

# T Zac Ward

## List of Publications by Year in descending order

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119  
papers

3,806  
citations

117625

34  
h-index

138484

58  
g-index

122  
all docs

122  
docs citations

122  
times ranked

5642  
citing authors

#	ARTICLE	IF	CITATIONS
1	Design and Realization of Ohmic and Schottky Interfaces for Oxide Electronics. <i>Small Science</i> , 2022, 2, 2100087.	9.9	6
2	Searching for superconductivity in high entropy oxide Ruddlesden-Popper cuprate films. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2022, 40, .	2.1	14
3	Exploring the Spatial Control of Topotactic Phase Transitions Using Vertically Oriented Epitaxial Interfaces. <i>Nano-Micro Letters</i> , 2022, 14, 2.	27.0	3
4	Designing Magnetism in High Entropy Oxides. <i>Advanced Science</i> , 2022, 9, e2200391.	11.2	28
5	Reversible Hydrogen-Induced Phase Transformations in $\text{La}_{0.7}\text{Sr}_{0.3}\text{MnO}_3$ Thin Films Characterized by In Situ Neutron Reflectometry. <i>ACS Applied Materials &amp; Interfaces</i> , 2022, 14, 10898-10906.	8.0	10
6	High Entropy Oxide Relaxor Ferroelectrics. <i>ACS Applied Materials &amp; Interfaces</i> , 2022, 14, 11962-11970.	8.0	26
7	The structural modification and magnetism of many-layer epitaxial graphene implanted with low-energy light ions. <i>Carbon</i> , 2022, 192, 462-472.	10.3	2
8	Surface-Driven Evolution of the Anomalous Hall Effect in Magnetic Topological Insulator $\text{MnBi}_2\text{Te}_4$ Thin Films. <i>Advanced Functional Materials</i> , 2022, 32, .	14.9	2
9	Determination of rutile transition metal oxide (110) surface terminations by scanning tunneling microscopy contrast reversal. <i>Physical Review B</i> , 2021, 103, .	3.2	0
10	Post-synthesis control of Berry phase driven magnetotransport in $\text{SrRuO}_3$ films. <i>Physical Review B</i> , 2021, 103, .	3.2	0
11	Synthesis method comparison of compositionally complex rare earth-based Ruddlesden-Popper $\text{A}_n\text{B}_{2n-1}\text{O}_{7n-1}$ type cuprates. <i>Journal of the American Ceramic Society</i> , 2021, 104, 3750-3759.	3.8	9
12	Magnetic Texture in Insulating Single Crystal High Entropy Oxide Spinel Films. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 17971-17977.	8.0	24
13	Charge doping effects on magnetic properties of single-crystal $\text{La}_{0.7}\text{Sr}_{0.3}\text{MnO}_3$		

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19	Vertically Aligned Single-Crystalline CoFe <sub>2</sub> O <sub>4</sub> Nanobrush Architectures with High Magnetization and Tailored Magnetic Anisotropy. <i>Nanomaterials</i> , 2020, 10, 472.	4.1	2

