

Manuel Valvidares

List of Publications by Year in descending order

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95
docs citations

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times ranked

4049
citing authors

#	ARTICLE	IF	CITATIONS
1	Fieldlike and antidamping spin-orbit torques in as-grown and annealed Ta/CoFeB/MgO layers. Physical Review B, 2014, 89, .	3.2	164
2	Surface states and Rashba-type spin polarization in antiferromagnetic MnBi (0001). Physical Review B, 2019, 100, .	3.2	132
3	Intrinsic 2D-XY ferromagnetism in a van der Waals monolayer. Science, 2021, 374, 616-620.	12.6	116
4	Design and performance of BOREAS, the beamline for resonant X-ray absorption and scattering experiments at the ALBA synchrotron light source. Journal of Synchrotron Radiation, 2016, 23, 1507-1517.	2.4	110
5	Magnetic Structure and Absence of Ferroelectricity in SmFeO_3 . Topological Electronic Structure and Intrinsic Magnetization in MnBi . Physical Review X, 2019, 9, .	7.8	105
6	Topological Electronic Structure and Intrinsic Magnetization in MnBi . Physical Review X, 2019, 9, .	7.8	105
7	Interfacial Dzyaloshinskii-Moriya interaction arising from rare-earth orbital magnetism in insulating magnetic oxides. Nature Communications, 2020, 11, 1090.	12.8	86
8	Probing the evolution of antiferromagnetism in multiferroics. Physical Review B, 2010, 81, .	3.2	70
9	Delocalization and hybridization enhance the magnetocaloric effect in Cu-doped Ni_2Mn . Physical Review B, 2009, 79, .	3.2	66
10	Unraveling Dzyaloshinskii-Moriya Interaction and Chiral Nature of Graphene/Cobalt Interface. Nano Letters, 2018, 18, 5364-5372.	9.1	60
11	Inverted hysteresis loops in magnetically coupled bilayers with uniaxial competing anisotropies: Theory and experiments. Physical Review B, 2001, 64, .	3.2	51
12	Voltage control of ferrimagnetic order and voltage-assisted writing of ferrimagnetic spin textures. Nature Nanotechnology, 2021, 16, 981-988.	31.5	45
13	Direct observation of multivalent states and charge transfer in Ce-doped yttrium iron garnet thin films. Physical Review B, 2017, 96, .	3.2	43
14	Molecular orientation in soft matter thin films studied by resonant soft x-ray reflectivity. Physical Review B, 2011, 83, .	3.2	42
15	Systematics of electronic and magnetic properties in the transition metal doped Sb_2Te_3 quantum anomalous Hall platform. Physical Review B, 2018, 97, .	3.2	42
16	Emerging Diluted Ferromagnetism in High- T_c Superconductors Driven by Point Defect Clusters. Advanced Science, 2016, 3, 1500295.	11.2	41
17	Graphene-based synthetic antiferromagnets and ferrimagnets. Nature Communications, 2017, 8, 699.	12.8	39
18	Two-Dimensional Electron Gases at LaAlO_3 Orbital Symmetry and Hierarchy Engineered by Crystal Orientation. Physical Review Letters, 2014, 113, 156802.	7.8	38

