German Salazar-Alvarez

List of Publications by Citations

93 papers	6,047 citations	38 h-index	77 g-index
113 ext. papers	6,736 ext. citations	8.2 avg, IF	5.73 L-index

#	Paper	IF	Citations
93	Thermally insulating and fire-retardant lightweight anisotropic foams based on nanocellulose and graphene oxide. *Nature Nanotechnology*, **2015**, 10, 277-83	28.7	820
92	Making flexible magnetic aerogels and stiff magnetic nanopaper using cellulose nanofibrils as templates. *Nature Nanotechnology*, **2010**, 5, 584-8	28.7	684
91	Applications of exchange coupled bi-magnetic hard/soft and soft/hard magnetic core/shell nanoparticles. *Physics Reports*, **2015**, 553, 1-32	27.7	310
90	Synthesis and size-dependent exchange bias in inverted core-shell MnO|Mn3O4 nanoparticles. *Journal of the American Chemical Society*, **2007**, 129, 9102-8	16.4	248
89	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	7.1	201
88	Cubic versus spherical magnetic nanoparticles: the role of surface anisotropy. *Journal of the American Chemical Society*, **2008**, 130, 13234-9	16.4	196
87	High strength, flexible and transparent nanofibrillated cellulose-nanoclay biohybrid films with tunable oxygen and water vapor permeability. *Nanoscale*, **2012**, 4, 6622-8	7.7	188
86	Novel flow injection synthesis of iron oxide nanoparticles with narrow size distribution. *Chemical Engineering Science*, **2006**, 61, 4625-4633	4.4	177
85	Rod Packing in Chiral Nematic Cellulose Nanocrystal Dispersions Studied by Small-Angle X-ray Scattering and Laser Diffraction. *Langmuir*, **2015**, 31, 6507-13	4	137
84	Anomalous magnetic properties of nanoparticles arising from defect structures: topotaxial oxidation of Fe(1-x)O|Fe(3-[])O4 core|shell nanocubes to single-phase particles. *ACS Nano*, **2013**, 7, 7132-44	16.7	133
83	Robust antiferromagnetic coupling in hard-soft bi-magnetic core/shell nanoparticles. *Nature Communications*, **2013**, 4, 2960	17.4	132
82	Mesocrystals in Biominerals and Colloidal Arrays. *Accounts of Chemical Research*, **2015**, 48, 1391-402	24.3	129
81	Shape induced symmetry in self-assembled mesocrystals of iron oxide nanocubes. *Nano Letters*, **2011**, 11, 1651-6	11.5	126
80	Fe3O4 and gamma-Fe2O3 nanoparticles for the adsorption of Co2+ from aqueous solution. *Journal of Colloid and Interface Science*, **2006**, 298, 501-7	9.3	114
79	Macroscopic control of helix orientation in films dried from cholesteric liquid-crystalline cellulose nanocrystal suspensions. *ChemPhysChem*, **2014**, 15, 1477-84	3.2	112
78	Carbon aerogels from bacterial nanocellulose as anodes for lithium ion batteries. *RSC Advances*, **2014**, 4, 17549	3.7	105
77	Size-dependent passivation shell and magnetic properties in antiferromagnetic/ferrimagnetic core/shell MnO nanoparticles. *Journal of the American Chemical Society*, **2010**, 132, 9398-407	16.4	100

76	Hamaker constants of iron oxide nanoparticles. *Langmuir*, **2011**, 27, 8659-64	4	93
75	Quantitative spatial magnetization distribution in iron oxide nanocubes and nanospheres by polarized small-angle neutron scattering. *New Journal of Physics*, **2012**, 14, 013025	2.9	85
74	Controlled Synthesis of Near-Stoichiometric Cobalt Ferrite Nanoparticles. *Chemistry of Materials*, **2005**, 17, 5109-5118	9.6	85
73	A transparent hybrid of nanocrystalline cellulose and amorphous calcium carbonate nanoparticles. *Nanoscale*, **2011**, 3, 3563-6	7.7	74
72	Magnetic proximity effect features in antiferromagnetic/ferrimagnetic core-shell nanoparticles. *Physical Review Letters*, **2009**, 102, 247201	7.4	74
71	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	7.1	72
70	Hard and transparent films formed by nanocellulose-TiO2 nanoparticle hybrids. *PLoS ONE*, **2012**, 7, e45828	3.7	70
69	Strongly exchange coupled inverse ferrimagnetic soft/hard, Mn(x)Fe(3-x)O4/Fe(x)Mn(3-x)O4, core/shell heterostructured nanoparticles. *Nanoscale*, **2012**, 4, 5138-47	7.7	66
68	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	9.6	64
67	Origin of the large dispersion of magnetic properties in nanostructured oxides: Fe(x)O/Fe3O4 nanoparticles as a case study. *Nanoscale*, **2015**, 7, 3002-15	7.7	63
66	Superlattice growth and rearrangement during evaporation-induced nanoparticle self-assembly. *Scientific Reports*, **2017**, 7, 2802	4.9	57
65	Functional hybrids based on biogenic nanofibrils and inorganic nanomaterials. *Journal of Materials Chemistry A*, **2013**, 1, 5469	13	52
64	Extensively interconnected silicon nanoparticles via carbon network derived from ultrathin cellulose nanofibers as high performance lithium ion battery anodes. *Carbon*, **2017**, 118, 8-17	10.4	51
63	Two-, three-, and four-component magnetic multilayer onion nanoparticles based on iron oxides and manganese oxides. *Journal of the American Chemical Society*, **2011**, 133, 16738-41	16.4	50
62	Following in Real Time the Two-Step Assembly of Nanoparticles into Mesocrystals in Levitating Drops. *Nano Letters*, **2016**, 16, 6838-6843	11.5	48
61	3D Visualization of the Iron Oxidation State in FeO/Fe3O4 Core-Shell Nanocubes from Electron Energy Loss Tomography. *Nano Letters*, **2016**, 16, 5068-73	11.5	47
60	Structural diversity in iron oxide nanoparticle assemblies as directed by particle morphology and orientation. *Nanoscale*, **2013**, 5, 3969-75	7.7	46
59	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	13	44

