Oscar Iglesias

List of Publications by Year
in descending order

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54 papers	2,973 citations	201674 27 h-index	175258 52 g-index
55 all docs	55 docs citations	55 times ranked	3496 citing authors

#	Article	IF	Citations
1	Learning from Nature to Improve the Heat Generation of Iron-Oxide Nanoparticles for Magnetic Hyperthermia Applications. Scientific Reports, 2013, 3, 1652.	3.3	442
2	Surfactant effects in magnetite nanoparticles of controlled size. Journal of Magnetism and Magnetic Materials, 2007, 316, e756-e759.	2.3	273
3	Exchange Bias Phenomenology and Models of Core/Shell Nanoparticles. Journal of Nanoscience and Nanotechnology, 2008, 8, 2761-2780.	0.9	254
4	Finite-size and surface effects in maghemite nanoparticles: â€‚Monte Carlo simulations. Physical Review B, 2001, 63, .	3.2	239
5	Exchange Bias Effects in Iron Oxide-Based Nanoparticle Systems. Nanomaterials, 2016, 6, 221.	4.1	124
6	Magnetic relaxation in small-particle systems: ln(t/Ï„0) scaling. Physical Review B, 1993, 48, 10240-10246.	3.2	121
7	Microscopic origin of exchange bias in core/shell nanoparticles. Physical Review B, 2005, 72, .	3.2	111
8	Magnetic domains and surface effects in hollow maghemite nanoparticles. Physical Review B, 2009, 79, .	3.2	110
9	Quantum tunneling of domain walls in ferromagnets. Physical Review B, 1992, 46, 5392-5404.	3.2	108
10	Magnetic nanoparticles with bulklike properties (invited). Journal of Applied Physics, 2011, 109, .	2.5	105
11	Spin-glass-like freezing of inner and outer surface layers in hollow Î³-Fe2O3 nanoparticles. Scientific Reports, 2015, 5, 15054.	3.3	89
12	Role of surface disorder on the magnetic properties and hysteresis of nanoparticles. Physica B: Condensed Matter, 2004, 343, 286-292.	2.7	84
13	Surface anisotropy broadening of the energy barrier distribution in magnetic nanoparticles. Nanotechnology, 2008, 19, 475704.	2.6	75
14	Magnetic relaxation in terms of microscopic energy barriers in a model of dipolar interacting nanoparticles. Physical Review B, 2004, 70, .	3.2	66
15	Magnetic structure ofLi2CuO2:â€ƒFromab initiocalculations to macroscopic simulations. Physical Review B, 2002, 66, .	3.2	57
16	Controlling exchange bias in Coâ€“CoO_xnanoparticles by oxygen content. Nanotechnology, 2009, 20, 175702.	2.6	46
17	Magnetic nanoparticles: From the nanostructure to the physical properties. Journal of Magnetism and Magnetic Materials, 2022, 543, 168594.	2.3	45
18	Morphology influence on nanoscale magnetism of Co nanoparticles: Experimental and theoretical aspects of exchange bias. Physical Review B, 2011, 84, .	3.2	44