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19	Electronically highly cubic conditions for Ru in RuCl_3 . Physical Review B, 2017, 96.	3.2	36
20	Absence of magnetic proximity effects in magnetoresistive Pt/CoF_2 hybrid interfaces. Physical Review B, 2016, 93, .	3.2	35
21	Interface-Assisted Sign Inversion of Magnetoresistance in Spin Valves Based on Novel Lanthanide Quinoline Molecules. Advanced Functional Materials, 2018, 28, 1702099.	14.9	35
22	Strontium hexaferrite platelets: a comprehensive soft X-ray absorption and Mössbauer spectroscopy study. Scientific Reports, 2019, 9, 11777.	3.3	35
23	Large intrinsic anomalous Hall effect in SrIrO_3 induced by magnetic proximity effect. Nature Communications, 2021, 12, 3283.	12.8	34
24	Electronic and spin states of SrRuO_3 thin films: An x-ray magnetic circular dichroism study. Physical Review B, 2015, 91, .	3.2	33
25	Element-specific soft x-ray spectroscopy, scattering, and imaging studies of the skyrmion-hosting compound $\text{Co}_8\text{Si}_{1-x}$. Physical Review B, 2019, 99, .	3.2	29
26	Magnetoresistance in Hybrid $\text{Pt}/\text{CoFe}_2\text{O}_4$ Bilayers Controlled by Competing Spin Accumulation and Interfacial Chemical Reconstruction. ACS Applied Materials & Interfaces, 2018, 10, 12031-12041.	8.0	28
27	Robust Single Molecule Magnet Monolayers on Graphene and Graphite with Magnetic Hysteresis up to 28 ÅK. Advanced Functional Materials, 2021, 31, 2105516.	14.9	28
28	Direct observation of rotatable uncompensated spins in the exchange bias system $\text{Co}/\text{CoO}/\text{MgO}$. Nanoscale, 2013, 5, 10236.	5.6	26
29	Amorphous to polycrystalline transition in $\text{Co}_x\text{Si}_{1-x}$ alloy thin films. European Physical Journal B, 2004, 41, 517-524.	1.5	25
30	Imaging Nanometer Phase Coexistence at Defects During the Insulator-Metal Phase Transformation in VO_2 Thin Films by Resonant Soft X-ray Holography. Nano Letters, 2018, 18, 3449-3453.	9.1	24
31	Absence of Magnetic Proximity Effect at the Interface of Bi_2Te_3 and Bi_2Se_3 . Physical Review B, 2017, 95, .	3.2	24

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37	Kramers-Kronig constrained modeling of soft x-ray reflectivity spectra: Obtaining depth resolution of electronic and chemical structure. <i>Physical Review B</i> , 2012, 86, .	3.2	19
38	Competing magnetic states in silicene and germanene 2D ferromagnets. <i>Nano Research</i> , 2020, 13, 3396-3402.	10.4	19
39	Van der Waals epitaxy growth of 2D ferromagnetic Cr(1+ $\hat{1}$)Te ₂ nanolayers with concentration-tunable magnetic anisotropy. <i>Applied Physics Reviews</i> , 2022, 9, .	11.3	19
40	Towards microscopic control of the magnetic exchange coupling at the surface of a topological insulator. <i>JPhys Materials</i> , 2018, 1, 015002.	4.2	18
41	Low-field switching of noncollinear spin texture at L point in MnO . <i>Physical Review Materials</i> , 2021, 5, 054401.	3.2	18
42	A New Highly Anisotropic Rh ₂ Te ₂ -Based Heusler Compound for Magnetic Recording. <i>Advanced Materials</i> , 2020, 32, 2004331.	21.0	18
43	The Synthesis of a Quasi-One-Dimensional Iron-Based Telluride with Antiferromagnetic Chains and a Spin Glass State. <i>Inorganic Chemistry</i> , 2020, 59, 5377-5385.	4.0	18
44	Understanding the magnetic anisotropy in Fe-Si amorphous alloys. <i>IEEE Transactions on Magnetics</i> , 2002, 38, 2811-2813.	2.1	17
45	High-Pressure Synthesis and Ferrimagnetic Ordering of the B-Site-Ordered Cubic Perovskite PbFe_2O_6 . <i>Inorganic Chemistry</i> , 2016, 55, 9816-9821.	4.0	17
46	Phase separation in Fe _{1-x} Si _x and Co _{1-x} Si _x sputtered ferromagnetic alloys and the origin of their magnetic anisotropy. <i>Physical Review B</i> , 2005, 72, .	3.2	16
47	Magnetic stability against calcining of microwave-synthesized CoFe_2O_4 nanoparticles. <i>New Journal of Chemistry</i> , 2016, 40, 6890-6898.	2.8	16
48	Imaging the spin chirality of ferrimagnetic Néel skyrmions stabilized on topological antiferromagnetic Mn_3Sn . <i>Physical Review Materials</i> , 2021, 5, 054402.	2.4	16
49	Structure and Pt magnetism of FePt nanoparticles investigated with X-ray diffraction. <i>Journal of Magnetism and Magnetic Materials</i> , 2003, 264, 202-208.	2.4	16
50	Structure and Pt magnetism of FePt nanoparticles investigated with X-ray diffraction. <i>Journal of Magnetism and Magnetic Materials</i> , 2003, 264, 202-208.	2.3	15
51	Tuning interfacial domain walls in GdCo/Gd/GdCo spring magnets. <i>Physical Review B</i> , 2015, 92, .	3.2	15
52	Interface-driven manipulation of the magnetic anisotropy of ultrathin Co films on Pt(111): Substrate deposition of hydrogen and model calculations. <i>Physical Review B</i> , 2010, 81, .	3.2	14
53	Quadruple perovskite oxide $\text{LaCu}_3\text{Co}_2\text{Re}_2\text{O}_{12}$: A ferrimagnetic half metal with nearly 100% B-site degree of order. <i>Applied Physics Letters</i> , 2020, 117, .	3.3	14
54	Control of Oxygen Vacancy Ordering in Brownmillerite Thin Films via Ionic Liquid Gating. <i>ACS Nano</i> , 2022, , .	14.6	14

