

Paul R Shearing

List of Publications by Year in descending order

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406
papers

16,111
citations

15504

65
h-index

32842

100
g-index

417
all docs

417
docs citations

417
times ranked

12480
citing authors

#	ARTICLE	IF	CITATIONS
1	In-operando high-speed tomography of lithium-ion batteries during thermal runaway. <i>Nature Communications</i> , 2015, 6, 6924.	12.8	494
2	Tuning the interlayer spacing of graphene laminate films for efficient pore utilization towards compact capacitive energy storage. <i>Nature Energy</i> , 2020, 5, 160-168.	39.5	381
3	Alleviation of Dendrite Formation on Zinc Anodes via Electrolyte Additives. <i>ACS Energy Letters</i> , 2021, 6, 395-403.	17.4	340
4	On the origin and application of the Bruggeman correlation for analysing transport phenomena in electrochemical systems. <i>Current Opinion in Chemical Engineering</i> , 2016, 12, 44-51.	7.8	306
5	TauFactor: An open-source application for calculating tortuosity factors from tomographic data. <i>SoftwareX</i> , 2016, 5, 203-210.	2.6	257
6	Characterization of the 3-dimensional microstructure of a graphite negative electrode from a Li-ion battery. <i>Electrochemistry Communications</i> , 2010, 12, 374-377.	4.7	256
7	3D microstructure design of lithium-ion battery electrodes assisted by X-ray nano-computed tomography and modelling. <i>Nature Communications</i> , 2020, 11, 2079.	12.8	217
8	Local Tortuosity Inhomogeneities in a Lithium Battery Composite Electrode. <i>Journal of the Electrochemical Society</i> , 2011, 158, A1393.	2.9	203
9	Rechargeable aqueous Zn-based energy storage devices. <i>Joule</i> , 2021, 5, 2845-2903.	24.0	201
10	Comparison of residual oil cluster size distribution, morphology and saturation in oil-wet and water-wet sandstone. <i>Journal of Colloid and Interface Science</i> , 2012, 375, 187-192.	9.4	198
11	Characterising thermal runaway within lithium-ion cells by inducing and monitoring internal short circuits. <i>Energy and Environmental Science</i> , 2017, 10, 1377-1388.	30.8	194
12	Multi-scale Investigations of $\text{Ni}_{0.25}\text{V}_{2}\text{O}_{5}\cdot\text{nH}_{2}\text{O}$ Cathode Materials in Aqueous Zinc-Ion Batteries. <i>Advanced Energy Materials</i> , 2020, 10, 2000058.	19.5	173
13	Tortuosity in electrochemical devices: a review of calculation approaches. <i>International Materials Reviews</i> , 2018, 63, 47-67.	19.3	172
14	3D reconstruction of SOFC anodes using a focused ion beam lift-out technique. <i>Chemical Engineering Science</i> , 2009, 64, 3928-3933.	3.8	169
15	Image based modelling of microstructural heterogeneity in LiFePO ₄ electrodes for Li-ion batteries. <i>Journal of Power Sources</i> , 2014, 247, 1033-1039.	7.8	162
16	Palladium alloys used as electrocatalysts for the oxygen reduction reaction. <i>Energy and Environmental Science</i> , 2021, 14, 2639-2669.	30.8	158
17	In situ diagnostic techniques for characterisation of polymer electrolyte membrane water electrolyzers – Flow visualisation and electrochemical impedance spectroscopy. <i>International Journal of Hydrogen Energy</i> , 2014, 39, 4468-4482.	7.1	136
18	Three-dimensional characterization of electrodeposited lithium microstructures using synchrotron X-ray phase contrast imaging. <i>Chemical Communications</i> , 2015, 51, 266-268.	4.1	133

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19	Resolving the Discrepancy in Tortuosity Factor Estimation for Li-Ion Battery Electrodes through Micro-Macro Modeling and Experiment. <i>Journal of the Electrochemical Society</i> , 2018, 165, A3403-A3426.	2.9	133
20	Investigating lithium-ion battery materials during overcharge-induced thermal runaway: an operando and multi-scale X-ray CT study. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 30912-30919.	2.8	130
21	Spatial dynamics of lithiation and lithium plating during high-rate operation of graphite electrodes. <i>Energy and Environmental Science</i> , 2020, 13, 2570-2584.	30.8	124
22	Identifying the Origins of Microstructural Defects Such as Cracking within Ni-Rich NMC811 Cathode Particles for Lithium-Ion Batteries. <i>Advanced Energy Materials</i> , 2020, 10, 2002655.	19.5	119
23	Multi Length Scale Microstructural Investigations of a Commercially Available Li-Ion Battery Electrode. <i>Journal of the Electrochemical Society</i> , 2012, 159, A1023-A1027.	2.9	118
24	Non-uniform temperature distribution in Li-ion batteries during discharge – A combined thermal imaging, X-ray micro-tomography and electrochemical impedance approach. <i>Journal of Power Sources</i> , 2014, 252, 51-57.	7.8	108
25	4D imaging of lithium-batteries using correlative neutron and X-ray tomography with a virtual unrolling technique. <i>Nature Communications</i> , 2020, 11, 777.	12.8	104
26	High power nano-Nb ₂ O ₅ negative electrodes for lithium-ion batteries. <i>Electrochimica Acta</i> , 2016, 192, 363-369.	5.2	102
27	Tracking Internal Temperature and Structural Dynamics during Nail Penetration of Lithium-Ion Cells. <i>Journal of the Electrochemical Society</i> , 2017, 164, A3285-A3291.	2.9	102
28	Cathode Design for Aqueous Rechargeable Multivalent Ion Batteries: Challenges and Opportunities. <i>Advanced Functional Materials</i> , 2021, 31, 2010445.	14.9	102
29	Investigation of lithium-ion polymer battery cell failure using X-ray computed tomography. <i>Electrochemistry Communications</i> , 2011, 13, 608-610.	4.7	100
30	Particle Size Polydispersity in Li-Ion Batteries. <i>Journal of the Electrochemical Society</i> , 2014, 161, A422-A430.	2.9	98
31	X-ray nano computerised tomography of SOFC electrodes using a focused ion beam sample-preparation technique. <i>Journal of the European Ceramic Society</i> , 2010, 30, 1809-1814.	5.7	97
32	Graphitic Carbon Nitride as a Catalyst Support in Fuel Cells and Electrolyzers. <i>Electrochimica Acta</i> , 2016, 222, 44-57.	5.2	97
33	Quantifying the anisotropy and tortuosity of permeable pathways in clay-rich mudstones using models based on X-ray tomography. <i>Scientific Reports</i> , 2017, 7, 14838.	3.3	97
34	Microstructural analysis of a solid oxide fuel cell anode using focused ion beam techniques coupled with electrochemical simulation. <i>Journal of Power Sources</i> , 2010, 195, 4804-4810.	7.8	96
35	Microstructural Evolution of Battery Electrodes During Calendaring. <i>Joule</i> , 2020, 4, 2746-2768.	24.0	95
36	Modelling and experiments to identify high-risk failure scenarios for testing the safety of lithium-ion cells. <i>Journal of Power Sources</i> , 2019, 417, 29-41.	7.8	93

