Julio Camarero De Diego

List of Publications by Year
in descending order

133	3,359	147801 31	175258 52
papers	citations	h-index	g-index

136	136	136	3655
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Origin of the Asymmetric Magnetization Reversal Behavior in Exchange-Biased Systems: Competing Anisotropies. Physical Review Letters, 2005, 95, 057204.	7.8	255
2	Molecular vs. inorganic spintronics: the role of molecular materials and single molecules. Journal of Materials Chemistry, 2009, 19, 1678.	6.7	156
3	A Single Picture Explains Diversity of Hyperthermia Response of Magnetic Nanoparticles. Journal of Physical Chemistry C, 2015, 119, 15698-15706.	3.1	141
4	Surfactant-Induced Suppression of Twin Formation During Growth of fcc Co/Cu Superlattices on Cu(111). Physical Review Letters, 1994, 73, 2448-2451.	7.8	129
5	Atomistic Mechanism of Surfactant-Assisted Epitaxial Growth. Physical Review Letters, 1998, 81, 850-853.	7.8	123
6	Emergence of noncollinear anisotropies from interfacial magnetic frustration in exchange-bias systems. Physical Review B, 2009, 80, .	3.2	111
7	Surfactant-Mediated Modification of the Magnetic Properties of Co/Cu(111) Thin Films and Superlattices. Physical Review Letters, 1996, 76, 4428-4431.	7.8	109
8	Time-resolved magnetic domain imaging by x-ray photoemission electron microscopy. Applied Physics Letters, 2003, 82, 2299-2301.	3.3	101
9	Modulation of Magnetic Heating via Dipolar Magnetic Interactions in Monodisperse and Crystalline Iron Oxide Nanoparticles. Journal of Physical Chemistry C, 2014, 118, 19985-19994.	3.1	82
10	Element-Selective Nanosecond Magnetization Dynamics in Magnetic Heterostructures. Physical Review Letters, 2001, 86, 3646-3649.	7.8	76
11	Perpendicular Interlayer Coupling inNi80Fe20/NiO/CoTrilayers. Physical Review Letters, 2003, 91, 027201.	7.8	70
12	Unraveling Dzyaloshinskiiâ€“Moriya Interaction and Chiral Nature of Graphene/Cobalt Interface. Nano Letters, 2018, 18, 5364-5372.	9.1	60
13	Development of permanent magnet MnAlC/polymer composites and flexible filament for bonding and 3D-printing technologies. Science and Technology of Advanced Materials, 2018, 19, 465-473.	6.1	57
14	Highly asymmetric magnetic behavior in exchange biased systems induced by noncollinear field cooling. Applied Physics Letters, 2009, 95, .	3.3	56
15	Geometry-dependent magnetization reversal mechanism in ordered Py antidot arrays. Journal Physics D: Applied Physics, 2011, 44, 505001.	2.8	52
16	Accurate determination of the specific absorption rate in superparamagnetic nanoparticles under non-adiabatic conditions. Applied Physics Letters, 2012, 101, 062413.	3.3	48
17	Influence of the aggregation, concentration, and viscosity on the nanomagnetism of iron oxide nanoparticle colloids for magnetic hyperthermia. Journal of Nanoparticle Research, 2015, 17, 1.	1.9	46
18	Exchange bias with perpendicular anisotropy in (Pt-Co)/sub n/-FeMn multilayers. IEEE Transactions on Magnetics, 2002, 38, 2730-2735.	2.1	45

#	Article	IF	Citations
19	Tailoring magnetic anisotropy in epitaxial half metallic La0.7Sr0.3MnO3 thin films. Journal of Applied Physics, 2011, 110, .	2.5	42
20	Field dependent exchange coupling in NiO/Co bilayers. Physical Review B, 2003, 67, .	3.2	40
21	Tuning domain wall velocity with Dzyaloshinskii-Moriya interaction. Applied Physics Letters, 2017, 111, .	3.3	40
