

# Megan E Holtz

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

53  
papers

1,231  
citations

16  
h-index

35  
g-index

54  
ext. papers

1,587  
ext. citations

7.6  
avg, IF

4.3  
L-index

#	Paper	IF	Citations
53	DyFe <sub>2</sub> O <sub>4</sub> : A new trigonal rare-earth ferrite grown by molecular-beam epitaxy. <i>APL Materials</i> , <b>2021</b> , 9, 041106	5.7	1
52	Dimensionality-Induced Change in Topological Order in Multiferroic Oxide Superlattices. <i>Physical Review Letters</i> , <b>2021</b> , 126, 157601	7.4	3
51	Electron ptychography achieves atomic-resolution limits set by lattice vibrations. <i>Science</i> , <b>2021</b> , 372, 826-831	33.3	34
50	Multislice electron ptychography enables lattice vibration-limited resolution and linear phase-contrast imaging in thick samples. <i>Microscopy and Microanalysis</i> , <b>2021</b> , 27, 754-756	0.5	
49	Atomic Structure of Superconducting Tunnel Junctions using STEM and APT. <i>Microscopy and Microanalysis</i> , <b>2021</b> , 27, 2460-2462	0.5	
48	4-D STEM Analyses of Cylindrical Specimens for Atom Probe Tomography. <i>Microscopy and Microanalysis</i> , <b>2021</b> , 27, 184-186	0.5	
47	Improved control of atomic layering in perovskite-related homologous series. <i>APL Materials</i> , <b>2021</b> , 9, 021118	5.7	4
46	Stromataxic Stabilization of a Metastable Layered ScFeO <sub>3</sub> Polymorph. <i>Chemistry of Materials</i> , <b>2021</b> , 33, 7423-7431	9.6	1
45	Steam-created grain boundaries for methane C-H activation in palladium catalysts. <i>Science</i> , <b>2021</b> , 373, 1518-1523	33.3	15
44	In Situ Structural and Electrical Conductivity Characterization of Sr <sub>2</sub> MMoO <sub>6</sub> Double Perovskite Solid Oxide Fuel Cell Anode Materials. <i>ACS Applied Energy Materials</i> , <b>2020</b> , 3, 5353-5360	6.1	3
43	Multiferroic LuFeO <sub>3</sub> on GaN by molecular-beam epitaxy. <i>Applied Physics Letters</i> , <b>2020</b> , 116, 102901	3.4	5
42	The exit-wave power-spectrum transform for scanning nanobeam electron diffraction: robust strain mapping at subnanometer resolution and subpicometer precision. <i>Ultramicroscopy</i> , <b>2020</b> , 214, 112994	3.1	17
41	Imaging Polarity in Two Dimensional Materials by Breaking Friedel's Law. <i>Ultramicroscopy</i> , <b>2020</b> , 215, 113019	3.1	8
40	Defect-Enhanced Polarization Switching in the Improper Ferroelectric LuFeO <sub>3</sub> . <i>Advanced Materials</i> , <b>2020</b> , 32, e2000508	24	16
39	Targeted chemical pressure yields tuneable millimetre-wave dielectric. <i>Nature Materials</i> , <b>2020</b> , 19, 176-181	17.4	14
38	Site-specific spectroscopic measurement of spin and charge in (LuFeO <sub>3</sub> ) <sub>2</sub> /(LuFeO <sub>3</sub> ) multiferroic superlattices. <i>Nature Communications</i> , <b>2020</b> , 11, 5582	17.4	2
37	Real-time imaging of activation and degradation of carbon supported octahedral PtNi alloy fuel cell catalysts at the nanoscale using in situ electrochemical liquid cell STEM. <i>Energy and Environmental Science</i> , <b>2019</b> , 12, 2476-2485	35.4	82

