

Javier Herrero Martin

List of Publications by Year in descending order

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105
papers

1,852
citations

257357

24
h-index

315616

38
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109
all docs

109
docs citations

109
times ranked

3295
citing authors

#	ARTICLE	IF	CITATIONS
1	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.	1.0	110
2	Structural origin of dipole x-ray resonant scattering in the low-temperature phase of Nd _{0.5} Sr _{0.5} MnO ₃ . Physical Review B, 2004, 70, .	1.1	92
3	Absence of Ferromagnetism in VSe ₂ Caused by Its Charge Density Wave Phase. Journal of Physical Chemistry C, 2019, 123, 27802-27810.	1.5	88
4	Femtosecond Magnetically Induced Lattice Distortions in Multiferroic TbMnO ₃ . Science, 2011, 333, 1273-1276.	6.0	85
5	Charge disproportionation in $\text{LaSr}_2\text{FeO}_7$ probed by x-ray resonant scattering. Physical Review B, 2017, 96, .	1.1	83
6	Biodegradable Metal-Based Organic Frameworks for Microrobots (MOFBOTs). Advanced Healthcare Materials, 2020, 9, e2001031.	3.9	64
7	Magnetic structure of EuFe_2O_7 and valence change of praseodymium in Pr_2O_3 . Physical Review B, 2017, 96, .	1.1	53
8	Valence change of praseodymium in Pr_2O_3 . Physical Review B, 2017, 96, .	1.1	44
9	Direct observation of multivalent states and charge transfer in Ce-doped yttrium iron garnet thin films. Physical Review B, 2017, 96, .	1.1	44
10	Emerging Diluted Ferromagnetism in High-T _c Superconductors Driven by Point Defect Clusters. Advanced Science, 2016, 3, 1500295.	5.6	41
11	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
12	Electronically highly cubic conditions for Ru in SrRuO_3 . Physical Review B, 2017, 96, .	1.1	36
13	The emergence of magnetic ordering at complex oxide interfaces tuned by defects. Nature Communications, 2020, 11, 3650.	5.8	35
14	Synthetic Antiferromagnetic Coupling Between Ultrathin Insulating Garnets. Physical Review Applied, 2018, 10, .	1.5	34
15	Strong coupling of Sm and Fe magnetism in SmFeAsO as revealed by magnetic x-ray scattering. Physical Review B, 2011, 84, .	1.1	33
16	Electronic and spin states of SrRuO_3 thin films: An x-ray magnetic circular dichroism study. Physical Review B, 2015, 91, .	1.1	33
17	Growth of Sr ₂ /3Ln ₁ /3FeO ₃ (Ln=La, Pr, and Nd) single crystals by the floating zone technique. Journal of Crystal Growth, 2008, 310, 3247-3250.	0.7	31

