

T Zac Ward

List of Publications by Year in descending order

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Version: 2024-02-01

119
papers

3,806
citations

117453

34
h-index

138251

58
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122
all docs

122
docs citations

122
times ranked

5642
citing authors

#	ARTICLE	IF	CITATIONS
1	Ultrathin nanosheets of CrSiTe ₃ : a semiconducting two-dimensional ferromagnetic material. Journal of Materials Chemistry C, 2016, 4, 315-322.	2.7	235
2	Room-Temperature Multiferroic Hexagonal LuFeO ₃ Films. Physical Review Letters, 2013, 110, 237601.	2.9	195
3	Giant Magnetoresistance in Organic Spin Valves. Physical Review Letters, 2010, 104, 236602.	2.9	181
4	Elastically driven anisotropic percolation in electronic phase-separated manganites. Nature Physics, 2009, 5, 885-888.	6.5	157
5	The emergent field of high entropy oxides: Design, prospects, challenges, and opportunities for tailoring material properties. APL Materials, 2020, 8, .	2.2	152
6	Emerging magnetism and anomalous Hall effect in iridate/manganite heterostructures. Nature Communications, 2016, 7, 12721.	5.8	123
7	Giant Discrete Steps in Metal-Insulator Transition in Perovskite Manganite Wires. Physical Review Letters, 2006, 97, 167201.	2.9	102
8	Single-crystal high entropy perovskite oxide epitaxial films. Physical Review Materials, 2018, 2, .	0.9	102
9	High-performance multilayer WSe ₂ field-effect transistors with carrier type control. Nano Research, 2018, 11, 722-730.	5.8	101
10	Focused helium-ion beam irradiation effects on electrical transport properties of few-layer WSe ₂ : enabling nanoscale direct write homo-junctions. Scientific Reports, 2016, 6, 27276.	1.6	99
11	Reemergent Metal-Insulator Transitions in Manganites Exposed with Spatial Confinement. Physical Review Letters, 2008, 100, 247204.	2.9	98
12	Influence of electron doping on the ground state of Sr _{1-x} Ca _x FeO ₃ . Physical Review B, 2015, 92, .	5.1	89
13	Full Electroresistance Modulation in a Mixed-Phase Metallic Alloy. Physical Review Letters, 2016, 116, 097203.	2.9	88
14	Phase Transitions, Phase Coexistence, and Piezoelectric Switching Behavior in Highly Strained BiFeO ₃ Films. Advanced Materials, 2013, 25, 5561-5567.	11.1	84
15	Strain Doping: Reversible Single-Axis Control of a Complex Oxide Lattice via Helium Implantation. Physical Review Letters, 2015, 114, 256801.	2.9	84
16	Wafer-Scale Fabrication of Self-Catalyzed 1.7 eV GaAsP Core/Shell Nanowire Photocathode on Silicon Substrates. Nano Letters, 2014, 14, 2013-2018.	4.5	58
17	Tunable magnetic ordering through cation selection in entropic spinel oxides. Physical Review Materials, 2019, 3, .	0.9	57
18	Electrically reversible cracks in an intermetallic film controlled by an electric field. Nature Communications, 2018, 9, 41.	5.8	53

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19	Influence of different substrates on phase separation in $\text{La}_{1-x}\text{PryCaxMnO}_3$ thin films. Journal of Applied Physics, 2006, 99, 08S901.	1.1	52
20	Active control of magnetoresistance of organic spin valves using ferroelectricity. Nature Communications, 2014, 5, 4396.	5.8	51
21	Controlling Octahedral Rotations in a Perovskite via Strain Doping. Scientific Reports, 2016, 6, 26491.	1.6	50
22	Tunable Metallicity of the $\text{La}_{0.01}\text{Tj}_{0.00}\text{ETQqO}_{0.00}\text{rgBT}/\text{Overlock } 10 \text{ Tf } 50 \text{ 617 Td}$ (stretch="false")</math> (stretch="false")</math> 066104.		
23	Time-Resolved Electronic Phase Transitions in Manganites. Physical Review Letters, 2009, 102, 087201.	2.9	48
24	Nanoscale ferroelastic twins formed in strained LaCoO_3 films. Science Advances, 2019, 5, eaav5050.	4.7	48
25	Ionic Liquid Activation of Amorphous Metal-Oxide Semiconductors for Flexible Transparent Electronic Devices. Advanced Functional Materials, 2016, 26, 2820-2825.	7.8	46
26	Interface-induced multiferroism by design in complex oxide superlattices. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E5062-E5069.	3.3	42
27	Magnetic anisotropy in single-crystal high-entropy perovskite oxide		