22	Engineering Large Anisotropic Magnetoresistance in La_{0.7}Sr_{0.3}MnO₃ Films at Room Temperature. Advanced Functional Materials, 2017, 27, 1700664.	14.9	39
23	Spontaneous exchange bias formation driven byÂaÂstructural phase transition in the antiferromagnetic material. Nature Materials, 2018, 17, 28-35.	27.5	39
24	Room temperature in-plane âŸ¨100âŸ© magnetic easy axis for Fe3O4/SrTiO3(001):Nb grown by infrared pulsed laser deposition. Journal of Applied Physics, 2013, 114, .	2.5	37
25	Influence of surfactants on atomic diffusion. Surface Science, 2000, 459, 135-148.	1.9	36
26	Switching-mode-dependent magnetic interlayer coupling strength in spin valves and magnetic tunnel junctions. Physical Review B, 2004, 69, .	3.2	33
27	Magnetic relaxation of exchange biasedPtâ•Comultilayers studied by time-resolved Kerr microscopy. Physical Review B, 2005, 72, .	3.2	33
28	Novel Microscopic Mechanism of Intermixing during Growth on Soft Metallic Substrates. Physical Review Letters, 2000, 84, 4397-4400.	7.8	32
29	Selfâ€Organized Hexagonal Patterns of Independent Magnetic Nanodots. Advanced Materials, 2007, 19, 4375-4380.	21.0	32
30	Thermal stability of Cu and Fe nitrides and their applications for writing locally spin valves. Applied Physics Letters, 2009, 94, 263112.	3.3	32
31	High Domain Wall Velocity at Zero Magnetic Field Induced by Low Current Densities in Spin Valve Nanostripes. Applied Physics Express, 0, 2, 023003.	2.4	32
32	Vectorial Kerr magnetometer for simultaneous and quantitative measurements of the in-plane magnetization components. Review of Scientific Instruments, 2014, 85, 053904.	1.3	32
33	Application of a novel flash-milling procedure for coercivity development in nanocrystalline MnAl permanent magnet powders. Journal Physics D: Applied Physics, 2017, 50, 105004.	2.8	31
34	Towards high performance CoFe2O4 isotropic nanocrystalline powder for permanent magnet applications. Applied Physics Letters, 2016, 109, .	3.3	30
35	Experimental evidence of a1âˆ•Hactivation law in nanostructures with perpendicular magnetic anisotropy. Physical Review B, 2005, 71, .	3.2	29
36	Dynamics of Magnetic Domain Wall Motion after Nucleation: Dependence on the Wall Energy. Physical Review Letters, 2006, 96, 097204.	7.8	29

#	Article	IF	Citations
37	Magnetisation reversal of epitaxial films of Î³â€²-Fe4N on Cu(100). Journal of Magnetism and Magnetic Materials, 2007, 316, 321-324.	2.3	29
38	Study of phases evolution in high-coercive MnAl powders obtained through short milling time of gas-atomized particles. Journal of Alloys and Compounds, 2017, 712, 373-378.	5.5	27
39	Structural characterisation and homoepitaxial growth on Cu(111). Surface Science, 2000, 459, 191-205.	1.9	26
40	Thickness-dependent coercivity of ultrathin Co films grown on Cu(111). Journal of Physics Condensed Matter, 2000, 12, 7713-7719.	1.8	26
41	Observation of Localized Vibrational Modes of Graphene Nanodomes by Inelastic Atom Scattering. Nano Letters, 2016, 16, 2-7.	9.1	26
42	Epitaxial growth of metals with high Ehrlich-Schwoebel barriers and the effect of surfactants. Applied Physics A: Materials Science and Processing, 1999, 69, 553-557.	2.3	25
43	Direct observation of Oersted-field-induced magnetization dynamics in magnetic nanostripes. Physical Review B, 2011, 83, .	3.2	25
44	Role of anisotropy configuration in exchange-biased systems. Journal of Applied Physics, 2011, 109, .	2.5	24
