

Vincent Garcia

List of Publications by Year in descending order

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Version: 2024-02-01

70
papers

8,390
citations

126708

33
h-index

91712

69
g-index

73
all docs

73
docs citations

73
times ranked

9190
citing authors

#	ARTICLE	IF	CITATIONS
1	Polar Chirality in BiFeO ₃ Emerging from A Peculiar Domain Wall Sequence. Advanced Electronic Materials, 2022, 8, .	2.6	7
2	Quantitative Imaging of Exotic Antiferromagnetic Spin Cycloids in BiFeO_3 Thin Films. Physical Review Applied, 2022, 17, .	1.5	3
3	Imaging Topological Defects in a Noncollinear Antiferromagnet. Physical Review Letters, 2022, 128, 187201.	2.9	9
4	X-ray absorption and x-ray magnetic circular dichroism in bulk and thin films of ferrimagnetic GdTiO_3 . Physical Review Materials, 2021, 5, .	0.9	4
5	Surface and bulk ferroelectric phase transition in super-tetragonal BiFeO_3 thin films. Physical Review Materials, 2021, 5, .	0.9	6
6	Patterning enhanced tetragonality in BiFeO_3 thin films with effective negative pressure by helium implantation. Physical Review Materials, 2021, 5, .	0.9	6
7	Voltage-Controlled Reconfigurable Magnonic Crystal at the Sub-micrometer Scale. ACS Nano, 2021, 15, 9775-9781.	7.3	15
8	Electric and antiferromagnetic chiral textures at multiferroic domain walls. Nature Materials, 2020, 19, 386-390.	13.3	64
9	Inverse transition of labyrinthine domain patterns in ferroelectric thin films. Nature, 2020, 577, 47-51.	13.7	71
10	In-Depth Atomic Mapping of Polarization Switching in a Ferroelectric Field-Effect Transistor. Advanced Materials Interfaces, 2020, 7, 2000601.	1.9	6
11	Interfacial Strain Gradients Control Nanoscale Domain Morphology in Epitaxial BiFeO ₃ Multiferroic Films. Advanced Functional Materials, 2020, 30, 2000343.	7.8	26
12	Antiferromagnetic textures in BiFeO ₃ controlled by strain and electric field. Nature Communications, 2020, 11, 1704.	5.8	61
13	Electron-polaron dichotomy of charge carriers in perovskite oxides. Communications Physics, 2020, 3, .	2.0	19
14	Non-volatile electric control of spin-charge conversion in a SrTiO ₃ Rashba system. Nature, 2020, 580, 483-486.	13.7	149
15	Switchable two-dimensional electron gas based on ferroelectric Ca: SrTiO_3 . Physical Review Materials, 2020, 4, .	0.9	15
16	Domains and domain walls in multiferroics. ChemistrySelect, 2020, 5, .	0.7	28
17	A magnetic phase diagram for nanoscale epitaxial BiFeO ₃ films. Applied Physics Reviews, 2019, 6, .	5.5	19
18	Towards Oxide Electronics: a Roadmap. Applied Surface Science, 2019, 482, 1-93.	3.1	236

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19	Giant topological Hall effect in correlated oxide thin films. Nature Physics, 2019, 15, 67-72.	6.5	111
20	Influence of flexoelectricity on the spin cycloid in (110)-oriented BiFeO_3 films. Physical Review Materials, 2019, 3, .	0.9	9
21	Verilog-A model of ferroelectric memristors dedicated to neuromorphic design. , 2018, , .		0
22	Real-time switching dynamics of ferroelectric tunnel junctions under single-shot voltage pulses. Applied Physics Letters, 2018, 113, .	1.5	8
23	Learning through ferroelectric domain dynamics in solid-state synapses. Nature Communications, 2017, 8, 14736.	5.8	437
24	Intrinsic polarization switching mechanisms in BiFeO_3 . Physical Review B, 2017, 95, .	1.1	21
25	Real-space imaging of non-collinear antiferromagnetic order with a single-spin magnetometer. Nature, 2017, 549, 252-256.	13.7	203
26	STEM-EELS Investigation of Charge and Strain Distributions in Perovskite Oxide Thin Films. Microscopy and Microanalysis, 2017, 23, 1610-1611.	0.2	2
27	High-Temperature-Superconducting Weak Link Defined by the Ferroelectric Field Effect. Physical Review Applied, 2017, 7, .	1.5	5
28	Modulating the phase transition temperature of giant magnetocaloric thin films by ion irradiation. Physical Review Materials, 2017, 1, .	0.9	9
29	Millionfold Resistance Change in Ferroelectric Tunnel Junctions Based on Nickelate Electrodes. Advanced Electronic Materials, 2016, 2, 1500245.	2.6	36
30	Space-charge Effect on Electroresistance in Metal-Ferroelectric-Metal capacitors. Scientific Reports, 2016, 5, 18297.	1.6	30
31	Tunnel electroresistance in BiFeO_3 junctions: size does matter. Applied Physics Letters, 2016, 109, .	1.5	28
32	Large elasto-optic effect and reversible electrochromism in multiferroic BiFeO_3 . Nature Communications, 2016, 7, 10718.	5.8	88
33	Tunnel electroresistance through organic ferroelectrics. Nature Communications, 2016, 7, 11502.	5.8	104
34	Engineering ferroelectric tunnel junctions through potential profile shaping. APL Materials, 2015, 3, .	2.2	31
35	Artificial multiferroic heterostructures for an electric control of magnetic properties. Comptes Rendus Physique, 2015, 16, 168-181.	0.3	43
36	Depth Profiling Charge Accumulation from a Ferroelectric into a Doped Mott Insulator. Nano Letters, 2015, 15, 2533-2541.	4.5	38

