Sergio Valencia

List of Publications by Year
in descending order

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103 papers	4,662 citations	126907 33 h-index	98798 67 g-index
107 all docs	107 docs citations	107 times ranked	6508 citing authors

#	Article	IF	Citations
1	Ferroelectric Control of Spin Polarization. Science, 2010, 327, 1106-1110.	12.6	632
2	Electric-field control of magnetic order above room temperature. Nature Materials, 2014, 13, 345-351.	27.5	451
3	Interface-induced room-temperature multiferroicity in BaTiO3. Nature Materials, 2011, 10, 753-758.	27.5	341
4	Nanoscale Multiphase Separation atLa2/3Ca1/3MnO3/SrTiO3Interfaces. Physical Review Letters, 2001, 87, 067210.	7.8	233
5	Charge trapping in optimally doped epitaxial manganite thin films. Physical Review B, 2002, 66, .	3.2	150
6	Hybridization-controlled charge transfer and induced magnetism at correlated oxide interfaces. Nature Physics, 2016, 12, 484-492.	16.7	122
7	Reversible Resistive Switching and Multilevel Recording in La0.7Sr0.3MnO3Thin Films for Low Cost Nonvolatile Memories. Nano Letters, 2010, 10, 3828-3835.	9.1	121
8	Mechanism of NÃ©el Order Switching in Antiferromagnetic Thin Films Revealed by Magnetotransport and Direct Imaging. Physical Review Letters, 2019, 123, 177201.	7.8	119
9	Giant topological Hall effect in correlated oxide thin films. Nature Physics, 2019, 15, 67-72.	16.7	111
10	Mapping spinâ€“charge conversion to the band structure in a topological oxide two-dimensional electron gas. Nature Materials, 2019, 18, 1187-1193.	27.5	103
11	Nonmagnetic band gap at the Dirac point of the magnetic topological insulator (Bi1â^'xMnx)2Se3. Nature Communications, 2016, 7, 10559.	12.8	102
12	Atomic and Electronic Structure of the BaTiO₃/Fe Interface in Multiferroic Tunnel Junctions. Nano Letters, 2012, 12, 376-382.	9.1	95
13	Ferromagnetism in transparent thin films of MgO. Physical Review B, 2010, 82, .	3.2	91
14	Magnetic Anisotropy Engineering in Thin Film Ni Nanostructures by Magnetoelastic Coupling. Physical Review Applied, 2014, 1, .	3.8	85
15	Printing Nearly-Discrete Magnetic Patterns Using Chemical Disorder Induced Ferromagnetism. Nano Letters, 2014, 14, 435-441.	9.1	79
16	Faraday rotation spectra at shallow core levels: 3pedges of Fe, Co, and Ni. New Journal of Physics, 2006, 8, 254-254.	2.9	65
17	Magnetic-field induced effects on the electric polarization inRMnO3(R=Dy,Gd). Physical Review B, 2009, 79, .	3.2	65
18	Rationalizing strain engineering effects in rare-earth nickelates. Physical Review B, 2013, 88, .	3.2	58