45	Severe tuning of permanent magnet properties in gas-atomized MnAl powder by controlled nanostructuring and phase transformation. Acta Materialia, 2018, 157, 42-52.	7.9	24
46	Photoactivated Nanoscale Temperature Gradient Detection Using X-ray Absorption Spectroscopy as a Direct Nanothermometry Method. Nano Letters, 2021, 21, 769-777.	9.1	23
47	Influence of domain wall interactions on nanosecond switching in magnetic tunnel junctions. Physical Review B, 2005, 72, .	3.2	22
48	Tunable nanocrystalline CoFe₂O₄ isotropic powders obtained by co-precipitation and ultrafast ball milling for permanent magnet applications. RSC Advances, 2016, 6, 87282-87287.	3.6	22
49	Epitaxial strain and thickness dependent structural, electrical and magnetic properties of La_{0.67}Sr_{0.33}MnO₃ films. Journal Physics D: Applied Physics, 2020, 53, 375005.	2.8	21
50	Dynamical properties of magnetization reversal in exchange-coupled NiO/Co bilayers. Physical Review B, 2001, 64, .	3.2	20
51	Magnetization reversal, asymmetry, and role of uncompensated spins in perpendicular exchange coupled systems. Applied Physics Letters, 2006, 89, 232507.	3.3	20
52	Symmetry breaking effects in epitaxial magnetic thin films: Nonsymmetric reversal and butterfly remanence behavior. Physical Review B, 2008, 77, .	3.2	20
53	Exploring spin valve magnetization reversal dynamics with temporal, spatial and layer resolution: Influence of domain-wall energy. Applied Physics Letters, 2004, 85, 440-442.	3.3	19
54	Time and layer resolved magnetic domain imagig of FeNi/Cu/Co trilayers using x-ray photoelectron emission microscopy (invited). Journal of Applied Physics, 2004, 95, 6533-6536.	2.5	18

#	Article	IF	Citations
55	Magnetic domain pinning in an anisotropy-engineered GdTbFe thin film. Journal of Applied Physics, 2006, 100, 033904.	2.5	17
56	Quantum oscillations in surface properties. Surface Science, 2009, 603, 1389-1396.	1.9	17
57	Stoichiometric magnetite grown by infrared nanosecond pulsed laser deposition. Applied Surface Science, 2013, 282, 642-651.	6.1	17
58	Interfacing Neurons with Nanostructured Electrodes Modulates Synaptic Circuit Features. Advanced Biology, 2020, 4, e2000117.	3.0	17
59	Direct evidence for complete antiferromagnetic coupling between Co films epitaxially grown on Cu(1) Tj ETQq1 1 0.784314 rgBT /Overl	2.3	16
60	Mobility of domain wall motion in the permalloy layer of a spin-valve-like trilayer. Journal of Magnetism and Magnetic Materials, 2005, 293, 863-871.	2.3	16
61	Imaging the magnetization reversal of step-induced uniaxial magnetic anisotropy in vicinal epitaxial La_{0.7}Sr_{0.3}MnO₃films. New Journal of Physics, 2010, 12, 103033.	2.9	16
62	Magnetization reversal in half metallic La_{0.7}Sr_{0.3}MnO₃ films grown onto vicinal surfaces. Journal of Applied Physics, 2011, 109, 07B107.	2.5	16
63	Room temperature biaxial magnetic anisotropy in La0.67Sr0.33MnO3 thin films on SrTiO3 buffered MgO (001) substrates for spintronic applications. Applied Physics Letters, 2018, 113, .	3.3	16
64	Magnetic relaxation measurements of exchange biased (Pt/Co) multilayers with perpendicular anisotropy. European Physical Journal B, 2005, 45, 185-190.	1.5	15
65	Magnetization reversal signatures in the magnetoresistance of magnetic multilayers. Physical Review B, 2012, 86, .	3.2	15
66	Influence of film morphology on perpendicular magnetic anisotropy. Physical Review B, 2001, 64, .	3.2	13
