

Megan Holtz

List of Publications by Year in descending order

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54
papers

1,958
citations

393982

19
h-index

253896

43
g-index

54
all docs

54
docs citations

54
times ranked

3432
citing authors

#	ARTICLE	IF	CITATIONS
1	Canonical approach to cation flux calibration in oxide molecular-beam epitaxy. <i>Physical Review Materials</i> , 2022, 6, .	0.9	8
2	Improved control of atomic layering in perovskite-related homologous series. <i>APL Materials</i> , 2021, 9, .	2.2	14
3	DyFe ₂ O ₄ : A new trigonal rare-earth ferrite grown by molecular-beam epitaxy. <i>APL Materials</i> , 2021, 9, 041106.	2.2	2
4	Dimensionality-Induced Change in Topological Order in Multiferroic Oxide Superlattices. <i>Physical Review Letters</i> , 2021, 126, 157601.	2.9	12
5	Electron ptychography achieves atomic-resolution limits set by lattice vibrations. <i>Science</i> , 2021, 372, 826-831.	6.0	154
6	Multislice electron ptychography enables lattice vibration-limited resolution and linear phase-contrast imaging in thick samples. <i>Microscopy and Microanalysis</i> , 2021, 27, 754-756.	0.2	0
7	Atomic Structure of Superconducting Tunnel Junctions using STEM and APT. <i>Microscopy and Microanalysis</i> , 2021, 27, 2460-2462.	0.2	1
8	4-D STEM Analyses of Cylindrical Specimens for Atom Probe Tomography. <i>Microscopy and Microanalysis</i> , 2021, 27, 184-186.	0.2	0
9	Stromataxic Stabilization of a Metastable Layered ScFeO ₃ Polymorph. <i>Chemistry of Materials</i> , 2021, 33, 7423-7431.	3.2	6
10	Steam-created grain boundaries for methane C&H activation in palladium catalysts. <i>Science</i> , 2021, 373, 1518-1523.	6.0	105
11	Targeted chemical pressure yields tuneable millimetre-wave dielectric. <i>Nature Materials</i> , 2020, 19, 176-181.	13.3	27
12	Site-specific spectroscopic measurement of spin and charge in (LuFeO ₃) _m /(LuFe ₂ O ₄) ₁ multiferroic superlattices. <i>Nature Communications</i> , 2020, 11, 5582.	5.8	9
13	<i>In Situ</i> Structural and Electrical Conductivity Characterization of Sr ₂ MMoO ₆ Double Perovskite Solid Oxide Fuel Cell Anode Materials. <i>ACS Applied Energy Materials</i> , 2020, 3, 5353-5360.	2.5	7
14	Multiferroic LuFeO ₃ on GaN by molecular-beam epitaxy. <i>Applied Physics Letters</i> , 2020, 116, .	1.5	8
15	The exit-wave power-spectrum transform for scanning nanobeam electron diffraction: robust strain mapping at subnanometer resolution and subpicometer precision. <i>Ultramicroscopy</i> , 2020, 214, 112994.	0.8	40
16	Imaging Polarity in Two Dimensional Materials by Breaking Friedel's Law. <i>Ultramicroscopy</i> , 2020, 215, 113019.	0.8	20
17	Defect-enhanced Polarization Switching in the Improper Ferroelectric LuFeO ₃ . <i>Advanced Materials</i> , 2020, 32, e2000508.	11.1	25
18	Ferroelectric Domain Walls in PbTiO ₃ Are Effective Regulators of Heat Flow at Room Temperature. <i>Nano Letters</i> , 2019, 19, 7901-7907.	4.5	48

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19	Decoupling Polarization, Crystal Tilt and Symmetry in Epitaxially-Strained Ferroelectric Thin Films Using 4D-STEM. <i>Microscopy and Microanalysis</i> , 2019, 25, 1938-1939.	0.2	5
20	Real-time imaging of activation and degradation of carbon supported octahedral Pt-Ni alloy fuel cell catalysts at the nanoscale using <i>in situ</i> electrochemical liquid cell STEM. <i>Energy and Environmental Science</i> , 2019, 12, 2476-2485.	15.6	146
21	Mitigation of PEM Fuel Cell Catalyst Degradation with Porous Carbon Supports. <i>Journal of the Electrochemical Society</i> , 2019, 166, F198-F207.	1.3	126
22	Growth of PdCoO ₂ by ozone-assisted molecular-beam epitaxy. <i>APL Materials</i> , 2019, 7, .	2.2	27
23	Octahedral spinel electrocatalysts for alkaline fuel cells. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 24425-24432.	3.3	60
24	Direct Imaging of Tilt Relaxation from the Interface in Epitaxially Strained Ca ₂ RuO ₄ Thin Films using ABF-STEM. <i>Microscopy and Microanalysis</i> , 2018, 24, 64-65.	0.2	2
25	AirSEM: Electron Microscopy in Air, without a Specimen Chamber. <i>Microscopy and Microanalysis</i> , 2018, 24, 342-343.	0.2	0
26	Grains and Strains from Cepstral Analysis of 4D-STEM Nano-Diffraction Datasets. <i>Microscopy and Microanalysis</i> , 2018, 24, 546-547.	0.2	3
27	Understanding and Predicting Cadmium Yellow Pigment Failure Mechanisms in the Works of the Early Modernists Using STEM Methodologies. <i>Microscopy and Microanalysis</i> , 2018, 24, 2122-2123.	0.2	0
28	Electrical half-wave rectification at ferroelectric domain walls. <i>Nature Nanotechnology</i> , 2018, 13, 1028-1034.	15.6	77
29	Topological Defects in Hexagonal Manganites: Inner Structure and Emergent Electrostatics. <i>Nano Letters</i> , 2017, 17, 5883-5890.	4.5	56
30	Visualizing weak ferromagnetic domains in multiferroic hexagonal ferrite thin film. <i>Physical Review B</i> , 2017, 95, .	1.1	19
31	Reducing orbital occupancy in VO_2 suppresses Mott physics while Peierls distortions persist. <i>Physical Review B</i> , 2017, 96, .		
32	Breaking Friedel's Law in Polar Two Dimensional Materials. <i>Microscopy and Microanalysis</i> , 2017, 23, 1738-1739.	0.2	1
33	Detection of CdS Nanoparticles and Implications for Cadmium Yellow Paint Degradation in Edvard Munch's <i>The Scream</i> (c. 1910, Munch Museum). <i>Microscopy and Microanalysis</i> , 2017, 23, 1910-1911.	0.2	3
34	Measuring Ferroelectric Order Parameters at Domain Walls and Vortices in Hexagonal Manganites with Atomic Resolution STEM. <i>Microscopy and Microanalysis</i> , 2017, 23, 1636-1637.	0.2	0
35	Reverse Engineering Cadmium Yellow Paint from Munch's <i>The Scream</i> with Correlative 3-D Spectroscopic and 4-D Crystallographic STEM. <i>Microscopy and Microanalysis</i> , 2016, 22, 258-259.	0.2	3
36	In Situ TEM for Electrochemical Energy Storage and Conversion Systems. <i>Microscopy and Microanalysis</i> , 2016, 22, 1326-1327.	0.2	0