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37	Towards intelligent engineering of SOFC electrodes: a review of advanced microstructural characterisation techniques. <i>International Materials Reviews</i> , 2010, 55, 347-363.	19.3	92
38	Lithiation-Induced Dilation Mapping in a Lithium-Ion Battery Electrode by 3D X-Ray Microscopy and Digital Volume Correlation. <i>Advanced Energy Materials</i> , 2014, 4, 1300506.	19.5	89
39	Identifying the Cause of Rupture of Li-Ion Batteries during Thermal Runaway. <i>Advanced Science</i> , 2018, 5, 1700369.	11.2	89
40	Free-standing supercapacitors from Kraft lignin nanofibers with remarkable volumetric energy density. <i>Chemical Science</i> , 2019, 10, 2980-2988.	7.4	88
41	Carbon monoxide poisoning and mitigation strategies for polymer electrolyte membrane fuel cells – A review. <i>Progress in Energy and Combustion Science</i> , 2020, 79, 100842.	31.2	87
42	High power TiO ₂ and high capacity Sn-doped TiO ₂ nanomaterial anodes for lithium-ion batteries. <i>Journal of Power Sources</i> , 2015, 294, 94-102.	7.8	86
43	Engineering Catalyst Layers for Next-Generation Polymer Electrolyte Fuel Cells: A Review of Design, Materials, and Methods. <i>Advanced Energy Materials</i> , 2021, 11, 2101025.	19.5	85
44	Highly pseudocapacitive Nb-doped TiO ₂ high power anodes for lithium-ion batteries. <i>Journal of Materials Chemistry A</i> , 2015, 3, 22908-22914.	10.3	84
45	Visualizing the Carbon Binder Phase of Battery Electrodes in Three Dimensions. <i>ACS Applied Energy Materials</i> , 2018, 1, 3702-3710.	5.1	83
46	Two-phase flow behaviour and performance of polymer electrolyte membrane electrolyzers: Electrochemical and optical characterisation. <i>International Journal of Hydrogen Energy</i> , 2018, 43, 15659-15672.	7.1	81
47	Developments in X-ray tomography characterization for electrochemical devices. <i>Materials Today</i> , 2019, 31, 69-85.	14.2	79
48	Mass transfer in fibrous media with varying anisotropy for flow battery electrodes: Direct numerical simulations with 3D X-ray computed tomography. <i>Chemical Engineering Science</i> , 2019, 196, 104-115.	3.8	79
49	Three-dimensional high resolution X-ray imaging and quantification of lithium ion battery mesocarbon microbead anodes. <i>Journal of Power Sources</i> , 2014, 248, 1014-1020.	7.8	78
50	Effect of gas diffusion layer properties on water distribution across air-cooled, open-cathode polymer electrolyte fuel cells: A combined ex-situ X-ray tomography and in-operando neutron imaging study. <i>Electrochimica Acta</i> , 2016, 211, 478-487.	5.2	78
51	Using Synchrotron X-Ray Nano-CT to Characterize SOFC Electrode Microstructures in Three-Dimensions at Operating Temperature. <i>Electrochemical and Solid-State Letters</i> , 2011, 14, B117.	2.2	76
52	Mechanisms and effects of mechanical compression and dimensional change in polymer electrolyte fuel cells – A review. <i>Journal of Power Sources</i> , 2015, 284, 305-320.	7.8	76
53	Investigation of Hot Pressed Polymer Electrolyte Fuel Cell Assemblies via X-ray Computed Tomography. <i>Electrochimica Acta</i> , 2017, 242, 125-136.	5.2	74
54	Visualization of liquid water in a lung-inspired flow-field based polymer electrolyte membrane fuel cell via neutron radiography. <i>Energy</i> , 2019, 170, 14-21.	8.8	74

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55	2021 roadmap on lithium sulfur batteries. <i>JPhys Energy</i> , 2021, 3, 031501.	5.3	74
56	2020 roadmap on solid-state batteries. <i>JPhys Energy</i> , 2020, 2, 032008.	5.3	74
57	The application of phase contrast X-ray techniques for imaging Li-ion battery electrodes. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2014, 324, 118-123.	1.4	73
58	High power Nb-doped LiFePO ₄ Li-ion battery cathodes; pilot-scale synthesis and electrochemical properties. <i>Journal of Power Sources</i> , 2016, 326, 476-481.	7.8	73
59	Spatially Resolving Lithiation in Silicon-Graphite Composite Electrodes via in Situ High-Energy X-ray Diffraction Computed Tomography. <i>Nano Letters</i> , 2019, 19, 3811-3820.	9.1	73
60	Spatial quantification of dynamic inter and intra particle crystallographic heterogeneities within lithium ion electrodes. <i>Nature Communications</i> , 2020, 11, 631.	12.8	73
61	Analysis of triple phase contact in Ni-YSZ microstructures using non-destructive X-ray tomography with synchrotron radiation. <i>Electrochemistry Communications</i> , 2010, 12, 1021-1024.	4.7	72
62	Emerging X-ray imaging technologies for energy materials. <i>Materials Today</i> , 2020, 34, 132-147.	14.2	70
63	A Review of Lithium-Ion Battery Electrode Drying: Mechanisms and Metrology. <i>Advanced Energy Materials</i> , 2022, 12, .	19.5	70
64	X-ray micro-tomography as a diagnostic tool for the electrode degradation in vanadium redox flow batteries. <i>Electrochemistry Communications</i> , 2014, 48, 155-159.	4.7	69
65	Combined current and temperature mapping in an air-cooled, open-cathode polymer electrolyte fuel cell under steady-state and dynamic conditions. <i>Journal of Power Sources</i> , 2015, 297, 315-322.	7.8	69
66	Exploring microstructural changes associated with oxidation in Ni-YSZ SOFC electrodes using high resolution X-ray computed tomography. <i>Solid State Ionics</i> , 2012, 216, 69-72.	2.7	68
67	Effect of temperature uncertainty on polymer electrolyte fuel cell performance. <i>International Journal of Hydrogen Energy</i> , 2014, 39, 1439-1448.	7.1	67
68	The effect of felt compression on the performance and pressure drop of all-vanadium redox flow batteries. <i>Journal of Energy Storage</i> , 2016, 8, 91-98.	8.1	67
69	Current density mapping and optical flow visualisation of a polymer electrolyte membrane water electrolyser. <i>Journal of Power Sources</i> , 2014, 265, 97-103.	7.8	66
70	Quantifying Bulk Electrode Strain and Material Displacement within Lithium Batteries via High-Speed Operando Tomography and Digital Volume Correlation. <i>Advanced Science</i> , 2016, 3, 1500332.	11.2	66
71	Guiding the Design of Heterogeneous Electrode Microstructures for Li-Ion Batteries: Microscopic Imaging, Predictive Modeling, and Machine Learning. <i>Advanced Energy Materials</i> , 2021, 11, 2003908.	19.5	66
72	Operando Electrochemical Atomic Force Microscopy of Solid-Electrolyte Interphase Formation on Graphite Anodes: The Evolution of SEI Morphology and Mechanical Properties. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 35132-35141.	8.0	65

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73	Real time chemical imaging of a working catalytic membrane reactor during oxidative coupling of methane. <i>Chemical Communications</i> , 2015, 51, 12752-12755.	4.1	63
74	Characterising the structural properties of polymer separators for lithium-ion batteries in 3D using phase contrast X-ray microscopy. <i>Journal of Power Sources</i> , 2016, 333, 184-192.	7.8	63
75	Pilot-scale continuous synthesis of a vanadium-doped LiFePO ₄ /C nanocomposite high-rate cathodes for lithium-ion batteries. <i>Journal of Power Sources</i> , 2016, 302, 410-418.	7.8	63
76	Exploring 3D microstructural evolution in Li-Sulfur battery electrodes using in-situ X-ray tomography. <i>Scientific Reports</i> , 2016, 6, 35291.	3.3	61
77	Defected vanadium bronzes as superb cathodes in aqueous zinc-ion batteries. <i>Nanoscale</i> , 2020, 12, 20638-20648.	5.6	61
78	Mass transport in PEM water electrolyzers: A review. <i>International Journal of Hydrogen Energy</i> , 2022, 47, 30-56.	7.1	60
79	The application of hierarchical structures in energy devices: new insights into the design of solid oxide fuel cells with enhanced mass transport. <i>Energy and Environmental Science</i> , 2018, 11, 2390-2403.	30.8	59
80	Spatially resolved ultrasound diagnostics of Li-ion battery electrodes. <i>Physical Chemistry Chemical Physics</i> , 2019, 21, 6354-6361.	2.8	59
81	Comparison of three-dimensional analysis and stereological techniques for quantifying lithium-ion battery electrode microstructures. <i>Journal of Microscopy</i> , 2016, 263, 280-292.	1.8	57
82	Optimisation of air cooled, open-cathode fuel cells: Current of lowest resistance and electro-thermal performance mapping. <i>Journal of Power Sources</i> , 2015, 291, 261-269.	7.8	56
83	Design of next-generation ceramic fuel cells and real-time characterization with synchrotron X-ray diffraction computed tomography. <i>Nature Communications</i> , 2019, 10, 1497.	12.8	56
84	Elucidating the Sodiation Mechanism in Hard Carbon by Operando Raman Spectroscopy. <i>ACS Applied Energy Materials</i> , 2020, 3, 7474-7484.	5.1	56
85	Electrospinning as a route to advanced carbon fibre materials for selected low-temperature electrochemical devices: A review. <i>Journal of Energy Chemistry</i> , 2021, 59, 492-529.	12.9	56
86	Opportunities for the State-of-the-Art Production of LIB Electrodes—A Review. <i>Energies</i> , 2021, 14, 1406.	3.1	55
87	Laser-preparation of geometrically optimised samples for X-ray nano-CT. <i>Journal of Microscopy</i> , 2017, 267, 384-396.	1.8	54
88	Microstructural degradation of silicon electrodes during lithiation observed via operando X-ray tomographic imaging. <i>Journal of Power Sources</i> , 2017, 342, 904-912.	7.8	54
89	ZIF-8-Derived Hollow Carbon for Efficient Adsorption of Antibiotics. <i>Nanomaterials</i> , 2019, 9, 117.	4.1	54
90	Temperature, Ageing and Thermal Management of Lithium-Ion Batteries. <i>Energies</i> , 2021, 14, 1248.	3.1	54