67	Note: Vectorial-magneto optical Kerr effect technique combined with variable temperature and full angular range all in a single setup. Review of Scientific Instruments, 2015, 86, 046109.	1.3	13
68	High coercive LTP-MnBi for high temperature applications: From isolated particles to film-like structures. Journal of Alloys and Compounds, 2017, 729, 1156-1164.	5.5	13
69	Polystyrene Nanopillars with Inbuilt Carbon Nanotubes Enable Synaptic Modulation and Stimulation in Interfaced Neuronal Networks. Advanced Materials Interfaces, 2021, 8, 2002121.	3.7	13
70	Large Perpendicular Magnetic Anisotropy in Nanometer-Thick Epitaxial Graphene/Co/Heavy Metal Heterostructures for Spinâ€“Orbitronics Devices. ACS Applied Nano Materials, 2021, 4, 4398-4408.	5.0	13
71	Nanostructured gold electrodes promote neural maturation and network connectivity. Biomaterials, 2021, 279, 121186.	11.4	13
72	Magnetic dichroism study of the valence-band structure of perpendicularly magnetized Co/Cu(111). Physical Review B, 1998, 57, 5340-5346.	3.2	12

#	Article	IF	Citations
73	Direct experimental determination of the anisotropic magnetoresistive effects. Applied Physics Letters, 2014, 104, 202407.	3.3	12
74	Surface magnetization and the role of pattern defects in various types of ripple patterned films. Journal Physics D: Applied Physics, 2016, 49, 135002.	2.8	12
75	Ultrathin films of L1-MnAl on GaAs (001): A hard magnetic MnAl layer onto a soft Mn-Ga-As-Al interface. APL Materials, 2018, 6, .	5.1	12
76	Intrinsic Mixed Blochâ€“NÃ©el Character and Chirality of Skyrmions in Asymmetric Epitaxial Trilayers. ACS Applied Materials & Interfaces, 2020, 12, 25419-25427.	8.0	12
77	Imaging of magnetic nanodots on self-organized semiconductor substrates. Physical Review B, 2005, 71, .	3.2	11
78	Characterization of Nanocrystalline Permalloy Thin Films Obtained by Nitrogen IBAD. IEEE Transactions on Magnetics, 2008, 44, 3913-3916.	2.1	11
79	Emergence of the Stoner-Wohlfarth astroid in thin films at dynamic regime. Scientific Reports, 2017, 7, 13474.	3.3	11
80	Spin-Orbit Torque from the Introduction of Cu Interlayers in Pt/Cu/Co/Pt Nanolayered Structures for Spintronic Devices. ACS Applied Nano Materials, 2021, 4, 487-492.	5.0	11
81	Layer-resolved imaging of domain wall interactions in magnetic tunnel junction-like trilayers. Journal of Physics Condensed Matter, 2007, 19, 476204.	1.8	10
82	Growth, structural, and magnetic characterizations of nanocrystalline Î³â€²-FeNiN(220) thin films. Applied Physics Letters, 2007, 90, 032505.	3.3	10
83	Imaging and quantifying perpendicular exchange biased systems by soft x-ray holography and spectroscopy. Applied Physics Letters, 2010, 96, 072503.	3.3	10
84	Exploring the limits of soft x-ray magnetic holography: Imaging magnetization reversal of buried interfaces (invited). Journal of Applied Physics, 2011, 109, 07D357.	2.5	10
85	Thermally Activated Processes for Ferromagnet Intercalation in Graphene-Heavy Metal Interfaces. ACS Applied Materials & Interfaces, 2020, 12, 4088-4096.	8.0	10
86	Magnetization reversal dynamics in exchange-coupled NiOâ€“Co bilayers. Journal of Applied Physics, 2001, 89, 6585-6587.	2.5	9
87	Studies of surface diffusion and growth on Cu(111) by means of thermal energy atom scattering. Journal of Physics Condensed Matter, 2002, 14, 6155-6172.	1.8	9
