core/shell heterostructured nanoparticles. Nanoscale, 2012, 4, 5138.	2.8	76
27	Origin of the large dispersion of magnetic properties in nanostructured oxides: Fe_xO/Fe₃O₄nanoparticles as a case study. Nanoscale, 2015, 7, 3002-3015.	2.8	76
28	Superlattice growth and rearrangement during evaporation-induced nanoparticle self-assembly. Scientific Reports, 2017, 7, 2802.	1.6	66
29	Electrocatalytic Glycerol Oxidation with Concurrent Hydrogen Evolution Utilizing an Efficient MoO_x/Pt Catalyst. Small, 2021, 17, e2104288.	5.2	63
30	Fully bio-based zwitterionic membranes with superior antifouling and antibacterial properties prepared via surface-initiated free-radical polymerization of poly(cysteine methacrylate). Journal of Materials Chemistry A, 2018, 6, 16361-16370.	5.2	61
31	Following in Real Time the Two-Step Assembly of Nanoparticles into Mesocrystals in Levitating Drops. Nano Letters, 2016, 16, 6838-6843.	4.5	60
32	Functional hybrids based on biogenic nanofibrils and inorganic nanomaterials. Journal of Materials Chemistry A, 2013, 1, 5469.	5.2	58
33	Extensively interconnected silicon nanoparticles via carbon network derived from ultrathin cellulose nanofibers as high performance lithium ion battery anodes. Carbon, 2017, 118, 8-17.	5.4	58
34	3D Visualization of the Iron Oxidation State in FeO/Fe₃O₄Coreâ€“Shell Nanocubes from Electron Energy Loss Tomography. Nano Letters, 2016, 16, 5068-5073.	4.5	56
35	Two-, Three-, and Four-Component Magnetic Multilayer Onion Nanoparticles Based on Iron Oxides and Manganese Oxides. Journal of the American Chemical Society, 2011, 133, 16738-16741.	6.6	55
36	Structural diversity in iron oxide nanoparticle assemblies as directed by particle morphology and orientation. Nanoscale, 2013, 5, 3969.	2.8	52

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37	High-Performance Magnetic Activated Carbon from Solid Waste from Lignin Conversion Processes. 1. Their Use As Adsorbents for CO₂. ACS Sustainable Chemistry and Engineering, 2017, 5, 3087-3095.	3.2	52
38	Imprinting Vortices into Antiferromagnets. Physical Review Letters, 2006, 97, 067201.	2.9	51
39	Experimental investigation of the flow and heat transfer of magnetic nanofluid in a vertical tube in the presence of magnetic quadrupole field. Experimental Thermal and Fluid Science, 2018, 91, 155-165.	1.5	50
40	Lithium Ion Battery Separators Based On Carboxylated Cellulose Nanofibers From Wood. ACS Applied Energy Materials, 2019, 2, 1241-1250.	2.5	48
41	Mesoporous silicaâ€“magnetite nanocomposite synthesized by using a neutral surfactant. Nanotechnology, 2008, 19, 185603.	1.3	46
42	Highly proton conductive membranes based on carboxylated cellulose nanofibres and their performance in proton exchange membrane fuel cells. Journal of Materials Chemistry A, 2019, 7, 25032-25039.	5.2	46
43	In-Situ Growth of Metal Oxide Nanoparticles on Cellulose Nanofibrils for Dye Removal and Antimicrobial Applications. ACS Applied Nano Materials, 2020, 3, 7172-7181.	2.4	44
44	Reversible post-synthesis tuning of the superparamagnetic blocking temperature of Î³-Fe2O3nanoparticles by adsorption and desorption of Co(ii) ions. Journal of Materials Chemistry, 2007, 17, 322-328.	6.7	43
45	Enhanced Coercivity in Co-Rich Near-Stoichiometric CoxFe3-xO4+Î´ Nanoparticles Prepared in Large Batches. Chemistry of Materials, 2007, 19, 4957-4963.	3.2	43
46	2D to 3D crossover of the magnetic properties in ordered arrays of iron oxide nanocrystals. Nanoscale, 2013, 5, 953-960.	2.8	43
47	A novel textile-like carbon wrapping for high-performance silicon anodes in lithium-ion batteries. Journal of Materials Chemistry A, 2018, 6, 12475-12483.	5.2	42
