

Ingo Manke

List of Publications by Year in descending order

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378
papers

12,514
citations

22132

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docs citations

382
times ranked

8090
citing authors

#	ARTICLE	IF	CITATIONS
1	Interfacial Processes and Influence of Composite Cathode Microstructure Controlling the Performance of All-Solid-State Lithium Batteries. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 17835-17845.	4.0	353
2	Investigation of water evolution and transport in fuel cells with high resolution synchrotron x-ray radiography. <i>Applied Physics Letters</i> , 2007, 90, 174105.	1.5	305
3	Advances in neutron radiography and tomography. <i>Journal Physics D: Applied Physics</i> , 2009, 42, 243001.	1.3	243
4	(Electro)chemical expansion during cycling: monitoring the pressure changes in operating solid-state lithium batteries. <i>Journal of Materials Chemistry A</i> , 2017, 5, 9929-9936.	5.2	222
5	Interfacial Chemistry Enables Stable Cycling of All-Solid-State Li Metal Batteries at High Current Densities. <i>Journal of the American Chemical Society</i> , 2021, 143, 6542-6550.	6.6	200
6	Neutron imaging in materials science. <i>Materials Today</i> , 2011, 14, 248-256.	8.3	196
7	3D Imaging of Catalyst Support Corrosion in Polymer Electrolyte Fuel Cells. <i>Journal of Physical Chemistry C</i> , 2011, 115, 14236-14243.	1.5	188
8	Three-dimensional imaging of magnetic fields with polarized neutrons. <i>Nature Physics</i> , 2008, 4, 399-403.	6.5	186
9	P-doped NiTe ₂ with Te Vacancies in Lithium-Sulfur Batteries Prevents Shuttling and Promotes Polysulfide Conversion. <i>Advanced Materials</i> , 2022, 34, e2106370.	11.1	173
10	High-resolution in-plane investigation of the water evolution and transport in PEM fuel cells. <i>Journal of Power Sources</i> , 2009, 188, 468-474.	4.0	162
11	Cross-sectional insight in the water evolution and transport in polymer electrolyte fuel cells. <i>Applied Physics Letters</i> , 2008, 92, .	1.5	160
12	Three-dimensional imaging of magnetic domains. <i>Nature Communications</i> , 2010, 1, 125.	5.8	143
13	Neutron Dark-Field Tomography. <i>Physical Review Letters</i> , 2008, 101, 123902.	2.9	139
14	Advances in neutron imaging. <i>Materials Today</i> , 2018, 21, 652-672.	8.3	138
15	Synchrotron X-ray tomography for investigations of water distribution in polymer electrolyte membrane fuel cells. <i>Journal of Power Sources</i> , 2011, 196, 5250-5255.	4.0	131
16	Three-Phase Multiscale Modeling of a LiCoO ₂ Cathode: Combining the Advantages of FIB-SEM Imaging and X-Ray Tomography. <i>Advanced Energy Materials</i> , 2015, 5, 1401612.	10.2	127
17	Morphological Evolution of Electrochemically Plated/Stripped Lithium Microstructures Investigated by Synchrotron X-ray Phase Contrast Tomography. <i>ACS Nano</i> , 2016, 10, 7990-7997.	7.3	108
18	Three-dimensional imaging of hydrogen blister in iron with neutron tomography. <i>Acta Materialia</i> , 2014, 78, 14-22.	3.8	105

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19	Influence of Conductive Additives and Binder on the Impedance of Lithium-Ion Battery Electrodes: Effect of Morphology. <i>Journal of the Electrochemical Society</i> , 2020, 167, 013546.	1.3	105
20	4D imaging of lithium-batteries using correlative neutron and X-ray tomography with a virtual unrolling technique. <i>Nature Communications</i> , 2020, 11, 777.	5.8	104
21	Quasi-“in situ neutron tomography on polymer electrolyte membrane fuel cell stacks. <i>Applied Physics Letters</i> , 2007, 90, 184101.	1.5	103
22	Combined neutron radiography and locally resolved current density measurements of operating PEM fuel cells. <i>Journal of Power Sources</i> , 2008, 176, 452-459.	4.0	103
23	Three-dimensional study of compressed gas diffusion layers using synchrotron X-ray imaging. <i>Journal of Power Sources</i> , 2014, 253, 123-131.	4.0	102
24	Influence of cracks in the microporous layer on the water distribution in a PEM fuel cell investigated by synchrotron radiography. <i>Electrochemistry Communications</i> , 2013, 34, 22-24.	2.3	98
25	3D Mapping of Crystallographic Phase Distribution using Energy-Selective Neutron Tomography. <i>Advanced Materials</i> , 2014, 26, 4069-4073.	11.1	98
26	Detection system for microimaging with neutrons. <i>Journal of Instrumentation</i> , 2012, 7, P02014-P02014.	0.5	97
27	A Highly Conductive COF@CNT Electrocatalyst Boosting Polysulfide Conversion for Li-S Chemistry. <i>ACS Energy Letters</i> , 2021, 6, 3053-3062.	8.8	97
28	Wavelength tunable device for neutron radiography and tomography. <i>Applied Physics Letters</i> , 2006, 89, 203504.	1.5	95
29	Investigation of 3D water transport paths in gas diffusion layers by combined in-situ synchrotron X-ray radiography and tomography. <i>Electrochemistry Communications</i> , 2011, 13, 1001-1004.	2.3	95
30	A Combination of X-Ray Tomography and Carbon Binder Modeling: Reconstructing the Three Phases of LiCoO_2 Li-Ion Battery Cathodes. <i>Advanced Energy Materials</i> , 2014, 4, 1301617.	10.2	95
31	Study of the Mechanisms of Internal Short Circuit in a Li/Li Cell by Synchrotron X-ray Phase Contrast Tomography. <i>ACS Energy Letters</i> , 2017, 2, 94-104.	8.8	89
32	X-ray and neutron imaging “Complementary techniques for materials science and engineering. <i>International Journal of Materials Research</i> , 2010, 101, 1069-1079.	0.1	85
33	In situ investigation of the discharge of alkaline Zn-MnO_2 batteries with synchrotron x-ray and neutron tomographies. <i>Applied Physics Letters</i> , 2007, 90, 214102.	1.5	84
34	Synchrotron radiography and tomography of water transport in perforated gas diffusion media. <i>Journal of Power Sources</i> , 2013, 239, 611-622.	4.0	83
35	Visualization of the water distribution in perforated gas diffusion layers by means of synchrotron X-ray radiography. <i>International Journal of Hydrogen Energy</i> , 2012, 37, 7757-7761.	3.8	82
36	Confined Fe_2VO_4 , Nitrogen-Doped Carbon Nanowires with Internal Void Space for High-Rate and Ultrastable Potassium-Ion Storage. <i>Advanced Energy Materials</i> , 2019, 9, 1902674.	10.2	81

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37	The influence of porous transport layer modifications on the water management in polymer electrolyte membrane fuel cells. <i>Journal of Power Sources</i> , 2013, 233, 358-368.	4.0	80
38	Local Structural Characteristics of Pore Space in GDLs of PEM Fuel Cells Based on Geometric 3D Graphs. <i>Journal of the Electrochemical Society</i> , 2009, 156, B1339.	1.3	78
39	CONRAD-2: the new neutron imaging instrument at the Helmholtz-Zentrum Berlin. <i>Journal of Applied Crystallography</i> , 2016, 49, 195-202.	1.9	78
40	In-situ synchrotron X-ray radiography on high temperature polymer electrolyte fuel cells. <i>Electrochemistry Communications</i> , 2010, 12, 1436-1438.	2.3	74
41	Neutron tomography instrument CONRAD at HZB. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2011, 651, 47-52.	0.7	74
42	Capturing 3D Water Flow in Rooted Soil by Ultra-fast Neutron Tomography. <i>Scientific Reports</i> , 2017, 7, 6192.	1.6	74
43	Neutron Bragg-edge-imaging for strain mapping under <i>in situ</i> tensile loading. <i>Journal of Applied Physics</i> , 2011, 109, .	1.1	73
44	Effects of compression on water distribution in gas diffusion layer materials of PEMFC in a point injection device by means of synchrotron X-ray imaging. <i>International Journal of Hydrogen Energy</i> , 2018, 43, 391-406.	3.8	72
45	Industrial applications at the new cold neutron radiography and tomography facility of the HMI. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2005, 542, 16-21.	0.7	71
46	Characterization of water exchange and two-phase flow in porous gas diffusion materials by hydrogen-deuterium contrast neutron radiography. <i>Applied Physics Letters</i> , 2008, 92, .	1.5	71
47	In-situ two-phase flow investigation of different porous transport layer for a polymer electrolyte membrane (PEM) electrolyzer with neutron spectroscopy. <i>Journal of Power Sources</i> , 2018, 390, 108-115.	4.0	71
48	Large area high resolution neutron imaging detector for fuel cell research. <i>Journal of Power Sources</i> , 2011, 196, 4631-4637.	4.0	69
49	A highly adaptive detector system for high resolution neutron imaging. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2011, 651, 95-99.	0.7	68
50	Degradation of Li/S Battery Electrodes On 3D Current Collectors Studied Using X-ray Phase Contrast Tomography. <i>Scientific Reports</i> , 2015, 5, 10921.	1.6	68
51	High-resolution tomography of cracks, voids and micro-structure in greywacke and limestone. <i>Journal of Structural Geology</i> , 2008, 30, 876-887.	1.0	65
52	New trends in neutron imaging. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2009, 605, 13-15.	0.7	65
53	Correlating Morphological Evolution of Li Electrodes with Degrading Electrochemical Performance of Li/LiCoO ₂ and Li/S Battery Systems: Investigated by Synchrotron X-ray Phase Contrast Tomography. <i>ACS Energy Letters</i> , 2018, 3, 356-365.	8.8	64
54	Investigation of Energy-Relevant Materials with Synchrotron X-Rays and Neutrons. <i>Advanced Engineering Materials</i> , 2011, 13, 712-729.	1.6	63