88	Experimental investigation of the spin reorientation of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>Co</mml:mi><mml:mo>â^•</mml:mo><mml:mi>Au</mml:mi></mml:mrow></mml:math>based magnetic nanodot arrays. Physical Review B, 2008, 77, .	3.2	9
89	Interfacial exchange-coupling induced chiral symmetry breaking of spin-orbit effects. Physical Review B, 2015, 92, .	3.2	9
90	Engineering the spin conversion in graphene monolayer epitaxial structures. APL Materials, 2021, 9, .	5.1	9

#	Article	IF	Citations
91	Interplay between magnetic anisotropy and interlayer coupling in nanosecond magnetization reversal of spin-valve trilayers. Physical Review B, 2005, 71, .	3.2	8
92	Influence of topography and Co domain walls on the magnetization reversal of the FeNi layer inFeNiâˆ•Al2O3âˆ•Comagnetic tunnel junctions. Physical Review B, 2006, 74, .	3.2	8
93	Surfactant-assisted epitaxial growth and magnetism of Fe films on Cu(111). Journal of Physics Condensed Matter, 2008, 20, 265008.	1.8	8
94	Sub-nT Resolution of Single Layer Sensor Based on the AMR Effect in La_{2/3}Sr_{1/3}MnO₃ Thin Films. IEEE Transactions on Magnetics, 2022, 58, 1-4.	2.1	8
95	Tuning the Magnetic Anisotropy of Lanthanides on a Metal Substrate by Metalâ€“Organic Coordination. Small, 2021, 17, e2102753.	10.0	8
96	Engineering Periodic Dinuclear Lanthanideâ€Directed Networks Featuring Tunable Energy Level Alignment and Magnetic Anisotropy by Metal Exchange. Small, 2022, 18, e2107073.	10.0	8
97	g-force induced giant efficiency of nanoparticles internalization into living cells. Scientific Reports, 2015, 5, 15160.	3.3	7
98	An extraordinary chiral exchange-bias phenomenon: engineering the sign of the bias field in orthogonal bilayers by a magnetically switchable response mechanism. Nanoscale, 2020, 12, 1155-1163.	5.6	7
99	Tailoring epitaxial growth of low-dimensional magnetic structures by using surfactants. Surface Science, 1998, 402-404, 346-350.	1.9	6
100	Magnetic properties of nanocrystalline FeNiN thin films. Physica Status Solidi (A) Applications and Materials Science, 2006, 203, 1442-1447.	1.8	6
101	Magnetic and magneto-optical properties of epitaxial cobalt films grown on a corrugated CaF2/Si surface. Physics of the Solid State, 2007, 49, 1481-1491.	0.6	6
102	Current-induced domain wall motion and magnetization dynamics in CoFeB/Cu/Co nanostripes. Journal of Physics Condensed Matter, 2012, 24, 024213.	1.8	6
103	Inter-grain effects on the magnetism of M-type strontium ferrite. Journal of Alloys and Compounds, 2017, 692, 280-287.	5.5	6
104	Atomic Scale Engineering of Superlattices and Magnetic Wires. Materials Research Society Symposia Proceedings, 1995, 384, 49.	0.1	5
105	Thickness and angular dependent magnetic anisotropy of La_{0.67}Sr_{0.33}MnO₃ thin films by Vectorial Magneto Optical Kerr Magnetometry. Journal of Physics: Conference Series, 2017, 903, 012021.	0.4	5
106	Reduced coercivity in ferromagnetic Coâ€“Cu coevaporated epitaxial films on Cu(111). Applied Physics Letters, 2000, 77, 889-891.	3.3	4
107	Effects of reduced dimensionality on the magnetic properties of ultrathin (Co/Cu)[111] films. Journal of Applied Physics, 2001, 89, 7150-7152.	2.5	4
108	Domain wall dynamics and interlayer interactions in magnetic trilayer systems studied by XMCD-PEEM. Applied Physics A: Materials Science and Processing, 2008, 92, 505-510.	2.3	4

