

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	A ferroelectric memristor. Nature Materials, 2012, 11, 860-864.	13.3	983
2	Giant tunnel electroresistance for non-destructive readout of ferroelectric states. Nature, 2009, 460, 81-84.	13.7	821
3	Ferroelectric Control of Spin Polarization. Science, 2010, 327, 1106-1110.	6.0	632
4	Ferroelectric tunnel junctions for information storage and processing. Nature Communications, 2014, 5, 4289.	5.8	621
5	Solid-state memories based on ferroelectric tunnel junctions. Nature Nanotechnology, 2012, 7, 101-104.	15.6	518
6	Electric-field control of magnetic order above room temperature. Nature Materials, 2014, 13, 345-351.	13.3	451
7	Learning through ferroelectric domain dynamics in solid-state synapses. Nature Communications, 2017, 8, 14736.	5.8	437
8	Superconductivity of BulkCaC6. Physical Review Letters, 2005, 95, 087003.	2.9	383
9	Interface-induced room-temperature multiferroicity in BaTiO3. Nature Materials, 2011, 10, 753-758.	13.3	341
10	Magnetolectric Devices for Spintronics. Annual Review of Materials Research, 2014, 44, 91-116.	4.3	319
11	Towards Oxide Electronics: a Roadmap. Applied Surface Science, 2019, 482, 1-93.	3.1	236
12	Giant Electroresistance of Super-tetragonal BiFeO ₃ -Based Ferroelectric Tunnel Junctions. ACS Nano, 2013, 7, 5385-5390.	7.3	232
13	Real-space imaging of non-collinear antiferromagnetic order with a single-spin magnetometer. Nature, 2017, 549, 252-256.	13.7	203
14	Ferroelectric and multiferroic tunnel junctions. MRS Bulletin, 2012, 37, 138-143.	1.7	182
15	Non-volatile electric control of spin-charge conversion in a SrTiO ₃ Rashba system. Nature, 2020, 580, 483-486.	13.7	149
16	Towards Two-Dimensional Metallic Behavior at $\text{LaAlO}_3/\text{SrTiO}_3$ Interfaces. Physical Review Letters, 2009, 102, 216804.	2.9	143
17	Temperature dependence of the interfacial spin polarization of La _{2/3} Sr _{1/3} MnO ₃ . Physical Review B, 2004, 69, .	1.1	135
18	Giant topological Hall effect in correlated oxide thin films. Nature Physics, 2019, 15, 67-72.	6.5	111

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19	Tunnel electroresistance through organic ferroelectrics. Nature Communications, 2016, 7, 11502.	5.8	104
20	High-performance ferroelectric memory based on fully patterned tunnel junctions. Applied Physics Letters, 2014, 104, .	1.5	99
21	Atomic and Electronic Structure of the BaTiO ₃ /Fe Interface in Multiferroic Tunnel Junctions. Nano Letters, 2012, 12, 376-382.	4.5	95
22	Large elasto-optic effect and reversible electrochromism in multiferroic BiFeO ₃ . Nature Communications, 2016, 7, 10718.	5.8	88
23	Inverse transition of labyrinthine domain patterns in ferroelectric thin films. Nature, 2020, 577, 47-51.	13.7	71
24	Giant tunnel electroresistance with PbTiO ₃ ferroelectric tunnel barriers. Applied Physics Letters, 2010, 96, .	1.5	65
25	Electric and antiferromagnetic chiral textures at multiferroic domain walls. Nature Materials, 2020, 19, 386-390.	13.3	64
26	Inside story of ferroelectric memories. Nature, 2012, 483, 279-280.	13.7	62
27	Antiferromagnetic textures in BiFeO ₃ controlled by strain and electric field. Nature Communications, 2020, 11, 1704.	5.8	61
28	Ferroelectric control of a Mott insulator. Scientific Reports, 2013, 3, 2834.	1.6	58
29	Resonant tunneling magnetoresistance in MnAs ^{III-VI} MnAs junctions. Physical Review B, 2005, 72, .	1.1	49
30	Biaxial Strain in the Hexagonal Plane of MnAs Thin Films: The Key to Stabilize Ferromagnetism to Higher Temperature. Physical Review Letters, 2007, 99, 117205.	2.9	43
31	Artificial multiferroic heterostructures for an electric control of magnetic properties. Comptes Rendus Physique, 2015, 16, 168-181.	0.3	43
32	Depth Profiling Charge Accumulation from a Ferroelectric into a Doped Mott Insulator. Nano Letters, 2015, 15, 2533-2541.	4.5	38
33	Millionfold Resistance Change in Ferroelectric Tunnel Junctions Based on Nickelate Electrodes. Advanced Electronic Materials, 2016, 2, 1500245.	2.6	36
34	Structural and Dielectric Properties of SnTiO ₃ , a Putative Ferroelectric. Crystal Growth and Design, 2011, 11, 1422-1426.	1.4	34
35	Spectroscopic Measurement of Spin-dependent Resonant Tunneling through a 3D Disorder: The Case of MnAs/GaAs/MnAs Junctions. Physical Review Letters, 2006, 97, 246802.	2.9	32
36	Engineering ferroelectric tunnel junctions through potential profile shaping. APL Materials, 2015, 3, .	2.2	31