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55	Neutron tomographic investigations of water distributions in polymer electrolyte membrane fuel cell stacks. <i>Journal of Power Sources</i> , 2012, 219, 120-125.	4.0	63
56	Dynamic Intercalation of Conversion Site Supported Ultrathin 2D Mesoporous SnO ₂ /SnSe ₂ Hybrid as Bifunctional Polysulfide Immobilizer and Lithium Regulator for Lithium-Sulfur Chemistry. <i>ACS Nano</i> , 2022, 16, 10783-10797.	7.3	63
57	3D microstructure modeling of compressed fiber-based materials. <i>Journal of Power Sources</i> , 2014, 257, 52-64.	4.0	62
58	Combined local current distribution measurements and high resolution neutron radiography of operating Direct Methanol Fuel Cells. <i>Electrochemistry Communications</i> , 2009, 11, 1606-1609.	2.3	61
59	The influence of gas diffusion layer wettability on direct methanol fuel cell performance: A combined local current distribution and high resolution neutron radiography study. <i>Journal of Power Sources</i> , 2010, 195, 4765-4771.	4.0	61
60	Revealing Hidden Facts of Li Anode in Cycled Lithium-Oxygen Batteries through X-ray and Neutron Tomography. <i>ACS Energy Letters</i> , 2019, 4, 306-316.	8.8	61
61	Unravelling the Mechanism of Lithium Nucleation and Growth and the Interaction with the Solid Electrolyte Interface. <i>ACS Energy Letters</i> , 2021, 6, 1719-1728.	8.8	61
62	Insight on electrolyte infiltration of lithium ion battery electrodes by means of a new three-dimensional-resolved lattice Boltzmann model. <i>Energy Storage Materials</i> , 2021, 38, 80-92.	9.5	61
63	In operando synchrotron X-ray radiography studies of polymer electrolyte membrane water electrolyzers. <i>Electrochemistry Communications</i> , 2015, 55, 55-59.	2.3	60
64	Pore network modeling to explore the effects of compression on multiphase transport in polymer electrolyte membrane fuel cell gas diffusion layers. <i>Journal of Power Sources</i> , 2016, 335, 162-171.	4.0	60
65	High-Resolution Neutron and X-Ray Imaging of Granular Materials. <i>Journal of Geotechnical and Geoenvironmental Engineering - ASCE</i> , 2013, 139, 715-723.	1.5	58
66	Particle-stabilised foams: structure and aging. <i>Soft Matter</i> , 2011, 7, 631-637.	1.2	57
67	Correlation of Synchrotron X-ray Radiography and Electrochemical Impedance Spectroscopy for the Investigation of HT-PEFCs. <i>Journal of the Electrochemical Society</i> , 2012, 159, F398-F404.	1.3	56
68	<i>In operando</i> monitoring of the state of charge and species distribution in zinc air batteries using X-ray tomography and model-based simulations. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 22273-22280.	1.3	56
69	Measuring device for synchrotron X-ray imaging and first results of high temperature polymer electrolyte membrane fuel cells. <i>Journal of Power Sources</i> , 2011, 196, 5231-5239.	4.0	54
70	High resolution synchrotron X-ray investigation of carbon dioxide evolution in operating direct methanol fuel cells. <i>Electrochemistry Communications</i> , 2009, 11, 1559-1562.	2.3	53
71	3D Visualisation of PEMFC Electrode Structures Using FIB Nanotomography. <i>Fuel Cells</i> , 2010, 10, 966-972.	1.5	53
72	Formation of intermetallic $\hat{\Gamma}$ phase in Al-10Si-0.3Fe alloy investigated by in-situ 4D X-ray synchrotron tomography. <i>Acta Materialia</i> , 2017, 129, 194-202.	3.8	53

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73	Morphological Reversibility of Modified Li-Based Anodes for Next-Generation Batteries. ACS Energy Letters, 2020, 5, 152-161.	8.8	53
74	Imaging with polarized neutrons. New Journal of Physics, 2009, 11, 043013.	1.2	52
75	Neutron radiographic in operando investigation of water transport in polymer electrolyte membrane fuel cells with channel barriers. Energy Conversion and Management, 2017, 148, 604-610.	4.4	52
76	Analyzing transport paths in the air electrode of a zinc air battery using X-ray tomography. Electrochemistry Communications, 2014, 40, 88-91.	2.3	51
77	Investigation of water transport dynamics in polymer electrolyte membrane fuel cells based on high porous micro porous layers. Energy, 2016, 102, 161-165.	4.5	51
78	Quantitative Structural Assessment of Heterogeneous Catalysts by Electron Tomography. Journal of the American Chemical Society, 2011, 133, 18161-18171.	6.6	50
79	Stochastic 3D modeling of fiber-based materials. Computational Materials Science, 2012, 59, 75-86.	1.4	50
80	<i>In Operando</i> Quantification of Three-Dimensional Water Distribution in Nanoporous Carbon-Based Layers in Polymer Electrolyte Membrane Fuel Cells. ACS Nano, 2017, 11, 5944-5949.	7.3	50
81	A two-stage approach to the segmentation of FIB-SEM images of highly porous materials. Materials Characterization, 2012, 69, 115-126.	1.9	49
82	Investigations on dynamic water transport characteristics in flow field channels using neutron imaging techniques. Journal of Power Sources, 2013, 239, 596-603.	4.0	49
83	Synchrotron X-ray radioscopic in situ study of high-temperature polymer electrolyte fuel cells - Effect of operation conditions on structure of membrane. Journal of Power Sources, 2014, 246, 290-298.	4.0	49
84	Floccular fossa size is not a reliable proxy of ecology and behaviour in vertebrates. Scientific Reports, 2017, 7, 2005.	1.6	49
85	Multidimensional Integrated Chalcogenides Nanoarchitecture Achieves Highly Stable and Ultrafast Potassium-Ion Storage. Small, 2019, 15, e1903720.	5.2	49
86	Reconstruction of limited computed tomography data of fuel cell components using Direct Iterative Reconstruction of Computed Tomography Trajectories. Journal of Power Sources, 2011, 196, 5293-5298.	4.0	48
87	Multi-Scale Correlative Tomography of a Li-Ion Battery Composite Cathode. Scientific Reports, 2016, 6, 30109.	1.6	47
88	Visualizing the morphological and compositional evolution of the interface of InLi-anode thio-LISION electrolyte in an all-solid-state Li-S cell by <i>in operando</i> synchrotron X-ray tomography and energy dispersive diffraction. Journal of Materials Chemistry A, 2018, 6, 22489-22496.	5.2	47
89	Advancing knowledge of electrochemically generated lithium microstructure and performance decay of lithium ion battery by synchrotron X-ray tomography. Materials Today, 2019, 27, 21-32.	8.3	47
90	Promoting Mechanistic Understanding of Lithium Deposition and Solid-Electrolyte Interphase (SEI) Formation Using Advanced Characterization and Simulation Methods: Recent Progress, Limitations, and Future Perspectives. Advanced Energy Materials, 2022, 12, .	10.2	47