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37	High performance top-gated multilayer WSe_2 field effect transistors. Nanotechnology, 2017, 28, 475202.	1.3	33
38	Dynamics of a first-order electronic phase transition in manganites. Physical Review B, 2011, 83, .	1.1	32
39	Electrophoretic-like Gating Used To Control Metal-Insulator Transitions in Electronically Phase Separated Manganite Wires. Nano Letters, 2013, 13, 3749-3754.	4.5	31
40	Chemically induced Jahn-Teller ordering on manganite surfaces. Nature Communications, 2014, 5, 4528.	5.8	28
41	Reversible Control of Interfacial Magnetism through Ionic-Liquid-Assisted Polarization Switching. Nano Letters, 2017, 17, 1665-1669.	4.5	28
42	Switchable orbital polarization and magnetization in strained $LaCoO_3$ films. Physical Review Materials, 2019, 3, .	0.9	28
43	Designing Magnetism in High Entropy Oxides. Advanced Science, 2022, 9, e2200391.	5.6	28
44	Exploiting Symmetry Mismatch to Control Magnetism in a Ferroelastic Heterostructure. Physical Review Letters, 2019, 122, 187202.	2.9	27
45	Ferromagnetism and Nonmetallic Transport of Thin-Film $FeSi$ A Stabilized Metastable Material. Physical Review Letters, 2015, 114, 147202.	2.9	26
46	Strain-induced optical band gap variation of SnO_2 films. Thin Solid Films, 2016, 615, 103-106.	0.8	26
47	High Entropy Oxide Relaxor Ferroelectrics. ACS Applied Materials & Interfaces, 2022, 14, 11962-11970.	4.0	26
48	Growth diagram and magnetic properties of hexagonal $LuFe_2O_4$ thin films. Physical Review B, 2012, 85, .	1.1	25
49	Ferroelectric Self-Poling, Switching, and Monoclinic Domain Configuration in $BiFeO_3$ Thin Films. Advanced Functional Materials, 2016, 26, 5166-5173.	7.8	25
50	Tuning the Metal-Insulator Transition in Manganite Films through Surface Exchange Coupling with Magnetic Nanodots. Physical Review Letters, 2011, 106, 157207.	2.9	24
51	Epitaxial Growth of Intermetallic MnPt Films on Oxides and Large Exchange Bias. Advanced Materials, 2016, 28, 118-123.	11.1	24
52	Role of Electrical Double Layer Structure in Ionic Liquid Gated Devices. ACS Applied Materials & Interfaces, 2017, 9, 40949-40958.	4.0	24
53	Designing Morphotropic Phase Composition in $BiFeO_3$. Nano Letters, 2019, 19, 1033-1038.	4.5	24
54	Magnetic Texture in Insulating Single Crystal High Entropy Oxide Spinel Films. ACS Applied Materials & Interfaces, 2021, 13, 17971-17977.	4.0	24

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55	Ionic Liquid versus SiO ₂ Gated a-IGZO Thin Film Transistors: A Direct Comparison. ECS Journal of Solid State Science and Technology, 2015, 4, Q105-Q109.	0.9	23
56	Understanding Electric Double-Layer Gating Based on Ionic Liquids: from Nanoscale to Macroscale. ACS Applied Materials & Interfaces, 2018, 10, 43211-43218.	4.0	21
57	Removal of the Magnetic Dead Layer by Geometric Design. Advanced Functional Materials, 2018, 28, 1800922.	7.8	21
58	Applying Configurational Complexity to the 2D Ruddlesden-Popper Crystal Structure. ACS Nano, 2020, 14, 13030-13037.	7.3	21
59	Growth diagram of La _{0.7} Sr _{0.3} MnO ₃ thin films using pulsed laser deposition. Journal of Applied Physics, 2013, 113, .	1.1	20
60	Strain driven anisotropic magnetoresistance in antiferromagnetic La _{0.4} Sr _{0.6} MnO ₃ . Applied Physics Letters, 2014, 105, .	1.5	20
61	Charge doping effects on magnetic properties of single-crystal $\text{La}_{0.7}\text{Sr}_{0.3}\text{MnO}_3$		