#	Article	IF	Citations
19	Exchange bias effect in Au-Fe₃O₄nanocomposites. Nanotechnology, 2014, 25, 055702.	2.6	43
20	Time dependent phenomena at low temperatures in SmCo multilayers: quantum nucleation phenomena. Physics Letters, Section A: General, Atomic and Solid State Physics, 1992, 163, 130-134.	2.1	36
21	Modelling exchange bias in core/shell nanoparticles. Journal of Physics Condensed Matter, 2007, 19, 406232.	1.8	35
22	Particle size and cooling field dependence of exchange bias in core/shell magnetic nanoparticles. Journal Physics D: Applied Physics, 2008, 41, 134010.	2.8	35
23	Glassy magnetic phase driven by short-range charge and magnetic ordering in nanocrystalline La<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mrow><mml:mn>1</mml:mn><mml:mo>/</mml:mo><mml:mn>3</mml:mn></mml:mrow></mml:msub></mml:math>Sr<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mrow><mml:mn>2</mml:mn><mml:mo>/</mml:mo><mml:mn>3</mml:mn></mml:mrow></mml:msub></mml:math>FeO<mml:	3.2	31
24	Monte Carlo simulation study of exchange biased hysteresis loops in nanoparticles. Physica B: Condensed Matter, 2006, 372, 247-250.	2.7	29
25	Quantification of Dipolar Interactions in Fe_{3â€“x}O₄ Nanoparticles. Journal of Physical Chemistry C, 2015, 119, 24142-24148.	3.1	29
26	Interplay between surface anisotropy and dipolar interactions in an assembly of nanomagnets. Physical Review B, 2013, 88, .	3.2	28
27	Normalization factors for magnetic relaxation of small-particle systems in a nonzero magnetic field. Physical Review B, 1997, 55, 8940-8944.	3.2	27
28	Influence of surface anisotropy on the hysteresis of magnetic nanoparticles. Journal of Magnetism and Magnetic Materials, 2005, 290-291, 738-741.	2.3	26
29	Exchange bias in laterally oxidized Au/Co/Au nanopillars. Applied Physics Letters, 2009, 94, 062502.	3.3	25
30	Exchange bias and asymmetric hysteresis loops from a microscopic model of core/shell nanoparticles. Journal of Magnetism and Magnetic Materials, 2007, 316, 140-142.	2.3	23
31	Probing core and shell contributions to exchange bias in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>Co</mml:mi><mml:mo>/</mml:mo><mml:msub><mml:mrow /><mml:mrow mathvariant="normal">O</mml:mi><mml:mn>4</mml:mn></mml:msub></mml:mrow></mml:math>nanoparticles of controlled size. Physical Review B, 2016, 94, .	3.2	23
32	scaling in small-particle systems: low-temperature behaviour. Journal of Magnetism and Magnetic Materials, 1995, 140-144, 399-400.	2.3	19
33	Magnetic field scaling of relaxation curves in small particle systems. Journal of Applied Physics, 2002, 91, 4409-4417.	2.5	18
34	From Finite Size and Surface Effects to Glassy Behaviour in Ferrimagnetic Nanoparticles. , 2005, , 105-140.		14
35	Exchange bias phenomenology and models of core/shell nanoparticles. Journal of Nanoscience and Nanotechnology, 2008, 8, 2761-80.	0.9	13
36	Shape and surface anisotropy effects on the hysteresis of ferrimagnetic nanoparticles. Journal of Magnetism and Magnetic Materials, 2004, 272-276, 685-686.	2.3	12

#	Article	IF	Citations
37	Monte Carlo simulation of the magnetic ordering in thin films with perpendicular anisotropy. Journal of Magnetism and Magnetic Materials, 1999, 196-197, 819-820.	2.3	11
38	Nucleation phenomenon in nanoparticle self-assemblies. International Journal of Nanotechnology, 2005, 2, 62.	0.2	11
39	Pseudocritical behavior of ferromagnetic pure and random diluted nanoparticles with competing interactions: Variational and Monte Carlo approaches. Physical Review B, 2011, 83, .	3.2	11
40	Magnetic history dependence of metastable states in thin films with dipolar interactions. Journal of Magnetism and Magnetic Materials, 2000, 221, 149-157.	2.3	10
41	Change in the magnetic configurations of tubular nanostructures by tuning dipolar interactions. Scientific Reports, 2018, 8, 10275.	3.3	10
42	Non-Thermal Viscosity in the Magnetic Relaxation of 2 d Random Magnets. Europhysics Letters, 1993, 22, 211-216.	2.0	8
43	Effects of the magnetic field on the relaxation of small particle systems. Computational Materials Science, 2002, 25, 577-583.	3.0	8
44	Structural disorder in two-dimensional random magnets: Very thin films of rare earths and transition metals. Physical Review B, 1993, 47, 11848-11851.	3.2	7
45	Monte Carlo study of the finite-size effects on the magnetization of maghemite small particles. Journal of Applied Physics, 2001, 89, 7597-7599.	2.5	6
46	Tailoring dual reversal modes by helicity control in ferromagnetic nanotubes. Physical Review B, 2020, 101, .	3.2	6
47	Switching on superferromagnetism. Physical Review Materials, 2019, 3, .	2.4	6
48	Influence of surface anisotropy on the magnetization reversal of nanoparticles. Physica Status Solidi C: Current Topics in Solid State Physics, 2004, 1, 3481-3484.	0.8	5
49	Magnetic relaxation in a model of interacting nanoparticles in terms of microscopic energy barriers. Physica Status Solidi A, 2004, 201, 3329-3332.	1.7	4
50	Single Nanomagnet Behaviour: Surface and Finite-Size Effects. Springer Series in Materials Science, 2021, , 3-38.	0.6	3
51	Hollow Magnetic Nanoparticles. Springer Series in Materials Science, 2021, , 137-158.	0.6	3
52	Finite Size Effects in Small Particle Systems. , 2001, , 363-367.		2
53	Pressure effects in hollow and solid iron oxide nanoparticles. Journal of Magnetism and Magnetic Materials, 2013, 335, 1-5.	2.3	1
54	Equilibrium and dynamic behaviour of (weakly) interacting assemblies of magnetic nanoparticles. Journal of Physics: Conference Series, 2014, 521, 012010.	0.4	0