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91	Stochastic 3D modeling of the microstructure of lithium-ion battery anodes via Gaussian random fields on the sphere. <i>Computational Materials Science</i> , 2015, 109, 137-146.	1.4	46
92	Influence of artificially aged gas diffusion layers on the water management of polymer electrolyte membrane fuel cells analyzed with in-operando synchrotron imaging. <i>Energy</i> , 2017, 118, 502-511.	4.5	44
93	Stochastic microstructure modeling and electrochemical simulation of lithium-ion cell anodes in 3D. <i>Journal of Power Sources</i> , 2016, 336, 161-171.	4.0	43
94	Wavelength-dispersive dark-field contrast: micrometre structure resolution in neutron imaging with gratings. <i>Journal of Applied Crystallography</i> , 2016, 49, 569-573.	1.9	43
95	Revealing microstructural inhomogeneities with dark-field neutron imaging. <i>Journal of Applied Physics</i> , 2010, 107, 036101.	1.1	42
96	In Situ Microtomographic Monitoring of Discharging Processes in Alkaline Cells. <i>Journal of the Electrochemical Society</i> , 2010, 157, A387.	1.3	42
97	Characterization of water management in metal foam flow-field based polymer electrolyte fuel cells using in-operando neutron radiography. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 2195-2205.	3.8	41
98	Mass transport in polymer electrolyte membrane water electrolyser liquid-gas diffusion layers: A combined neutron imaging and X-ray computed tomography study. <i>Journal of Power Sources</i> , 2020, 455, 227968.	4.0	41
99	Investigation of the local catalyst distribution in an aged direct methanol fuel cell MEA by means of differential synchrotron X-ray absorption edge imaging with high energy resolution. <i>Journal of Power Sources</i> , 2013, 221, 210-216.	4.0	40
100	Impact of compression on gas transport in non-woven gas diffusion layers of high temperature polymer electrolyte fuel cells. <i>Journal of Power Sources</i> , 2016, 318, 26-34.	4.0	40
101	Role of the microporous layer in the redistribution of phosphoric acid in high temperature PEM fuel cell gas diffusion electrodes. <i>Electrochimica Acta</i> , 2016, 212, 187-194.	2.6	40
102	Complementary X-ray and neutron radiography study of the initial lithiation process in lithium-ion batteries containing silicon electrodes. <i>Applied Surface Science</i> , 2017, 399, 359-366.	3.1	40
103	Generation of virtual lithium-ion battery electrode microstructures based on spatial stochastic modeling. <i>Computational Materials Science</i> , 2018, 151, 53-64.	1.4	40
104	Hierarchical Structuring of NMC111-Cathode Materials in Lithium-Ion Batteries: An In-Depth Study on the Influence of Primary and Secondary Particle Sizes on Electrochemical Performance. <i>ACS Applied Energy Materials</i> , 2020, 3, 12565-12574.	2.5	40
105	Magnetic field induced differential neutron phase contrast imaging. <i>Applied Physics Letters</i> , 2007, 91, 254104.	1.5	39
106	Three-Dimensional Visualization of Gas Evolution and Channel Formation inside a Lithium-Ion Battery. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 7156-7164.	4.0	39
107	Effect of ageing of gas diffusion layers on the water distribution in flow field channels of polymer electrolyte membrane fuel cells. <i>Journal of Power Sources</i> , 2016, 301, 386-391.	4.0	39
108	What comes NeXT? â€“ High-Speed Neutron Tomography at ILL. <i>Optics Express</i> , 2019, 27, 28640.	1.7	39

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109	Visualizing Current-Dependent Morphology and Distribution of Discharge Products in Sodium-Oxygen Battery Cathodes. <i>Scientific Reports</i> , 2016, 6, 24288.	1.6	38
110	Investigation of failure mechanisms in silicon based half cells during the first cycle by micro X-ray tomography and radiography. <i>Journal of Power Sources</i> , 2016, 321, 174-184.	4.0	38
111	Synchrotron X-ray Tomography for Rechargeable Battery Research: Fundamentals, Setups and Applications. <i>Small Methods</i> , 2021, 5, e2100557.	4.6	38
112	Imaging of an operating LaNi _{4.8} Al _{0.2} -based hydrogen storage container. <i>International Journal of Hydrogen Energy</i> , 2011, 36, 9751-9757.	3.8	37
113	Multidimensional operando analysis of macroscopic structure evolution in lithium sulfur cells by X-ray radiography. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 10630-10636.	1.3	37
114	Porosity detection in electron beam-melted Ti-6Al-4V using high-resolution neutron imaging and grating-based interferometry. <i>Progress in Additive Manufacturing</i> , 2017, 2, 125-132.	2.5	36
115	Tensorial neutron tomography of three-dimensional magnetic vector fields in bulk materials. <i>Nature Communications</i> , 2018, 9, 4023.	5.8	36
116	Influence of binder content in silver-based gas diffusion electrodes on pore system and electrochemical performance. <i>Journal of Applied Electrochemistry</i> , 2019, 49, 705-713.	1.5	36
117	Structural characterization of particle systems using spherical harmonics. <i>Materials Characterization</i> , 2015, 106, 123-133.	1.9	35
118	In operando x-ray tomography for next-generation batteries: a systematic approach to monitor reaction product distribution and transport processes. <i>Journal Physics D: Applied Physics</i> , 2016, 49, 404001.	1.3	35
119	Carbon-coated ultrathin metallic V ₅ Se ₈ nanosheet for high-energy-density and robust potassium storage. <i>Energy Storage Materials</i> , 2021, 35, 1-11.	9.5	35
120	Imaging with polarized neutrons. <i>Physica B: Condensed Matter</i> , 2009, 404, 2611-2614.	1.3	34
121	Stochastic 3D modeling of non-woven materials with wet-proofing agent. <i>International Journal of Hydrogen Energy</i> , 2013, 38, 8448-8460.	3.8	34
122	Zinc electrode shape-change in secondary air batteries: A 2D modeling approach. <i>Journal of Power Sources</i> , 2019, 432, 119-132.	4.0	34
123	Investigation of the skin effect in the bulk of electrical conductors with spin-polarized neutron radiography. <i>Journal of Applied Physics</i> , 2008, 104, .	1.1	33
124	Observation of Magnetic Domains in Insulation-Coated Electrical Steels by Neutron Dark-Field Imaging. <i>Applied Physics Express</i> , 2010, 3, 106602.	1.1	33
125	Neutron Bragg Edge Tomography for Phase Mapping. <i>Physics Procedia</i> , 2015, 69, 227-236.	1.2	33
126	Clarifying the Electro-Chemo-Mechanical Coupling in Li ₁₀ SnP ₂ S ₁₂ based All-Solid-State Batteries. <i>Advanced Energy Materials</i> , 2022, 12, .	10.2	33

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127	Estimation of water flow velocity in small plants using cold neutron imaging with D2O tracer. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2009, 605, 146-149.	0.7	32
128	Fossil evidence of core monocots in the Early Cretaceous. Nature Plants, 2019, 5, 691-696.	4.7	32
129	Performance and behavior of LLZO-based composite polymer electrolyte for lithium metal electrode with high capacity utilization. Nano Energy, 2020, 77, 105196.	8.2	32
130	CONRAD-2: Cold Neutron Tomography and Radiography at BER II (V7). Journal of Large-scale Research Facilities JLSRF, 0, 2, A98.	0.0	32
131	Coarsening of grain-refined semi-solid Al-Ge alloy: X-ray microtomography and in situ radiography. Acta Materialia, 2007, 55, 5045-5055.	3.8	31
132	High-resolution investigations of edge effects in neutron imaging. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2009, 604, 640-645.	0.7	31
133	Dual-function engineering to construct ultra-stable anodes for potassium-ion hybrid capacitors: N, O-doped porous carbon spheres. Nano Energy, 2022, 93, 106903.	8.2	30
134	Influence of hydrophobic treatment on the structure of compressed gas diffusion layers. Journal of Power Sources, 2016, 324, 625-636.	4.0	29
135	Multi-scale tomographic analysis of polymeric foams: A detailed study of the cellular structure. European Polymer Journal, 2018, 109, 169-178.	2.6	29
136	Impact of catalyst layer morphology on the operation of high temperature PEM fuel cells. Journal of Power Sources Advances, 2021, 7, 100042.	2.6	29
137	Neutron Bragg-edge mapping of weld seams. International Journal of Materials Research, 2012, 103, 151-154.	0.1	29
138	Time-of-flight neutron imaging for spatially resolved strain investigations based on Bragg edge transmission at a reactor source. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2012, 680, 27-34.	0.7	28
139	In-Operando Neutron Radiography Studies of Polymer Electrolyte Membrane Water Electrolyzers. ECS Transactions, 2015, 69, 1135-1140.	0.3	28
140	How mobile are protons in the structure of dental glass ionomer cements?. Scientific Reports, 2015, 5, 8972.	1.6	27
141	In-situ Radiographic Investigation of (De)Lithiation Mechanisms in a Tin Electrode Lithium-ion Battery. ChemSusChem, 2016, 9, 946-950.	3.6	27
142	X-ray tomography as a powerful method for zinc-air battery research. Journal of Power Sources, 2017, 370, 45-51.	4.0	27
143	Influence of local carbon fibre orientation on the water transport in the gas diffusion layer of polymer electrolyte membrane fuel cells. Electrochemistry Communications, 2015, 51, 133-136.	2.3	26
144	Analysis of liquid water formation in polymer electrolyte membrane (PEM) fuel cell flow fields with a dry cathode supply. Journal of Power Sources, 2016, 306, 658-665.	4.0	26