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19	Evidence for charge-density-wave nature of the charge-ordered phase in $\text{La}_{1-x}\text{Sr}_x\text{MnO}_4$. Physical Review B, 2009, 79, .	1.1	31
20	On the correlation between the X-ray absorption chemical shift and the formal valence state in mixed-valence manganites. Journal of Synchrotron Radiation, 2010, 17, 386-392.	1.0	31
21	CrTe ₃ Thin Films for Integration in Magnetic Topological Insulator Heterostructures. Scientific Reports, 2019, 9, 10793.	1.6	30
22	Attosecond state-resolved carrier motion in quantum materials probed by soft x-ray XANES. Applied Physics Reviews, 2021, 8, .	5.5	30
23	Reexamination of the Temperature Dependences of Resonant Reflections in Highly Stoichiometric Magnetite. Physical Review Letters, 2009, 102, 176405.	2.9	29
24	Polarized x-ray absorption spectra of $\text{La}_{1-x}\text{Sr}_x\text{MnO}_4$: Electronic state of Mn atoms. Physical Review B, 2005, 72, .	1.1	25
25	Hard x-ray probe to study doping-dependent electron redistribution and strong covalency in $\text{La}_{1-x}\text{Sr}_x\text{MnO}_4$. Physical Review B, 2010, 82, .	1.1	24
26	Structural changes at the semiconductor-insulator phase transition in the single-layered perovskite $\text{La}_{1-x}\text{Sr}_x\text{MnO}_4$. Physical Review B, 2005, 72, .	1.1	24
27	Structural changes at the semiconductor-insulator phase transition in the single-layered perovskite $\text{La}_{1-x}\text{Sr}_x\text{MnO}_4$. Physical Review B, 2005, 72, .	2.9	24
28	Epitaxial Stabilization of the Perovskite Phase in $(\text{Sr}_{1-x}\text{Ba}_x)\text{MnO}_3$ Thin Films. ACS Applied Materials & Interfaces, 2015, 7, 23967-23977.	4.0	22
29	Origin of the resonant x-ray scattering in LaMnO_3 . Physical Review B, 2007, 75, .	1.1	21
30	Structural distortion, charge modulation and local anisotropies in magnetite below the Verwey transition using resonant X-ray scattering. Journal of Synchrotron Radiation, 2012, 19, 159-173.	1.0	20
31	REXS contribution to electronic ordering investigation in solids. European Physical Journal: Special Topics, 2012, 208, 89-98.	1.2	19
32	Double stripe ordering in $\text{Nd}_{0.5}\text{Sr}_{0.5}\text{MnO}_3$ determined by resonant soft x-ray scattering. Physical Review B, 2006, 73, .	1.1	18
33	Low-field switching of noncollinear spin texture at $\text{La}_{1-x}\text{Sr}_x\text{MnO}_4$. Physical Review B, 2005, 72, .	1.1	18
34	A New Highly Anisotropic Rh ₂ EBased Heusler Compound for Magnetic Recording. Advanced Materials, 2020, 32, 2004331.	11.1	18
35	Imposing long-range ferromagnetic order in rare-earth-doped magnetic topological-insulator heterostructures. Physical Review Materials, 2018, 2, .	0.9	18
36	X-ray absorption spectroscopic study on A_2FeReO_6 double perovskites. Journal of Physics Condensed Matter, 2005, 17, 4963-4976.	0.7	16

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37	Orbital Order at Mn and O Sites and Absence of Zener Polaron Formation in Manganites. Physical Review Letters, 2009, 103, 097205.	2.9	16
38	Magnetic stability against calcining of microwave-synthesized CoFe ₂ O ₄ nanoparticles. New Journal of Chemistry, 2016, 40, 6890-6898.	1.4	16
39	Evolution of ground-state wave function in $CeCoIn_5$ upon Cd or Sn Magnetic Anisotropy and Valence States in	1.1	16
40	Possible multiorbital ground state in $L_aMn_2O_6$	1.1	15
41	Possible multiorbital ground state in $CeCu_2O_6$	1.1	15
42	Electron doping effects on Sr ₂ FeReO ₆ . Solid State Sciences, 2009, 11, 1535-1541.	1.5	14
43	Nonstoichiometry Driven Ferromagnetism in Double Perovskite La ₂ Ni ^{1-x} Mn _{1+x} O ₆ Insulating Thin Films. Crystal Growth and Design, 2019, 19, 2765-2771.	1.4	14
44	An x-ray spectroscopic study of A ₂ FeMoO ₆ and SrFe _{1-x} Cr _x MoO ₆ double perovskites. Journal of Physics Condensed Matter, 2004, 16, 6877-6890.	0.7	13
45	Symmetry and charge order in Fe_2O_3 through polarized resonant x-ray diffraction. Physical Review B, 2010, 82, .		
46	Hybrid YBa ₂ Cu ₃ O ₇ Superconducting Ferromagnetic Nanocomposite Thin Films Prepared from Colloidal Chemical Solutions. Advanced Electronic Materials, 2017, 3, 1700037.	2.6	13
47	Aqueous Chemical Solution Deposition of Functional Double Perovskite Epitaxial Thin Films. Chemistry - A European Journal, 2020, 26, 9338-9347.	1.7	13
48	Magnetocapacitance effect and magnetoelectric coupling in type-II multiferroic HoFeWO ₆	1.1	13
49	Stability of the Cationic Oxidation States in Pr _{0.50} Sr _{0.50} CoO ₃ across the Magnetostructural Transition by X-ray Absorption Spectroscopy. Inorganic Chemistry, 2014, 53, 8854-8858.	1.9	12
50	Heteroleptic Iron(II) Spin-Crossover Complexes Based on a 2,6-Bis(pyrazol-1-yl)pyridine-type Ligand Functionalized with a Carboxylic Acid. Inorganic Chemistry, 2019, 58, 12199-12208.	1.9	12
51	Order-disorder nature of the antiferroelectric transition in Pb ₂ MnWO ₆ . Journal of Physics Condensed Matter, 2009, 21, 075903.	0.7	11
52	Magnetic and electronic properties of the ferroelectric-photovoltaic ordered double perovskite CaMnTi ₂ O ₆ investigated by x-ray absorption spectroscopies. Physical Review B, 2018, 97, .	1.1	11
53	Incommensurate Sinusoidal Oxygen Modulations in Layered Manganites $La_{1-x}Sr_xMnO_6$		