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91	Tracking lithium penetration in solid electrolytes in 3D by in-situ synchrotron X-ray computed tomography. <i>Nano Energy</i> , 2021, 82, 105744.	16.0	54
92	Design of Scalable, Next-Generation Thick Electrodes: Opportunities and Challenges. <i>ACS Nano</i> , 2021, 15, 18624-18632.	14.6	54
93	A study of the effect of compression on the performance of polymer electrolyte fuel cells using electrochemical impedance spectroscopy and dimensional change analysis. <i>International Journal of Hydrogen Energy</i> , 2013, 38, 7414-7422.	7.1	53
94	4D analysis of the microstructural evolution of Si-based electrodes during lithiation: Time-lapse X-ray imaging and digital volume correlation. <i>Journal of Power Sources</i> , 2016, 320, 196-203.	7.8	53
95	Correlation between triple phase boundary and the microstructure of Solid Oxide Fuel Cell anodes: The role of composition, porosity and Ni densification. <i>Journal of Power Sources</i> , 2017, 365, 210-219.	7.8	53
96	Synergistic relationship between the three-dimensional nanostructure and electrochemical performance in biocarbon supercapacitor electrode materials. <i>Sustainable Energy and Fuels</i> , 2018, 2, 772-785.	4.9	53
97	Effect of serpentine flow-field design on the water management of polymer electrolyte fuel cells: An in-operando neutron radiography study. <i>Journal of Power Sources</i> , 2018, 399, 254-263.	7.8	53
98	Core-shell TiO ₂ @C ultralong nanotubes with enhanced adsorption of antibiotics. <i>Journal of Materials Chemistry A</i> , 2019, 7, 19081-19086.	10.3	53
99	High-power nitrated TiO ₂ carbon felt as the negative electrode for all-vanadium redox flow batteries. <i>Carbon</i> , 2019, 148, 91-104.	10.3	51
100	Stochastic simulation model for the 3D morphology of composite materials in Li-ion batteries. <i>Computational Materials Science</i> , 2011, 50, 3365-3376.	3.0	50
101	Multi-scale 3D investigations of a commercial 18650 Li-ion battery with correlative electron- and X-ray microscopy. <i>Journal of Power Sources</i> , 2017, 357, 77-86.	7.8	50
102	A universal pH range and a highly efficient Mo ₂ C-based electrocatalyst for the hydrogen evolution reaction. <i>Journal of Materials Chemistry A</i> , 2020, 8, 19879-19886.	10.3	50
103	Four-Dimensional Studies of Morphology Evolution in Lithium-Sulfur Batteries. <i>ACS Applied Energy Materials</i> , 2018, 1, 5090-5100.	5.1	49
104	Co-gasification of beech-wood and polyethylene in a fluidized-bed reactor. <i>Fuel Processing Technology</i> , 2019, 190, 29-37.	7.2	49
105	3D morphological evolution of Li-ion battery negative electrode LiVO ₂ during oxidation using X-ray nano-tomography. <i>Electrochemistry Communications</i> , 2012, 21, 58-61.	4.7	48
106	Multi-length scale microstructural design of lithium-ion battery electrodes for improved discharge rate performance. <i>Energy and Environmental Science</i> , 2021, 14, 5929-5946.	30.8	48
107	Modelling the effects of measured anode triple-phase boundary densities on the performance of micro-tubular hollow fiber SOFCs. <i>Solid State Ionics</i> , 2011, 192, 494-500.	2.7	47
108	The Hydro-electro-thermal Performance of Air-cooled, Open-cathode Polymer Electrolyte Fuel Cells: Combined Localised Current Density, Temperature and Water Mapping. <i>Electrochimica Acta</i> , 2015, 180, 307-315.	5.2	47

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109	Investigating the evolving microstructure of lithium metal electrodes in 3D using X-ray computed tomography. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 22111-22120.	2.8	47
110	Cracking predictions of lithium-ion battery electrodes by X-ray computed tomography and modelling. <i>Journal of Power Sources</i> , 2022, 526, 231119.	7.8	47
111	Hydrogen Oxidation on PdIr/C Catalysts in Alkaline Media. <i>Journal of the Electrochemical Society</i> , 2014, 161, F458-F463.	2.9	46
112	VO ₂ nano-sheet negative electrodes for lithium-ion batteries. <i>Electrochemistry Communications</i> , 2016, 64, 56-60.	4.7	46
113	The effect of non-uniform compression and flow-field arrangements on membrane electrode assemblies - X-ray computed tomography characterisation and effective parameter determination. <i>Journal of Power Sources</i> , 2019, 426, 97-110.	7.8	46
114	A study of the effect of water management and electrode flooding on the dimensional change of polymer electrolyte fuel cells. <i>Journal of Power Sources</i> , 2013, 242, 70-77.	7.8	45
115	System-level electro-thermal optimisation of air-cooled open-cathode polymer electrolyte fuel cells: Air blower parasitic load and schemes for dynamic operation. <i>International Journal of Hydrogen Energy</i> , 2015, 40, 16760-16766.	7.1	45
116	What Happens Inside a Fuel Cell? Developing an Experimental Functional Map of Fuel Cell Performance. <i>ChemPhysChem</i> , 2010, 11, 2714-2731.	2.1	44
117	The use of contrast enhancement techniques in X-ray imaging of lithium-ion battery electrodes. <i>Chemical Engineering Science</i> , 2016, 154, 27-33.	3.8	43
118	Novel laboratory investigation of huff-n-puff gas injection for shale oils under realistic reservoir conditions. <i>Fuel</i> , 2021, 284, 118950.	6.4	43
119	In situ compression and X-ray computed tomography of flow battery electrodes. <i>Journal of Energy Chemistry</i> , 2018, 27, 1353-1361.	12.9	42
120	New insights into the electrochemical behaviour of porous carbon electrodes for supercapacitors. <i>Journal of Energy Storage</i> , 2018, 19, 337-347.	8.1	42
121	High-Density Lignin-Derived Carbon Nanofiber Supercapacitors with Enhanced Volumetric Energy Density. <i>Advanced Science</i> , 2021, 8, e2100016.	11.2	42
122	Correlative study of microstructure and performance for porous transport layers in polymer electrolyte membrane water electrolyzers by X-ray computed tomography and electrochemical characterization. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 19519-19532.	7.1	41
123	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.	7.1	41
124	High-Performance Zinc-Air Batteries with Scalable Metal-Organic Frameworks and Platinum Carbon Black Bifunctional Catalysts. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 42696-42703.	8.0	41
125	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.	7.8	41
126	Superior Multifunctional Activity of Nanoporous Carbons with Widely Tunable Porosity: Enhanced Storage Capacities for Carbon Dioxide, Hydrogen, Water, and Electric Charge. <i>Advanced Energy Materials</i> , 2020, 10, 1903649.	19.5	41