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145	Parametric stochastic 3D model for the microstructure of anodes in lithium-ion power cells. <i>Computational Materials Science</i> , 2017, 126, 453-467.	1.4	26
146	Transient limiting current measurements for characterization of gas diffusion layers. <i>Journal of Power Sources</i> , 2018, 402, 237-245.	4.0	26
147	Effect of cell compression on the water dynamics of a polymer electrolyte fuel cell using in-plane and through-plane in-operando neutron radiography. <i>Journal of Power Sources</i> , 2019, 439, 227074.	4.0	26
148	Non-destructive characterization of lithium deposition at the Li/separator and Li/carbon matrix interregion by synchrotron X-ray tomography. <i>Nano Energy</i> , 2019, 62, 11-19.	8.2	26
149	Bone metabolism and evolutionary origin of osteocytes: Novel application of FIB-SEM tomography. <i>Science Advances</i> , 2021, 7, .	4.7	26
150	Calcium oxalate crystal distribution in rose peduncles: Non-invasive analysis by synchrotron X-ray micro-tomography. <i>Postharvest Biology and Technology</i> , 2012, 72, 27-34.	2.9	25
151	Improved Performance of Polymer Electrolyte Membrane Fuel Cells with Modified Microporous Layer Structures. <i>Energy Technology</i> , 2017, 5, 1612-1618.	1.8	25
152	Enhanced Water Management in PEMFCs: Perforated Catalyst Layer and Microporous Layers. <i>ChemSusChem</i> , 2020, 13, 2931-2934.	3.6	25
153	Thermal annealing of the epitaxial Al/Si(111)7Å–7 interface: Al clustering, interfacial reaction, and Al-induced p+ doping. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 1995, 13, 2399-2406.	0.9	24
154	TOF-SEMSANS—Time-of-flight spin-echo modulated small-angle neutron scattering. <i>Journal of Applied Physics</i> , 2012, 112, .	1.1	24
155	Understanding the Impact of Compression on the Active Area of Carbon Felt Electrodes for Redox Flow Batteries. <i>ACS Applied Energy Materials</i> , 2020, 3, 4384-4393.	2.5	24
156	Sodiophilic and conductive carbon cloth guides sodium dendrite-free Na metal electrodeposition. <i>Journal of Energy Chemistry</i> , 2021, 61, 61-70.	7.1	24
157	Binder-free carbon monolith cathode material for operando investigation of high performance lithium-sulfur batteries with X-ray radiography. <i>Energy Storage Materials</i> , 2017, 9, 96-104.	9.5	23
158	Na electrodeposits: a new decaying mechanism for all-solid-state Na batteries revealed by synchrotron X-ray tomography. <i>Nano Energy</i> , 2021, 82, 105762.	8.2	23
159	Drainage of particle-stabilised aluminium composites through single films and Plateau borders. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2013, 438, 85-92.	2.3	22
160	Influence of impurities, strontium addition and cooling rate on microstructure evolution in Al-10Si-0.3Fe casting alloys. <i>Journal of Alloys and Compounds</i> , 2018, 766, 818-827.	2.8	22
161	The new V12 ultra-small-angle neutron scattering and tomography instrument at the Hahn–Meitner Institut. <i>Journal of Applied Crystallography</i> , 2006, 40, s463-s465.	1.9	21
162	Differential phase contrast and dark field neutron imaging. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2009, 605, 9-12.	0.7	21

#	ARTICLE	IF	CITATIONS
163	Random geometric graphs for modelling the pore space of fibre-based materials. <i>Journal of Materials Science</i> , 2011, 46, 7745-7759.	1.7	21
164	Dynamic fuel cell gas humidification system. <i>International Journal of Hydrogen Energy</i> , 2012, 37, 7702-7709.	3.8	21
165	Grand canonical Monte Carlo study on water agglomerations within a polymer electrolyte membrane fuel cell gas diffusion layer. <i>Journal of Power Sources</i> , 2013, 239, 628-641.	4.0	21
166	Monitoring the hydrogen distribution in poly(2,5-benzimidazole)-based (ABPBI) membranes in operating high-temperature polymer electrolyte fuel cells by using H-D contrast neutron imaging. <i>Journal of Power Sources</i> , 2015, 299, 125-129.	4.0	21
167	Missing wedge computed tomography by iterative algorithm DIRECTT. <i>Journal of Microscopy</i> , 2016, 261, 36-45.	0.8	21
168	Investigation of water generation and accumulation in polymer electrolyte fuel cells using hydro-electrochemical impedance imaging. <i>Journal of Power Sources</i> , 2019, 414, 272-277.	4.0	21
169	Polarization measurements in neutron imaging. <i>Journal Physics D: Applied Physics</i> , 2019, 52, 123001.	1.3	21
170	Li-based anode: Is dendrite-free sufficient?. <i>Materials Today</i> , 2020, 38, 7-9.	8.3	21
171	Formation of the CeSix/Si(111) interface. <i>Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , 1995, 13, 1657.	1.6	20
172	<i>In situ</i> Synchrotron X-ray Radiography Investigations of Water Transport in PEM Fuel Cells. <i>Fuel Cells</i> , 2010, 10, 26-34.	1.5	20
173	Preparation and Characterization of Li-Ion Graphite Anodes Using Synchrotron Tomography. <i>Materials</i> , 2014, 7, 4455-4472.	1.3	20
174	Investigations of the structural stability of metal hydride composites by in-situ neutron imaging. <i>Journal of Power Sources</i> , 2015, 293, 109-118.	4.0	20
175	Synchrotron X-ray Tomographic Study of a Silicon Electrode Before and After Discharge and the Effect of Cavities on Particle Fracturing. <i>ChemElectroChem</i> , 2016, 3, 1170-1177.	1.7	20
176	Analysis of the 3D microstructure of experimental cathode films for lithium-ion batteries under increasing compaction. <i>Journal of Microscopy</i> , 2018, 272, 96-110.	0.8	20
177	<i>In situ</i> and Operando Tracking of Microstructure and Volume Evolution of Silicon Electrodes by using Synchrotron X-ray Imaging. <i>ChemSusChem</i> , 2019, 12, 261-269.	3.6	20
178	Paget disease of bone in a Jurassic dinosaur. <i>Current Biology</i> , 2011, 21, R647-R648.	1.8	19
179	In-operando stress measurement and neutron imaging of metal hydride composites for solid-state hydrogen storage. <i>Journal of Power Sources</i> , 2018, 397, 262-270.	4.0	19
180	Operando Laboratory X-Ray Imaging of Silver-Based Gas Diffusion Electrodes during Oxygen Reduction Reaction in Highly Alkaline Media. <i>Materials</i> , 2019, 12, 2686.	1.3	19

#	ARTICLE	IF	CITATIONS
181	On a pluri-Gaussian model for three-phase microstructures, with applications to 3D image data of gas-diffusion electrodes. <i>Computational Materials Science</i> , 2019, 156, 325-331.	1.4	19
182	X-Ray Computed Radiography and Tomography Study of Electrolyte Invasion and Distribution inside Pristine and Heat-Treated Carbon Felts for Redox Flow Batteries. <i>Energy Technology</i> , 2020, 8, 1901214.	1.8	19
183	Multi-length scale characterization of compression on metal foam flow-field based fuel cells using X-ray computed tomography and neutron radiography. <i>Energy Conversion and Management</i> , 2021, 230, 113785.	4.4	19
184	In-situ investigation of water distribution in polymer electrolyte membrane fuel cells using high-resolution neutron tomography with 6.5 Åm pixel size. <i>AIMS Energy</i> , 2018, 6, 607-614.	1.1	19
185	Polarized neutron imaging: A spin-echo approach. <i>Physica B: Condensed Matter</i> , 2011, 406, 2415-2418.	1.3	18
186	Visualization of embolism formation in the xylem of liana stems using neutron radiography. <i>Annals of Botany</i> , 2013, 111, 723-730.	1.4	18
187	Imaging of dynamic magnetic fields with spin-polarized neutron beams. <i>New Journal of Physics</i> , 2015, 17, 043047.	1.2	18
188	Effect of stress on NiO reduction in solid oxide fuel cells: a new application of energy-resolved neutron imaging. <i>Journal of Applied Crystallography</i> , 2015, 48, 401-408.	1.9	18
189	Stochastic model for the 3D microstructure of pristine and cyclically aged cathodes in Li-ion batteries. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2018, 26, 035005.	0.8	18
190	Parametric microstructure modeling of compressed cathode materials for Li-ion batteries. <i>Computational Materials Science</i> , 2019, 169, 109083.	1.4	18
191	Design of an In-Operando Cell for X-Ray and Neutron Imaging of Oxygen-Depolarized Cathodes in Chlor-Alkali Electrolysis. <i>Materials</i> , 2019, 12, 1275.	1.3	18
192	Scalable waste-plastic-derived carbon nanosheets with high contents of inbuilt nitrogen/sulfur sites for high performance potassium-ion hybrid capacitors. <i>Nano Energy</i> , 2022, 95, 107015.	8.2	18
193	Direct Accessing the Nanostructure of Carbon Supported Ru-Se Based Catalysts by ASAXS. <i>Journal of Physical Chemistry C</i> , 2010, 114, 22375-22384.	1.5	17
194	Time-of-flight neutron imaging at a continuous source: Proof of principle using a scintillator CCD imaging detector. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2011, 651, 149-155.	0.7	17
195	In operando visualization of hydride-graphite composites during cyclic hydrogenation by high-resolution neutron imaging. <i>Journal of Power Sources</i> , 2015, 277, 360-369.	4.0	17
196	High-resolution X-ray and neutron computed tomography of partially saturated granular materials subjected to projectile penetration. <i>International Journal of Impact Engineering</i> , 2016, 89, 72-82.	2.4	17
197	Energy-selective neutron imaging by exploiting wavelength gradients of double crystal monochromators—Simulations and experiments. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2019, 943, 162477.	0.7	17
198	External water transport is more important than vascular transport in the extreme atmospheric epiphyte <i>Tillandsia usneoides</i> (Spanish moss). <i>Plant, Cell and Environment</i> , 2019, 42, 1645-1656.	2.8	17