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19	Valence transition in (Pr,Ca)CoO<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow /><mml:mrow><mml:mn>3</mml:mn></mml:mrow></mml:msub></mml:mrow></mml:math>cobaltites: Charge migration at the metal-insulator transition. Physical Review B, 2011, 84, .	3.2	55
20	2D layered transport properties from topological insulator Bi2Se3 single crystals and micro flakes. Scientific Reports, 2016, 6, 27483.	3.3	55
21	Valence change of praseodymium in Pr<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mrow><mml:mn>0.5</mml:mn></mml:mrow></mml:msub></mml:math>Ca<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mrow><mml:mn>0.5</mml:mn></mml:mrow></mml:msub></mml:math>CoO<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow />	3.2	53
22	Interfacial Strain: The Driving Force for Selective Orbital Occupancy in Manganite Thin Films. Advanced Functional Materials, 2007, 17, 3918-3925.	14.9	52
23	Direct observation of local ferromagnetism on carbon in C/Fe multilayers. Europhysics Letters, 2004, 66, 743-748.	2.0	50
24	Mn valence instability inLa2âˆ•3Ca1âˆ•3MnO3thin films. Physical Review B, 2006, 73, .	3.2	48
25	Dual behavior of antiferromagnetic uncompensated spins in NiFe/IrMn exchange biased bilayers. Physical Review B, 2010, 81, .	3.2	48
26	Configuration of the magnetosome chain: a natural magnetic nanoarchitecture. Nanoscale, 2018, 10, 7407-7419.	5.6	47
27	Effect of capping material on interfacial ferromagnetism in FeRh thin films. Journal of Applied Physics, 2014, 115, .	2.5	45
28	Local electrical control of magnetic order and orientation by ferroelastic domain arrangements just above room temperature. Scientific Reports, 2015, 5, 10026.	3.3	44
29	Strain-Engineered Ferromagnetism in LaMnO₃ Thin Films. Crystal Growth and Design, 2015, 15, 5332-5337.	3.0	44
30	Direct Mapping of Phase Separation across the Metalâ€“Insulator Transition of NdNiO₃. Nano Letters, 2018, 18, 2226-2232.	9.1	42
31	Anisotropic magnetoresistance and anomalous Hall effect in manganite thin films. Journal of Physics Condensed Matter, 2005, 17, 2733-2740.	1.8	41
32	Magnetic Dipole and Higher Pole Interaction on a Square Lattice. Physical Review Letters, 2013, 110, 177209.	7.8	41
33	X-ray Kerr rotation and ellipticity spectra at the2pedges of Fe, Co, and Ni. Physical Review B, 2004, 69, .	3.2	37
34	Insight into spin transport in oxide heterostructures from interface-resolved magnetic mapping. Nature Communications, 2015, 6, 6306.	12.8	34
35	Impact of microstructure on the Mn valence ofLa2âˆ•3Ca1âˆ•3MnO3thin films. Physical Review B, 2007, 75, .	3.2	33
36	Quadratic X-Ray Magneto-Optical Effect upon Reflection in a Near-Normal-Incidence Configuration at the<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>M</mml:mi></mml:math>Edges of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mn>3</mml:mn><mml:mi>d</mml:mi></mml:math>-Transition Metals. Physical Review Letters, 2010, 104, 187401.	7.8	32

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37	Laser-Rewriteable Ferromagnetism at Thin-Film Surfaces. ACS Applied Materials & Interfaces, 2018, 10, 15232-15239.	8.0	32
38	Magneto-optical polarization spectroscopy with soft X-rays. Applied Physics A: Materials Science and Processing, 2005, 80, 1011-1020.	2.3	30
39	Strain-induced charge depletion in La2/3Ca1/3MnO3 epitaxial thin films. Applied Physics Letters, 2003, 82, 4531-4533.	3.3	29
40	Temperature dependence of the Dzyaloshinskii-Moriya interaction in ultrathin films. Physical Review B, 2020, 101, .	3.2	29
41	Interfacial effects in manganite thin films with different capping layers of interest for spintronic applications. Physical Review B, 2011, 84, .	3.2	28
42	Intrinsic antiferromagnetic/insulating phase at manganite surfaces and interfaces. Journal of Physics Condensed Matter, 2014, 26, 166001.	1.8	28
43	Ferroelectric Control of Interface Spin Filtering in Multiferroic Tunnel Junctions. Physical Review Letters, 2019, 122, 037601.	7.8	28
44	Thickness dependence of the magnetic anisotropy in La2/3Ca1/3MnO3 thin films grown on LaAlO3 substrates. Journal of Applied Physics, 2003, 93, 8059-8061.	2.5	27
45	Soft X-ray magnetic reflection spectroscopy at the 3p absorption edges of thin Fe films. Journal of Electron Spectroscopy and Related Phenomena, 2005, 144-147, 881-884.	1.7	27
46	Phase separation and electrical switching between two isosymmetric multiferroic phases in tensile strained<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mtext>BiFeO</mml:mtext><mml:mn>3</mml:mn></mml:msu films. Physical Review B, 2014, 89, .	3.2	26
47	Thickness dependence of surface roughness and transport properties of La2/3Ca1/3MnO3 epitaxial thin films. Journal of Applied Physics, 2001, 89, 6686-6688.	2.5	25
48	Magnetic Frustration, Phase Competition, and the Magnetoelectric Effect in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mi>NdFe</mml:mi><mml:mn>3</mml:mn></mml:msub><mml:mo stretchy="false">(</mml:mo><mml:msub><mml:mi>BO</mml:mi><mml:mn>3</mml:mn></mml:msub><mml:msub><mml:mo) Tj ETQq 2012, 109, 267202.	7.8	24
49	Magnetic Study of Co-Doped Magnetosome Chains. Journal of Physical Chemistry C, 2018, 122, 7541-7550.	3.1	24
50	Enhanced low field magnetoresistive response in (La2/3Sr1/3MnO3)x/(CeO2)1â^'x composite thick films prepared by screen printing. Journal of Applied Physics, 2003, 94, 2524-2528.	2.5	23
51	SPEEM: The photoemission microscope at the dedicated microfocus PGM beamline UE49-PGMa at BESSY II. Journal of Large-scale Research Facilities JLSRF, 0, 2, A90.	0.0	22
52	Complex charge ordering in CeRuSn. Physical Review B, 2012, 85, .	3.2	21
53	Extremely long-range, high-temperature Josephson coupling across a half-metallic ferromagnet. Nature Materials, 2022, 21, 188-194.	27.5	20
54	Magnetotransport properties of fully strained epitaxial thin films of La2/3Ca1/3MnO3 grown on SrTiO3. Applied Surface Science, 2002, 188, 202-208.	6.1	19

