

Gervasi Herranz

List of Publications by Year in descending order

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107
papers

4,869
citations

136885
32
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95218
68
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112
all docs

112
docs citations

112
times ranked

5864
citing authors

#	ARTICLE	IF	CITATIONS
1	Two-gap s -wave superconductivity at an oxide interface. Physical Review B, 2022, 105, .	1.1	5
2	Non-collinear and asymmetric polar moments at back-gated SrTiO3 interfaces. Communications Physics, 2022, 5, .	2.0	3
3	Dynamic control of octahedral rotation in perovskites by defect engineering. Physical Review B, 2022, 105, .	1.1	2
4	Highly transparent and conductive ITO substrates for near infrared applications. APL Materials, 2021, 9, .	2.2	24
5	Optical Plasmon Excitation in Transparent Conducting SrNbO ₃ and SrVO ₃ Thin Films. Advanced Optical Materials, 2021, 9, 2100520.	3.6	13
6	Optical second harmonic generation from LaAlO ₃ /SrTiO ₃ interfaces with different in-plane anisotropies. Journal of Physics Condensed Matter, 2020, 32, 135001.	0.7	8
7	Photoinduced Persistent Electron Accumulation and Depletion in $\text{LaAlO}_3/\text{SrTiO}_3$ Quantum Wells. Physical Review Letters, 2020, 124, 246804.	2.9	10
8	Disentangling Highly Asymmetric Magnetoelectric Effects in Engineered Multiferroic Heterostructures. Physical Review Applied, 2019, 12, .	1.5	3
9	Solid-State Synapses Modulated by Wavelength-Sensitive Temporal Correlations in Optic Sensory Inputs. ACS Applied Electronic Materials, 2019, 1, 1189-1197.	2.0	3
10	Plasticity of Persistent Photoconductance of Amorphous LaAlO ₃ /SrTiO ₃ Interfaces under Varying Illumination Conditions. ACS Applied Electronic Materials, 2019, 1, 810-816.	2.0	4
11	Gap suppression at a Lifshitz transition in a multi-condensate superconductor. Nature Materials, 2019, 18, 948-954.	13.3	34
12	Electronic and structural reconstructions of the polar (111) SrTiO3 surface. Physical Review B, 2019, 99, .	1.1	7
13	Towards Oxide Electronics: a Roadmap. Applied Surface Science, 2019, 482, 1-93.	3.1	236
14	Spectral and Angle-Resolved Magneto-Optical Characterization of Photonic Nanostructures. Journal of Visualized Experiments, 2019, , .	0.2	0
15	Unexpected large transverse magneto-optic Kerr effect at quasi-normal incidence in magnetoplasmonic crystals. Journal of Magnetism and Magnetic Materials, 2019, 476, 54-58.	1.0	8
16	Giant topological Hall effect in correlated oxide thin films. Nature Physics, 2019, 15, 67-72.	6.5	111
17	Electric-field-induced avalanches and glassiness of mobile ferroelastic twin domains in cryogenic SrTiO3. Physical Review Research, 2019, 1, .	1.3	16
18	Optical isolation in magnetoplasmonic diffraction gratings. , 2019, , .		0

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19	Non-reciprocal diffraction in magnetoplasmonic gratings. Optics Express, 2018, 26, 34842.	1.7	7
20	Low-Temperature Dielectric Anisotropy Driven by an Antiferroelectric Mode in SrTiO_3 . Physical Review Letters, 2018, 120, 217601.	2.9	19
21	Evidence of a minority monoclinic $\text{LaNiO}_{2.5}$ phase in lanthanum nickelate thin films. Physical Chemistry Chemical Physics, 2017, 19, 9137-9142.	1.3	10
22	Competition between Polar and Nonpolar Lattice Distortions in Oxide Quantum Wells: New Critical Thickness at Polar Interfaces. Physical Review Letters, 2017, 119, 106102.	2.9	36
23	Direct observation of multivalent states and charge transfer in Ce-doped yttrium iron garnet thin films. Physical Review B, 2017, 96, 114107.	1.1	11
24	Infrared ellipsometry study of photogenerated charge carriers at the (001) and (110) surfaces of SrTiO_3 crystals and at the interface of the corresponding $\text{LaAlO}_3/\text{SrTiO}_3$ heterostructures. Applied Physics Letters, 2016, 109, .	1.5	24
25	Untangling the contributions of cerium and iron to the magnetism of Ce-doped yttrium iron garnet. Applied Physics Letters, 2016, 108, .	1.5	8
26	Multiple strain-induced phase transitions in LaNiO_3 thin films. Physical Review B, 2016, 94, .	1.1	54
27	Strain-Driven Orbital and Magnetic Orders and Phase Separation in Epitaxial Half-Doped Manganite Films for Tunneling Devices. Physical Review Applied, 2016, 6, .	1.5	29
28	Untangling Electrostatic and Strain Effects on the Polarization of Ferroelectric Superlattices. Advanced Functional Materials, 2016, 26, 6446-6453.	7.8	23
29	Giant Optical Polarization Rotation Induced by Spin-Orbit Coupling in Polarons. Physical Review Letters, 2016, 117, 026401.	2.9	16
30	Monolithic integration of room-temperature multifunctional $\text{BaTiO}_3\text{-CoFe}_2\text{O}_4$ epitaxial heterostructures on Si(001). Scientific Reports, 2016, 6, 31870.	1.6	19
31	Interface Magnetoelectric Coupling in Co/Pb(Zr,Ti)O_3 . ACS Applied Materials & Interfaces, 2016, 8, 7553-7563.	4.0	19
32	Optical Imaging of Nonuniform Ferroelectricity and Strain at the Diffraction Limit. Scientific Reports, 2015, 5, 15800.	1.6	3
33	Engineering two-dimensional superconductivity and Rashba spin-orbit coupling in $\text{LaAlO}_3/\text{SrTiO}_3$ quantum wells by selective orbital occupancy. Nature Communications, 2015, 6, 6028.	5.8	144
34	Conducting interfaces between amorphous oxide layers and $\text{SrTiO}_3(110)$ and $\text{SrTiO}_3(111)$. Solid State Ionics, 2015, 281, 68-72.	1.3	13
35	Yttria-stabilized zirconia/ SrTiO_3 oxide heteroepitaxial interface with symmetry discontinuity. Applied Physics Letters, 2014, 104, 251602.	1.5	4