#	ARTICLE	IF	CITATIONS
199	Neutron tomography using an elliptic focusing guide. <i>Journal of Applied Physics</i> , 2010, 108, 034905.	1.1	16
200	In-plane neutron radiography for studying the influence of surface treatment and design of cathode flow fields in direct methanol fuel cells. <i>International Journal of Hydrogen Energy</i> , 2013, 38, 2443-2454.	3.8	16
201	Characterizing Partially Saturated Compacted-Sand Specimen Using 3D Image Registration of High-Resolution Neutron and X-Ray Tomography. <i>Journal of Computing in Civil Engineering</i> , 2015, 29, .	2.5	16
202	Impact of sand content on solute diffusion in Opalinus Clay. <i>Applied Clay Science</i> , 2015, 112-113, 134-142.	2.6	16
203	X-ray Tomographic Investigation of Water Distribution in Polymer Electrolyte Membrane Fuel Cells with Different Gas Diffusion Media. <i>ECS Transactions</i> , 2016, 72, 99-106.	0.3	16
204	Analysis of microstructural effects in multi-layer lithium-ion battery cathodes. <i>Materials Characterization</i> , 2019, 151, 166-174.	1.9	16
205	Influence of Stoichiometry on the Two-Phase Flow Behavior of Proton Exchange Membrane Electrolyzers. <i>Energies</i> , 2019, 12, 350.	1.6	16
206	Relationships of cochlear coiling shape and hearing frequencies in cetaceans, and the occurrence of infrasonic hearing in Miocene Mysticeti. <i>Fossil Record</i> , 2018, 21, 33-45.	0.5	16
207	Advanced neutron imaging methods with a potential to benefit from pulsed sources. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2011, 651, 57-61.	0.7	15
208	Investigation of the three-dimensional ruthenium distribution in fresh and aged membrane electrode assemblies with synchrotron X-ray absorption edge tomography. <i>Electrochemistry Communications</i> , 2011, 13, 826-829.	2.3	15
209	Using a grating analyser for SEMSANS investigations in the very small angle range. <i>Physica B: Condensed Matter</i> , 2012, 407, 4132-4135.	1.3	15
210	Graph-based simulated annealing: a hybrid approach to stochastic modeling of complex microstructures. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2013, 21, 055004.	0.8	15
211	EXTRACTION OF CURVED FIBERS FROM 3D DATA. <i>Image Analysis and Stereology</i> , 2013, 32, 57.	0.4	15
212	Influence of Artificial Aging of Gas Diffusion Layers on the Water Management of PEM Fuel Cells. <i>ECS Electrochemistry Letters</i> , 2013, 3, F7-F9.	1.9	15
213	Evaluation of structural changes of HT-PEFC electrodes from in-situ synchrotron X-ray radiographs. <i>International Journal of Hydrogen Energy</i> , 2014, 39, 9447-9456.	3.8	15
214	A dedicated compression device for high resolution X-ray tomography of compressed gas diffusion layers. <i>Review of Scientific Instruments</i> , 2015, 86, 043702.	0.6	15
215	Fabrication of cellular and lamellar LiFePO ₄ /C Cathodes for Li-ion batteries by unidirectional freeze-casting method. <i>Journal of the Ceramic Society of Japan</i> , 2016, 124, 1067-1071.	0.5	15
216	3D-analysis of plant microstructures: advantages and limitations of synchrotron X-ray microtomography. <i>International Agrophysics</i> , 2013, 27, 23-30.	0.7	15

#	ARTICLE	IF	CITATIONS
217	Finite linewidth observed in photoluminescence spectra of individual In _{0.4} Ga _{0.6} As quantum dots. <i>Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , 1999, 17, 1632.	1.6	14
218	Scatter rejection in quantitative thermal and cold neutron imaging. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2011, 651, 145-148.	0.7	14
219	Automated quantitative 3D analysis of faceting of particles in tomographic datasets. <i>Ultramicroscopy</i> , 2012, 122, 65-75.	0.8	14
220	Nano-scale Monte Carlo study on liquid water distribution within the polymer electrolyte membrane fuel cell microporous layer, catalyst layer and their interfacial region. <i>Journal of Power Sources</i> , 2018, 397, 271-279.	4.0	14
221	Practical Implications of Using a Solid Electrolyte in Batteries with a Sodium Anode: A Combined X-Ray Tomography and Model-Based Study. <i>Energy Technology</i> , 2019, 7, 1801146.	1.8	14
222	Correction approach of detector backlighting in radiography. <i>Review of Scientific Instruments</i> , 2019, 90, 125108.	0.6	14
223	Influence of Structural Modification of Micro-Porous Layer and Catalyst Layer on Performance and Water Management of PEM Fuel Cells: Hydrophobicity and Porosity. <i>Fuel Cells</i> , 2020, 20, 469-476.	1.5	14
224	Absorption- and Phase-Based Imaging Signals for Neutron Tomography. , 0, , 407-420.		13
225	Polarized neutron imaging at the CONRAD instrument at Helmholtz Centre Berlin. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2009, 605, 26-29.	0.7	13
226	Investigation of soot sediments in particulate filters and engine components. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2009, 610, 622-626.	0.7	13
227	Combined synchrotron X-ray radiography and tomography study of water transport in gas diffusion layers. <i>Micro and Nano Letters</i> , 2012, 7, 689.	0.6	13
228	Metal Foaming Studied In Situ by Energy Dispersive X-Ray Diffraction of Synchrotron Radiation, X-Ray Radioscopy, and Optical Expandometry. <i>Advanced Engineering Materials</i> , 2013, 15, 141-148.	1.6	13
229	Time-resolved Bragg-edge neutron radiography for observing martensitic phase transformation from austenitized super martensitic steel. <i>Journal of Materials Science</i> , 2017, 52, 3490-3496.	1.7	13
230	Testing Contrast Agents to Improve Micro Computerized Tomography (µCT) for Spatial Location of Organic Matter and Biological Material in Soil. <i>Frontiers in Environmental Science</i> , 2019, 7, .	1.5	13
231	In situ visualizing the interplay between the separator and potassium dendrite growth by synchrotron X-ray tomography. <i>Nano Energy</i> , 2021, 83, 105841.	8.2	13
232	Wassermanagement in Brennstoffzellen – die Bedeutung von hochauflösenden zerstörungsfreien Untersuchungsmethoden. <i>Materialprüfung/Materials Testing</i> , 2008, 50, 609-614.	0.8	13
233	Wasserverteilung in PEM-Brennstoffzellen. <i>Materialprüfung/Materials Testing</i> , 2009, 51, 219-226.	0.8	13
234	Operando Radiography and Multimodal Analysis of Lithium-Sulfur Pouch Cells – Electrolyte Dependent Morphology Evolution at the Cathode. <i>Advanced Energy Materials</i> , 2022, 12, .	10.2	13