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127	Dendrite suppression by anode polishing in zinc-ion batteries. <i>Journal of Materials Chemistry A</i> , 2021, 9, 15355-15362.	10.3	41
128	Characterizing Batteries by In Situ Electrochemical Atomic Force Microscopy: A Critical Review. <i>Advanced Energy Materials</i> , 2021, 11, 2101518.	19.5	40
129	Development of open-cathode polymer electrolyte fuel cells using printed circuit board flow-field plates: Flow geometry characterisation. <i>International Journal of Hydrogen Energy</i> , 2014, 39, 18326-18336.	7.1	39
130	Crack detection in lithium-ion cells using machine learning. <i>Computational Materials Science</i> , 2017, 136, 297-305.	3.0	39
131	Investigation of cycling-induced microstructural degradation in silicon-based electrodes in lithium-ion batteries using X-ray nanotomography. <i>Electrochimica Acta</i> , 2017, 253, 85-92.	5.2	39
132	An Advanced Microstructural and Electrochemical Datasheet on 18650 Li-Ion Batteries with Nickel-Rich NMC811 Cathodes and Graphite-Silicon Anodes. <i>Journal of the Electrochemical Society</i> , 2020, 167, 140530.	2.9	39
133	Highly conductive low nickel content nano-composite dense cermets from nano-powders made via a continuous hydrothermal synthesis route. <i>Solid State Ionics</i> , 2010, 181, 827-834.	2.7	38
134	In Situ X-Ray Spectroscopy and Imaging of Battery Materials. <i>Electrochemical Society Interface</i> , 2011, 20, 43-47.	0.4	38
135	A Dilatometric Study of Graphite Electrodes during Cycling with X-ray Computed Tomography. <i>Journal of the Electrochemical Society</i> , 2021, 168, 010507.	2.9	38
136	High capacity nanocomposite Fe ₃ O ₄ /Fe anodes for Li-ion batteries. <i>Journal of Power Sources</i> , 2015, 291, 102-107.	7.8	37
137	Nitrogen Blanketing and Hydrogen Starvation in Dead-Ended-Anode Polymer Electrolyte Fuel Cells Revealed by Hydro-Electro-Thermal Analysis. <i>Electrochimica Acta</i> , 2016, 203, 198-205.	5.2	37
138	4D nano-tomography of electrochemical energy devices using lab-based X-ray imaging. <i>Nano Energy</i> , 2018, 47, 556-565.	16.0	37
139	Capillaries for water management in polymer electrolyte membrane fuel cells. <i>International Journal of Hydrogen Energy</i> , 2018, 43, 21949-21958.	7.1	37
140	Examining the Cycling Behaviour of Li-Ion Batteries Using Ultrasonic Time-of-Flight Measurements. <i>Journal of Power Sources</i> , 2019, 444, 227318.	7.8	37
141	Virtual unrolling of spirally-wound lithium-ion cells for correlative degradation studies and predictive fault detection. <i>Sustainable Energy and Fuels</i> , 2019, 3, 2972-2976.	4.9	37
142	CuCo ₂ S ₄ nanocrystals as a nanoplatform for photothermal therapy of arterial inflammation. <i>Nanoscale</i> , 2019, 11, 9733-9742.	5.6	37
143	Lignin-derived electrospun freestanding carbons as alternative electrodes for redox flow batteries. <i>Carbon</i> , 2020, 157, 847-856.	10.3	37
144	Using In-Situ Laboratory and Synchrotron-Based X-ray Diffraction for Lithium-Ion Batteries Characterization: A Review on Recent Developments. <i>Condensed Matter</i> , 2020, 5, 75.	1.8	37

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145	Quantitative Relationships Between Pore Tortuosity, Pore Topology, and Solid Particle Morphology Using a Novel Discrete Particle Size Algorithm. <i>Journal of the Electrochemical Society</i> , 2020, 167, 100513.	2.9	37
146	Identifying Defects in Li-Ion Cells Using Ultrasound Acoustic Measurements. <i>Journal of the Electrochemical Society</i> , 2020, 167, 120530.	2.9	37
147	Communicationâ€”Prediction of Thermal Issues for Larger Format 4680 Cylindrical Cells and Their Mitigation with Enhanced Current Collection. <i>Journal of the Electrochemical Society</i> , 2020, 167, 160544.	2.9	37
148	Reduction Dynamics of Doped Ceria, Nickel Oxide, and Cermet Composites Probed Using In Situ Raman Spectroscopy. <i>Advanced Science</i> , 2016, 3, 1500146.	11.2	36
149	Characterisation of the diffusion properties of metal foam hybrid flow-fields for fuel cells using optical flow visualisation and X-ray computed tomography. <i>Journal of Power Sources</i> , 2018, 395, 171-178.	7.8	36
150	Correlating electrochemical impedance with hierarchical structure for porous carbon-based supercapacitors using a truncated transmission line model. <i>Electrochimica Acta</i> , 2018, 284, 597-608.	5.2	36
151	Synergistic storage of lithium ions in defective anatase/rutile TiO ₂ for high-rate batteries. <i>Energy Storage Materials</i> , 2019, 22, 441-449.	18.0	36
152	Design of a miniature flow cell for <i>in situ</i> x-ray imaging of redox flow batteries. <i>Journal Physics D: Applied Physics</i> , 2016, 49, 434002.	2.8	35
153	Electrochemical pressure impedance spectroscopy applied to the study of polymer electrolyte fuel cells. <i>Electrochemistry Communications</i> , 2017, 75, 60-63.	4.7	35
154	Using electrochemical impedance spectroscopy to compensate for errors when measuring polarisation curves during three-electrode measurements of solid oxide fuel cell electrodes. <i>Electrochimica Acta</i> , 2008, 53, 7614-7621.	5.2	34
155	Study of water accumulation dynamics in the channels of an open-cathode fuel cell through electro-thermal characterisation and droplet visualisation. <i>International Journal of Hydrogen Energy</i> , 2015, 40, 16786-16796.	7.1	34
156	Detection of Internal Defects in Lithium-Ion Batteries Using Lock-in Thermography. <i>ECS Electrochemistry Letters</i> , 2015, 4, A106-A109.	1.9	34
157	A Structure and Durability Comparison of Membrane Electrode Assembly Fabrication Methods: Self-Assembled Versus Hot-Pressed. <i>Journal of the Electrochemical Society</i> , 2018, 165, F3045-F3052.	2.9	34
158	Sizeâ€”Related Electrochemical Performance in Active Carbon Nanostructures: A MOFsâ€”Derived Carbons Case Study. <i>Advanced Science</i> , 2019, 6, 1901517.	11.2	34
159	Porous Metalâ€”Organic Frameworks for Enhanced Performance Silicon Anodes in Lithium-Ion Batteries. <i>Chemistry of Materials</i> , 2019, 31, 4156-4165.	6.7	34
160	X-ray tomography and modelling study on the mechanical behaviour and performance of metal foam flow-fields for polymer electrolyte fuel cells. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 7583-7595.	7.1	34
161	Investigating the effect of thermal gradients on stress in solid oxide fuel cell anodes using combined synchrotron radiation and thermal imaging. <i>Journal of Power Sources</i> , 2015, 288, 473-481.	7.8	33
162	Effect of Microstructure of Porous Transport Layer on Performance in Polymer Electrolyte Membrane Water Electrolyser. <i>Energy Procedia</i> , 2018, 151, 111-119.	1.8	33