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37	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
38	Space-charge Effect on Electroresistance in Metal-Ferroelectric-Metal capacitors. <i>Scientific Reports</i> , 2016, 5, 18297.	1.6	30
39	Atomic structure and microstructures of supertetragonal multiferroic BiFeO_3 films. <i>Physical Review B</i> , 2014, 89, .		
40	Tunnel electroresistance in BiFeO_3 junctions: size does matter. <i>Applied Physics Letters</i> , 2016, 109, .	1.5	28
41	Domains and domain walls in multiferroics. <i>ChemistrySelect</i> , 2020, 5, .	0.7	28
42	Spin-dependent tunneling through high-k LaAlO_3 . <i>Applied Physics Letters</i> , 2005, 87, 212501.	1.5	26
43	Interfacial Strain Gradients Control Nanoscale Domain Morphology in Epitaxial BiFeO_3 Multiferroic Films. <i>Advanced Functional Materials</i> , 2020, 30, 2000343.	7.8	26
44	Intrinsic polarization switching mechanisms in BiFeO_3 . <i>Physical Review B</i> , 2017, 95, .		
45	A magnetic phase diagram for nanoscale epitaxial BiFeO_3 films. <i>Applied Physics Reviews</i> , 2019, 6, .	5.5	19
46	Electron-polaron dichotomy of charge carriers in perovskite oxides. <i>Communications Physics</i> , 2020, 3, .	2.0	19
47	$\text{MnAs}/\text{GaAs}/\text{MnAs}$: Morphology and interfacial properties. <i>Physical Review B</i> , 2006, 73, .	1.1	15
48	Voltage-Controlled Reconfigurable Magnonic Crystal at the Sub-micrometer Scale. <i>ACS Nano</i> , 2021, 15, 9775-9781.	7.3	15
49	Switchable two-dimensional electron gas based on ferroelectric CaSrTiO_3 . <i>Physical Review Materials</i> , 2020, 4, .	0.9	15
50	Γ_2^{\pm} phase transition in $\text{MnAs}/\text{GaAs}(001)$ thin films: An optical spectroscopic investigation. <i>Physical Review B</i> , 2006, 74, .	1.1	14
51	Modulating the phase transition temperature of giant magnetocaloric thin films by ion irradiation. <i>Physical Review Materials</i> , 2017, 1, .	0.9	9
52	Influence of flexoelectricity on the spin cycloid in (110)-oriented BiFeO_3 films. <i>Physical Review Materials</i> , 2019, 3, .	0.9	9
53	Imaging Topological Defects in a Noncollinear Antiferromagnet. <i>Physical Review Letters</i> , 2022, 128, 187201.	2.9	9
54	Spintronic with semiconductors. <i>Comptes Rendus Physique</i> , 2005, 6, 966-976.	0.3	8

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55	Real-time switching dynamics of ferroelectric tunnel junctions under single-shot voltage pulses. Applied Physics Letters, 2018, 113, .	1.5	8
56	Synthesis and characterization of a new layered magnesium zinc phosphate hydrate. Materials Research Bulletin, 2007, 42, 165-170.	2.7	7
57	Polar Chirality in BiFeO ₃ Emerging from A Peculiar Domain Wall Sequence. Advanced Electronic Materials, 2022, 8, .	2.6	7
58	In-Depth Atomic Mapping of Polarization Switching in a Ferroelectric Field-Effect Transistor. Advanced Materials Interfaces, 2020, 7, 2000601.	1.9	6
59	Surface and bulk ferroelectric phase transition in super-tetragonal BiFeO ₃ thin films. Physical Review Materials, 2021, 5, .	0.9	6
60	Patterning enhanced tetragonality in BiFeO ₃ thin films with effective negative pressure by helium implantation. Physical Review Materials, 2021, 5, .	0.9	6
61	High-Temperature-Superconducting Weak Link Defined by the Ferroelectric Field Effect. Physical Review Applied, 2017, 7, .	1.5	5
62	Ferromagnetic resonance study of MnAs/GaAs(111) thin films. Physica B: Condensed Matter, 2007, 398, 372-375.	1.3	4
63	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
64	Magnetoresistance in granular magnetic tunnel junctions with Fe nanoparticles embedded in ZnSe semiconducting epilayer. Journal of Applied Physics, 2008, 103, 123714.	1.1	3
65	Detection of the magnetostructural phase coexistence in MnAs epilayers at a very early stage. Applied Physics Letters, 2008, 92, .	1.5	3
66	Quantitative Imaging of Exotic Antiferromagnetic Spin Cycloids in BiFeO ₃ Thin Films. Physical Review Applied, 2022, 17, .	1.5	3
67	Magnetic and structural properties of MnAs thin films on GaAs(111)B: Influence of the growth temperature. Applied Physics Letters, 2008, 92, 011905.	1.5	2
68	STEM-EELS Investigation of Charge and Strain Distributions in Perovskite Oxide Thin Films. Microscopy and Microanalysis, 2017, 23, 1610-1611.	0.2	2
69	Bringing some bulk into ferroelectric devices. Nature Materials, 0, , .	13.3	1
70	Verilog-A model of ferroelectric memristors dedicated to neuromorphic design. , 2018, , .		0