#	ARTICLE	IF	CITATIONS
235	Investigation of fuel cells using scanning neutron imaging and a focusing neutron guide. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2012, 663, 48-54.	0.7	12
236	In-operando investigation of the humidity condition and the swelling of a Nafion-based membrane in a DMFC with synchrotron X-ray imaging. Journal of Power Sources, 2015, 297, 83-89.	4.0	12
237	Three-dimensional multiscale analysis of degradation of nano- and micro-structure in direct methanol fuel cell electrodes after methanol starvation. Journal of Power Sources, 2016, 327, 481-487.	4.0	12
238	Setup for polarized neutron imaging using <i>in situ</i> ^3He cells at the Oak Ridge National Laboratory High Flux Isotope Reactor CG-1D beamline. Review of Scientific Instruments, 2017, 88, 095103.	0.6	12
239	Quantitative synchrotron X-ray tomography of the material-tissue interface in rat cortex implanted with neural probes. Scientific Reports, 2019, 9, 7646.	1.6	12
240	Virtual unfolding of folded papyri. Journal of Cultural Heritage, 2020, 41, 264-269.	1.5	12
241	Synchrotron Radiography for a Proton Exchange Membrane (PEM) Electrolyzer. Fuel Cells, 2020, 20, 300-306.	1.5	12
242	Editors' Choice 4D Neutron and X-ray Tomography Studies of High Energy Density Primary Batteries: Part I. Dynamic Studies of LiSOCl_2 during Discharge. Journal of the Electrochemical Society, 2020, 167, 130545.	1.3	12
243	Spatially resolved time-of-flight neutron imaging using a scintillator CMOS-camera detector with kHz time resolution. Optics Express, 2019, 27, 26218.	1.7	12
244	Pyridine-grafted nitrogen-doped carbon nanotubes achieving efficient electroreduction of CO_2 to CO within a wide electrochemical window. Journal of Materials Chemistry A, 2022, 10, 1852-1860.	5.2	12
245	Growth and electronic structure of $\text{Si}_3\text{Si}_5\text{SiC}_{12}$ on Si(111). Applied Surface Science, 1998, 123-124, 100-103.	3.1	11
246	Neutron radiography and current distribution measurements for studying cathode flow field properties of direct methanol fuel cells. International Journal of Energy Research, 2014, 38, 926-943.	2.2	11
247	A Multidimensional Operando Study Showing the Importance of the Electrode Macrostructure in Lithium Sulfur Batteries. ACS Applied Energy Materials, 2020, 3, 6965-6976.	2.5	11
248	Spectral neutron tomography. Materials Today Advances, 2021, 9, 100132.	2.5	11
249	Spatially resolved model of oxygen reduction reaction in silver-based porous gas-diffusion electrodes based on operando measurements. Electrochimica Acta, 2021, 375, 137976.	2.6	11
250	Three-dimensional <i>in vivo</i> analysis of water uptake and translocation in maize roots by fast neutron tomography. Scientific Reports, 2021, 11, 10578.	1.6	11
251	Operando Synchrotron Imaging of Electrolyte Distribution in Silver-Based Gas Diffusion Electrodes During Oxygen Reduction Reaction in Highly Alkaline Media. ACS Applied Energy Materials, 2021, 4, 7497-7503.	2.5	11
252	Visualization of water usage and photosynthetic activity of street trees exposed to 2ppm of SO_2 combined evaluation by cold neutron and chlorophyll fluorescence imaging. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2009, 605, 185-187.	0.7	10

#	ARTICLE	IF	CITATIONS
253	Detection of water with high sensitivity to study polymer electrolyte fuel cell membranes using cold neutrons at high spatial resolution. <i>Applied Physics Letters</i> , 2013, 102, .	1.5	10
254	Comparison between neutron tomography and X-ray tomography: A study on polymer foams. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2014, 324, 29-34.	0.6	10
255	Imaging with Cold Neutrons at the CONRAD-2 Facility. <i>Physics Procedia</i> , 2015, 69, 60-66.	1.2	10
256	Neutron computed laminography on ancient metal artefacts. <i>Analytical Methods</i> , 2015, 7, 271-278.	1.3	10
257	Analysis of structural and functional aging of electrodes in lithium-ion batteries during rapid charge and discharge rates using synchrotron tomography. <i>Journal of Power Sources</i> , 2019, 443, 227259.	4.0	10
258	Absorption edge sensitive radiography and tomography of Egyptian Papyri. <i>Journal of Cultural Heritage</i> , 2019, 39, 13-20.	1.5	10
259	Morphology correction technique for tomographic in-situ and operando studies in energy research. <i>Journal of Power Sources</i> , 2019, 414, 8-12.	4.0	10
260	Stochastic 3D microstructure modeling of anodes in lithium-ion batteries with a particular focus on local heterogeneity. <i>Computational Materials Science</i> , 2021, 192, 110354.	1.4	10
261	Lithium deposition in single-ion conducting polymer electrolytes. <i>Cell Reports Physical Science</i> , 2021, 2, 100496.	2.8	10
262	Capturing Centimeter-Scale Local Variations in Paper Pore Space via μ -CT: A Benchmark Study Using Calendered Paper. <i>Microscopy and Microanalysis</i> , 2021, 27, 1305-1315.	0.2	10
263	High-speed 4D neutron computed tomography for quantifying water dynamics in polymer electrolyte fuel cells. <i>Nature Communications</i> , 2022, 13, 1616.	5.8	10
264	Investigating the electro-wetting of silver-based gas-diffusion electrodes during oxygen reduction reaction with electrochemical and optical methods. <i>Electrochemical Science Advances</i> , 2023, 3, .	1.2	10
265	Interface and bulk effects in the attenuation of low-energy electrons through CaF_2 thin films. <i>Physical Review B</i> , 1998, 58, 2233-2239.	1.1	9
266	Polarized neutron imaging using helium-3 cells and a polychromatic beam. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2011, 651, 140-144.	0.7	9
267	CONRAD-2: The neutron imaging instrument at HZB. <i>Neutron News</i> , 2014, 25, 23-26.	0.1	9
268	Fuel Cell Research with Neutron Imaging at Helmholtz Centre Berlin. <i>Physics Procedia</i> , 2015, 69, 619-627.	1.2	9
269	Measuring Hydrogen Distributions in Iron and Steel Using Neutrons. <i>Physics Procedia</i> , 2015, 69, 445-450.	1.2	9
270	Towards a deeper understanding of structural biomass recalcitrance using phase-contrast tomography. <i>Biotechnology for Biofuels</i> , 2015, 8, 40.	6.2	9

#	ARTICLE	IF	CITATIONS
271	Neutron guide optimisation for a time-of-flight neutron imaging instrument at the European Spallation Source. <i>Optics Express</i> , 2015, 23, 301.	1.7	9
272	Characterization of the 3D microstructure of Ibuprofen tablets by means of synchrotron tomography. <i>Journal of Microscopy</i> , 2019, 274, 102-113.	0.8	9
273	Effect of Tomography Resolution on Calculation of Microstructural Properties for Lithium Ion Porous Electrodes. <i>ECS Transactions</i> , 2020, 97, 255-266.	0.3	9
274	Fabrication and characterization of porous mullite ceramics derived from fluoride-assisted Metakaolin-Al(OH) ₃ annealing for filtration applications. <i>Open Ceramics</i> , 2022, 9, 100240.	1.0	9
275	Photoluminescence of buried InGaAs/GaAs quantum dots spectrally imaged by scanning near-field optical microscopy. <i>Applied Surface Science</i> , 1998, 123-124, 400-404.	3.1	8
276	MEASUREMENT METHODS Structural Properties: Neutron and Synchrotron Imaging, In-Situ for Water Visualization. , 2009, , 738-757.		8
277	An X-ray Tomographic Study of Rechargeable Zn/MnO ₂ Batteries. <i>Materials</i> , 2018, 11, 1486.	1.3	8
278	Compact and versatile neutron imaging detector with sub-4 $\frac{1}{4}$ μ m spatial resolution based on a single-crystal thin-film scintillator. <i>Optics Express</i> , 2022, 30, 14461.	1.7	8
279	Development of a Modular Operando Cell for X-ray Imaging of Strongly Absorbing Silver-Based Gas Diffusion Electrodes. <i>Journal of the Electrochemical Society</i> , 2022, 169, 044508.	1.3	8
280	Neutron-Imaging Instrument CONRAD. <i>Neutron News</i> , 2009, 20, 20-23.	0.1	7
281	Short-circuit and overcharge behaviour of some lithium ion batteries. , 2012, , .		7
282	Refraction contrast imaging and edge effects in neutron radiography. <i>Journal of Instrumentation</i> , 2012, 7, C02047-C02047.	0.5	7
283	Electrode deterioration processes in lithium ion capacitors monitored by in situ X-ray radiography on micrometre scale. <i>Micro and Nano Letters</i> , 2012, 7, 262.	0.6	7
284	Imaging of hydrogen in steels using neutrons. <i>International Journal of Materials Research</i> , 2014, 105, 640-644.	0.1	7
285	Imaging with Polarized Neutrons. <i>Journal of Imaging</i> , 2018, 4, 23.	1.7	7
286	Probing the 3D molecular and mineralogical heterogeneity in oil reservoir rocks at the pore scale. <i>Scientific Reports</i> , 2019, 9, 8263.	1.6	7
287	Visualization of magnetic domain structure in FeSi based high permeability steel plates by neutron imaging. <i>Materials Letters</i> , 2020, 259, 126816.	1.3	7
288	On the stability of bismuth in modified carbon felt electrodes for vanadium redox flow batteries: An in-operando X-ray computed tomography study. <i>Journal of Power Sources</i> , 2020, 478, 228695.	4.0	7

