

# James M Ablett

## List of Publications by Year in descending order

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66  
papers

1,672  
citations

361413

20  
h-index

289244

40  
g-index

67  
all docs

67  
docs citations

67  
times ranked

2583  
citing authors

#	ARTICLE	IF	CITATIONS
1	Identification of durable and non-durable FeNx sites in Fe-C materials for proton exchange membrane fuel cells. <i>Nature Catalysis</i> , 2021, 4, 10-19.	34.4	368
2	The GALAXIES beamline at the SOLEIL synchrotron: inelastic X-ray scattering and photoelectron spectroscopy in the hard X-ray range. <i>Journal of Synchrotron Radiation</i> , 2015, 22, 175-179.	2.4	127
3	Understanding the Electronic Structure of $\text{IrO}_x$ by Hard-X-ray Photoelectron Spectroscopy and Density-Functional Theory. <i>Physical Review Letters</i> , 2014, 112, 117601.		
4	Single-element elliptical hard x-ray micro-optics. <i>Optics Express</i> , 2003, 11, 919.	3.4	106
5	Hard X-ray photoelectron spectroscopy on the GALAXIES beamline at the SOLEIL synchrotron. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 2013, 190, 188-192.	1.7	94
6	Metal-insulator Transition in ALD $\text{VO}_2$ Ultrathin Films and Nanoparticles: Morphological Control. <i>Advanced Functional Materials</i> , 2015, 25, 679-686.	14.9	70
7	Using Compound Kinoform Hard-X-Ray Lenses to Exceed the Critical Angle Limit. <i>Physical Review Letters</i> , 2007, 99, 134801.	7.8	59
8	Phase identification of self-forming Cu-Mn based diffusion barriers on p-SiOC:H and SiO <sub>2</sub> dielectrics using x-ray absorption fine structure. <i>Applied Physics Letters</i> , 2009, 94, 042112.	3.3	49
9	Atomic Auger Doppler effects upon emission of fast photoelectrons. <i>Nature Communications</i> , 2014, 5, 4069.	12.8	44
10	CeRu <sub>4</sub> Sn <sub>6</sub> : a strongly correlated material with nontrivial topology. <i>Scientific Reports</i> , 2016, 5, 17937.	3.3	32
11	Lithium borate crystals and glasses: How similar are they? A non-resonant inelastic X-ray scattering study around the B and O K -edges. <i>Journal of Non-Crystalline Solids</i> , 2017, 472, 1-8.	3.1	28
12	Tunable X-ray polarization reflector with perfect crystals. <i>Acta Crystallographica Section A: Foundations and Advances</i> , 1999, 55, 955-962.	0.3	27
13	Transmission-type X-ray linear polarizer with perfect crystals. <i>Journal of Synchrotron Radiation</i> , 1998, 5, 738-740.	2.4	26
14	Detecting Non-bridging Oxygens: Non-Resonant Inelastic X-ray Scattering in Crystalline Lithium Borates. <i>Inorganic Chemistry</i> , 2014, 53, 10903-10908.	4.0	26
15	Absence of orbital rotation in superconducting $\text{CeCu}_2\text{B}_6$ . <i>Physical Review B</i> , 2015, 91, .		
16	X27A-A new hard X-ray micro-spectroscopy facility at the National Synchrotron Light Source. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2006, 562, 487-494.	1.6	25
17	High-throughput X-ray fluorescence imaging using a massively parallel detector array, integrated scanning and real-time spectral deconvolution. <i>Journal of Physics: Conference Series</i> , 2009, 186, 012013.	0.4	23
18	The GALAXIES inelastic hard X-ray scattering end-station at Synchrotron SOLEIL. <i>Journal of Synchrotron Radiation</i> , 2019, 26, 263-271.	2.4	23