#	Article	IF	Citations
109	Soft X-ray resonant magnetic scattering study of magnetization reversal in low dimensional magnetic heterostructures. Applied Surface Science, 2007, 254, 335-338.	6.1	3
110	Direct observation of temperature-driven magnetic symmetry transitions by vectorial resolved MOKE magnetometry. Journal of Physics Condensed Matter, 2017, 29, 405805.	1.8	3
111	Evidence of anomalous switching of the in-plane magnetic easy axis with temperature in Fe₃O₄ film on SrTiO₃:Nb by v-MOKE and ferromagnetic resonance. Nanoscale, 2019, 11, 19870-19876.	5.6	3
112	Effective control of the magnetic anisotropy in ferromagnetic MnBi micro-islands. Journal of Alloys and Compounds, 2021, 852, 156731.	5.5	3
113	Surfactant control of growth and interface quality in granular magnetic {CoCu}/Cu(111) superlattices. Surface Science, 2001, 482-485, 1077-1082.	1.9	2
114	Two-dimensional chiral asymmetry in unidirectional magnetic anisotropy structures. AIP Advances, 2016, 6, 055819.	1.3	2
115	MnBi thin films for high temperature permanent magnet applications. AIP Advances, 2019, 9, .	1.3	2
116	Interfacial Exchange Phenomena Driven by Ferromagnetic Domains. Advanced Materials Interfaces, 2022, 9, .	3.7	2
117	A structural characterization of the buffer layer for growth of magnetically coupled Co/Cu superlattices. Journal of Magnetism and Magnetic Materials, 1993, 121, 20-23.	2.3	1
118	Looking for Ferromagnetic Signals in Proton-Irradiated Graphite. Mathematics in Industry, 2008, , 477-482.	0.3	1
119	Substrate-induced magnetic anisotropy in La0.7Sr0.3MnO3epitaxial thin films grown onto (110) and (11Ì„8) SrTiO3substrates. Journal of Physics: Conference Series, 2011, 303, 012058.	0.4	1
120	Dependence of coercivity on maximum applied field in dynamic magnetization reversal of Co/NiO bilayers. , 0, , .		0
121	Dependence of Neel "orange-peel" coupling on magnetization reversal process. , 0, , .		0
122	90Â° coupling in NiFe/NiO/Co trilayers. , 0, , .		0
123	Uniaxial magnetic anisotropy induced by vicinal surfaces in half metallic La0.7Sr0.3MnO3 thin films. Materials Research Society Symposia Proceedings, 2009, 1198, 7.	0.1	0
124	Substrate polarization effects in two-dimensional magnetic arrays. Physical Review B, 2012, 86, .	3.2	0
125	Structural and magnetic characterization of magnetite deposits prepared by infrared pulsed laser deposition. , 2013, , .		0
126	CoFe<inf>2</inf>O<inf>4</inf> isotropic powders for permanent magnet applications. , 2015, , .		0

#	Article	IF	Citations
127	Towards spintronics materials for energy saving. , 2015, , .		0
128	Extraordinary exchange-bias effects in coupled SmCo<inf>5</inf> (perpendicular)/CoFeB (in-plane) bilayers. , 2015, , .		0
129	Chiral asymmetry driven by unidirectional magnetic anisotropy in Spin-Orbitronic systems. Proceedings of SPIE, 2016, , .	0.8	0
130	Chiral asymmetry driven by unidirectional magnetic anisotropy in spin-orbitronic systems. , 2017, , .		0
131	RMATE: A device to test radiation-induced effects under controlled magnetic field and temperature. Fusion Engineering and Design, 2020, 154, 111431.	1.9	0
132	Atomic View of Surfactant Action in Epitaxial Growth: From STM to Computer Simulation. , 2002, , 477-488.		0
133	Engineering Periodic Dinuclear Lanthanideâ€Directed Networks Featuring Tunable Energy Level Alignment and Magnetic Anisotropy by Metal Exchange (Small 22/2022). Small, 2022, 18, .	10.0	0