

# JosÃ© A De Toro

## List of Publications by Year in descending order

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69  
papers

1,263  
citations

304368

22  
h-index

414034

32  
g-index

70  
all docs

70  
docs citations

70  
times ranked

1443  
citing authors

#	ARTICLE	IF	CITATIONS
1	A nanoparticle replica of the spin-glass state. Applied Physics Letters, 2013, 102, .	1.5	69
2	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
3	High Temperature Magnetic Stabilization of Cobalt Nanoparticles by an Antiferromagnetic Proximity Effect. Physical Review Letters, 2015, 115, 057201.	2.9	61
4	Remanence Plots as a Probe of Spin Disorder in Magnetic Nanoparticles. Chemistry of Materials, 2017, 29, 8258-8268.	3.2	61
5	Structure and magnetic properties of oxygen-stabilized tetragonal Ni nanoparticles prepared by borohydride reduction method. Physical Review B, 2005, 71, .	1.1	55
6	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
7	Spin-glass-like behavior in mechanically alloyed nanocrystalline Fe-Al-Cu. Physical Review B, 1999, 60, 12918-12923.	1.1	47
8	Exchange bias and nanoparticle magnetic stability in Co-CoO composites. Physical Review B, 2006, 73, .	1.1	42
9	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
10	Accurate interferometric measurement of electro-optic coefficients: application to quasi-stoichiometric LiNbO <sub>3</sub> . Optics Communications, 1998, 154, 23-27.	1.0	36
11	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
12	Improved giant magnetoresistance in nanogranular Co <sup>2+</sup> /Ag <sup>100</sup> . The role of interparticle RKKY interactions. Physical Review B, 2004, 70, .	1.1	35
13	Size-dependent surface effects in maghemite nanoparticles and its impact on interparticle interactions in dense assemblies. Nanotechnology, 2015, 26, 475703.	1.3	35
14	Nonequilibrium magnetic dynamics in mechanically alloyed materials. Physical Review B, 2001, 64, .	1.1	33
15	Critical spin-glass dynamics in a heterogeneous nanogranular system. Physical Review B, 2004, 69, .	1.1	27
16	Co <sup>2+</sup> /CoO nanoparticles prepared by reactive gas-phase aggregation. Journal of Nanoparticle Research, 2009, 11, 2105-2111.	0.8	26
17	Simultaneous Individual and Dipolar Collective Properties in Binary Assemblies of Magnetic Nanoparticles. Chemistry of Materials, 2020, 32, 969-981.	3.2	26
18	Photocatalysis Meets Magnetism: Designing Magnetically Recoverable Supports for Visible-Light Photocatalysis. ACS Applied Materials & Interfaces, 2020, 12, 24895-24904.	4.0	26