#	ARTICLE	IF	CITATIONS
163	Evolution of Electrochemical Cell Designs for In-Situ and Operando 3D Characterization. <i>Materials</i> , 2018, 11, 2157.	2.9	33
164	MoS ₂ /NiS core-shell structures for improved electrocatalytic process of hydrogen evolution. <i>Journal of Power Sources</i> , 2020, 472, 228497.	7.8	33
165	Thermo-chemical conversion of carbonaceous wastes for CNT and hydrogen production: a review. <i>Sustainable Energy and Fuels</i> , 2021, 5, 4173-4208.	4.9	33
166	Comparative study of energy management systems for a hybrid fuel cell electric vehicle - A novel mutative fuzzy logic controller to prolong fuel cell lifetime. <i>International Journal of Hydrogen Energy</i> , 2022, 47, 24042-24058.	7.1	33
167	Stress analysis of solid oxide fuel cell anode microstructure reconstructed from focused ion beam tomography. <i>Journal of Power Sources</i> , 2011, 196, 9018-9021.	7.8	32
168	3D-Printed Structural Pseudocapacitors. <i>Advanced Materials Technologies</i> , 2016, 1, 1600167.	5.8	32
169	Measurement of water uptake in thin-film Nafion and anion alkaline exchange membranes using the quartz crystal microbalance. <i>Journal of Membrane Science</i> , 2016, 497, 229-238.	8.2	32
170	Disentangling water, ion and polymer dynamics in an anion exchange membrane. <i>Nature Materials</i> , 2022, 21, 555-563.	27.5	32
171	Insights into the Effect of Structural Heterogeneity in Carbonized Electrospun Fibrous Mats for Flow Battery Electrodes by X-ray Tomography. <i>Small</i> , 2018, 14, 1703616.	10.0	31
172	Multi-Scale Imaging of Polymer Electrolyte Fuel Cells using X-ray Micro- and Nano-Computed Tomography, Transmission Electron Microscopy and Helium Ion Microscopy. <i>Fuel Cells</i> , 2019, 19, 35-42.	2.4	31
173	3D Imaging of Lithium Protrusions in Solid-State Lithium Batteries using X-ray Computed Tomography. <i>Advanced Functional Materials</i> , 2021, 31, 2007564.	14.9	31
174	Microstructural Analysis of an LSCF Cathode Using In Situ Tomography and Simulation. <i>ECS Transactions</i> , 2013, 57, 2671-2678.	0.5	30
175	X-ray Micro-Computed Tomography of Polymer Electrolyte Fuel Cells: What is the Representative Elementary Area?. <i>Journal of the Electrochemical Society</i> , 2020, 167, 013545.	2.9	30
176	Correlative acoustic time-of-flight spectroscopy and X-ray imaging to investigate gas-induced delamination in lithium-ion pouch cells during thermal runaway. <i>Journal of Power Sources</i> , 2020, 470, 228039.	7.8	30
177	Microstructure analysis and image-based modelling of face masks for COVID-19 virus protection. <i>Communications Materials</i> , 2021, 2, .	6.9	30
178	Thermal Imaging of Electrochemical Power Systems: A Review. <i>Journal of Imaging</i> , 2016, 2, 2.	3.0	29
179	MicroCT optimisation for imaging fascicular anatomy in peripheral nerves. <i>Journal of Neuroscience Methods</i> , 2020, 338, 108652.	2.5	29
180	Thermal Runaway of a Li-Ion Battery Studied by Combined ARC and Multi-Length Scale X-ray CT. <i>Journal of the Electrochemical Society</i> , 2020, 167, 090511.	2.9	29

#	ARTICLE	IF	CITATIONS
181	Neutron imaging of lithium batteries. <i>Joule</i> , 2022, 6, 35-52.	24.0	29
182	High power layered titanate nano-sheets as pseudocapacitive lithium-ion battery anodes. <i>Journal of Power Sources</i> , 2016, 305, 115-121.	7.8	28
183	X-ray computed tomography of packed bed chromatography columns for three dimensional imaging and analysis. <i>Journal of Chromatography A</i> , 2017, 1487, 108-115.	3.7	28
184	A lung-inspired printed circuit board polymer electrolyte fuel cell. <i>Energy Conversion and Management</i> , 2019, 202, 112198.	9.2	28
185	Fine structural changes of fluid catalytic catalysts and characterization of coke formed resulting from heavy oil devolatilization. <i>Applied Catalysis B: Environmental</i> , 2020, 263, 118329.	20.2	28
186	Exploring cycling induced crystallographic change in NMC with X-ray diffraction computed tomography. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 17814-17823.	2.8	28
187	The effect of cell geometry and trigger method on the risks associated with thermal runaway of lithium-ion batteries. <i>Journal of Power Sources</i> , 2022, 524, 230645.	7.8	28
188	Optimal integrated energy systems design incorporating variable renewable energy sources. <i>Computers and Chemical Engineering</i> , 2016, 95, 21-37.	3.8	27
189	Electro-thermal impedance spectroscopy applied to an open-cathode polymer electrolyte fuel cell. <i>Journal of Power Sources</i> , 2016, 302, 210-214.	7.8	27
190	Multi-length scale tomography for the determination and optimization of the effective microstructural properties in novel hierarchical solid oxide fuel cell anodes. <i>Journal of Power Sources</i> , 2017, 367, 177-186.	7.8	27
191	X-ray Phase-Contrast Radiography and Tomography with a Multiaperture Analyzer. <i>Physical Review Letters</i> , 2017, 118, 243902.	7.8	27
192	Probing Heterogeneity in Li-Ion Batteries with Coupled Multiscale Models of Electrochemistry and Thermal Transport using Tomographic Domains. <i>Journal of the Electrochemical Society</i> , 2020, 167, 110538.	2.9	27
193	Novel fluidised cathode approach for the electrochemical reduction of tungsten oxide in molten LiCl-KCl eutectic. <i>Electrochemistry Communications</i> , 2014, 41, 44-46.	4.7	26
194	Three-Phase Segmentation of Solid Oxide Fuel Cell Anode Materials Using Lab Based X-ray Nano-Computed Tomography. <i>Fuel Cells</i> , 2017, 17, 75-82.	2.4	26
195	Optimal design of hybrid energy systems incorporating stochastic renewable resources fluctuations. <i>Journal of Energy Storage</i> , 2018, 15, 379-399.	8.1	26
196	Microstructural Analysis of the Effects of Thermal Runaway on Li-Ion and Na-Ion Battery Electrodes. <i>Journal of Electrochemical Energy Conversion and Storage</i> , 2018, 15, .	2.1	26
197	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.	7.8	26
198	4D visualisation of <i>in situ</i> nano-compression of Li-ion cathode materials to mimic early stage calendaring. <i>Materials Horizons</i> , 2019, 6, 612-617.	12.2	26

#	ARTICLE	IF	CITATIONS
199	The role of synthesis pathway on the microstructural characteristics of sulfur-carbon composites: X-ray imaging and electrochemistry in lithium battery. <i>Journal of Power Sources</i> , 2020, 472, 228424.	7.8	26
200	Resolving Li-ion Battery Electrode Particles Using Rapid Lab-Based X-Ray Nano-Computed Tomography for High-Throughput Quantification. <i>Advanced Science</i> , 2020, 7, 2000362.	11.2	26
201	An electrochemical treatment to improve corrosion and contact resistance of stainless steel bipolar plates used in polymer electrolyte fuel cells. <i>Journal of Power Sources</i> , 2014, 245, 1014-1026.	7.8	25
202	The application of 3D imaging techniques, simulation and diffusion experiments to explore transport properties in porous oxygen transport membrane support materials. <i>Solid State Ionics</i> , 2016, 288, 315-321.	2.7	25
203	Development of a polymer electrolyte fuel cell dead-ended anode purge strategy for use with a nitrogen-containing hydrogen gas supply. <i>International Journal of Hydrogen Energy</i> , 2017, 42, 13850-13859.	7.1	25
204	Operando flow regime diagnosis using acoustic emission in a polymer electrolyte membrane water electrolyser. <i>Journal of Power Sources</i> , 2019, 424, 138-149.	7.8	25
205	Effect of compression on the water management of polymer electrolyte fuel cells: An in-operando neutron radiography study. <i>Journal of Power Sources</i> , 2019, 412, 597-605.	7.8	25
206	The performance and durability of high-temperature proton exchange membrane fuel cells enhanced by single-layer graphene. <i>Nano Energy</i> , 2022, 93, 106829.	16.0	25
207	The Use of Graphitic Carbon Nitride Based Composite Anodes for Lithium-ion Battery Applications. <i>Electroanalysis</i> , 2015, 27, 2614-2619.	2.9	24
208	Electrochemical reduction of carbon dioxide on copper-based nanocatalysts using the rotating ring-disc electrode. <i>Electrochimica Acta</i> , 2018, 283, 1037-1044.	5.2	24
209	Imaging fascicular organization of rat sciatic nerves with fast neural electrical impedance tomography. <i>Nature Communications</i> , 2020, 11, 6241.	12.8	24
210	Oxygen evolution catalysts under proton exchange membrane conditions in a conventional three electrode cell vs. electrolyser device: a comparison study and a 3D-printed electrolyser for academic labs. <i>Journal of Materials Chemistry A</i> , 2021, 9, 9113-9123.	10.3	24
211	Metabolically diverse primordial microbial communities in Earth's oldest seafloor-hydrothermal jasper. <i>Science Advances</i> , 2022, 8, eabm2296.	10.3	24
212	High Power Sodium-Ion Batteries and Hybrid Electrochemical Capacitors Using Mo or Nb-Doped Nano-Titania Anodes. <i>Journal of the Electrochemical Society</i> , 2018, 165, A1662-A1670.	2.9	23
213	X-ray Nano Computed Tomography of Electrospun Fibrous Mats as Flow Battery Electrodes. <i>Energy Technology</i> , 2018, 6, 2488-2500.	3.8	23
214	Co ₃ O ₄ hollow nanospheres doped with ZnCo ₂ O ₄ via thermal vapor mechanism for fast lithium storage. <i>Energy Storage Materials</i> , 2018, 14, 324-334.	18.0	23
215	Operando Bragg Coherent Diffraction Imaging of LiNi _{0.8} Mn _{0.1} Co _{0.1} O ₂ Primary Particles within Commercially Printed NMC811 Electrode Sheets. <i>ACS Nano</i> , 2021, 15, 1321-1330.	14.6	23
216	Ex-situ characterisation of water droplet dynamics on the surface of a fuel cell gas diffusion layer through wettability analysis and thermal characterisation. <i>International Journal of Hydrogen Energy</i> , 2017, 42, 4404-4414.	7.1	22