48	Fabrication of nanocelluloseâ€“hydroxyapatite composites and their application as water-resistant transparent coatings. Journal of Materials Chemistry B, 2015, 3, 5858-5863.	2.9	39
49	Facile preparation of cellulose nanofiber derived carbon and reduced graphene oxide co-supported LiFePO4 nanocomposite as enhanced cathode material for lithium-ion battery. Electrochimica Acta, 2020, 354, 136707.	2.6	39
50	Distinguishing the core from the shell in MnOx/MnOy and FeOx/MnOx core/shell nanoparticles through quantitative electron energy loss spectroscopy (EELS) analysis. Micron, 2012, 43, 30-36.	1.1	36
51	Resolving Material-Specific Structures within Fe₃O₄|Î³-Mn₂O₃ Core|Shell Nanoparticles Using Anomalous Small-Angle X-ray Scattering. ACS Nano, 2013, 7, 921-931.	7.3	36
52	Cold Consolidation of Metalâ€“Ceramic Nanocomposite Powders with Large Ceramic Fractions. Advanced Functional Materials, 2008, 18, 3293-3298.	7.8	31
53	Preparation of dry ultra-porous cellulosic fibres: Characterization and possible initial uses. Carbohydrate Polymers, 2013, 92, 775-783.	5.1	31
54	A CaCO₃/nanocellulose-based bioinspired nacre-like material. Journal of Materials Chemistry A, 2017, 5, 16128-16133.	5.2	30

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55	Production of functionalised chitins assisted by fungal lytic polysaccharide monooxygenase. Green Chemistry, 2018, 20, 2091-2100.	4.6	30
56	Feasibility of Chemically Modified Cellulose Nanofiber Membranes as Lithium-Ion Battery Separators. ACS Applied Materials & Interfaces, 2020, 12, 41211-41222.	4.0	30
57	Tuning the structure and habit of iron oxide mesocrystals. Nanoscale, 2016, 8, 15571-15580.	2.8	29
58	Dynamic growth modes of ordered arrays and mesocrystals during drop-casting of iron oxide nanocubes. CrystEngComm, 2014, 16, 1443-1450.	1.3	27
59	Tunable High-Field Magnetization in Strongly Exchange-Coupled Freestanding Co/CoO Core/Shell Coaxial Nanowires. ACS Applied Materials & Interfaces, 2016, 8, 22477-22483.	4.0	26
60	Assembly, Gelation, and Helicoidal Consolidation of Nanocellulose Dispersions. Langmuir, 2019, 35, 3600-3606.	1.6	25
61	Direct evidence of imprinted vortex states in the antiferromagnet of exchange biased microdisks. Applied Physics Letters, 2009, 95, .	1.5	24
62	Thin Water Films at Multifaceted Hematite Particle Surfaces. Langmuir, 2015, 31, 13127-13137.	1.6	24
63	Synthesis, characterization and ESR measurements of CoNiO nanoparticles. Physica Status Solidi (B): Basic Research, 2005, 242, 1712-1718.	0.7	23
64	Assembly of cellulose nanocrystals in a levitating drop probed by time-resolved small angle X-ray scattering. Nanoscale, 2018, 10, 18113-18118.	2.8	23
65	Anisotropic Diffusion and Phase Behavior of Cellulose Nanocrystal Suspensions. Langmuir, 2019, 35, 2289-2302.	1.6	23
66	Controlling magnetic vortices through exchange bias. Applied Physics Letters, 2006, 88, 042502.	1.5	22
67	Effects of Different Manufacturing Processes on TEMPO-Oxidized Carboxylated Cellulose Nanofiber Performance as Binder for Flexible Lithium-Ion Batteries. ACS Applied Materials & Interfaces, 2017, 9, 37712-37720.	4.0	22
68	Correlating material-specific layers and magnetic distributions within onion-like Fe3O4/MnO/Î³-Mn2O3 core/shell nanoparticles. Journal of Applied Physics, 2013, 113, 17B531.	1.1	20
69	Oriented Aggregation of Lepidocrocite and Impact on Surface Charge Development. Langmuir, 2014, 30, 9017-9021.	1.6	20
70	Synthesis and nonlinear light scattering of microemulsions and nanoparticle suspensions. Journal of Nanoparticle Research, 2007, 9, 647-652.	0.8	19
71	Functionalization and patterning of nanocellulose films by surface-bound nanoparticles of hydrolyzable tannins and multivalent metal ions. Nanoscale, 2019, 11, 19278-19284.	2.8	17
