JosÃ© A De Toro

List of Publications by Year
in descending order

69	1,263	304368	414034
papers	citations	22 h-index	32 g-index

70	70	70	1443
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Structure and magnetism in ultra-thin hcp Fe films on Re(0001). Surfaces and Interfaces, 2022, 30, 101892.	1.5	0
2	Crossover From Individual to Collective Magnetism in Dense Nanoparticle Systems: Local Anisotropy Versus Dipolar Interactions. Small, 2022, 18, .	5.2	16
3	Effective control of the magnetic anisotropy in ferromagnetic MnBi micro-islands. Journal of Alloys and Compounds, 2021, 852, 156731.	2.8	3
4	Reconfigurable Mechanical Anisotropy in Selfâ€Assembled Magnetic Superstructures. Advanced Science, 2021, 8, 2002683.	5.6	6
5	Core Size and Interface Impact on the Exchange Bias of Cobalt/Cobalt Oxide Nanostructures. Magnetochemistry, 2021, 7, 40.	1.0	9
6	New insights into controlling the twin structure of magnetic iron oxide nanoparticles. Applied Materials Today, 2021, 24, 101084.	2.3	9
7	On the detection of surface spin freezing in iron oxide nanoparticles and its long-term evolution under ambient oxidation. Nanotechnology, 2021, 32, 065704.	1.3	9
8	Gas Phase Synthesis of Multi-Element Nanoparticles. Nanomaterials, 2021, 11, 2803.	1.9	8
9	Spontaneous Formation of Core@shell Co@Cr Nanoparticles by Gas Phase Synthesis. Applied Nano, 2020, 1, 87-101.	0.9	4
10	Simultaneous Individual and Dipolar Collective Properties in Binary Assemblies of Magnetic Nanoparticles. Chemistry of Materials, 2020, 32, 969-981.	3.2	26
11	Photocatalysis Meets Magnetism: Designing Magnetically Recoverable Supports for Visible-Light Photocatalysis. ACS Applied Materials & Interfaces, 2020, 12, 24895-24904.	4.0	26
12	Magnetically Enhanced Mechanical Stability and Superâ€Size Effects in Selfâ€Assembled Superstructures of Nanocubes. Advanced Functional Materials, 2019, 29, 1904825.	7.8	17
13	Flexible, multifunctional nanoribbon arrays of palladium nanoparticles for transparent conduction and hydrogen detection. Applied Surface Science, 2019, 470, 212-218.	3.1	6
14	Optical and vibrational properties of CaZnOS: The role of intrinsic defects. Journal of Alloys and Compounds, 2019, 777, 225-233.	2.8	8
15	The interplay between single particle anisotropy and interparticle interactions in ensembles of magnetic nanoparticles. Physical Chemistry Chemical Physics, 2018, 20, 28634-28643.	1.3	54
16	Approach to the potential usage of two wood ashes waste as soil amendments on the basis of the dehydrogenase activity and soil oxygen consumption. Journal of Soils and Sediments, 2018, 18, 2148-2156.	1.5	8
17	Maximizing Exchange Bias in Co/CoO Core/Shell Nanoparticles by Lattice Matching between the Shell and the Embedding Matrix. Chemistry of Materials, 2017, 29, 5200-5206.	3.2	38
18	Remanence Plots as a Probe of Spin Disorder in Magnetic Nanoparticles. Chemistry of Materials, 2017, 29, 8258-8268.	3.2	61