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55	Structural coupling, magnetic ordering, and cobalt spin reorientation in metallic $P_{0.5}S_{0.5}Co$. <i>Physical Review B</i> , 2008, 78, .	1.1	9
56	Orbital Hybridization and Magnetic Coupling at Cuprate/Manganite Interfaces Driven by Manganite Doping. <i>Advanced Quantum Technologies</i> , 2020, 3, 2000016.	1.8	9
57	Dynamic electric-field-induced magnetic effects in cobalt oxide thin films: towards magneto-ionic synapses. <i>Nanoscale</i> , 2022, 14, 842-852.	2.8	9
58	Unveiling the Impact of the Cations and Anions in Ionic Liquid/Glyme Hybrid Electrolytes for Na ₂ O Batteries. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 4022-4034.	4.0	9
59	Resonant x-ray scattering study of layered $TbBaCo_2$. <i>Physical Review B</i> , 2008, 78, .	1.1	8
60	Electron doping versus antisite defects: Structural and magnetic properties of $Sr_{2-x}La_xCrMoO_6$ and $Sr_{2-x}La_xCr_{1+x/2}Mo_{1-x/2}O_6$ perovskites. <i>Solid State Sciences</i> , 2010, 12, 750-758.	1.5	8
61	Direct observation of noncollinear order of Co and Mn moments in multiferroic $Mn_{0.85}Co_{0.15}$. <i>Physical Review B</i> , 2015, 91, 014407.	1.1	8
62	Electronic and vibrational signatures of ruthenium vacancies in $Sr_{2-x}Ru_xO_6$ thin films. <i>Physical Review Materials</i> , 2019, 3, .	2.9	8
63	TopoLayer Engineering Reshapes Charge Transfer at Polar Oxide Interfaces. <i>Advanced Materials</i> , 2022, 34, .	11.1	8
64	The checkerboard pattern of $Bi_{0.63}Sr_{0.37}MnO_3$ determined using resonant x-ray scattering at the Mn K edge. <i>Journal of Physics Condensed Matter</i> , 2008, 20, 235211.	0.7	7
65	Resonant x-ray scattering in 3d-transition-metal oxides: Anisotropy and charge orderings. <i>Journal of Physics: Conference Series</i> , 2009, 190, 012085.	0.3	7
66	Tunnel-mediated coupling between antiferromagnetic thin films. <i>Physical Review B</i> , 2014, 90, .	1.1	7
67	Structural Properties and Singular Phase Transitions of Metallic $Pr_{0.5}Sr_{0.5}CoO_3$ Cobaltite. <i>Inorganic Chemistry</i> , 2014, 53, 12297-12304.	1.9	7
68	Magnetic properties of Cr-substituted $\mu-(Fe_{1-x}Cr_x)_2O_3$ nanoparticles with epsilon structure. <i>Journal of Magnetism and Magnetic Materials</i> , 2020, 506, 166764.	1.0	7
69	Tuning the tilting of the spiral plane by Mn doping in $YBaCuFeO_5$ multiferroic. <i>Acta Materialia</i> , 2021, 206, 116608.	3.8	7
70	Spin state and structural changes at the metal-insulator transition in $YBaCo_2O_{5.5}$ by synchrotron x-rays. <i>Journal of Applied Physics</i> , 2012, 111, 07D710.	1.1	6
71	Control of coexisting magnetic phases by electric fields in $NdFe_3(BO_3)_4$. <i>Physical Review B</i> , 2016, 94, .	1.1	6
72	Spin-lattice coupling across the singular magnetostructural transition in $P_{0.5}S_{0.5}Co$. <i>Physical Review B</i> , 2008, 78, .	1.1	5