58	Imprinting vortices into antiferromagnets. *Physical Review Letters*, **2006**, 97, 067201	7.4	43
57	Reversible post-synthesis tuning of the superparamagnetic blocking temperature of Fe2O3 nanoparticles by adsorption and desorption of Co(II) ions. *Journal of Materials Chemistry*, **2007**, 17, 322-328		42
56	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	8.3	38
55	2D to 3D crossover of the magnetic properties in ordered arrays of iron oxide nanocrystals. *Nanoscale*, **2013**, 5, 953-60	7.7	38
54	Enhanced Coercivity in Co-Rich Near-Stoichiometric CoxFe3-xO4+ Nanoparticles Prepared in Large Batches. *Chemistry of Materials*, **2007**, 19, 4957-4963	9.6	38
53	Mesoporous silica-magnetite nanocomposite synthesized by using a neutral surfactant. *Nanotechnology*, **2008**, 19, 185603	3.4	37
52	Resolving material-specific structures within Fe MnO core|shell nanoparticles using anomalous small-angle X-ray scattering. *ACS Nano*, **2013**, 7, 921-31	16.7	35
51	In-Situ Growth of Metal Oxide Nanoparticles on Cellulose Nanofibrils for Dye Removal and Antimicrobial Applications. *ACS Applied Nano Materials*, **2020**, 3, 7172-7181	5.6	33
50	Distinguishing the core from the shell in MnO(x)/MnO(y) and FeO(x)/MnO(x) core/shell nanoparticles through quantitative electron energy loss spectroscopy (EELS) analysis. *Micron*, **2012**, 43, 30-6	2.3	33
49	Fabrication of nanocellulose-hydroxyapatite composites and their application as water-resistant transparent coatings. *Journal of Materials Chemistry B*, **2015**, 3, 5858-5863	7.3	32
48	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	3	30
47	Lithium Ion Battery Separators Based On Carboxylated Cellulose Nanofibers From Wood. *ACS Applied Energy Materials*, **2019**, 2, 1241-1250	6.1	29
46	A novel textile-like carbon wrapping for high-performance silicon anodes in lithium-ion batteries. *Journal of Materials Chemistry A*, **2018**, 6, 12475-12483	13	28
45	Cold Consolidation of Metal Ceramic Nanocomposite Powders with Large Ceramic Fractions. *Advanced Functional Materials*, **2008**, 18, 3293-3298	15.6	27
44	Preparation of dry ultra-porous cellulosic fibres: characterization and possible initial uses. *Carbohydrate Polymers*, **2013**, 92, 775-83	10.3	26
43	Dynamic growth modes of ordered arrays and mesocrystals during drop-casting of iron oxide nanocubes. *CrystEngComm*, **2014**, 16, 1443-1450	3.3	25
42	A CaCO3/nanocellulose-based bioinspired nacre-like material. *Journal of Materials Chemistry A*, **2017**, 5, 16128-16133	13	23
41	Tunable High-Field Magnetization in Strongly Exchange-Coupled Freestanding Co/CoO Core/Shell Coaxial Nanowires. *ACS Applied Materials & Interfaces*, **2016**, 8, 22477-83	9.5	22