#	ARTICLE	IF	CITATIONS
289	3D classification of polymer electrolyte membrane fuel cell materials from in-situ X-ray tomographic datasets. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 12161-12169.	3.8	7
290	Improvement of Oxygen-Depolarized Cathodes in Highly Alkaline Media by Electrospinning of Poly(vinylidene fluoride) Barrier Layers. <i>ChemElectroChem</i> , 2020, 7, 830-837.	1.7	7
291	Editors' Choice 4D Neutron and X-ray Tomography Studies of High Energy Density Primary Batteries: Part II. Multi-Modal Microscopy of LiSOCl ₂ Cells. <i>Journal of the Electrochemical Society</i> , 2020, 167, 140509.	1.3	7
292	Bragg-edge Imaging with Neutrons. <i>Materialprüfung/Materials Testing</i> , 2008, 50, 569-571.	0.8	7
293	SNOM-induced photoluminescence of individual InGaAs quantum dots using etched metal-coated fibre tips. <i>Surface and Interface Analysis</i> , 1999, 27, 491-494.	0.8	6
294	Investigation of HT-PEFCs by Means of Synchrotron X-ray Radiography and Electrochemical Impedance Spectroscopy. <i>ECS Transactions</i> , 2011, 41, 1413-1422.	0.3	6
295	Water Evolution in Direct Methanol Fuel Cell Cathodes Studied by Synchrotron X-ray Radiography. <i>Fuel Cells</i> , 2013, 13, 371-379.	1.5	6
296	Phase-contrast synchrotron microtomography reveals the internal morphology of a new fossil species of the Corticaria-sylvicola-group (Coleoptera: Latridiidae). <i>Zootaxa</i> , 2017, 4242, 578.	0.2	6
297	Unveiling 3D physicochemical changes of sugarcane bagasse during sequential acid/alkali pretreatments by synchrotron phase-contrast imaging. <i>Industrial Crops and Products</i> , 2018, 114, 19-27.	2.5	6
298	Investigating phase behavior and structural changes in NiO/Ni-YSZ composite with monochromatic in-situ 2D and static 3D neutron imaging. <i>Physica B: Condensed Matter</i> , 2018, 551, 24-28.	1.3	6
299	Evaluation of a High-Intensive Mixing Process in a Ring Shear Mixer and Its Impact on the Properties of Composite Particles for Lithium-Sulfur Battery Cathodes. <i>Energy Technology</i> , 2019, 7, 1801059.	1.8	6
300	Real-space simulation of cyclic voltammetry in carbon felt electrodes by combining micro X-ray CT data, digital simulation and convolutive modeling. <i>Electrochimica Acta</i> , 2020, 353, 136487.	2.6	6
301	Charakterisierung von Katalysatormaterialien für Brennstoffzellen mittels Elektronentomografie. <i>Materialprüfung/Materials Testing</i> , 2010, 52, 706-711.	0.8	6
302	Design of In-Situ Experimentation for the Study of Fuel Cells with X-rays and Neutrons. <i>Materialprüfung/Materials Testing</i> , 2010, 52, 725-735.	0.8	6
303	A low-temperature scanning near-field optical microscope for photoluminescence at semiconductor structures. <i>Applied Physics A: Materials Science and Processing</i> , 1998, 66, S381-S384.	1.1	5
304	Investigation on Dynamic Water Transport of PEFCs Combining Neutron Radiography and CFD Simulation. <i>ECS Transactions</i> , 2013, 51, 215-226.	0.3	5
305	Neutron tomography of ancient lead artefacts. <i>Analytical Methods</i> , 2014, 6, 2390.	1.3	5
306	Neutron Radiographic Investigations on the Effect of Hydrophobicity Gradients within MPL and MEA on Liquid Water Distribution and Transport in PEMFCs. <i>ECS Transactions</i> , 2018, 85, 1013-1021.	0.3	5

#	ARTICLE	IF	CITATIONS
307	Differentiating and Quantifying Dead Lithium.. ChemElectroChem, 2019, 6, 5787-5789.	1.7	5
308	Detailed and Direct Observation of Sulfur Crystal Evolution During <i>Operando</i> Analysis of a Li-S Cell with Synchrotron Imaging. Journal of Physical Chemistry Letters, 2020, 11, 5674-5679.	2.1	5
309	Prediction of Electrolyte Distribution in Technical Gas Diffusion Electrodes: From Imaging to SPH Simulations. Transport in Porous Media, 2020, 132, 381-403.	1.2	5
310	Non-destructive in-operando investigation of catalyst layer degradation for water electrolyzers using synchrotron radiography. Materials Today Energy, 2020, 16, 100394.	2.5	5
311	Cautious interpretation of coulombic efficiency (CE) in lithium metal batteries. Journal of Energy Chemistry, 2021, 56, 34-36.	7.1	5
312	p+ doping of Si by Al diffusion upon annealing Al/n-Si(111)7Å-7. Applied Physics Letters, 1995, 66, 3010-3012.	1.5	4
313	Investigation of Carbon Fiber Gas Diffusion Layers by Means of Synchrotron X-ray Tomography. ECS Transactions, 2011, 41, 379-386.	0.3	4
314	Influence of Artificial Ageing of Gas Diffusion Layers on the Water Management of PEM Fuel Cells. ECS Transactions, 2013, 53, 21-28.	0.3	4
315	<i>in situ</i> CT-Based Analysis of the Solid Phase in Foams: Cell Wall Corrugation and other Microscopic Features. Microscopy and Microanalysis, 2015, 21, 1361-1371.	0.2	4
316	GDL and MPL Characterization and Their Relevance to Fuel Cell Modelling. ECS Transactions, 2015, 69, 1279-1291.	0.3	4
317	Exploring biomass deconstruction by phase-contrast tomography. Industrial Crops and Products, 2016, 86, 289-294.	2.5	4
318	Combined application of imaging techniques for the characterization and authentication of ancient weapons. European Physical Journal Plus, 2017, 132, 1.	1.2	4
319	In Operando Neutron Radiography Analysis of a High-Temperature Polymer Electrolyte Fuel Cell Based on a Phosphoric Acid-Doped Polybenzimidazole Membrane Using the Hydrogen-Deuterium Contrast Method. Energies, 2018, 11, 2214.	1.6	4
320	Characterization of hierarchically structured electrodes with different thicknesses by means of experiments and image analysis. Materials Characterization, 2019, 155, 109778.	1.9	4
321	Effect of solid phase corrugation on the thermo-mechanical properties of low density flexible cellular polymers. Materials and Design, 2019, 161, 106-113.	3.3	4
322	Morphological evolution of a single crystal silicon battery electrode during lithiation and delithiation: An operando phase-contrast imaging study. Energy Storage Materials, 2020, 32, 377-385.	9.5	4
323	Non-destructive characterisation of dopant spatial distribution in cuprate superconductors. Physica C: Superconductivity and Its Applications, 2020, 575, 1353691.	0.6	4
324	Rarity of congenital malformation and deformity in the fossil record of vertebrates – A non-human perspective. International Journal of Paleopathology, 2021, 33, 30-42.	0.8	4