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37	High-performance ferroelectric memory based on fully patterned tunnel junctions. Applied Physics Letters, 2014, 104, .	1.5	99
38	Atomic structure and microstructures of supertetragonal multiferroic BiFeO_3 thin films. Physical Review B, 2014, 89, .	11.2	20
39	Electric-field control of magnetic order above room temperature. Nature Materials, 2014, 13, 345-351.	13.3	451
40	Ferroelectric tunnel junctions for information storage and processing. Nature Communications, 2014, 5, 4289.	5.8	621
41	Magnetoelectric Devices for Spintronics. Annual Review of Materials Research, 2014, 44, 91-116.	4.3	319
42	Giant Electroresistance of Super-tetragonal BiFeO_3 -Based Ferroelectric Tunnel Junctions. ACS Nano, 2013, 7, 5385-5390.	7.3	232
43	Ferroelectric control of a Mott insulator. Scientific Reports, 2013, 3, 2834.	1.6	58
44	Inside story of ferroelectric memories. Nature, 2012, 483, 279-280.	13.7	62
45	Atomic and Electronic Structure of the BaTiO_3/Fe Interface in Multiferroic Tunnel Junctions. Nano Letters, 2012, 12, 376-382.	4.5	95
46	A ferroelectric memristor. Nature Materials, 2012, 11, 860-864.	13.3	983
47	Solid-state memories based on ferroelectric tunnel junctions. Nature Nanotechnology, 2012, 7, 101-104.	15.6	518
48	Ferroelectric and multiferroic tunnel junctions. MRS Bulletin, 2012, 37, 138-143.	1.7	182
49	Structural and Dielectric Properties of SnTiO_3 , a Putative Ferroelectric. Crystal Growth and Design, 2011, 11, 1422-1426.	1.4	34
50	Interface-induced room-temperature multiferroicity in BaTiO_3 . Nature Materials, 2011, 10, 753-758.	13.3	341
51	Giant tunnel electroresistance with PbTiO_3 ferroelectric tunnel barriers. Applied Physics Letters, 2010, 96, .	1.5	65
52	Ferroelectric Control of Spin Polarization. Science, 2010, 327, 1106-1110.	6.0	632
53	Towards Two-Dimensional Metallic Behavior at $\text{LaAlO}_3/\text{SrTiO}_3$ Interface. Physical Review Letters, 2009, 102, 216804.	2.9	143
54	Giant tunnel electroresistance for non-destructive readout of ferroelectric states. Nature, 2009, 460, 81-84.	13.7	821

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55	Magnetoresistance in granular magnetic tunnel junctions with Fe nanoparticles embedded in ZnSe semiconducting epilayer. <i>Journal of Applied Physics</i> , 2008, 103, 123714.	1.1	3
56	Detection of the magnetostructural phase coexistence in MnAs epilayers at a very early stage. <i>Applied Physics Letters</i> , 2008, 92, .	1.5	3
57	Magnetic and structural properties of MnAs thin films on GaAs(111)B: Influence of the growth temperature. <i>Applied Physics Letters</i> , 2008, 92, 011905.	1.5	2
58	Biaxial Strain in the Hexagonal Plane of MnAs Thin Films: The Key to Stabilize Ferromagnetism to Higher Temperature. <i>Physical Review Letters</i> , 2007, 99, 117205.	2.9	43
59	Ferromagnetic resonance study of MnAs/GaAs(111) thin films. <i>Physica B: Condensed Matter</i> , 2007, 398, 372-375.	1.3	4
60	Synthesis and characterization of a new layered magnesium zinc phosphate hydrate. <i>Materials Research Bulletin</i> , 2007, 42, 165-170.	2.7	7
61	MnAs \cdot GaAs \cdot MnAs: Morphology and interfacial properties. <i>Physical Review B</i> , 2006, 73, .	1.1	15
62	Magnetization reversal and anomalous dependence of the coercive field with temperature in MnAs epilayers grown on GaAs. <i>Physical Review B</i> , 2006, 74, .	1.1	30
63	Spectroscopic Measurement of Spin-dependent Resonant Tunneling through a 3D Disorder: The Case of MnAs/GaAs/MnAs Junctions. <i>Physical Review Letters</i> , 2006, 97, 246802.	2.9	32
64	Γ_6^{\pm} phase transition in MnAs \cdot GaAs(001) thin films: An optical spectroscopic investigation. <i>Physical Review B</i> , 2006, 74, .	1.1	14
65	Spintronic with semiconductors. <i>Comptes Rendus Physique</i> , 2005, 6, 966-976.	0.3	8
66	Spin-dependent tunneling through high-k LaAlO ₃ . <i>Applied Physics Letters</i> , 2005, 87, 212501.	1.5	26
67	Resonant tunneling magnetoresistance in MnAs \cdot III-V \cdot MnAs junctions. <i>Physical Review B</i> , 2005, 72, .	1.1	49
68	Superconductivity of Bulk CaC ₆ . <i>Physical Review Letters</i> , 2005, 95, 087003.	2.9	383
69	Temperature dependence of the interfacial spin polarization of La ₂ /3Sr ₁ /3MnO ₃ . <i>Physical Review B</i> , 2004, 69, .	1.1	135
70	Bringing some bulk into ferroelectric devices. <i>Nature Materials</i> , 0, , .	13.3	1