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37	Two-Dimensional Electron Gases at $\text{LaAlO}_3/\text{SrTiO}_3$ Interfaces: Orbital Symmetry and Hierarchy Engineered by Crystal Orientation. Physical Review Letters, 2014, 113, 156802.	2.9	38
38	Expanding Effective-Medium Theory to Optical Diamagnetic Responses in Magnetoplasmonic Colloids. Physical Review Applied, 2014, 2, .	1.5	2
39	Magnetopolaron-induced optical response in transition metal oxides. Physical Review B, 2014, 89, .	1.1	7
40	Interface and Bulk Charge Localization in Manganite Thin Films. Advanced Materials Interfaces, 2014, 1, 1400079.	1.9	2
41	CHAPTER 10. Chemical Routes to Fabricate Three-Dimensional Magnetophotonic Crystals. RSC Smart Materials, 2013, , 262-291.	0.1	0
42	Electronic Subband Reconfiguration in a d^0 -Perovskite Induced by Strain-Driven Structural Transformations. Physical Review Letters, 2012, 109, 226601.	2.9	11
43	High mobility conduction at (110) and (111) $\text{LaAlO}_3/\text{SrTiO}_3$ interfaces. Scientific Reports, 2012, 2, 758.	1.6	160
44	Surface symmetry-breaking and strain effects on orbital occupancy in transition metal perovskite epitaxial films. Nature Communications, 2012, 3, 1189.	5.8	273
45	Orbital symmetry reconstruction and strong mass renormalization in the two-dimensional electron gas at the surface of KTaO_3 . Physical Review B, 2012, 86, .	1.1	82
46	Surface Reactivity of Iron Oxide Nanoparticles by Microwave-Assisted Synthesis; Comparison with the Thermal Decomposition Route. Journal of Physical Chemistry C, 2012, 116, 15108-15116.	1.5	89
47	Magneto-Optical Enhancement by Plasmon Excitations in Nanoparticle/Metal Structures. Langmuir, 2012, 28, 9010-9020.	1.6	23
48	2D Magnetic Frames Obtained by the Microwave-Assisted Chemistry Approach. European Journal of Inorganic Chemistry, 2012, 2012, 2656-2660.	1.0	6
49	Laterally confined two-dimensional electron gases in self-patterned $\text{LaAlO}_3/\text{SrTiO}_3$ interfaces. Applied Physics Letters, 2012, 100, .	1.5	10
50	Magnetorefractive effect in manganites with a colossal magnetoresistance in the visible spectral region. Journal of Experimental and Theoretical Physics, 2012, 114, 141-149.	0.2	15
51	Effect of the capping on the local Mn oxidation state in buried (001) and (110) $\text{SrTiO}_3/\text{La}_{2/3}\text{Ca}_{1/3}\text{MnO}_3$ interfaces. Journal of Applied Physics, 2011, 110, 103903.	1.1	8
52	Magnetophotonic Response of Three-Dimensional Opals. ACS Nano, 2011, 5, 2957-2963.	7.3	21
53	Two-dimensional electron gas with universal subbands at the surface of SrTiO_3 . Nature, 2011, 469, 189-193.	13.7	634
54	Ultrathin conformal coating for complex magneto-photonic structures. Nanoscale, 2011, 3, 4811.	2.8	12