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73	Ion Migration Studies in Exfoliated 2D Molybdenum Oxide via Ionic Liquid Gating for Neuromorphic Device Applications. ACS Applied Materials & Interfaces, 2018, 10, 22623-22631.	4.0	12
74	Impact of gate geometry on ionic liquid gated ionotronic systems. APL Materials, 2017, 5, .	2.2	11
75	Observing a previously hidden structural-phase transition onset through heteroepitaxial cap response. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 4141-4146.	3.3	11
76	Unit cell orientation of tetragonal-like BiFeO ₃ thin films grown on highly miscut LaAlO ₃ substrates. Applied Physics Letters, 2013, 102, 221910.	1.5	10
77	Reversible Hydrogen-Induced Phase Transformations in La _{0.7} Sr _{0.3} MnO ₃ Thin Films Characterized by In Situ Neutron Reflectometry. ACS Applied Materials & Interfaces, 2022, 14, 10898-10906.	4.0	10
78	Symmetry driven control of optical properties in WO ₃ films. APL Materials, 2017, 5, 066106.	2.2	9
79	Dimensionality Effects in FeGe ₂ Nanowires: Enhanced Anisotropic Magnetization and Anomalous Electrical Transport. Scientific Reports, 2017, 7, 7126.	1.6	9
80	Synthesis method comparison of compositionally complex rare earth-based Ruddlesden-Popper type cuprates. Journal of the American Ceramic Society, 2021, 104, 3750-3759.	1.9	9
81	Competing phases in epitaxial vanadium dioxide at nanoscale. APL Materials, 2019, 7, .	2.2	8
82	Ionic Gating of Ultrathin and Leaky Ferroelectrics. Advanced Materials Interfaces, 2019, 6, 1801723.	1.9	8
83	Tuning the Ferromagnetic Coupling of Fe Nanodots on Cu(111) via Dimensionality Variation of the Mediating Electrons. Physical Review Letters, 2010, 104, 167202.	2.9	7
84	Enhanced ferroelectric polarization and possible morphotropic phase boundary in PZT-based alloys. Physical Review B, 2016, 93, .	1.1	7
85	Nonequilibrium Synthesis of Highly Porous Single-Crystalline Oxide Nanostructures. Advanced Materials Interfaces, 2017, 4, 1601034.	1.9	6
86	Design and Realization of Ohmic and Schottky Interfaces for Oxide Electronics. Small Science, 2022, 2, 2100087.	5.8	6
87	Resolving transitions in the mesoscale domain configuration in VO ₂ using laser speckle pattern analysis. Scientific Reports, 2014, 4, 6259.	1.6	5
88	Kinetically Controlled Fabrication of Single-Crystalline TiO ₂ Nanobrush Architectures with High Energy {001} Facets. Advanced Science, 2017, 4, 1700045.	5.6	5
89	Designing functionality in perovskite thin films using ion implantation techniques: Assessment and insights from first-principles calculations. Scientific Reports, 2017, 7, 11166.	1.6	5
90	Epitaxial Stabilization of Single-Crystal Multiferroic YCrO ₃ Thin Films. Nanomaterials, 2020, 10, 2085.	1.9	5

