Alberto Lpez-Ortega

List of Publications by Citations

41 papers	1,746 citations	23 h-index	41 g-index
43 ext. papers	1,965 ext. citations	9.2 avg, IF	4.55 L-index

#	Paper	IF	Citations
41	Applications of exchange coupled bi-magnetic hard/soft and soft/hard magnetic core/shell nanoparticles. *Physics Reports*, **2015**, 553, 1-32	27.7	310
40	Exploring the Magnetic Properties of Cobalt-Ferrite Nanoparticles for the Development of a Rare-Earth-Free Permanent Magnet. *Chemistry of Materials*, **2015**, 27, 4048-4056	9.6	180
39	Robust antiferromagnetic coupling in hard-soft bi-magnetic core/shell nanoparticles. *Nature Communications*, **2013**, 4, 2960	17.4	132
38	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
37	Magnetic proximity effect features in antiferromagnetic/ferrimagnetic core-shell nanoparticles. *Physical Review Letters*, **2009**, 102, 247201	7.4	74
36	Synthesis of compositionally graded nanocast NiO/NiCo2O4/Co3O4 mesoporous composites with tunable magnetic properties. *Journal of Materials Chemistry*, **2010**, 20, 7021		73
35	Strongly Exchange Coupled Core|Shell Nanoparticles with High Magnetic Anisotropy: A Strategy toward Rare-Earth-Free Permanent Magnets. *Chemistry of Materials*, **2016**, 28, 4214-4222	9.6	71
34	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
33	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
32	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
31	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
30	Precise Size Control of the Growth of FeO Nanocubes over a Wide Size Range Using a Rationally Designed One-Pot Synthesis. *ACS Nano*, **2019**, 13, 7716-7728	16.7	41
29	Role of Zn2+ Substitution on the Magnetic, Hyperthermic, and Relaxometric Properties of Cobalt Ferrite Nanoparticles. *Journal of Physical Chemistry C*, **2019**, 123, 6148-6157	3.8	41
28	Direct evidence for an interdiffused intermediate layer in bi-magnetic core-shell nanoparticles. *Nanoscale*, **2014**, 6, 11911-20	7.7	39
27	Enhanced Ultrafast Nonlinear Optical Response in Ferrite Core/Shell Nanostructures with Excellent Optical Limiting Performance. *Small*, **2018**, 14, 1701001	11	38
26	Energy Product Enhancement in Imperfectly Exchange-Coupled Nanocomposite Magnets. *Advanced Electronic Materials*, **2016**, 2, 1500365	6.4	37
25	Oxide Wizard: an EELS application to characterize the white lines of transition metal edges. *Microscopy and Microanalysis*, **2014**, 20, 698-705	0.5	35

24	Resolving material-specific structures within Fe□|□Mn□ core|shell nanoparticles using anomalous small-angle X-ray scattering. *ACS Nano*, **2013**, 7, 921-31	16.7	35
23	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
22	Suppressing the Thermal and Ultraviolet Sensitivity of Kevlar by Infiltration and Hybridization with ZnO. *Chemistry of Materials*, **2017**, 29, 10068-10074	9.6	32
21	EEL spectroscopic tomography: towards a new dimension in nanomaterials analysis. *Ultramicroscopy*, **2012**, 122, 12-8	3.1	32
20	Plasmon induced magneto-optical enhancement in metallic Ag/FeCo core/shell nanoparticles synthesized by colloidal chemistry. *Nanoscale*, **2018**, 10, 18672-18679	7.7	24
19	Simultaneous Local Heating/Thermometry Based on Plasmonic Magnetochromic Nanoheaters. *Small*, **2018**, 14, e1800868	11	24
18	Topotaxial Phase Transformation in Cobalt Doped Iron Oxide Core/Shell Hard Magnetic Nanoparticles. *Chemistry of Materials*, **2017**, 29, 1279-1289	9.6	23
17	Enhanced magnetic modulation of light polarization exploiting hybridization with multipolar dark plasmons in magnetoplasmonic nanocavities. *Light: Science and Applications*, **2020**, 9, 49	16.7	23
16	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 MnOx/FeOx Structures. *Chemistry of Materials*, **2016**, 28, 8025-8031	9.6	22
15	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
14	Clustering analysis strategies for electron energy loss spectroscopy (EELS). *Ultramicroscopy*, **2018**, 185, 42-48	3.1	13
13	Atomic-Scale Determination of Cation Inversion in Spinel-Based Oxide Nanoparticles. *Nano Letters*, **2018**, 18, 5854-5861	11.5	13
12	Controlled 3D-coating of the pores of highly ordered mesoporous antiferromagnetic Co3O4 replicas with ferrimagnetic Fe(x)Co(3-x)O4 nanolayers. *Nanoscale*, **2013**, 5, 5561-7	7.7	12
11	Ligand-induced reduction concerted with coating by atomic layer deposition on the example of TiO-coated magnetite nanoparticles. *Chemical Science*, **2019**, 10, 2171-2178	9.4	8
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 O Core/Shell Nanoparticles as a Case Study. *Small*, **2018**, 14, e1800804	11	8
9	Unravelling the Elusive Antiferromagnetic Order in Wurtzite and Zinc Blende CoO Polymorph Nanoparticles. *Small*, **2018**, 14, e1703963	11	7
8	Role of the oxygen partial pressure in the formation of composite Co-CoO nanoparticles by reactive aggregation. *Journal of Nanoparticle Research*, **2011**, 13, 4583-4590	2.3	6
7	Probing the meta-stability of oxide core/shell nanoparticle systems at atomic resolution. *Chemical Engineering Journal*, **2021**, 405, 126820	14.7	4

6	Zinc blende and wurtzite CoO polymorph nanoparticles: Rational synthesis and commensurate and incommensurate magnetic order. *Applied Materials Today*, **2019**, 16, 322-331	6.6	3
5	Magnetic Measurements as a Sensitive Tool for Studying Dehydrogenation Processes in Hydrogen Storage Materials. *Journal of Physical Chemistry C*, **2010**, 114, 16818-16822	3.8	2
4	Nanoparticle Size Distribution and Surface Effects on the Thermal Dependence of Magnetic Anisotropy. *Journal of Physical Chemistry C*, **2022**, 126, 1581-1589	3.8	2
3	Electron energy-loss spectroscopic tomography of FexCo(3-x)O4 impregnated Co3O4 mesoporous particles: unraveling the chemical information in three dimensions. *Analyst, The*, **2016**, 141, 4968-72	5	2
2	Direct Evidence of a Graded Magnetic Interface in Bimagnetic Core/Shell Nanoparticles Using Electron Magnetic Circular Dichroism (EMCD). *Nano Letters*, **2021**, 21, 6923-6930	11.5	2
1	A caging strategy for tuning the magneto-optical properties of cobalt ferrite using a single plasmonic nanoparticle. *Journal of Materials Chemistry C*, **2021**, 9, 5098-5104	7.1	0