#	ARTICLE	IF	CITATIONS
217	Three-dimensional image based modelling of transport parameters in lithium-sulfur batteries. <i>Physical Chemistry Chemical Physics</i> , 2019, 21, 4145-4154.	2.8	22
218	The Imaging Resolution and Knudsen Effect on the Mass Transport of Shale Gas Assisted by Multi-length Scale X-Ray Computed Tomography. <i>Scientific Reports</i> , 2019, 9, 19465.	3.3	22
219	Pore Network Modelling of Capillary Transport and Relative Diffusivity in Gas Diffusion Layers with Patterned Wettability. <i>Journal of the Electrochemical Society</i> , 2020, 167, 114512.	2.9	22
220	Investigating high-performance sulfur-metal nanocomposites for lithium batteries. <i>Sustainable Energy and Fuels</i> , 2020, 4, 2907-2923.	4.9	22
221	Prevention of lithium-ion battery thermal runaway using polymer-substrate current collectors. <i>Cell Reports Physical Science</i> , 2021, 2, 100360.	5.6	22
222	3D Characterization of Diffusivities and Its Impact on Mass Flux and Concentration Overpotential in SOFC Anode. <i>Journal of the Electrochemical Society</i> , 2017, 164, F188-F195.	2.9	21
223	The Importance of Using Alkaline Ionomer Binders for Screening Electrocatalysts in Alkaline Electrolyte. <i>Journal of the Electrochemical Society</i> , 2017, 164, F1551-F1555.	2.9	21
224	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.	7.8	21
225	Pore structure development during hydration of tricalcium silicate by X-ray nano-imaging in three dimensions. <i>Construction and Building Materials</i> , 2019, 200, 318-323.	7.2	21
226	Hydration state diagnosis in fractal flow-field based polymer electrolyte membrane fuel cells using acoustic emission analysis. <i>Energy Conversion and Management</i> , 2020, 220, 113083.	9.2	21
227	Fabrication of high surface area ribbon electrodes for use in redox flow batteries via coaxial electrospinning. <i>Journal of Energy Storage</i> , 2021, 33, 102079.	8.1	21
228	Characteristics of a gold-doped electrode for application in high-performance lithium-sulfur battery. <i>Journal of Energy Chemistry</i> , 2022, 64, 116-128.	12.9	21
229	Asphericity Can Cause Nonuniform Lithium Intercalation in Battery Active Particles. <i>ACS Energy Letters</i> , 2022, 7, 1871-1879.	17.4	21
230	Enhancing Distorted Metal-Organic Framework-Derived ZnO as Anode Material for Lithium Storage by the Addition of Ag ₂ S Quantum Dots. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 37823-37831.	8.0	20
231	Three-Dimensional Visualization of Conductive Domains in Battery Electrodes with Contrast-Enhancing Nanoparticles. <i>ACS Applied Energy Materials</i> , 2018, 1, 4479-4484.	5.1	20
232	Comparative analysis of current 3D printed acetabular titanium implants. <i>3D Printing in Medicine</i> , 2019, 5, 15.	3.1	20
233	Recent advances in acoustic diagnostics for electrochemical power systems. <i>JPhys Energy</i> , 2021, 3, 032011.	5.3	20
234	Realizing optimal hydrogen evolution reaction properties via tuning phosphorous and transition metal interactions. <i>Green Energy and Environment</i> , 2020, 5, 506-512.	8.7	19

#	ARTICLE	IF	CITATIONS
235	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.	9.2	19
236	Examining the effect of nanosized Mg _{0.6} Ni _{0.4} O and Al ₂ O ₃ additives on S/polyaniline cathodes for lithium-sulphur batteries. <i>Journal of Electroanalytical Chemistry</i> , 2016, 780, 407-415.	3.8	18
237	X-ray tomography-assisted study of a phase inversion process in ceramic hollow fiber systems Towards practical structural design. <i>Journal of Membrane Science</i> , 2017, 528, 24-33.	8.2	18
238	Hybrid Thermo-Electrochemical In-Situ Instrumentation for Lithium-Ion Energy Storage. <i>Batteries and Supercaps</i> , 2019, 2, 934-940.	4.7	18
239	A novel polymer electrolyte fuel cell flow-field: The through-plane array. <i>Journal of Power Sources</i> , 2019, 442, 227218.	7.8	18
240	Sn@C evolution from yolk-shell to core-shell in carbon nanofibers with suppressed degradation of lithium storage. <i>Energy Storage Materials</i> , 2019, 18, 229-237.	18.0	18
241	In Situ Ultrasound Acoustic Measurement of the Lithium-Ion Battery Electrode Drying Process. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 36605-36620.	8.0	18
242	Influence of Flow Field Design on Zinc Deposition and Performance in a Zinc-Iodide Flow Battery. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 41563-41572.	8.0	18
243	High-performance fuel cell designed for coking-resistance and efficient conversion of waste methane to electrical energy. <i>Energy and Environmental Science</i> , 2020, 13, 1879-1887.	30.8	18
244	Carbon Nitride Materials as Efficient Catalyst Supports for Proton Exchange Membrane Water Electrolyzers. <i>Nanomaterials</i> , 2018, 8, 432.	4.1	17
245	Study of H ₂ S Removal Capability from Simulated Biogas by Using Waste-Derived Adsorbent Materials. <i>Processes</i> , 2020, 8, 1030.	2.8	17
246	Probing the Structure-Performance Relationship of Lithium-Ion Battery Cathodes Using Pore-Networks Extracted from Three-Phase Tomograms. <i>Journal of the Electrochemical Society</i> , 2020, 167, 040528.	2.9	17
247	Hard Carbon Composite Electrodes for Sodium-Ion Batteries with Nano-Zeolite and Carbon Black Additives. <i>Batteries and Supercaps</i> , 2021, 4, 163-172.	4.7	17
248	In-situ X-ray tomographic imaging study of gas and structural evolution in a commercial Li-ion pouch cell. <i>Journal of Power Sources</i> , 2022, 520, 230818.	7.8	17
249	Predominance diagrams of uranium and plutonium species in both lithium chloride-potassium chloride eutectic and calcium chloride. <i>Journal of Applied Electrochemistry</i> , 2013, 43, 1235-1241.	2.9	16
250	Investigating microstructural evolution during the electroreduction of UO ₂ to U in LiCl-KCl eutectic using focused ion beam tomography. <i>Journal of Nuclear Materials</i> , 2016, 480, 355-361.	2.7	16
251	Localised electrochemical impedance measurements of a polymer electrolyte fuel cell using a reference electrode array to give cathode-specific measurements and examine membrane hydration dynamics. <i>Journal of Power Sources</i> , 2018, 382, 38-44.	7.8	16
252	The multiscale hierarchical structure of <i>Heloderma suspectum</i> osteoderms and their mechanical properties. <i>Acta Biomaterialia</i> , 2020, 107, 194-203.	8.3	16