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55	Structure and magnetic properties of amorphous Co-Si alloy films. IEEE Transactions on Magnetism, 2002, 38, 3078-3080.	2.1	13
56	Hybrid $\text{YBa}_2\text{Cu}_3\text{O}_7$ Superconducting/Ferromagnetic Nanocomposite Thin Films Prepared from Colloidal Chemical Solutions. Advanced Electronic Materials, 2017, 3, 1700037.	5.1	13
57	Highly ordered ferrimagnetic oxide $\text{Sr}_2\text{Co}_2\text{O}_7$ thin films. Physical Review B, 2020, 102, .	3.2	13
58	Large Perpendicular Magnetic Anisotropy in Nanometer-Thick Epitaxial Graphene/Co/Heavy Metal Heterostructures for Spin-Orbitronics Devices. ACS Applied Nano Materials, 2021, 4, 4398-4408.	5.0	13
59	Large-area van der Waals epitaxy and magnetic characterization of Fe_3GeTe_2 films on graphene. 2D Materials, 2021, 8, 041001.	4.4	13
60	Resolving antiferromagnetic states in magnetically coupled amorphous Co-Si-Si multilayers by soft x-ray resonant magnetic scattering. Physical Review B, 2008, 78, .	3.2	12
61	Stability of the Cationic Oxidation States in $\text{Pr}_{0.50}\text{Sr}_{0.50}\text{CoO}_3$ across the Magnetostructural Transition by X-ray Absorption Spectroscopy. Inorganic Chemistry, 2014, 53, 8854-8858.	4.0	12
62	Superparamagnetism-induced mesoscopic electron focusing in topological insulators. Physical Review B, 2016, 94, .	3.2	12
63	Study of the magnetic anisotropy of amorphous $\text{Fe}_{1-x}\text{Si}_x$ deposited by magnetron sputtering. Journal of Magnetism and Magnetic Materials, 2002, 242-245, 166-168.	2.3	11
64	Inverted hysteresis loops in annealed Co/Nb/Zr and Co/Fe/Mo/Si/B amorphous thin films. Journal of Magnetism and Magnetic Materials, 2002, 242-245, 169-172.	2.3	11
65	Whole-nanoparticle atomistic modeling of the schwertmannite structure from total scattering data. Journal of Applied Crystallography, 2017, 50, 1617-1626.	4.5	11
66	Reversible spin storage in metal oxide/fullerene heterojunctions. Science Advances, 2020, 6, eaax1085.	10.3	10
67	Orbital Hybridization and Magnetic Coupling at Cuprate/Manganite Interfaces Driven by Manganite Doping. Advanced Quantum Technologies, 2020, 3, 2000016.	3.9	9
68	Molecular Approach for Engineering Interfacial Interactions in Magnetic/Topological Insulator Heterostructures. ACS Nano, 2020, 14, 6285-6294.	14.6	9
69	Low-temperature growth favours hcp structure, flatness and perpendicular magnetic anisotropy of thin (~ 5 nm) Co films on Pt(111). Journal of Physics Condensed Matter, 2005, 17, 5551-5561.	1.8	8
70	Perpendicular magnetic anisotropy in amorphous $\text{Nd}_{x_2}\text{Co}_{1-x_2}$ thin films studied by x-ray magnetic circular dichroism. Physical Review B, 2017, 95, .	3.2	8
71	Non-local effect of impurity states on the exchange coupling mechanism in magnetic topological insulators. Npj Quantum Materials, 2020, 5, .	5.2	8
72	Tuning the Magnetic Anisotropy of Lanthanides on a Metal Substrate by Metal-Organic Coordination. Small, 2021, 17, e2102753.	10.0	8