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55	X-ray interference effects on the determination of structural data in ultrathin La ₂ /3Sr ₁ /3MnO ₃ epitaxial thin films. Applied Physics Letters, 2011, 99, 111101.	1.5	22
56	Magnetoelastic coupling in La ₂ /3Sr ₁ /3MnO ₃ epitaxial thin films. Applied Physics Letters, 2011, 99, 111101.	1.1	17
57	Facile route to magnetophotonic crystals by infiltration of 3D inverse opals with magnetic nanoparticles. Journal of Magnetism and Magnetic Materials, 2010, 322, 1494-1496.	1.0	13
58	Strong magnetorefractive effect in epitaxial La ₂ /3Ca ₁ /3MnO ₃ thin films. Journal of Magnetism and Magnetic Materials, 2010, 322, 1481-1483.	1.0	4
59	Point defect distribution in high-mobility conductive SrTiO ₃ crystals. Physical Review B, 2010, 81, .	1.1	22
60	Persistent two-dimensional growth of (110) manganite films. Applied Physics Letters, 2010, 97, 121904.	1.5	19
61	Large magnetorefractive effect in magnetite. New Journal of Physics, 2010, 12, 103023.	1.2	11
62	Dynamical Response and Confinement of the Electrons at the Surface of LaAlO ₃ /SrTiO ₃ Heterostructures. Physical Review Letters, 2010, 104, 156807.	2.9	93
63	Vacancy defect and carrier distributions in the high mobility electron gas formed at ion-irradiated SrTiO ₃ surfaces. Journal of Applied Physics, 2010, 107, 103704.	1.1	26
64	Strong magnetorefractive and quadratic magneto-optical effects in LaAlO ₃ /SrTiO ₃ heterostructures. Physical Review B, 2010, 82, .	1.1	15
65	Magneto-Optical Characterization of Colloidal Dispersions. Application to Nickel Nanoparticles. Langmuir, 2010, 26, 12548-12552.	1.6	18
66	Towards Two-Dimensional Metallic Behavior at the Surface of LaAlO ₃ /SrTiO ₃ Heterostructures. Physical Review Letters, 2009, 102, 216804.	2.9	143
67	Structural and magnetic properties of Co-doped (La,Sr)TiO ₃ epitaxial thin films probed using x-ray magnetic circular dichroism. Journal of Physics Condensed Matter, 2009, 21, 406001.	0.7	3
68	Controlling high-mobility conduction in SrTiO ₃ by oxide thin film deposition. Applied Physics Letters, 2009, 94, 012113.	1.5	33
69	Effects of thickness on the cation segregation in epitaxial (001) and (110) La ₂ /3Ca ₁ /3MnO ₃ thin films. Applied Physics Letters, 2009, 95, .	1.5	42
70	Jahn-Teller contribution to the magneto-optical effect in thin-film ferromagnetic manganites. Physical Review B, 2009, 79, .	1.1	25
71	Optical sensing of magnetic field based on magnetorefractive effect in manganites. , 2009, , .		4
72	Mapping the spatial distribution of charge carriers in LaAlO ₃ /SrTiO ₃ heterostructures. Nature Materials, 2008, 7, 621-625.	13.3	395