#	ARTICLE	IF	CITATIONS
253	Operando Ultrasonic Monitoring of Lithium-Ion Battery Temperature and Behaviour at Different Cycling Rates and under Drive Cycle Conditions. <i>Journal of the Electrochemical Society</i> , 2022, 169, 040563.	2.9	16
254	Batteries: Imaging degradation. <i>Nature Energy</i> , 2016, 1, .	39.5	15
255	On the design of complex energy systems: Accounting for renewables variability in systems sizing. <i>Computers and Chemical Engineering</i> , 2017, 103, 103-115.	3.8	15
256	Understanding the thermo-mechanical behaviour of solid oxide fuel cell anodes using synchrotron X-ray diffraction. <i>Solid State Ionics</i> , 2018, 314, 156-164.	2.7	15
257	Examining the effect of the secondary flow-field on polymer electrolyte fuel cells using X-ray computed radiography and computational modelling. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 1139-1150.	7.1	15
258	Toward Practical Demonstration of High-Energy-Density Batteries. <i>Joule</i> , 2020, 4, 1359-1361.	24.0	15
259	Dendritic silver self-assembly in molten-carbonate membranes for efficient carbon dioxide capture. <i>Energy and Environmental Science</i> , 2020, 13, 1766-1775.	30.8	15
260	The prismatic surface cell cooling coefficient: A novel cell design optimisation tool & thermal parameterization method for a 3D discretised electro-thermal equivalent-circuit model. <i>ETransportation</i> , 2021, 7, 100099.	14.8	15
261	Strategic comparison of membrane-assisted and membrane-less water electrolyzers and their potential application in direct seawater splitting (DSS). <i>Green Energy and Environment</i> , 2023, 8, 989-1005.	8.7	15
262	Integration of supercapacitors into printed circuit boards. <i>Journal of Energy Storage</i> , 2018, 19, 28-34.	8.1	14
263	Thermally Driven SOFC Degradation in 4D: Part I. Microscale. <i>Journal of the Electrochemical Society</i> , 2018, 165, F921-F931.	2.9	14
264	A study of coke formed by heavy oil volatilization/decomposition on Y-zeolite. <i>Journal of Analytical and Applied Pyrolysis</i> , 2019, 141, 104630.	5.5	14
265	X-ray Nano-computed Tomography of Electrochemical Conversion in Lithium-ion Battery. <i>ChemSusChem</i> , 2019, 12, 3550-3561.	6.8	14
266	Evidence of structural cavities in 3D printed acetabular cups for total hip arthroplasty. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , 2020, 108, 1779-1789.	3.4	14
267	Lab-based X-ray micro-computed tomography coupled with machine-learning segmentation to investigate phosphoric acid leaching in high-temperature polymer electrolyte fuel cells. <i>Journal of Power Sources</i> , 2021, 509, 230347.	7.8	14
268	Use of X-ray computed tomography for understanding localised, along-the-channel degradation of polymer electrolyte fuel cells. <i>Electrochimica Acta</i> , 2020, 352, 136464.	5.2	14
269	Determining the electrochemical transport parameters of sodium-ions in hard carbon composite electrodes. <i>Electrochimica Acta</i> , 2022, 401, 139481.	5.2	14
270	Exploring the influence of porosity and thickness on lithium-ion battery electrodes using an image-based model. <i>Journal of Power Sources</i> , 2022, 542, 231779.	7.8	14

#	ARTICLE	IF	CITATIONS
271	Following the electroreduction of uranium dioxide to uranium in LiCl-KCl eutectic in situ using synchrotron radiation. <i>Journal of Nuclear Materials</i> , 2015, 464, 256-262.	2.7	13
272	Alkaline anion exchange membrane degradation as a function of humidity measured using the quartz crystal microbalance. <i>International Journal of Hydrogen Energy</i> , 2017, 42, 6243-6249.	7.1	13
273	Contradictory concepts in tortuosity determination in porous media in electrochemical devices. <i>Chemical Engineering Science</i> , 2017, 166, 235-245.	3.8	13
274	Fluid Transport Properties from 3D Tomographic Images of Electrospun Carbon Electrodes for Flow Batteries. <i>ECS Transactions</i> , 2017, 77, 129-143.	0.5	13
275	Three dimensional characterisation of chromatography bead internal structure using X-ray computed tomography and focused ion beam microscopy. <i>Journal of Chromatography A</i> , 2018, 1566, 79-88.	3.7	13
276	Electrochemical behavior of nanostructured NiO@C anode in a lithium-ion battery using LiNi _{0.8} Co _{0.1} Mn _{0.1} O ₂ cathode. <i>Journal of Alloys and Compounds</i> , 2020, 844, 155365.	5.5	13
277	In situ studies of materials for high temperature CO ₂ capture and storage. <i>Faraday Discussions</i> , 2016, 192, 217-240.	3.2	12
278	Thermally Driven SOFC Degradation in 4D: Part II. Macroscale. <i>Journal of the Electrochemical Society</i> , 2018, 165, F932-F941.	2.9	12
279	Effect of Anode Flow Channel Depth on the Performance of Polymer Electrolyte Membrane Water Electrolyser. <i>ECS Transactions</i> , 2018, 85, 1593-1603.	0.5	12
280	In situ visualization by X-Ray computed tomography on sulfur stabilization and lithium polysulfides immobilization in S@HCS/MnO cathode. <i>Energy Storage Materials</i> , 2020, 31, 164-171.	18.0	12
281	Synthesis of layered silicon-graphene hetero-structures by wet jet milling for high capacity anodes in Li-ion batteries. <i>2D Materials</i> , 2021, 8, 015012.	4.4	12
282	Controlling molten carbonate distribution in dual-phase molten salt-ceramic membranes to increase carbon dioxide permeation rates. <i>Journal of Membrane Science</i> , 2021, 617, 118640.	8.2	12
283	Porous 3D graphene aerogel co-doped with nitrogen and sulfur for high-performance supercapacitors. <i>Nanotechnology</i> , 2021, 32, 195405.	2.6	12
284	Developments in Dilatometry for Characterisation of Electrochemical Devices. <i>Batteries and Supercaps</i> , 2021, 4, 1378-1396.	4.7	12
285	Editors' Choice 4D Neutron and X-ray Tomography Studies of High Energy Density Primary Batteries: Part I. Dynamic Studies of LiSOCl ₂ during Discharge. <i>Journal of the Electrochemical Society</i> , 2020, 167, 130545.	2.9	12
286	Nanoscale state-of-charge heterogeneities within polycrystalline nickel-rich layered oxide cathode materials. <i>Cell Reports Physical Science</i> , 2021, 2, 100647.	5.6	12
287	Characterization of SOFC Electrode Microstructure Using Nano-Scale X-ray Computed Tomography and Focused Ion Beam Techniques: a Comparative Study. <i>ECS Transactions</i> , 2009, 19, 51-57.	0.5	11
288	Electrochemical Reduction of Tungsten Oxide in LiCl-KCl Molten Salt Eutectic using the Fluidised Cathode Process. <i>Electrochimica Acta</i> , 2017, 226, 18-28.	5.2	11