20	The emergent field of high entropy oxides: Design, prospects, challenges, and opportunities for tailoring material properties. <i>APL Materials</i> , 2020, 8, . <a href="#">Magnetic anisotropy in single-crystal high-entropy perovskite oxide &lt;math&gt;\langle \dots \rangle&lt;/math&gt;</a>	5.1	152
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#	ARTICLE	IF	CITATIONS
37	Electrically reversible cracks in an intermetallic film controlled by an electric field. Nature Communications, 2018, 9, 41.	12.8	53
38	High-performance multilayer WSe <sub>2</sub> field-effect transistors with carrier type control. Nano Research, 2018, 11, 722-730.	10.4	101
39	Homo-endotaxial one-dimensional Si nanostructures. Nanoscale, 2018, 10, 260-267.	5.6	3
40	Understanding Electric Double-Layer Gating Based on Ionic Liquids: from Nanoscale to Macroscale. ACS Applied Materials & Interfaces, 2018, 10, 43211-43218.	8.0	21
41	Designing Magnetic Anisotropy through Strain Doping. Advanced Science, 2018, 5, 1800356.	11.2	15
42	Removal of the Magnetic Dead Layer by Geometric Design. Advanced Functional Materials, 2018, 28, 1800922.	14.9	21
43	Direct Imaging of Low-Dimensional Nanostructures. Microscopy and Microanalysis, 2018, 24, 90-91.	0.4	0
44	Ion Migration Studies in Exfoliated 2D Molybdenum Oxide via Ionic Liquid Gating for Neuromorphic Device Applications. ACS Applied Materials & Interfaces, 2018, 10, 22623-22631.	8.0	12
45	Single-crystal high entropy perovskite oxide epitaxial films. Physical Review Materials, 2018, 2, .	2.4	102
46	Nonequilibrium Synthesis of Highly Porous Single-Crystalline Oxide Nanostructures. Advanced Materials Interfaces, 2017, 4, 1601034.	3.7	6
47	Reversible Control of Interfacial Magnetism through Ionic-Liquid-Assisted Polarization Switching. Nano Letters, 2017, 17, 1665-1669.	9.1	28
48	Persistent Electrochemical Performance in Epitaxial VO <sub>2</sub> (B). Nano Letters, 2017, 17, 2229-2233.	9.1	41
49	Impact of gate geometry on ionic liquid gated ionotronic systems. APL Materials, 2017, 5, .	5.1	11
50	Symmetry driven control of optical properties in WO <sub>3</sub> films. APL Materials, 2017, 5, 066106.	5.1	9
51	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.	7.1	42
52	Kinetically Controlled Fabrication of Single-Crystalline TiO <sub>2</sub> Nanobrush Architectures with High Energy {001} Facets. Advanced Science, 2017, 4, 1700045.	11.2	5
53	Role of Electrical Double Layer Structure in Ionic Liquid Gated Devices. ACS Applied Materials & Interfaces, 2017, 9, 40949-40958.	8.0	24
54	Exposing high-energy surfaces by rapid-anneal solid phase epitaxy. APL Materials, 2017, 5, 086103.	5.1	1

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55	Designing functionality in perovskite thin films using ion implantation techniques: Assessment and insights from first-principles calculations. <i>Scientific Reports</i> , 2017, 7, 11166.	3.3	5
56	Dimensionality Effects in FeGe <sub>2</sub> Nanowires: Enhanced Anisotropic Magnetization and Anomalous Electrical Transport. <i>Scientific Reports</i> , 2017, 7, 7126.	3.3	9
57	Oxide Epitaxy with Large Symmetry Mismatch: Bronze-phase VO <sub>2</sub> on SrTiO <sub>3</sub> . <i>Microscopy and Microanalysis</i> , 2017, 23, 1580-1581.	0.4	1
58	High performance top-gated multilayer WSe <sub>2</sub> field effect transistors. <i>Nanotechnology</i> , 2017, 28, 475202.	2.6	33
59	Distortion Correction in Scanning Transmission Electron Microcopy with Controllable Scanning Pathways. <i>Microscopy and Microanalysis</i> , 2016, 22, 900-901.	0.4	0
60	Ferroelectric Self-Poling, Switching, and Monoclinic Domain Configuration in BiFeO <sub>3</sub> Thin Films. <i>Advanced Functional Materials</i> , 2016, 26, 5166-5173.	14.9	25
61	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.	14.9	4
62	Strain-induced optical band gap variation of SnO <sub>2</sub> films. <i>Thin Solid Films</i> , 2016, 615, 103-106.	1.8	26
63	Dynamic defect correlations dominate activated electronic transport in SrTiO <sub>3</sub> . <i>Scientific Reports</i> , 2016, 6, 30141.	3.3	3
64	Nanoscale self-templating for oxide epitaxy with large symmetry mismatch. <i>Scientific Reports</i> , 2016, 6, 38168.	3.3	18
65	Giant Controllable Magnetization Changes Induced by Structural Phase Transitions in a Metamagnetic Artificial Multiferroic. <i>Scientific Reports</i> , 2016, 6, 22708.	3.3	39
66	Epitaxial Growth of Intermetallic MnPt Films on Oxides and Large Exchange Bias. <i>Advanced Materials</i> , 2016, 28, 118-123.	21.0	24
67	Ferromagnetism: Epitaxial Growth of Intermetallic MnPt Films on Oxides and Large Exchange Bias ( <i>Adv. Mater.</i> 1/2016). <i>Advanced Materials</i> , 2016, 28, 204-204.	21.0	0
68	Growth of high-quality self-catalyzed core-shell GaAsP nanowires on Si substrates. <i>Proceedings of SPIE</i> , 2016, , .	0.8	0
69	Focused helium-ion beam irradiation effects on electrical transport properties of few-layer WSe <sub>2</sub> : enabling nanoscale direct write homo-junctions. <i>Scientific Reports</i> , 2016, 6, 27276.	3.3	99
70	Enhancing interfacial magnetization with a ferroelectric. <i>Physical Review B</i> , 2016, 94, .	3.2	34
71	Multimodal Responses of Self-Organized Circuitry in Electronically Phase Separated Materials. <i>Advanced Electronic Materials</i> , 2016, 2, 1600189.	5.1	3
72	Enhanced ferroelectric polarization and possible morphotropic phase boundary in PZT-based alloys. <i>Physical Review B</i> , 2016, 93, .	3.2	7