#	Article	IF	Citations
19	Magnetic properties of nanoparticle compacts with controlled broadening of the particle size distribution. Physical Review B, 2017, 95, .	1.1	9
20	Exchange Bias Optimization by Controlled Oxidation of Cobalt Nanoparticle Films Prepared by Sputter Gas Aggregation. Nanomaterials, 2017, 7, 61.	1.9	12
21	Demagnetization effects in dense nanoparticle assemblies. Applied Physics Letters, 2016, 109, .	1.5	20
22	Particle size-dependent superspin glass behavior in random compacts of monodisperse maghemite nanoparticles. Materials Research Express, 2016, 3, 045015.	0.8	10
23	Effects of the individual particle relaxation time on superspin glass dynamics. Physical Review B, 2016, 93, .	1.1	14
24	High Temperature Magnetic Stabilization of Cobalt Nanoparticles by an Antiferromagnetic Proximity Effect. Physical Review Letters, 2015, 115, 057201.	2.9	61
25	Size-dependent surface effects in maghemite nanoparticles and its impact on interparticle interactions in dense assemblies. Nanotechnology, 2015, 26, 475703.	1.3	35
26	Super spin dimensionality of a mono-dispersed and densely packed magnetic nanoparticle system. Journal of Physics: Conference Series, 2014, 521, 012012.	0.3	1
27	Ageing dynamics of a superspin glass. Europhysics Letters, 2014, 108, 17004.	0.7	11
28	Exchange bias beyond the superparamagnetic blocking temperature of the antiferromagnet in a Ni-NiO nanoparticulate system. Journal of Applied Physics, 2014, 115, .	1.1	23
29	Effect of Ni precursor solution concentration on the magnetic properties and exchange bias of Ni-NiO nanoparticulate systems. Journal of Applied Physics, 2014, 116, 093906.	1.1	4
30	Spin Dynamics of the Low-Temperature Magnetic Relaxation in Disordered Fe₃₅Al₅₀B₁₅ Alloys. IEEE Transactions on Magnetics, 2014, 50, 1-5.	1.2	0
31	High-vacuum annealing reduction of Co/CoO nanoparticles. Nanotechnology, 2014, 25, 105702.	1.3	20
32	Surface Effects Under Visible Irradiation and Heat Treatment on the Phase Stability of Î³-Fe₂O₃ Nanoparticles and Î³-Fe₂O₃ â^'SiO₂ Coreâ€“Shell Nanostructures. Journal of Physical Chemistry C, 2014, 118, 2857-2866.	1.5	22
33	Ideal superspin glass behaviour in a random-close-packed ensemble of maghemite nanoparticles. Journal of Physics: Conference Series, 2014, 521, 012011.	0.3	3
34	Controlled Close-Packing of Ferrimagnetic Nanoparticles: An Assessment of the Role of Interparticle Superexchange Versus Dipolar Interactions. Journal of Physical Chemistry C, 2013, 117, 10213-10219.	1.5	62
35	A nanoparticle replica of the spin-glass state. Applied Physics Letters, 2013, 102, .	1.5	69
36	Phase transition in a super superspin glass. Europhysics Letters, 2013, 102, 67002.	0.7	16

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37	Comment on â€œAccurate determination of the magnetic anisotropy in cluster-assembled nanostructuresâ€•[Appl. Phys. Lett. 95, 062503 (2009)]. Applied Physics Letters, 2012, 100, .	1.5	2
38	Two-dimensional crystallography introduced by the sprinkler watering problem. European Journal of Physics, 2012, 33, 167-177.	0.3	1
39	Energy barrier enhancement by weak magnetic interactions in Co/Nb granular films assembled by inert gas condensation. Physical Review B, 2012, 85, .	1.1	15
40	Lifestyle Influence on the Content of Copper, Zinc and Rubidium in Wild Mushrooms. Applied and Environmental Soil Science, 2012, 2012, 1-6.	0.8	4
41	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.	0.8	6
42	The oxidation of metal-capped Co cluster films under ambient conditions. Nanotechnology, 2009, 20, 085710.	1.3	12
43	Coâ€“CoO nanoparticles prepared by reactive gas-phase aggregation. Journal of Nanoparticle Research, 2009, 11, 2105-2111.	0.8	26
44	CoO1âˆ’Î1layers in a reactively sputtered exchange-bias system. New Journal of Physics, 2008, 10, 083028.	1.2	2
45	Reactive sputtering synthesis of Coâ€“CoOâˆ•Ag nanogranular and multilayer films containing core-shell particles. Journal of Applied Physics, 2007, 101, 09E504.	1.1	5
46	Influence of spacer layer morphology on the exchange-bias properties of reactively sputtered<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi mathvariant="normal">Co</mml:mi><mml:mo>âˆ•</mml:mo><mml:mi mathvariant="normal">Ag</mml:mi></mml:mrow></mml:math>multilayers. Physical Review B, 2007, 76, .	1.1	24
47	Ageing and memory effects in a mechanically alloyed nanoparticle system. Journal of Magnetism and Magnetic Materials, 2007, 313, 373-377.	1.0	19
48	A comprehensive structural and magnetic study of Ni nanoparticles prepared by the borohydride reduction of NiCl2 solution of different concentrations. Journal of Applied Physics, 2006, 100, 094307.	1.1	9
49	Exchange bias and nanoparticle magnetic stability in Co-CoO composites. Physical Review B, 2006, 73, .	1.1	42
50	Oxygen-assisted control of surface morphology in nonepitaxial sputter growth of Ag. Applied Physics Letters, 2006, 89, 201902.	1.5	23
51	Low-temperature magnetization dynamics of oxygen-stabilized tetragonal Ni nanoparticles. Physical Review B, 2006, 74, .	1.1	14
52	Improvement of magnetic particle stability upon annealing in an exchange-biased nanogranular system. Journal of Applied Physics, 2006, 100, 064312.	1.1	5
53	Exchange-bias stabilization of the magnetic nanoparticles in a granular alloy grown by reactive sputtering. Applied Physics Letters, 2005, 86, 172503.	1.5	23
54	Structure and magnetic properties of oxygen-stabilized tetragonal Ni nanoparticles prepared by borohydride reduction method. Physical Review B, 2005, 71, .	1.1	55