40	Thin Water Films at Multifaceted Hematite Particle Surfaces. *Langmuir*, **2015**, 31, 13127-37	4	21
39	Tuning the structure and habit of iron oxide mesocrystals. *Nanoscale*, **2016**, 8, 15571-80	7.7	21
38	Controlling magnetic vortices through exchange bias. *Applied Physics Letters*, **2006**, 88, 042502	3.4	21
37	Direct evidence of imprinted vortex states in the antiferromagnet of exchange biased microdisks. *Applied Physics Letters*, **2009**, 95, 012510	3.4	20
36	Synthesis, characterization and ESR measurements of CoNiO nanoparticles. *Physica Status Solidi (B): Basic Research*, **2005**, 242, 1712-1718	1.3	20
35	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	13	19
34	Assembly of cellulose nanocrystals in a levitating drop probed by time-resolved small angle X-ray scattering. *Nanoscale*, **2018**, 10, 18113-18118	7.7	19
33	Correlating material-specific layers and magnetic distributions within onion-like Fe3O4/MnO/Mn2O3 core/shell nanoparticles. *Journal of Applied Physics*, **2013**, 113, 17B531	2.5	18
32	Synthesis and nonlinear light scattering of microemulsions and nanoparticle suspensions. *Journal of Nanoparticle Research*, **2007**, 9, 647-652	2.3	18
31	Production of functionalised chitins assisted by fungal lytic polysaccharide monooxygenase. *Green Chemistry*, **2018**, 20, 2091-2100	10	17
30	Assembly, Gelation, and Helicoidal Consolidation of Nanocellulose Dispersions. *Langmuir*, **2019**, 35, 3600-3606	4	15
29	Anisotropic Diffusion and Phase Behavior of Cellulose Nanocrystal Suspensions. *Langmuir*, **2019**, 35, 2289-2302	4	14
28	Oriented aggregation of lepidocrocite and impact on surface charge development. *Langmuir*, **2014**, 30, 9017-21	4	14
27	Feasibility of Chemically Modified Cellulose Nanofiber Membranes as Lithium-Ion Battery Separators. *ACS Applied Materials & Interfaces*, **2020**, 12, 41211-41222	9.5	13
26	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	9.5	12
25	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	6.7	12
24	Probing planar defects in nanoparticle superlattices by 3D small-angle electron diffraction tomography and real space imaging. *Nanoscale*, **2014**, 6, 13803-8	7.7	11
23	Tailoring the magnetization reversal of elliptical dots using exchange bias (invited). *Journal of Applied Physics*, **2008**, 103, 07C109	2.5	11

22	Functionalization and patterning of nanocellulose films by surface-bound nanoparticles of hydrolyzable tannins and multivalent metal ions. *Nanoscale*, **2019**, 11, 19278-19284	7.7	10
21	Inducing nematic ordering of cellulose nanofibers using osmotic dehydration. *Nanoscale*, **2018**, 10, 23157-23163	7.7	10
20	Electrocatalytic Glycerol Oxidation with Concurrent Hydrogen Evolution Utilizing an Efficient MoO /Pt Catalyst. *Small*, **2021**, 17, e2104288	11	9
19	Spin excitations in cubic maghemite nanoparticles studied by time-of-flight neutron spectroscopy. *Physical Review B*, **2014**, 89,	3.3	7
18	On the role of tannins and iron in the Bogolan or mud cloth dyeing process. *Textile Reseach Journal*, **2012**, 82, 1888-1896	1.7	7
17	Hybrids based on borate-functionalized cellulose nanofibers and noble-metal nanoparticles as sustainable catalysts for environmental applications.. *RSC Advances*, **2020**, 10, 12460-12468	3.7	7
16	SANS study of mixed cholesteric cellulose nanocrystal - gold nanorod suspensions. *Chemical Communications*, **2020**, 56, 13001-13004	5.8	6
15	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	8.3	6
14	Controlled molecular reorientation enables strong cellulose fibers regenerated from ionic liquid solutions. *Polymer*, **2015**, 75, 119-124	3.9	5
13	Fabrication of Maghemite Nanoparticles with High Surface Area. *Nanomaterials*, **2019**, 9,	5.4	5
12	Synthetic Pathway Determines the Nonequilibrium Crystallography of Li- and Mn-Rich Layered Oxide Cathode Materials. *ACS Applied Energy Materials*, **2021**, 4, 1924-1935	6.1	5
11	Probing the meta-stability of oxide core/shell nanoparticle systems at atomic resolution. *Chemical Engineering Journal*, **2021**, 405, 126820	14.7	4
10	TEMPO-oxidized cellulose nanofibers as versatile additives for highly stable silicon anode in lithium-ion batteries. *Electrochimica Acta*, **2021**, 369, 137708	6.7	4
9	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	3.8	3
8	Giant exchange bias in micro-sized magnetic shape memory alloy particles. *Journal Physics D: Applied Physics*, **2021**, 54, 045001	3	3
7	Electrodeposited PdNi on a Ni rotating disk electrode highly active for glycerol electrooxidation in alkaline conditions. *Electrochimica Acta*, **2022**, 403, 139714	6.7	2
6	Low-field-induced spin-glass behavior and controllable anisotropy in nanoparticle assemblies at a liquid-air interface. *Science China Materials*,1	7.1	2
5	Efficient Screening of Bimetallic Electrocatalysts for Glycerol Valorization. *Electrochimica Acta*, **2021**, 398, 139283	6.7	1

List of Publications

4	Atomic-Resolution Monitoring of Structural Phase Transition in Bi-magnetic Core/Shell Oxide Nanoparticles. *Microscopy and Microanalysis*, **2014**, 20, 106-107	0.5
3	Sustainable Organic□horganic Interfaces in Energy Applications **2017**, 199-240	
2	Bar-shaped nanoparticles of iron(II) hydroxide. *Journal of Nanoparticle Research*, **2008**, 10, 377-381	2.3
1	Nanosession: Magnetic Interfaces and Surfaces259-268	