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55	Growth and regrowth of adult sea urchin spines involve hydrated and anhydrous amorphous calcium carbonate precursors. Journal of Structural Biology: X, 2019, 1, 100004.	1.3	19
56	Structural sensitivity of the spin Hall magnetoresistance in antiferromagnetic thin films. Physical Review B, 2020, 102, .	3.2	19
57	X-ray natural birefringence in reflection from graphite. Physical Review B, 2004, 70, .	3.2	18
58	Polarized soft-x-ray reflection spectroscopy of giant magnetoresistiveCoâ•Cumultilayers. Physical Review B, 2005, 72, .	3.2	18
59	Resonant magnetic reflectivity in the extreme ultraviolet spectral range: Interlayer-coupled Co/Si/Ni/Fe multilayer system. Physical Review B, 2010, 82, .	3.2	17
60	Identification of NÃ©el Vector Orientation in Antiferromagnetic Domains Switched by Currents in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" overflow="scroll"><mml:mrow><mml:mi>Ni</mml:mi><mml:mi mathvariant="normal">O</mml:mi></mml:mrow><mml:mo>/</mml:mo><mml:mi>Pt</mml:mi></mml:math> Thin Films. Physical Review Applied, 2021, 15, .	3.8	16
61	A Livingâ€Dead Magnetic Layer at the Surface of Ferrimagnetic DyTiO₃ Thin Films. Advanced Materials, 2018, 30, e1707489.	21.0	15
62	Ferrimagnetic<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi>DyCo</mml:mi></mml:mrow><mml:mrow><mml:mn>5</mml:mn></ for Bits in Heat-Assisted Magnetic Recording. Physical Review Applied, 2016, 5, .	3.8	14
63	Strain-gradient-induced magnetic anisotropy in straight-stripe mixed-phase bismuth ferrites: Insight into flexomagnetism. Physical Review B, 2017, 96, .	3.2	14
64	Understanding the XMLD and its magnetocrystalline anisotropy at the L2,3-edges of 3d transition metals. Journal of Magnetism and Magnetic Materials, 2004, 272-276, 2146-2147.	2.3	13
65	X-ray magnetic circular dichroism in reflection geometry: A tool for investigating surface magnetism in thin films. Journal of Applied Physics, 2008, 104, 023903.	2.5	13
66	Encoding Magnetic States in Monopoleâ€Like Configurations Using Superconducting Dots. Advanced Science, 2016, 3, 1600207.	11.2	12
67	Imaging and Harnessing Percolation at the Metalâ€“Insulator Transition of NdNiO₃ Nanogaps. Nano Letters, 2019, 19, 7801-7805.	9.1	12
68	Interference effects in the X-ray Kerr rotation spectrum at the Fe 2p edge. Physica B: Condensed Matter, 2004, 345, 189-192.	2.7	11
69	Spatially resolved investigation of all optical magnetization switching in TbFe alloys. Scientific Reports, 2017, 7, 9456.	3.3	11
70	Surface degradation of magnetic properties in manganite thin films proved with magneto-optical techniques in reflection geometry. Applied Physics Letters, 2007, 90, 252509.	3.3	10
71	Movement of magnetic domain walls induced by single femtosecond laser pulses. Physical Review B, 2016, 94, .	3.2	10
72	Photoemission electron microscopy study of sub-200 nm self-assembled La0.7Sr0.3MnO3 epitaxial islands. Nanoscale, 2013, 5, 2990.	5.6	9