#	ARTICLE	IF	CITATIONS
325	The Neutron Imaging Instrument CONRADâ€™ Post-Operational Review. <i>Journal of Imaging</i> , 2021, 7, 11.	1.7	4
326	Stability of CaF ₂ /Si(111) and Al/CaF ₂ /Si(111) interface systems studied with photoelectron spectroscopy and scanning-tunneling microscopy. <i>Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , 1995, 13, 1645.	1.6	3
327	Self-Supporting Microporous Layers (MPLs) for PEM Fuel Cells. <i>ECS Transactions</i> , 2013, 58, 1391-1399.	0.3	3
328	Electrolyte Distribution and Discharge Time - A Combined Study of X-ray Tomography and Electrical Measurements of a Commercially Available Lithium-Ion Capacitor. <i>ECS Transactions</i> , 2013, 53, 211-218.	0.3	3
329	Three-Dimensional Imaging of Magnetic Domains with Neutron Grating Interferometry. <i>Physics Procedia</i> , 2015, 69, 404-412.	1.2	3
330	Neutron Tomographic Investigation of the Effect of Hydrophobicity Gradients within MPL and MEA on the Spatial Distribution and Transport of Liquid Water in PEMFCs. <i>ECS Transactions</i> , 2018, 85, 927-934.	0.3	3
331	Catalytic Reactivation of Industrial Oxygen Depolarized Cathodes by inâ€™situ Generation of Atomic Hydrogen. <i>ChemSusChem</i> , 2019, 12, 2732-2739.	3.6	3
332	Up-scaling transport in porous polymer membranes using asymptotic homogenization. <i>International Journal of Numerical Methods for Heat and Fluid Flow</i> , 2019, 30, 266-289.	1.6	3
333	Non-invasive characterization of ancient Indonesian Kris through neutron methods. <i>European Physical Journal Plus</i> , 2020, 135, 1.	1.2	3
334	Structure investigation of soil aggregates treated with different organic matter using X-ray micro tomography*. <i>Materialpruefung/Materials Testing</i> , 2015, 57, 234-238.	0.8	3
335	Intact, Commercial Lithium-Polymer Batteries: Spatially Resolved Grating-Based Interferometry Imaging, Bragg Edge Imaging, and Neutron Diffraction. <i>Applied Sciences (Switzerland)</i> , 2022, 12, 1281.	1.3	3
336	3D microstructure characterization of polymer battery electrodes by statistical image analysis based on synchrotron X-ray tomography. <i>Journal of Power Sources</i> , 2022, 542, 231783.	4.0	3
337	Low density of states at the epitaxial - Si(111) interface. <i>Journal Physics D: Applied Physics</i> , 1997, 30, L48-L50.	1.3	2
338	Ringlike emission profiles in scanning near-field photoluminescence images of single InGaAs quantum dots. <i>Physical Review B</i> , 2001, 64, .	1.1	2
339	Electrodes: A Combination of X-Ray Tomography and Carbon Binder Modeling: Reconstructing the Three Phases of LiCoO ₂ Li-Ion Battery Cathodes (<i>Adv. Energy Mater.</i> 8/2014). <i>Advanced Energy Materials</i> , 2014, 4, .	10.2	2
340	Rekonstruktion limitierter CT-MessdatensÃtze von Brennstoffzellen mit Directt. <i>Materialpruefung/Materials Testing</i> , 2010, 52, 676-683.	0.8	2
341	Strukturelle Analyse des Porenraumes von Gasdiffusionslagen in Brennstoffzellen mittels geometrischer 3-D-Graphen. <i>Materialpruefung/Materials Testing</i> , 2010, 52, 736-743.	0.8	2
342	Tomografische Methoden fÃ¼r die Brennstoffzellenforschungâ€. <i>Materialpruefung/Materials Testing</i> , 2013, 55, 207-213.	0.8	2

#	ARTICLE	IF	CITATIONS
343	Synchrotron-Radiographie und -Tomographie einer PEM-Brennstoffzelle. Materialpruefung/Materials Testing, 2013, 55, 355-360.	0.8	2
344	Reduzierung von Missing-Wedge-Artefakten der CT mit DIRECTT. Materialpruefung/Materials Testing, 2014, 56, 716-721.	0.8	2
345	Optimizing the visibility of X-ray phase grating interferometry. Materialpruefung/Materials Testing, 2017, 59, 974-980.	0.8	2
346	Röntgen- und Neutronentomographie am knöchernen Innenohr der Bartenwale. Materialpruefung/Materials Testing, 2018, 60, 173-178.	0.8	2
347	Röntgen-Kanten-Tomografie und -Radiografie zur Untersuchung von Alterungseffekten in Brennstoffzellenmaterialien. Materialpruefung/Materials Testing, 2010, 52, 692-697.	0.8	2
348	Dreidimensionale Untersuchung der Wasserverteilung in einer Miniatur-PEM-Brennstoffzelle. Materialpruefung/Materials Testing, 2010, 52, 712-717.	0.8	2
349	Investigation of Water Transport in Newly Developed Micro Porous Layers for Polymer Electrolyte Membrane Fuel Cells. Applied Microscopy, 2017, 47, 101-104.	0.8	2
350	Neutron tomography for polymer electrolyte membrane fuel cell characterization. , 2012, , 243-262e.		1
351	Nondestructive Visualization and Quantification of 3-D Microstructure of Granular Materials and Direct Numerical Simulations. , 2014, , .		1
352	State-of-the-art neutron imaging. Neutron News, 2015, 26, 15-18.	0.1	1
353	Neutron Imaging. , 2019, , 47-59.		1
354	Multi-scale Analysis and Phase Segmentation of FIB and X-ray Tomographic Data of Electrolyzer Electrodes Using Machine Learning Algorithms. ECS Transactions, 2020, 97, 639-649.	0.3	1
355	Visualisierung dreidimensionaler magnetischer Feldverteilungen mit spin-polarisierten Neutronen. Materialpruefung/Materials Testing, 2008, 50, 572-579.	0.8	1
356	Untersuchung des Einflusses von GDL-Eigenschaften auf den Wasserhaushalt mittels Neutronenradiografie. Materialpruefung/Materials Testing, 2010, 52, 718-724.	0.8	1
357	Investigation of Wood Materials by Combined Application of X-ray and Neutron Imaging Techniques*. Materialpruefung/Materials Testing, 2014, 56, 224-229.	0.8	1
358	Neutron tomography in archaeology*. Materialpruefung/Materials Testing, 2015, 57, 324-328.	0.8	1
359	Neutronen-Laminografie am Beispiel eines historischen Artefakts. Materialpruefung/Materials Testing, 2018, 60, 1209-1214.	0.8	1
360	Hochauflösende Synchrotron- Radiografie. Materialpruefung/Materials Testing, 2010, 52, 698-704.	0.8	1

#	ARTICLE	IF	CITATIONS
361	Synchrotron X-ray CT of rose peduncles – evaluation of tissue damage by radiation*. Materialpruefung/Materials Testing, 2015, 57, 59-63.	0.8	1
362	Capturing 3D water layers and water-filled micropores in carbonate rock by high-resolution neutron tomography. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2022, 633, 127838.	2.3	1
363	Multiline photoluminescence of single InGaAs quantum dots. Physica Status Solidi C: Current Topics in Solid State Physics, 2003, 0, 1209-1212.	0.8	0
364	Einblicke in Magnetfelder. Physik in Unserer Zeit, 2008, 39, 166-167.	0.0	0
365	Modeling of Pore Systems by 3D Geometric Graphs. ECS Meeting Abstracts, 2009, , .	0.0	0
366	Random 3D Graphs for the Pore Space Geometry of GDLs. ECS Meeting Abstracts, 2010, , .	0.0	0
367	Dreidimensionale Abbildung magnetischer Domänen. Physik in Unserer Zeit, 2011, 42, 59-60.	0.0	0
368	Synchrotron radiography for high resolution transport and materials studies of low temperature fuel cells. , 2012, , 462-483e.		0
369	Three-Dimensional Studies on Compressed Gas Diffusion Layers and the Water Distribution in Operating Fuel Cells Using Synchrotron X-ray Imaging. ECS Meeting Abstracts, 2012, , .	0.0	0
370	Investigation of Fuel Cell Materials and Liquid Water Transport by Means of Synchrotron Imaging. ECS Transactions, 2013, 45, 195-202.	0.3	0
371	Influence of Artificial Aging of Gas Diffusion Layers on the Water Management of PEM Fuel Cells. ECS Meeting Abstracts, 2013, , .	0.0	0
372	Crystallographic Characterization: 3D Mapping of Crystallographic Phase Distribution using Energy-Selective Neutron Tomography (Adv. Mater. 24/2014). Advanced Materials, 2014, 26, 4068-4068.	11.1	0
373	Characterization of Lithium Ion Batteries with In Situ X-Ray Tomography and Radiography. ECS Transactions, 2016, 72, 3-11.	0.3	0
374	Neutron darkfield imaging of fiber composites. Materialpruefung/Materials Testing, 2021, 63, 623-629.	0.8	0
375	Hochauflösendes, großflächiges Neutronen-Detektorsystem für die Brennstoffzellenforschung. Materialpruefung/Materials Testing, 2010, 52, 684-691.	0.8	0
376	Röntgentomografische Untersuchung eines kommerziellen Lithium-Ionen-Kondensators*. Materialpruefung/Materials Testing, 2014, 56, 722-727.	0.8	0
377	Untersuchung dreidimensionaler struktureller Veränderungen in LiFePO ₄ -Batterien mittels Röntgen-Tomografie. Materialpruefung/Materials Testing, 2015, 57, 872-876.	0.8	0
378	X-ray Compton line scan tomography*. Materialpruefung/Materials Testing, 2015, 57, 985-991.	0.8	0