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37	Imaging Local Polarization and Domain Boundaries with Picometer-Precision Scanning Transmission Electron Microscopy. <i>Microscopy and Microanalysis</i> , 2016, 22, 898-899.	0.2	0
38	In Situ Electrochemical Cell TEM for Battery and Fuel Cell Systems. <i>Microscopy and Microanalysis</i> , 2016, 22, 752-753.	0.2	0
39	Spatial Resolution in Scanning Electron Microscopy and Scanning Transmission Electron Microscopy Without a Specimen Vacuum Chamber. <i>Microscopy and Microanalysis</i> , 2016, 22, 754-767.	0.2	6
40	Atomically engineered ferroic layers yield a room-temperature magnetoelectric multiferroic. <i>Nature</i> , 2016, 537, 523-527.	13.7	275
41	Nanoscale assembly processes revealed in the nacreprismatic transition zone of <i>Pinna nobilis</i> mollusc shells. <i>Nature Communications</i> , 2015, 6, 10097.	5.8	69
42	In Situ TEM for Quantitative Electrochemistry of Energy Systems. <i>Microscopy and Microanalysis</i> , 2015, 21, 1509-1510.	0.2	4
43	Imaging Local Polarization and Domain Boundaries in Multiferroic $(\text{LuFeO}_3)_m/(\text{LuFe}_2\text{O}_4)_n$ Superlattices. <i>Microscopy and Microanalysis</i> , 2015, 21, 1303-1304.	0.2	0
44	Epitaxial crystals of $\text{Bi}_2\text{Pt}_2\text{O}_7$ pyrochlore through the transformation of Bi_2O_3 fluoride. <i>APL Materials</i> , 2015, 3, .	2.2	8
45	Magnetic Structure and Ordering of Multiferroic Hexagonal LuFeO_3 . <i>Physical Review Letters</i> , 2015, 114, 217602.	2.9	92
46	Conductivity and Microstructure of Combinatorially Sputter-Deposited Ta -Ti-Al Nitride Thin Films. <i>Chemistry of Materials</i> , 2015, 27, 4515-4524.	3.2	7
47	Nanoscale Imaging of Lithium Ion Distribution During In Situ Operation of Battery Electrode and Electrolyte. <i>Nano Letters</i> , 2014, 14, 1453-1459.	4.5	238
48	Spatial Resolution of Scanning Electron Microscopy without a Vacuum Chamber. <i>Microscopy and Microanalysis</i> , 2014, 20, 26-27.	0.2	2
49	Tomography and Spectroscopy of Structure and Degradation in Carbon Electrode Materials for Energy Conversion and Storage. <i>Microscopy and Microanalysis</i> , 2014, 20, 504-505.	0.2	0
50	STEM Characterization of Nano-Crystallites in the Nacre Biomineralization of Mollusk Shells (<i>Pinna</i>). <i>Journal of Applied Crystallography</i> , 2014, 41, 100-105.	0.2	0
51	Nanoscale Imaging of Lithium Ion Distribution During In Situ Operation of a Battery Electrode and Electrolyte. <i>Microscopy and Microanalysis</i> , 2014, 20, 1524-1525.	0.2	2
52	Phase Transitions, Domains Walls and Defects Dynamics of LaAlO_3 via In Situ Heating in the Transmission Electron Microscope. <i>Microscopy and Microanalysis</i> , 2014, 20, 1556-1557.	0.2	6
53	Coalescence in the Thermal Annealing of Nanoparticles: An in Situ STEM Study of the Growth Mechanisms of Ordered Pt -Fe Nanoparticles in a KCl Matrix. <i>Chemistry of Materials</i> , 2013, 25, 1436-1442.	3.2	72
54	In Situ Electron Energy-Loss Spectroscopy in Liquids. <i>Microscopy and Microanalysis</i> , 2013, 19, 1027-1035.	0.2	140