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73	Laser-driven formation of transient local ferromagnetism in FeRh thin films. Ultramicroscopy, 2017, 183, 104-108.	1.9	9
74	The distribution and coordination of trace elements in Krithe ostracods and their implications for paleothermometry. Geochimica Et Cosmochimica Acta, 2018, 236, 230-239.	3.9	9
75	Controlled Magnetic Anisotropy in Single Domain Mn-doped Biosynthesized Nanoparticles. Journal of Physical Chemistry C, 2020, 124, 22827-22838.	3.1	9
76	Nonreciprocal Transport in a Rashba Ferromagnet, Delafossite PdCoO₂. Nano Letters, 2021, 21, 8687-8692.	9.1	9
77	Formation of extended straight molecular chains by pairing ofÂthymine molecules on the Agâ€“Si(111) surface. Applied Physics A: Materials Science and Processing, 2009, 95, 297-301.	2.3	8
78	Photoemission of Ga_{1â€“x}Mn_x As with high Curie temperature and transformation into MnAs of zincblende structure. Physica Status Solidi (B): Basic Research, 2009, 246, 1435-1439.	1.5	7
79	Temperature dependence of the magnetoresistance in Fe/MgO core/shell nanoparticles. Applied Physics Letters, 2009, 94, 262507.	3.3	7
80	Probing the metal-insulator transition in nickelates using soft x-ray absorption spectroscopy. Applied Physics Letters, 2014, 104, .	3.3	6
81	Control of coexisting magnetic phases by electric fields inNdFe3(BO3)4. Physical Review B, 2016, 94, .	3.2	6
82	Switching on superferromagnetism. Physical Review Materials, 2019, 3, .	2.4	6
83	Exploration of magnetic order in Pr<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si1.gif" display="inline" overflow="scroll"><mml:msub><mml:mrow /><mml:mrow><mml:mn>0.5</mml:mn></mml:mrow></mml:msub></mml:math>Ca<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si2.gif" display="inline" overflow="scroll"><mml:msub><mml:mrow /><mml:mrow><mml:mn>0.5</mml:mn></mml:mrow></mml:msub></mml:math>CoO<mml:math xmlns:mml	1.2	5
84	Interfacial effects in La2/3Sr1/3MnO3 thin films with different complex oxide capping layers. Journal of Applied Physics, 2011, 109, 07D718.	2.5	5
85	Domain wall transformations and hopping in La0.7Sr0.3MnO3nanostructures imaged with high resolution x-ray magnetic microscopy. Journal of Physics Condensed Matter, 2014, 26, 456003.	1.8	5
86	Enhancement of spin-orbit coupling at manganite surfaces. Physical Review B, 2018, 98, .	3.2	5
87	Superconducting imprint of magnetic textures in ferromagnets with perpendicular magnetic anisotropy. Scientific Reports, 2021, 11, 20788.	3.3	5
88	Soft x-ray absorption spectroscopy of strained epitaxial manganite thin films. Applied Physics Letters, 2006, 89, 172512.	3.3	4
89	Magnetic Anisotropy of Individual Nanomagnets Embedded in Biological Systems Determined by Axi-asymmetric X-ray Transmission Microscopy. ACS Nano, 2022, 16, 7398-7408.	14.6	4
90	Surface Resistance of La_{2/3}Ca_{1/3}MnO₃ Epitaxial Thin Films Grown on Top of LaAlO₃. Advances in Science and Technology, 2006, 52, 87.	0.2	2

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91	Navigation from a phase-segregated state to single-phase incommensurate sodium ordering in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>Î³</mml:mi><mml:msub><mml:mrow><mml:mtext>-Na</mml:mtext></mml:mrow><mml:mi>x</ xmlns:mml="http://www.w3.org/1998/Math/MathML"		