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73	Disclosing the Nature of Asymmetric Interface Magnetism in Co/Pt Multilayers. ACS Applied Materials & Interfaces, 2022, 14, 12766-12776.	8.0	8
74	Engineering Periodic Dinuclear Lanthanide-Directed Networks Featuring Tunable Energy Level Alignment and Magnetic Anisotropy by Metal Exchange. Small, 2022, 18, e2107073.	10.0	8
75	Valence-state and spin-state transition of Co in epitaxial $\text{LaC}_{1-x}\text{O}_x$ R_3O^+ h Multiple magnetic transitions and electrical transport transformation of a $\text{BaFe}_{1-x}\text{O}_3$ cubic perovskite single crystal. Physical Review B, 2020, 101, .	3.2	7
76	Multiple magnetic transitions and electrical transport transformation of a $\text{BaFe}_{1-x}\text{O}_3$ cubic perovskite single crystal. Physical Review B, 2020, 101, .	3.2	7
77	Orbital occupancy and hybridization in strained $\text{SrV}_{1-x}\text{O}_3$ epitaxial films. Physical Review Materials, 2021, 5, .	2.4	7
78	Competing magnetic anisotropies in exchange coupled bilayers with growth-induced orthogonal uniaxial axes. Physical Review B, 2007, 76, .	3.2	6
79	Integrating UHV (Ultra High Vacuum) and HTS (High Temperature Superconducting) magnets for x-ray synchrotron based experiments. Journal of Physics: Conference Series, 2013, 425, 102003.	0.4	6
80	Spin-lattice coupling across the singular magnetostructural transition in $\text{P}_x\text{r}_y\text{S}_z$ r_xS_y Strong ferromagnetic coupling and tunable easy magnetization directions of $\text{Fe}_x\text{Co}_{1-x}$ layer(s) intercalated under graphene. Applied Surface Science, 2020, 527, 146599.	3.2	5
81	Strong ferromagnetic coupling and tunable easy magnetization directions of $\text{Fe}_x\text{Co}_{1-x}$ layer(s) intercalated under graphene. Applied Surface Science, 2020, 527, 146599.	6.1	5
82	Microscopic origin of perpendicular magnetic anisotropy in amorphous Nd-Co homogeneous and compositionally modulated, thin films studied by XMCD. Journal of Physics: Conference Series, 2010, 200, 072017.	0.4	4
83	Evidence for largest room temperature magnetic signal from Co^{2+} in antiphase-free & fully inverted CoFe_2O_4 in multiferroic-ferrimagnetic BiFeO_3 - CoFe_2O_4 nanopillar thin films. Journal of Magnetism and Magnetic Materials, 2021, 530, 167940.	2.3	4
84	Chiral asymmetry detected in a 2D array of permalloy square nanomagnets using circularly polarized x-ray resonant magnetic scattering. Nanotechnology, 2020, 31, 025702.	2.6	3
85	In operando adjustable orbital polarization in LaNiO_3 thin films. Physical Review Materials, 2020, 4, .	2.4	3
86	Magnetism at the interface of non-magnetic Cu and C_{60} . Physical Chemistry Chemical Physics, 2021, 23, 6490-6495.	2.8	2
87	X-ray magnetic linear dichroism study of field-manipulated canted antiferromagnetism in epitaxial O_3 films. Physical Review Materials, 2021, 5, .		
88	Uniaxial magnetic anisotropy of Fe-Si and Co-Si amorphous thin films due to Si nano-segregation. Physica Status Solidi (A) Applications and Materials Science, 2006, 203, 1409-1414.	1.8	1
89	Coherent charge and magnetic ordering in Ho/Y superlattice revealed by element-selective x-ray scattering. Physical Review B, 2019, 100, .	3.2	1
90	Layer-dependence of macroscopic and atomic magnetic correlations in Co/Pd multilayers. AIP Advances, 2020, 10, 065321.	1.3	1

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91	Understanding the origin of the magnetic anisotropy in iron silicide amorphous alloys. , 0, , .		0
92	Magnetic ordering in $\text{La}_{3.2}\text{O}_4$ revealed by resonant magnetic x-ray scattering and neutron diffraction. Physical Review B, 2021, 103, .	3.2	0