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55	Effect of interstitial oxygen on the crystal structure and magnetic properties of Ni nanoparticles. Journal of Applied Physics, 2004, 96, 6782-6788.	1.1	36
56	Critical spin-glass dynamics in a heterogeneous nanogranular system. Physical Review B, 2004, 69, .	1.1	27
57	Glassy magnetism in mechanically alloyed Fe35Cr65. Journal of Magnetism and Magnetic Materials, 2004, 272-276, 1340-1341.	1.0	2
58	Influence of the quenched-in nuclei on the crystallisation of amorphous Ni80B20. Journal of Magnetism and Magnetic Materials, 2004, 272-276, E1129-E1130.	1.0	6
59	Improved giant magnetoresistance in nanogranularCoâ^•Ag:â€ƒThe role of interparticle RKKY interactions. Physical Review B, 2004, 70, .	1.1	35
60	Superparamagnetism in the devitrification of amorphousNi80B20. Physical Review B, 2002, 66, .	1.1	6
61	Magnetic nanogranularity and spin-glass behavior in mechanically alloyed Fe[sub 35]Al[sub 50]B[sub 15]. Journal of Applied Physics, 2002, 91, 8396.	1.1	4
62	Magnetic properties and microstructural characterization of granular Agâ€“Fe films. Journal of Magnetism and Magnetic Materials, 2002, 242-245, 952-954.	1.0	5
63	Glassy magnetic behavior in nanocrystalline mechanically alloyed Feâ€“Wâ€“Ag. Journal of Magnetism and Magnetic Materials, 2001, 231, 291-293.	1.0	4
64	MÃ¶ssbauer study of the superspin glass transition in nanogranularAl49Fe30Cu21. Physical Review B, 2001, 64, .	1.1	21
65	Nonequilibrium magnetic dynamics in mechanically alloyed materials. Physical Review B, 2001, 64, .	1.1	33
66	Spin-glass-like static and dynamic properties of mechanically alloyed Feâ€“Reâ€“Cr. Journal of Applied Physics, 2000, 87, 6534-6536.	1.1	4
67	Magnetic characterization of mechanically alloyed Fe30(Al1 â^'xCux)70. Journal of Magnetism and Magnetic Materials, 1999, 196-197, 243-245.	1.0	5
68	Spin-glass-like behavior in mechanically alloyed nanocrystalline Fe-Al-Cu. Physical Review B, 1999, 60, 12918-12923.	1.1	47
69	Accurate interferometric measurement of electro-optic coefficients: application to quasi-stoichiometric LiNbO3. Optics Communications, 1998, 154, 23-27.	1.0	36