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73	Integration of Multiferroic BiFeO ₃ Thin Films into Heterostructures for Spintronics. IEEE Transactions on Magnetics, 2008, 44, 1941-1945.	1.2	15
74	Electron energy loss spectroscopy determination of Ti oxidation state at the (001) LaAlO ₃ /SrTiO ₃ interface as a function of LaAlO ₃ growth conditions. Europhysics Letters, 2008, 82, 17003.	0.7	28
75	Effect of disorder on the temperature dependence of the resistivity of SrRuO ₃ . Physical Review B, 2008, 77, .	1.1	24
76	High Mobility in LaAlO ₃ /SrTiO ₃ Heterostructures: Origin, Dimensionality, and Perspectives. Physical Review Letters, 2007, 98, 216803.	2.9	563
77	Structural and functional characterization of (110)-oriented epitaxial La ₂ Ca ₁ MnO ₃ electrodes and SrTiO ₃ tunnel barriers. Journal of Applied Physics, 2007, 101, 093902.	1.1	14
78	Charge imbalance at oxide interfaces: How nature deals with it. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2007, 144, 1-6.	1.7	14
79	High-spin polarized Co-doped (La,Sr)TiO ₃ thin films on high-mobility SrTiO ₃ substrates. Journal of Magnetism and Magnetic Materials, 2007, 310, 2111-2113.	1.0	4
80	Co-Doped (La,Sr)TiO ₃ : A High Curie Temperature Diluted Magnetic System with Large Spin Polarization. Physical Review Letters, 2006, 96, 027207.	2.9	57
81	Tunnel magnetoresistance and robust room temperature exchange bias with multiferroic BiFeO ₃ epitaxial thin films. Applied Physics Letters, 2006, 89, 242114.	1.5	149
82	Growth modes and self-organization in the epitaxy of ferromagnetic SrRuO ₃ on SrTiO ₃ (001). Progress in Solid State Chemistry, 2006, 34, 213-221.	3.9	5
83	Giant step bunching in epitaxial SrRuO ₃ films on vicinal SrTiO ₃ (001). Thin Solid Films, 2006, 495, 159-164.	0.8	3
84	La ₂ Sr ₁ MnO ₃ –La _{0.1} Bi _{0.9} MnO ₃ heterostructures for spin filtering. Journal of Applied Physics, 2006, 99, 08E504.	1.1	35
85	Ferroelectricity Down to at Least 2 nm in Multiferroic BiFeO ₃ Epitaxial Thin Films. Japanese Journal of Applied Physics, 2006, 45, L187-L189.	0.8	53
86	Controlled magnetic anisotropy of SrRuO ₃ thin films grown on nominally exact SrTiO ₃ (001) substrates. Applied Physics Letters, 2006, 89, 152501.	1.5	11
87	Giant step bunching from self-organized coalescence of SrRuO ₃ islands. Physical Review B, 2006, 73, .	1.1	13
88	Hybrid perovskite-spinel magnetic tunnel junctions based on conductive ferrimagnetic NiFe ₂ O ₄ . Journal of Applied Physics, 2006, 99, 08K301.	1.1	30
89	Combining half-metals and multiferroics into epitaxial heterostructures for spintronics. Applied Physics Letters, 2006, 88, 062502.	1.5	100
90	Full oxide heterostructure combining a high-TC diluted ferromagnet with a high-mobility conductor. Physical Review B, 2006, 73, .	1.1	42

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91	Magnetoresistance of SrRuO ₃ ultra-thin films. Journal of Magnetism and Magnetic Materials, 2005, 290-291, 1123-1126.	1.0	0
92	Kerr measurements on single-domain SrRuO ₃ thin films. Journal of Applied Physics, 2005, 97, 10M321.	1.1	7
93	Self-organization in complex oxide thin films: from 2D to 0D nanostructures of SrRuO ₃ and CoCr ₂ O ₄ . Nanotechnology, 2005, 16, S190-S196.	1.3	29
94	Domain structure of epitaxial SrRuO ₃ thin films. Physical Review B, 2005, 71, .	1.1	39
95	Magnetic field effect on quantum corrections to the low-temperature conductivity in metallic perovskite oxides. Physical Review B, 2005, 72, .	1.1	44
96	Band filling versus bond bending in substituted LxSr _{2-α} xFeMoO ₆ (L=Ca, La, Nd) compounds. Journal of Applied Physics, 2004, 95, 7082-7084.	1.1	32
97	Critical effects of substrate terraces and steps morphology on the growth mode of epitaxial SrRuO ₃ films. Applied Physics Letters, 2004, 85, 1981-1983.	1.5	37
98	Self-interference of charge carriers in ferromagnetic SrRuO ₃ . Journal of Applied Physics, 2004, 95, 7213-7215.	1.1	2
99	Weak localization effects in some metallic perovskites. European Physical Journal B, 2004, 40, 439-444.	0.6	47
100	Anisotropic magnetoresistance in SrRuO ₃ ferromagnetic oxide. Journal of Magnetism and Magnetic Materials, 2004, 272-276, 517-518.	1.0	16
101	Relevance of the 3D to 2D growth mode transition for the transport properties of nanometric SrRuO ₃ films. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2004, 109, 221-225.	1.7	4
102	Enhanced electron-electron correlations in nanometric SrRuO ₃ epitaxial films. Physical Review B, 2003, 67, .	1.1	85
103	SrRuO ₃ /SrTiO ₃ /SrRuO ₃ heterostructures for magnetic tunnel junctions. Journal of Applied Physics, 2003, 93, 8035-8037.	1.1	21
104	Impact of microstructure on transport properties of nanometric epitaxial SrRuO ₃ films. Applied Physics Letters, 2003, 82, 85-87.	1.5	35
105	Transition from three- to two-dimensional growth in strained SrRuO ₃ films on SrTiO ₃ (001). Applied Physics Letters, 2003, 83, 902-904.	1.5	36
106	Charge localization in nanometric La _{2/3} Ca _{1/3} MnO ₃ thin films grown on nearly matching substrates. Journal of Applied Physics, 2003, 93, 8065-8067.	1.1	5
107	Thickness Dependence of Transport Properties of Epitaxial SrRuO ₃ Thin Films Grown on SrTiO ₃ Substrates. Materials Research Society Symposia Proceedings, 2001, 690, F3.5.1.	0.1	0