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73	Full Electroresistance Modulation in a Mixed-Phase Metallic Alloy. <i>Physical Review Letters</i> , 2016, 116, 097203.	7.8	88
74	Controlling Octahedral Rotations in a Perovskite via Strain Doping. <i>Scientific Reports</i> , 2016, 6, 26491.	3.3	50
75	Emerging magnetism and anomalous Hall effect in iridateâ€™manganite heterostructures. <i>Nature Communications</i> , 2016, 7, 12721.	12.8	123
76	Ionic Liquid Activation of Amorphous Metalâ€™Oxide Semiconductors for Flexible Transparent Electronic Devices. <i>Advanced Functional Materials</i> , 2016, 26, 2820-2825.	14.9	46
77	Continuously Controlled Optical Band Gap in Oxide Semiconductor Thin Films. <i>Nano Letters</i> , 2016, 16, 1782-1786.	9.1	35
78	Ultrathin nanosheets of CrSiTe <sub>3</sub> : a semiconducting two-dimensional ferromagnetic material. <i>Journal of Materials Chemistry C</i> , 2016, 4, 315-322.	5.5	235
79	Influence of electron doping on the ground state of $Sr_{2-x}La_xFeO_6$ . <i>Physical Review B</i> , 2015, 92, .	5.2	16
80	Strain Doping: Reversible Single-Axis Control of a Complex Oxide Lattice via Helium Implantation. <i>Physical Review Letters</i> , 2015, 114, 256801.	7.8	84
81	Optimising the defect filter layer design for III/V QDs on Si for integrated laser applications. , 2015, , .		0
82	First-Order Melting of a Weak Spin-Orbit Mott Insulator into a Correlated Metal. <i>Physical Review Letters</i> , 2015, 114, 257203.	7.8	40
83	Polarity-Driven Quasi-3-Fold Composition Symmetry of Self-Catalyzed IIIâ€™Vâ€™ Ternary Coreâ€™Shell Nanowires. <i>Nano Letters</i> , 2015, 15, 3128-3133.	9.1	39
84	Ferromagnetism and Nonmetallic Transport of Thin-Film $FeSi_{1-x}Ge_x$ . A Stabilized Metastable Material. <i>Physical Review Letters</i> , 2015, 114, 147202.	7.8	26
85	Stoichiometry control of complex oxides by sequential pulsed-laser deposition from binary-oxide targets. <i>Applied Physics Letters</i> , 2015, 106, .	3.3	12
86	Ionic Liquid versus SiO <sub>2</sub> -Gated a-IGZO Thin Film Transistors: A Direct Comparison. <i>ECS Journal of Solid State Science and Technology</i> , 2015, 4, Q105-Q109.	1.8	23
87	Chemically induced Jahnâ€™Teller ordering on manganite surfaces. <i>Nature Communications</i> , 2014, 5, 4528.	12.8	28
88	Strain driven anisotropic magnetoresistance in antiferromagnetic La <sub>0.4</sub> Sr <sub>0.6</sub> MnO <sub>3</sub> . <i>Applied Physics Letters</i> , 2014, 105, .	3.3	20
89	Active control of magnetoresistance of organic spin valves using ferroelectricity. <i>Nature Communications</i> , 2014, 5, 4396.	12.8	51
90	Structural and electronic origin of the magnetic structures in hexagonal $LuFeO_3$ . <i>Physical Review B</i> , 2014, 90, .	3.2	38