36	Mitigation of PEM Fuel Cell Catalyst Degradation with Porous Carbon Supports. <i>Journal of the Electrochemical Society</i> , <b>2019</b> , 166, F198-F207	3.9	63
35	Ferroelectric Domain Walls in PbTiO Are Effective Regulators of Heat Flow at Room Temperature. <i>Nano Letters</i> , <b>2019</b> , 19, 7901-7907	11.5	23
34	Decoupling Polarization, Crystal Tilt and Symmetry in Epitaxially-Strained Ferroelectric Thin Films Using 4D-STEM. <i>Microscopy and Microanalysis</i> , <b>2019</b> , 25, 1938-1939	0.5	3
33	Growth of PdCoO <sub>2</sub> by ozone-assisted molecular-beam epitaxy. <i>APL Materials</i> , <b>2019</b> , 7, 121112	5.7	17
32	Octahedral spinel electrocatalysts for alkaline fuel cells. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2019</b> , 116, 24425-24432	11.5	27
31	Direct Imaging of Tilt Relaxation from the Interface in Epitaxially Strained Ca <sub>2</sub> RuO <sub>4</sub> Thin Films using ABF-STEM. <i>Microscopy and Microanalysis</i> , <b>2018</b> , 24, 64-65	0.5	1
30	AirSEM: Electron Microscopy in Air, without a Specimen Chamber. <i>Microscopy and Microanalysis</i> , <b>2018</b> , 24, 342-343	0.5	
29	Grains and Strains from Cepstral Analysis of 4D-STEM Nano-Diffraction Datasets. <i>Microscopy and Microanalysis</i> , <b>2018</b> , 24, 546-547	0.5	0
28	Understanding and Predicting Cadmium Yellow Pigment Failure Mechanisms in the Works of the Early Modernists Using STEM Methodologies. <i>Microscopy and Microanalysis</i> , <b>2018</b> , 24, 2122-2123	0.5	
27	Electrical half-wave rectification at ferroelectric domain walls. <i>Nature Nanotechnology</i> , <b>2018</b> , 13, 1028-1034	13.7	57
26	Detection of CdS Nanoparticles and Implications for Cadmium Yellow Paint Degradation in Edvard Munch's The Scream (c. 1910, Munch Museum). <i>Microscopy and Microanalysis</i> , <b>2017</b> , 23, 1910-1911	0.5	3
25	Measuring Ferroelectric Order Parameters at Domain Walls and Vortices in Hexagonal Manganites with Atomic Resolution STEM. <i>Microscopy and Microanalysis</i> , <b>2017</b> , 23, 1636-1637	0.5	
24	Topological Defects in Hexagonal Manganites: Inner Structure and Emergent Electrostatics. <i>Nano Letters</i> , <b>2017</b> , 17, 5883-5890	11.5	41
23	Visualizing weak ferromagnetic domains in multiferroic hexagonal ferrite thin film. <i>Physical Review B</i> , <b>2017</b> , 95,	3.3	12
22	Reducing orbital occupancy in VO <sub>2</sub> suppresses Mott physics while Peierls distortions persist. <i>Physical Review B</i> , <b>2017</b> , 96,	3.3	20
21	Breaking Friedel's Law in Polar Two Dimensional Materials. <i>Microscopy and Microanalysis</i> , <b>2017</b> , 23, 1738-1739	0.5	1
20	Atomically engineered ferroic layers yield a room-temperature magnetoelectric multiferroic. <i>Nature</i> , <b>2016</b> , 537, 523-7	50.4	221
19	Reverse Engineering Cadmium Yellow Paint from Munch's The Scream with Correlative 3-D Spectroscopic and 4-D Crystallographic STEM. <i>Microscopy and Microanalysis</i> , <b>2016</b> , 22, 258-259	0.5	3