72	Synthetic Pathway Determines the Nonequilibrium Crystallography of Li- and Mn-Rich Layered Oxide Cathode Materials. ACS Applied Energy Materials, 2021, 4, 1924-1935.	2.5	15

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73	TEMPO-oxidized cellulose nanofibers as versatile additives for highly stable silicon anode in lithium-ion batteries. Electrochimica Acta, 2021, 369, 137708.	2.6	14
74	Inducing nematic ordering of cellulose nanofibers using osmotic dehydration. Nanoscale, 2018, 10, 23157-23163.	2.8	13
75	SANS study of mixed cholesteric cellulose nanocrystal â€“ gold nanorod suspensions. Chemical Communications, 2020, 56, 13001-13004.	2.2	13
76	Tailoring the magnetization reversal of elliptical dots using exchange bias (invited). Journal of Applied Physics, 2008, 103, 07C109.	1.1	12
77	Probing planar defects in nanoparticle superlattices by 3D small-angle electron diffraction tomography and real space imaging. Nanoscale, 2014, 6, 13803-13808.	2.8	12
78	One-Step Electro-Precipitation of Nanocellulose Hydrogels on Conducting Substrates and Its Possible Applications: Coatings, Composites, and Energy Devices. ACS Sustainable Chemistry and Engineering, 2019, 7, 19415-19425.	3.2	12
79	On the role of tannins and iron in the Bogolan or mud cloth dyeing process. Textile Reseach Journal, 2012, 82, 1888-1896.	1.1	11
80	Electrodeposited PdNi on a Ni rotating disk electrode highly active for glycerol electrooxidation in alkaline conditions. Electrochimica Acta, 2022, 403, 139714.	2.6	11
81	Spin excitations in cubic maghemite nanoparticles studied by time-of-flight neutron spectroscopy. Physical Review B, 2014, 89, .	1.1	9
82	Controlled molecular reorientation enables strong cellulose fibers regenerated from ionic liquid solutions. Polymer, 2015, 75, 119-124.	1.8	8
83	Probing the meta-stability of oxide core/shell nanoparticle systems at atomic resolution. Chemical Engineering Journal, 2021, 405, 126820.	6.6	8
84	Efficient Screening of Bi–Metallic Electrocatalysts for Glycerol Valorization. Electrochimica Acta, 2021, 398, 139283.	2.6	8
85	Fabrication of Maghemite Nanoparticles with High Surface Area. Nanomaterials, 2019, 9, 1004.	1.9	7
86	Hybrids based on borate-functionalized cellulose nanofibers and noble-metal nanoparticles as sustainable catalysts for environmental applications. RSC Advances, 2020, 10, 12460-12468.	1.7	7
87	Neither Sphere nor Cube–Analyzing the Particle Shape Using Small-Angle Scattering and the Superball Model. Journal of Physical Chemistry C, 2021, 125, 23356-23363.	1.5	7
88	The Impact of Surface Charges of Carboxylated Cellulose Nanofibrils on the Water Motions in Hydrated Films. Biomacromolecules, 2022, 23, 3104-3115.	2.6	5
89	Low-field-induced spin-glass behavior and controllable anisotropy in nanoparticle assemblies at a liquid-air interface. Science China Materials, 2022, 65, 193-200.	3.5	4
90	Giant exchange bias in micro-sized magnetic shape memory alloy particles. Journal Physics D: Applied Physics, 2021, 54, 045001.	1.3	3

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91	Magnetite core-inorganic shell nanoparticles for biomedical applications by novel confined-zone synthesis. , 0, , .		0
92	Bar-shaped nanoparticles of iron(II) hydroxide. Journal of Nanoparticle Research, 2008, 10, 377-381.	0.8	0
93	Oriented supercrystals of anisotropic iron oxide nanoparticles. Acta Crystallographica Section A: Foundations and Advances, 2010, 66, s241-s241.	0.3	0
94	Atomic-Resolution Monitoring of Structural Phase Transition in Bi-magnetic Core/Shell Oxide Nanoparticles. Microscopy and Microanalysis, 2014, 20, 106-107.	0.2	0