#	ARTICLE	IF	CITATIONS
19	Charge Transfer and Built-in Electric Fields between a Crystalline Oxide and Silicon. Physical Review Letters, 2019, 123, 026805.	7.8	22
20	Observation of room temperature ferromagnetic behavior in cluster-free, Co doped HfO <sub>2</sub> films. Applied Physics Letters, 2007, 91, .	3.3	21
21	Spin-polarized conduction in localized ferromagnetic materials: The case of Fe <sub>3</sub> O <sub>4</sub> on MgO(100). Journal of Applied Physics, 2005, 98, 084507.	2.5	20
22	Layer-resolved band bending at the O <sub>x</sub> Sn <sub>y</sub> Ti <sub>z</sub> interface. Physical Review Materials, 2018, 2, .	2.4	20
23	Electronic Properties of BaFe <sub>2</sub> As <sub>2</sub> upon Doping and Pressure: The Prominent Role of the As p Orbitals. Physical Review Letters, 2015, 114, 177001.	7.8	19
24	Arsenic in an alkaline AMD treatment sludge: Characterization and stability under prolonged anoxic conditions. Applied Geochemistry, 2010, 25, 1487-1499.	3.0	18
25	Separating Electrons and Donors in BaSnO <sub>3</sub> via Band Engineering. Nano Letters, 2019, 19, 8920-8927.	9.1	17
26	Study of Chemical Vapor Deposition of Manganese on Porous SiCOH Low-k Dielectrics Using Bis(ethylcyclopentadienyl)manganese. Electrochemical and Solid-State Letters, 2012, 15, H176.	2.2	16
27	HAXPES for Materials Science at the GALAXIES Beamline. Synchrotron Radiation News, 2018, 31, 4-9.	0.8	15
28	Kondo-Induced Giant Isotropic Negative Thermal Expansion. Physical Review Letters, 2020, 124, 125701.	7.8	15
29	1s2p Resonant Inelastic X-ray Scattering Magnetic Circular Dichroism as a probe for the local and non-local orbitals in CrO <sub>2</sub> . Journal of Electron Spectroscopy and Related Phenomena, 2018, 222, 74-87.	1.7	14
30	Epsilon iron as a spin-smectic state. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 20280-20285.	7.1	12
31	X-25 Cryo-ready In-vacuum Undulator at the NSLS. AIP Conference Proceedings, 2007, .	0.4	11
32	Local environment surrounding Co in MBE-grown Co-doped Hf <sub>x</sub> O <sub>y</sub> thin films probed by EXAFS. Physical Review B, 2007, 76, .	3.2	11
33	Speciation of antimony in polyethylene terephthalate bottles. X-Ray Spectrometry, 2010, 39, 257-259.	1.4	11
34	Revealing excitonic processes and chemical bonding in Mo <sub>x</sub> S <sub>y</sub> by x-ray spectroscopy. Physical Review B, 2018, 98, .	3.2	11
35	Core hole processes in x-ray absorption and photoemission by resonant Auger-electron spectroscopy and first-principles theory. Physical Review B, 2020, 101, .	3.2	11
36	Lithium Borates from the Glass to the Melt: A Temperature-Induced Structural Transformation Viewed from the Boron and Oxygen Atoms. Inorganic Chemistry, 2021, 60, 798-806.	4.0	11