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91	A persistent metal-insulator transition at the surface of an oxygen-deficient, epitaxial manganite film. <i>Nanoscale</i> , 2013, 5, 9659.	2.8	4
92	Amorphous Semiconductors: Ionic Liquid Activation of Amorphous Metal-Oxide Semiconductors for Flexible Transparent Electronic Devices (<i>Adv. Funct. Mater.</i> 17/2016). <i>Advanced Functional Materials</i> , 2016, 26, 2774-2774.	7.8	4
93	Strong spin-dephasing in a topological insulator-paramagnet heterostructure. <i>APL Materials</i> , 2020, 8, .	2.2	4
94	Publisher's Note: Structural and electronic origin of the magnetic structures in hexagonal LuFeO_3 [Phys. Rev. B 90 , 014436 (2014)]. <i>Physical Review B</i> , 2014, 90, .	1.1	3
95	Dynamic defect correlations dominate activated electronic transport in SrTiO ₃ . <i>Scientific Reports</i> , 2016, 6, 30141.	1.6	3
96	Multimodal Responses of Self-Organized Circuitry in Electronically Phase Separated Materials. <i>Advanced Electronic Materials</i> , 2016, 2, 1600189.	2.6	3
97	Homo-endotaxial one-dimensional Si nanostructures. <i>Nanoscale</i> , 2018, 10, 260-267.	2.8	3
98	Programmable Electrofluidics for Ionic Liquid Based Neuromorphic Platform. <i>Micromachines</i> , 2019, 10, 478.	1.4	3
99	Optical response of BiFeO ₃ films subjected to uniaxial strain. <i>Physical Review Materials</i> , 2019, 3, .	0.9	3
100	Self-regulated growth of candidate topological superconducting parkerite by molecular beam epitaxy. <i>APL Materials</i> , 2021, 9, 101110.	2.2	3
101	Exploring the Spatial Control of Topotactic Phase Transitions Using Vertically Oriented Epitaxial Interfaces. <i>Nano-Micro Letters</i> , 2022, 14, 2.	14.4	3
102	Vertically Aligned Single-Crystalline CoFe ₂ O ₄ Nanobrush Architectures with High Magnetization and Tailored Magnetic Anisotropy. <i>Nanomaterials</i> , 2020, 10, 472.	1.9	2
103	The structural modification and magnetism of many-layer epitaxial graphene implanted with low-energy light ions. <i>Carbon</i> , 2022, 192, 462-472.	5.4	2
104	Surface-Driven Evolution of the Anomalous Hall Effect in Magnetic Topological Insulator MnBi ₂ Te ₄ Thin Films. <i>Advanced Functional Materials</i> , 2022, 32, .	7.8	2
105	Fabrication of Spatially Confined Complex Oxides. <i>Journal of Visualized Experiments</i> , 2013, , e50573.	0.2	1
106	Exposing high-energy surfaces by rapid-anneal solid phase epitaxy. <i>APL Materials</i> , 2017, 5, 086103.	2.2	1
107	Oxide Epitaxy with Large Symmetry Mismatch: Bronze-phase VO ₂ on SrTiO ₃ . <i>Microscopy and Microanalysis</i> , 2017, 23, 1580-1581.	0.2	1
108	Generalized Ellipsometry Measurements of Crystalline Thin Film and Bulk Tin Oxide. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 0, , 2100378.	0.8	1

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109	Towards a High Diffraction Efficiency of Photorefractive Multiple Quantum Wells. AIP Conference Proceedings, 2005, , .	0.3	0
110	Emerging transport behavior in manganites wires. , 2008, , .		0
111	Emergent Metal-Insulator Transitions Associated with Electronic Inhomogeneities in Low-Dimensional Complex Oxides. Springer Series in Materials Science, 2012, , 69-86.	0.4	0
112	Phase Transitions, Phase Coexistence, and Piezoelectric Switching Behavior in Highly Strained BiFeO ₃ Films (Adv. Mater. 39/2013). Advanced Materials, 2013, 25, 5560-5560.	11.1	0
113	Optimising the defect filter layer design for III/V QDs on Si for integrated laser applications. , 2015, , .		0
114	Distortion Correction in Scanning Transmission Electron Microscopy with Controllable Scanning Pathways. Microscopy and Microanalysis, 2016, 22, 900-901.	0.2	0
115	Ferromagnetism: Epitaxial Growth of Intermetallic MnPt Films on Oxides and Large Exchange Bias (Adv. Mater. 1/2016). Advanced Materials, 2016, 28, 204-204.	11.1	0
116	Growth of high-quality self-catalyzed core-shell GaAsP nanowires on Si substrates. Proceedings of SPIE, 2016, , .	0.8	0
117	Direct Imaging of Low-Dimensional Nanostructures. Microscopy and Microanalysis, 2018, 24, 90-91.	0.2	0
118	Determination of rutile transition metal oxide (110) surface terminations by scanning tunneling microscopy contrast reversal. Physical Review B, 2021, 103, .	1.1	0
119	S186 <i>Invited</i> X-ray Microdiffraction Techniques for Measuring Local Microstructure and Strain Distributions. Powder Diffraction, 2008, 23, 189-189.	0.4	0