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73	Embedded Magnetism in YBa ₂ Cu ₃ O ₇ Associated with Cu ²⁺ O Vacancies within Nanoscale Intergrowths: Implications for Superconducting Current Performance. ACS Applied Nano Materials, 2020, 3, 3050-3059.	2.4	5
74	EuFe ₂ As ₂ : Magnetic Structure and Local Charge Distribution Anisotropies as Seen by Resonant X-ray Scattering. Journal of Superconductivity and Novel Magnetism, 2011, 24, 705-709.	0.8	4
75	Mn K edge resonant X-ray scattering of half-doped manganites. European Physical Journal: Special Topics, 2012, 208, 107-119.	1.2	4
76	Enhanced Magnetism through Oxygenation of FePc/Ag(110) Monolayer Phases. Journal of Physical Chemistry C, 2020, 124, 13993-14006.	1.5	4
77	Evidence for largest room temperature magnetic signal from Co ²⁺ in antiphase-free & fully inverted CoFe ₂ O ₄ in multiferroic-ferrimagnetic BiFeO ₃ -CoFe ₂ O ₄ nanopillar thin films. Journal of Magnetism and Magnetic Materials, 2021, 530, 167940.	1.0	4
78	Probing and comparing electron doping and miss-site effects in Re-based double perovskites. Journal of Physics Condensed Matter, 2009, 21, 216008.	0.7	3
79	Structural, electrical and magnetic properties of RE _{1/3} Sr _{2/3} FeO ₃ compounds (RE = La, Pr, Nd, Eu and Gd). Journal of Physics: Conference Series, 2010, 200, 012015.	0.3	3
80	Role of Pr cations and the low temperature transition in Pr _{0.50} Sr _{0.50} CoO ₃ : A comparison to Pr _{0.50} Ca _{0.50} CoO ₃ . Physica B: Condensed Matter, 2014, 455, 56-59.	1.3	3
81	Atomic origin of room-temperature two-dimensional itinerant ferromagnetism in an oxide-monolayer heterostructure. Applied Materials Today, 2021, 24, 101101.	2.3	3
82	Double-cell superstructure and vacancy ordering in tensile-strained metallic thin films of $P_{1-x}C_x$	0.9	3
83	Magnetic properties of a highly ordered single crystal of the layered perovskite YBaCuFe _{0.95} Mn _{0.05} O ₅ . Journal of Magnetism and Magnetic Materials, 2022, 551, 169165.	1.0	3
84	XAS Study of A ₂ FeMoO ₆ Double Perovskite. Physica Scripta, 2005, , 471.	1.2	2
85	Ground state and the metal-insulator transition in (Pr ^{1-y} Y ^y) _{1-x} Ca _x CoO ₃ (0.45 ≤ x ≤ 0.55) cobaltites. Journal of the Korean Physical Society, 2013, 63, 791-794.	0.3	2
86	The low temperature magnetostructural transition in Pr _{0.50} Sr _{0.50} CoO ₃ : Bulk versus thin film behavior. Journal of Applied Physics, 2014, 115, 17D721.	1.1	2
87	Electronic, spin-state, and magnetic transitions in Ba ₂ Co ₉ O ₁₄ investigated by x-ray spectroscopies and neutron diffraction. Physical Review B, 2017, 95, .	1.1	2
88	From antiferromagnetism to high- T_c weak ferromagnetism manipulated by atomic rearrangement in $Ba_{1-x}O_x$	0.9	2
89	X-ray spectroscopy for the magnetic study of the van der Waals ferromagnet CrSiTe ₃ in the few- and monolayer limit. 2D Materials, 2022, 9, 045007.	2.0	2
90	Soft resonant x-ray scattering in highly stoichiometric magnetite. Journal of Physics: Conference Series, 2009, 190, 012088.	0.3	1