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37	A bi-prism interferometer for hard X-ray photons. <i>Journal of Synchrotron Radiation</i> , 2010, 17, 451-455.	2.4	10
38	Domain faceting in an in-plane magnetic reorientation transition. <i>Physical Review B</i> , 2010, 82, .	3.2	10
39	Emergent high-spin state above 7 GPa in superconducting FeSe. <i>Physical Review B</i> , 2018, 97, .	3.2	10
40	High-pressure X-ray near-edge absorption study of thallium rhenium oxide up to 10.86 GPa. <i>High Pressure Research</i> , 2003, 23, 471-476.	1.2	9
41	Bulk electronic structure of non-centrosymmetric $\text{Eu}_{x} \text{T}_{y}$ ( $x+y=1$ ) (T = Ti, Ta, Nb, W) compounds. <i>Journal of Solid State Chemistry</i> , 2011, 184, 223-229.	1.2	9
42	Small-gap insertion-device development at the National Synchrotron Light Source – performance of the new X13 mini-gap undulator. <i>Journal of Synchrotron Radiation</i> , 2004, 11, 129-131.	2.4	7
43	Low-energy electronic excitations and band-gap renormalization in CuO. <i>Physical Review B</i> , 2017, 95, .	3.2	7
44	Quantification of non-bridging oxygens in silicates using X-ray Raman scattering. <i>Journal of Non-Crystalline Solids</i> , 2020, 528, 119715.	3.1	7
45	Comparison of x-ray diffraction, wafer curvature and Raman spectroscopy to evaluate the stress evolution in Copper TSV's. <i>Journal of Microelectromechanical Systems</i> , 2012, 21, 1-10.	6	6
46	Experimental assignment of many-electron excitations in the photoionization of NiO. <i>Physical Review B</i> , 2018, 97, .	3.2	6
47	Possible evidence for high-pressure induced charge transfer in thallium rhenium oxide at room temperature. <i>Physical Review B</i> , 2015, 92, .	3.2	5
48	Electronic structure and small-hole polarons in $\text{YTiO}_3$ . <i>Physical Review Materials</i> , 2020, 4, 045001.	2.4	5
49	Spectral measurements and synchrotron radiation calculation comparisons of the new X25 mini-gap undulator. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2007, 582, 37-39.	1.6	4
50	Characterization of Chemically Vapor Deposited Manganese Barrier Layers Using X-ray Absorption Fine Structure. <i>Japanese Journal of Applied Physics</i> , 2012, 51, 05EB01.	1.5	4
51	New Design Concept for a High-Resolution In-Vacuum 4-Bounce Hard X-Ray Monochromator at the GALAXIES Beamline at the SOLEIL Synchrotron. <i>Journal of Physics: Conference Series</i> , 2013, 425, 052007.	0.4	4
52	Vacancy-mediated fcc/bcc phase separation in $\text{Fe}_{1-x}\text{Nb}_{x}$ films. <i>Physical Review B</i> , 2016, 94, .	1.2	4
53	Spectroscopies and Electron Microscopies Unravel the Origin of the First Colour Photographs. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 9113-9119.	13.8	4
54	The design and performance of an x-ray micro-focusing system using differentially deposited elliptical mirrors at the National Synchrotron Light Source. <i>Review of Scientific Instruments</i> , 2002, 73, 3464-3468.	1.3	3

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55	Hard x-ray Fresnel prisms: properties and applications. , 2004, , .	3	
56	Energy-dependent focusing properties of a kinoform Fresnel lens. , 2004, 5539, 73.	3	
57	Phase Coexistence in Two-Dimensional Fe <sub>0</sub> <sub>i</sub> <sub>70</sub> Ni <sub>0</sub> <sub>i</sub> <sub>30</sub> Films on W(110). E-Journal of Surface Science and Nanotechnology, 2015, 13, 256-260.	0.4	3
58	Experimental setup for the study of resonant inelastic X-ray scattering of organometallic complexes in gas phase. Review of Scientific Instruments, 2018, 89, 063107.	1.3	3
59	Dynamical screening in $\text{SrVO}_3$ : Inelastic x-ray scattering experiments and ab initio calculations. Physical Review B, 2021, 103, . Accurate band alignment at the amorphous $\text{Al}_3\text{O}_2/\text{Ge}(100)$ interface determined by hard x-ray photoelectron spectroscopy and density functional theory. Physical Review Materials, 2018, 2, .	3.0	
60	Imaging with single-dimension kinoform lenses. , 2004, , .	2.4	3
61	The NSLS X13 Mini-Gap Undulator: Design and Performance. AIP Conference Proceedings, 2004, , .	0.4	0
62	High-brightness hard X-ray scanning nano-probes at NSLS II. Nuclear Instruments & Methods in Physics Research B, 2005, 241, 238-241.	1.4	0
63	Preliminary Hard X-ray Micro-spectroscopic Investigations on Thin-Film Ta-and-W Based Diffusion Barriers for Copper Interconnect Technology. AIP Conference Proceedings, 2007, , .	0.4	0
64	An Infiltration Manufacturing Process for Nuclear Fuels. , 2008, , .	0	
65	Spectroscopies and Electron Microscopies Unravel the Origin of the First Colour Photographs. Angewandte Chemie, 2020, 132, 9198-9204.	2.0	0