18	In Situ TEM for Electrochemical Energy Storage and Conversion Systems. <i>Microscopy and Microanalysis</i> , <b>2016</b> , 22, 1326-1327	0.5	
17	Imaging Local Polarization and Domain Boundaries with Picometer-Precision Scanning Transmission Electron Microscopy. <i>Microscopy and Microanalysis</i> , <b>2016</b> , 22, 898-899	0.5	
16	In Situ Electrochemical Cell TEM for Battery and Fuel Cell Systems. <i>Microscopy and Microanalysis</i> , <b>2016</b> , 22, 752-753	0.5	
15	Spatial Resolution in Scanning Electron Microscopy and Scanning Transmission Electron Microscopy Without a Specimen Vacuum Chamber. <i>Microscopy and Microanalysis</i> , <b>2016</b> , 22, 754-67	0.5	4
14	Conductivity and Microstructure of Combinatorially Sputter-Deposited Ta <sub>1-x</sub> Al <sub>x</sub> Nitride Thin Films. <i>Chemistry of Materials</i> , <b>2015</b> , 27, 4515-4524	9.6	7
13	Nanoscale assembly processes revealed in the nacreprismatic transition zone of <i>Pinna nobilis</i> mollusc shells. <i>Nature Communications</i> , <b>2015</b> , 6, 10097	17.4	54
12	In Situ TEM for Quantitative Electrochemistry of Energy Systems. <i>Microscopy and Microanalysis</i> , <b>2015</b> , 21, 1509-1510	0.5	4
11	Imaging Local Polarization and Domain Boundaries in Multiferroic (LuFeO <sub>3</sub> ) <sub>m</sub> /(LuFe <sub>2</sub> O <sub>4</sub> ) <sub>n</sub> Superlattices. <i>Microscopy and Microanalysis</i> , <b>2015</b> , 21, 1303-1304	0.5	
10	Epitaxial crystals of Bi <sub>2</sub> Pt <sub>2</sub> O <sub>7</sub> pyrochlore through the transformation of Bi <sub>2</sub> O <sub>3</sub> fluorite. <i>APL Materials</i> , <b>2015</b> , 3, 036105	5.7	7
9	Magnetic structure and ordering of multiferroic hexagonal LuFeO <sub>3</sub> . <i>Physical Review Letters</i> , <b>2015</b> , 114, 217602	7.4	74
8	Nanoscale imaging of lithium ion distribution during in situ operation of battery electrode and electrolyte. <i>Nano Letters</i> , <b>2014</b> , 14, 1453-9	11.5	204
7	Spatial Resolution of Scanning Electron Microscopy without a Vacuum Chamber. <i>Microscopy and Microanalysis</i> , <b>2014</b> , 20, 26-27	0.5	1
6	Tomography and Spectroscopy of Structure and Degradation in Carbon Electrode Materials for Energy Conversion and Storage. <i>Microscopy and Microanalysis</i> , <b>2014</b> , 20, 504-505	0.5	
5	STEM Characterization of Nano-Crystallites in the Nacre Biomineralization of Mollusk Shells ( <i>Pinna nobilis</i> ). <i>Microscopy and Microanalysis</i> , <b>2014</b> , 20, 1332-1333	0.5	
4	Nanoscale Imaging of Lithium Ion Distribution During In Situ Operation of a Battery Electrode and Electrolyte. <i>Microscopy and Microanalysis</i> , <b>2014</b> , 20, 1524-1525	0.5	0
3	Phase Transitions, Domains Walls and Defects Dynamics of LaAlO <sub>3</sub> via In Situ Heating in the Transmission Electron Microscope. <i>Microscopy and Microanalysis</i> , <b>2014</b> , 20, 1556-1557	0.5	6
2	Coalescence in the Thermal Annealing of Nanoparticles: An in Situ STEM Study of the Growth Mechanisms of Ordered Pt <sub>3</sub> Fe Nanoparticles in a KCl Matrix. <i>Chemistry of Materials</i> , <b>2013</b> , 25, 1436-1442	9.6	58
1	In situ electron energy-loss spectroscopy in liquids. <i>Microscopy and Microanalysis</i> , <b>2013</b> , 19, 1027-35	0.5	112