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91	Origin of incommensurate satellite reflections on TbMnO ₃ by resonant x-ray scattering. Journal of Physics: Conference Series, 2013, 430, 012101.	0.3	1
92	Determination of incommensurate lattice modulations in La _{0.4} Sr _{1.6} MnO ₄ by resonant x-ray scattering. Journal of Physics: Conference Series, 2013, 430, 012107.	0.3	1
93	Resonant x-ray scattering in La _{1-x} Sr _{1+x} MnO ₄ (x ≈ 0.5): Incommensurate-lattice modulation vs. Charge-stripe models. Journal of Physics: Conference Series, 2014, 519, 012008.	0.3	1
94	Hard and soft x-rays XAS characterization of charge ordered LuFe ₂ O ₄ . Journal of Physics: Conference Series, 2015, 592, 012121.	0.3	1
95	Publisher's Note: Spin-lattice coupling across the singular magnetostructural transition in $\text{La}_{1-x}\text{Sr}_x\text{MnO}_4$ (x ≈ 0.5): Incommensurate-lattice modulation vs. Charge-stripe models. Physical Review B, 2016, 93, 114407.	1.1	1
96	Route to tunable room temperature electric polarization in SrTiO ₃ ∕CoFe ₂ O ₄ heterostructures. Journal of Materials Chemistry C, 2021, 9, 5977-5984.	2.7	1
97	Direct Epitaxial Growth of Polar Hf _{0.5} Zr _{0.5} O ₂ Films on Corundum. Nanomaterials, 2022, 12, 1232.	1.9	1
98	Magnetic Frustration in a Zeolite. Chemistry of Materials, 2021, 33, 9725-9731.	3.2	1
99	Local Structural Distortions Inducing Resonant Forbidden Reflections in LaMnO ₃ . AIP Conference Proceedings, 2007, , .	0.3	0
100	Charge and orbital ordering in Fe and Mn perovskite oxides far from half-doping by resonant x-ray scattering. Journal of Physics: Conference Series, 2009, 190, 012086.	0.3	0
101	Resonant x-ray scattering at the forbidden reflections in Mn ³⁺ -perovskites RE MnO ₃ (RE: La and Tb). Journal of Physics: Conference Series, 2009, 190, 012087.	0.3	0
102	Attosecond Soft-X-Ray Spectroscopy in a Transition Metal Dichalcogenide. , 2019, , .		0
103	Magnetic ordering in $\text{La}_{1-x}\text{Sr}_x\text{MnO}_4$ revealed by resonant magnetic x-ray scattering and neutron diffraction. Physical Review B, 2021, 103, 114407.	1.1	0
104	Ferromagnetic metallic Sr-rich $\text{Ln}_{1-x}\text{Co}_x\text{O}_3$ cobaltites with spontaneous spin rotation. Physical Review B, 2021, 104, .		0
105	Magnetic, magnetostructural and magnetoelectric properties of cobalt-based oxides. Acta Crystallographica Section A: Foundations and Advances, 2017, 73, C1310-C1310.	0.0	0