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91	Publisher's Note: Structural and electronic origin of the magnetic structures in hexagonal $\text{LuFeO}_3$ [Phys. Rev. B, 90, 014436 (2014)]. Physical Review B, 2014, 90, .	3.2	3
92	Wafer-Scale Fabrication of Self-Catalyzed 1.7 eV GaAsP Core-Shell Nanowire Photocathode on Silicon Substrates. Nano Letters, 2014, 14, 2013-2018.	9.1	58
93	Resolving transitions in the mesoscale domain configuration in VO <sub>2</sub> using laser speckle pattern analysis. Scientific Reports, 2014, 4, 6259.	3.3	5
94	A persistent metal-insulator transition at the surface of an oxygen-deficient, epitaxial manganite film. Nanoscale, 2013, 5, 9659.	5.6	4
95	Phase Transitions, Phase Coexistence, and Piezoelectric Switching Behavior in Highly Strained BiFeO <sub>3</sub> Films. Advanced Materials, 2013, 25, 5561-5567.	21.0	84
96	Phase Transitions, Phase Coexistence, and Piezoelectric Switching Behavior in Highly Strained BiFeO <sub>3</sub> Films (Adv. Mater. 39(2013)). Advanced Materials, 2013, 25, 5560-5560.	21.0	0
97	Room-Temperature Multiferroic Hexagonal $\text{LuFeO}_3$ Films. Physical Review Letters, 2013, 110, 237601.	7.8	195
98	Emergent phenomena in manganites under spatial confinement. Chinese Physics B, 2013, 22, 017501.	1.4	19
99	Electrophoretic-like Gating Used To Control Metal-Insulator Transitions in Electronically Phase Separated Manganite Wires. Nano Letters, 2013, 13, 3749-3754.	9.1	31
100	Unit cell orientation of tetragonal-like BiFeO <sub>3</sub> thin films grown on highly miscut LaAlO <sub>3</sub> substrates. Applied Physics Letters, 2013, 102, 221910.	3.3	10
101	Growth diagram of La <sub>0.7</sub> Sr <sub>0.3</sub> MnO <sub>3</sub> thin films using pulsed laser deposition. Journal of Applied Physics, 2013, 113, .	2.5	20
102	Fabrication of Spatially Confined Complex Oxides. Journal of Visualized Experiments, 2013, , e50573.	0.3	1
103	Growth diagram and magnetic properties of hexagonal $\text{LuFeO}_2\text{O}$ thin films. Physical Review B, 2012, 85, .	3.2	25
104	Emergent Metal-Insulator Transitions Associated with Electronic Inhomogeneities in Low-Dimensional Complex Oxides. Springer Series in Materials Science, 2012, , 69-86.	0.6	0
105	Tuning the Metal-Insulator Transition in Manganite Films through Surface Exchange Coupling with Magnetic Nanodots. Physical Review Letters, 2011, 106, 157207.	7.8	24
106	Dynamics of a first-order electronic phase transition in manganites. Physical Review B, 2011, 83, .	3.2	32
107	Tuning the Ferromagnetic Coupling of Fe Nanodots on Cu(111) via Dimensionality Variation of the Mediating Electrons. Physical Review Letters, 2010, 104, 167202.	7.8	7
108	Giant Magnetoresistance in Organic Spin Valves. Physical Review Letters, 2010, 104, 236602.	7.8	181

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109	Tunable Metallicity of the $\text{La}_{0.01}\text{Ca}_{0.99}\text{MnO}_3$ system. Physical Review Letters, 2009, 102, 087201.	7.8	48
110	Time-Resolved Electronic Phase Transitions in Manganites. Physical Review Letters, 2009, 102, 087201.	7.8	48
111	Elastically driven anisotropic percolation in electronic phase-separated manganites. Nature Physics, 2009, 5, 885-888.	16.7	157
112	Emerging transport behavior in manganites wires. , 2008, , .		0
113	Reemergent Metal-Insulator Transitions in Manganites Exposed with Spatial Confinement. Physical Review Letters, 2008, 100, 247204.	7.8	98
114	S186 <i>Invited</i> X-ray Microdiffraction Techniques for Measuring Local Microstructure and Strain Distributions. Powder Diffraction, 2008, 23, 189-189.	0.2	0
115	Influence of different substrates on phase separation in $\text{La}_{1-x}\text{PryCaxMnO}_3$ thin films. Journal of Applied Physics, 2006, 99, 08S901.	2.5	52
116	Giant Discrete Steps in Metal-Insulator Transition in Perovskite Manganite Wires. Physical Review Letters, 2006, 97, 167201.	7.8	102
117	Towards a High Diffraction Efficiency of Photorefractive Multiple Quantum Wells. AIP Conference Proceedings, 2005, , .	0.4	0
118	Optimisation of photorefractive multiple quantum wells for biomedical imaging. Synthetic Metals, 2005, 155, 406-409.	3.9	13
119	Generalized Ellipsometry Measurements of Crystalline Thin Film and Bulk Tin Oxide. Physica Status Solidi (A) Applications and Materials Science, 0, , 2100378.	1.8	1