#	ARTICLE	IF	CITATIONS
37	Particle size-dependent superspin glass behavior in random compacts of monodisperse maghemite nanoparticles. <i>Materials Research Express</i> , 2016, 3, 045015.	0.8	10
38	A comprehensive structural and magnetic study of Ni nanoparticles prepared by the borohydride reduction of NiCl <sub>2</sub> solution of different concentrations. <i>Journal of Applied Physics</i> , 2006, 100, 094307.	1.1	9
39	Magnetic properties of nanoparticle compacts with controlled broadening of the particle size distribution. <i>Physical Review B</i> , 2017, 95, .	1.1	9
40	Core Size and Interface Impact on the Exchange Bias of Cobalt/Cobalt Oxide Nanostructures. <i>Magnetochemistry</i> , 2021, 7, 40.	1.0	9
41	New insights into controlling the twin structure of magnetic iron oxide nanoparticles. <i>Applied Materials Today</i> , 2021, 24, 101084.	2.3	9
42	On the detection of surface spin freezing in iron oxide nanoparticles and its long-term evolution under ambient oxidation. <i>Nanotechnology</i> , 2021, 32, 065704.	1.3	9
43	Approach to the potential usage of two wood ashes waste as soil amendments on the basis of the dehydrogenase activity and soil oxygen consumption. <i>Journal of Soils and Sediments</i> , 2018, 18, 2148-2156.	1.5	8
44	Optical and vibrational properties of CaZnOS: The role of intrinsic defects. <i>Journal of Alloys and Compounds</i> , 2019, 777, 225-233.	2.8	8
45	Gas Phase Synthesis of Multi-Element Nanoparticles. <i>Nanomaterials</i> , 2021, 11, 2803.	1.9	8
46	Superparamagnetism in the devitrification of amorphous Ni <sub>80</sub> B <sub>20</sub> . <i>Physical Review B</i> , 2002, 66, .	1.1	6
47	Influence of the quenched-in nuclei on the crystallisation of amorphous Ni <sub>80</sub> B <sub>20</sub> . <i>Journal of Magnetism and Magnetic Materials</i> , 2004, 272-276, E1129-E1130.	1.0	6
48	Role of the oxygen partial pressure in the formation of composite Co-CoO nanoparticles by reactive aggregation. <i>Journal of Nanoparticle Research</i> , 2011, 13, 4583-4590.	0.8	6
49	Flexible, multifunctional nanoribbon arrays of palladium nanoparticles for transparent conduction and hydrogen detection. <i>Applied Surface Science</i> , 2019, 470, 212-218.	3.1	6
50	Reconfigurable Mechanical Anisotropy in Self-Assembled Magnetic Superstructures. <i>Advanced Science</i> , 2021, 8, 2002683.	5.6	6
51	Magnetic characterization of mechanically alloyed Fe <sub>30</sub> (Al <sub>1-x</sub> Cu <sub>x</sub> ) <sub>70</sub> . <i>Journal of Magnetism and Magnetic Materials</i> , 1999, 196-197, 243-245.	1.0	5
52	Magnetic properties and microstructural characterization of granular Ag/Fe films. <i>Journal of Magnetism and Magnetic Materials</i> , 2002, 242-245, 952-954.	1.0	5
53	Improvement of magnetic particle stability upon annealing in an exchange-biased nanogranular system. <i>Journal of Applied Physics</i> , 2006, 100, 064312.	1.1	5
54	Reactive sputtering synthesis of Co/CoO/Ag nanogranular and multilayer films containing core-shell particles. <i>Journal of Applied Physics</i> , 2007, 101, 09E504.	1.1	5

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55	Spin-glass-like static and dynamic properties of mechanically alloyed Fe <sup>100-x</sup> Re <sup>x</sup> Cr. Journal of Applied Physics, 2000, 87, 6534-6536.	1.1	4
56	Glassy magnetic behavior in nanocrystalline mechanically alloyed Fe <sup>100-x</sup> W <sup>x</sup> Ag. Journal of Magnetism and Magnetic Materials, 2001, 231, 291-293.	1.0	4
57	Magnetic nanogranularity and spin-glass behavior in mechanically alloyed Fe <sub>35</sub> Al <sub>50</sub> B <sub>15</sub> . Journal of Applied Physics, 2002, 91, 8396.	1.1	4
58	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
59	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
60	Spontaneous Formation of Core@shell Co@Cr Nanoparticles by Gas Phase Synthesis. Applied Nano, 2020, 1, 87-101.	0.9	4
61	Ideal superspin glass behaviour in a random-close-packed ensemble of maghemite nanoparticles. Journal of Physics: Conference Series, 2014, 521, 012011.	0.3	3
62	Effective control of the magnetic anisotropy in ferromagnetic MnBi micro-islands. Journal of Alloys and Compounds, 2021, 852, 156731.	2.8	3
63	Glassy magnetism in mechanically alloyed Fe <sub>35</sub> Cr <sub>65</sub> . Journal of Magnetism and Magnetic Materials, 2004, 272-276, 1340-1341.	1.0	2
64	CoO <sup>111</sup> layers in a reactively sputtered exchange-bias system. New Journal of Physics, 2008, 10, 083028.	1.2	2
65	Comment on "Accurate determination of the magnetic anisotropy in cluster-assembled nanostructures" [Appl. Phys. Lett. 95, 062503 (2009)]. Applied Physics Letters, 2012, 100, .	1.5	2
66	Two-dimensional crystallography introduced by the sprinkler watering problem. European Journal of Physics, 2012, 33, 167-177.	0.3	1
67	Super spin dimensionality of a mono-dispersed and densely packed magnetic nanoparticle system. Journal of Physics: Conference Series, 2014, 521, 012012.	0.3	1
68	Spin Dynamics of the Low-Temperature Magnetic Relaxation in Disordered Fe <sub>35</sub> Al <sub>50</sub> B <sub>15</sub> Alloys. IEEE Transactions on Magnetism, 2014, 50, 1-5.	1.2	0
69	Structure and magnetism in ultra-thin hcp Fe films on Re(0001). Surfaces and Interfaces, 2022, 30, 101892.	1.5	0