#	ARTICLE	IF	CITATIONS
289	Thermal Runaway: Identifying the Cause of Rupture of Li-ion Batteries during Thermal Runaway (Adv.) Tj ETQq1 1 0.784314 rgBT /Ove	11.2	11
290	Data for an Advanced Microstructural and Electrochemical Datasheet on 18650 Li-ion Batteries with Nickel-Rich NMC811 Cathodes and Graphite-Silicon Anodes. Data in Brief, 2020, 32, 106033.	1.0	11
291	Realising the electrochemical stability of graphene: scalable synthesis of an ultra-durable platinum catalyst for the oxygen reduction reaction. Nanoscale, 2020, 12, 16113-16122.	5.6	11
292	Characterization of dimensional, morphological and morphometric features of retrieved 3D-printed acetabular cups for hip arthroplasty. Journal of Orthopaedic Surgery and Research, 2020, 15, 157.	2.3	11
293	Self-activated cathode substrates in rechargeable zinc-air batteries. Energy Storage Materials, 2021, 35, 530-537.	18.0	11
294	Effect of reactant gas flow orientation on the current and temperature distribution in self-heating polymer electrolyte fuel cells. International Journal of Hydrogen Energy, 2021, 46, 7502-7514.	7.1	11
295	Thermal Runaway of Li-Ion Cells: How Internal Dynamics, Mass Ejection, and Heat Vary with Cell Geometry and Abuse Type. Journal of the Electrochemical Society, 2022, 169, 020526.	2.9	11
296	Multi-length scale microstructural design of micro-tubular Solid Oxide Fuel Cells for optimised power density and mechanical robustness. Journal of Power Sources, 2019, 434, 226744.	7.8	10
297	Diagnosing Stagnant Gas Bubbles in a Polymer Electrolyte Membrane Water Electrolyser Using Acoustic Emission. Frontiers in Energy Research, 2020, 8, .	2.3	10
298	Towards a mechanistic understanding of particle shrinkage during biomass pyrolysis via synchrotron X-ray microtomography and in-situ radiography. Scientific Reports, 2021, 11, 2656.	3.3	10
299	A Multiscale X-Ray Tomography Study of the Cycled-Induced Degradation in Magnesium-Sulfur Batteries. Small Methods, 2021, 5, e2001193.	8.6	10
300	Evaluation and realization of safer Mg-S battery: The decisive role of the electrolyte. Nano Energy, 2021, 83, 105832.	16.0	10
301	Recovery of cobalt from lithium-ion batteries using fluidised cathode molten salt electrolysis. Electrochimica Acta, 2021, 391, 138846.	5.2	10
302	The effect of non-uniform compression on the performance of polymer electrolyte fuel cells. Journal of Power Sources, 2022, 521, 230973.	7.8	10
303	High-speed 4D neutron computed tomography for quantifying water dynamics in polymer electrolyte fuel cells. Nature Communications, 2022, 13, 1616.	12.8	10
304	Applications of advanced metrology for understanding the effects of drying temperature in the lithium-ion battery electrode manufacturing process. Journal of Materials Chemistry A, 2022, 10, 10593-10603.	10.3	10
305	Advanced Diagnostics Applied to a Self-Breathing Fuel Cell. ECS Transactions, 2014, 61, 249-258.	0.5	9
306	A novel high-temperature furnace for combined in-situ synchrotron X-ray diffraction and infrared thermal imaging to investigate the effects of thermal gradients upon the structure of ceramic materials. Journal of Synchrotron Radiation, 2014, 21, 1134-1139.	2.4	9

#	ARTICLE	IF	CITATIONS
307	Effect of humidity on the interaction of CO ₂ with alkaline anion exchange membranes probed using the quartz crystal microbalance. <i>International Journal of Hydrogen Energy</i> , 2017, 42, 24301-24307.	7.1	9
308	Mixed molybdenum and vanadium oxide nanoparticles with excellent high-power performance as Li-ion battery negative electrodes. <i>Electrochimica Acta</i> , 2019, 322, 134695.	5.2	9
309	Theoretical transmissions for X-ray computed tomography studies of lithium-ion battery cathodes. <i>Materials and Design</i> , 2020, 191, 108585.	7.0	9
310	The role of fluid chemistry on permeability evolution in granite: Applications to natural and anthropogenic systems. <i>Earth and Planetary Science Letters</i> , 2021, 553, 116641.	4.4	9
311	Current Imbalance in Parallel Battery Strings Measured Using a Hall Effect Sensor Array. <i>Energy Technology</i> , 2021, 9, 2001014.	3.8	9
312	Degradation of Layered Oxide Cathode in a Sodium Battery: A Detailed Investigation by X-Ray Tomography at the Nanoscale. <i>Small Methods</i> , 2021, 5, e2100596.	8.6	9
313	Spatially Resolved Operando Synchrotron-Based X-Ray Diffraction Measurements of Ni-Rich Cathodes for Li-Ion Batteries. <i>Frontiers in Chemical Engineering</i> , 2022, 3, .	2.7	9
314	Ultra high-resolution biomechanics suggest that substructures within insect mechanosensors decisively affect their sensitivity. <i>Journal of the Royal Society Interface</i> , 2022, 19, 20220102.	3.4	9
315	In-Situ Examination of Microstructural Changes within a Lithium-Ion Battery Electrode Using Synchrotron X-ray Microtomography. <i>ECS Transactions</i> , 2015, 69, 81-85.	0.5	8
316	Graphitic Carbon Nitride-Graphene Hybrid Nanostructure as a Catalyst Support for Polymer Electrolyte Membrane Fuel Cells. <i>ECS Transactions</i> , 2016, 75, 885-897.	0.5	8
317	Algorithmic structural segmentation of defective particle systems: a lithium-ion battery study. <i>Journal of Microscopy</i> , 2018, 270, 71-82.	1.8	8
318	Acoustic emission as a function of polarisation: Diagnosis of polymer electrolyte fuel cell hydration state. <i>Electrochemistry Communications</i> , 2019, 109, 106582.	4.7	8
319	4D Bragg Edge Tomography of Directional Ice Templated Graphite Electrodes. <i>Journal of Imaging</i> , 2020, 6, 136.	3.0	8
320	Zinc-Ion Batteries: Multi-Scale Investigations of $\text{Ni}_{0.25}\text{V}_2\text{O}_5\text{-NH}_2\text{O}$ Cathode Materials in Aqueous Zinc-Ion Batteries (<i>Adv. Energy Mater.</i> 15/2020). <i>Advanced Energy Materials</i> , 2020, 10, 2070068.	19.5	8
321	High CO ₂ permeability in supported molten-salt membranes with highly dense and aligned pores produced by directional solidification. <i>Journal of Membrane Science</i> , 2021, 630, 119057.	8.2	8
322	Electro-thermal mapping of polymer electrolyte membrane fuel cells with a fractal flow-field. <i>Energy Conversion and Management</i> , 2021, 250, 114924.	9.2	8
323	System Design of Renewable Energy Generation and Storage Alternatives for Large Scale Continuous Processes. <i>Computer Aided Chemical Engineering</i> , 2015, , 2279-2284.	0.5	7
324	Study of the tortuosity factors at multi-scale for a novel-structured SOFC anode. <i>Journal of Physics: Conference Series</i> , 2017, 849, 012020.	0.4	7

#	ARTICLE	IF	CITATIONS
325	Computed Tomography Techniques Help Understand Wear Patterns in Retrieved Total Knee Arthroplasty. <i>Journal of Arthroplasty</i> , 2018, 33, 3030-3037.	3.1	7
326	Multiscale tomographic analysis of the thermal failure of Na-Ion batteries. <i>Journal of Power Sources</i> , 2018, 400, 360-368.	7.8	7
327	X-ray micro-computed tomography as a non-destructive tool for imaging the uptake of metal nanoparticles by graphene-based 3D carbon structures. <i>Nanoscale</i> , 2019, 11, 14734-14741.	5.6	7
328	Water distribution mapping in polymer electrolyte fuel cells using lock-in thermography. <i>Journal of Power Sources</i> , 2019, 440, 227160.	7.8	7
329	Packed bed compression visualisation and flow simulation using an erosion-dilation approach. <i>Journal of Chromatography A</i> , 2020, 1611, 460601.	3.7	7
330	Rapid Preparation of Geometrically Optimal Battery Electrode Samples for Nano Scale X-ray Characterisation. <i>Journal of the Electrochemical Society</i> , 2020, 167, 060512.	2.9	7
331	A grain refinement mechanism of cast commercial purity aluminium by vanadium. <i>Materials Characterization</i> , 2021, 181, 111468.	4.4	7
332	Nature-Inspired Flow-Fields and Water Management for PEM Fuel Cells. <i>ECS Transactions</i> , 2020, 98, 145-152.	0.5	7
333	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.	2.9	7
334	Study of Tire Pyrolysis Oil Model Compound Structure on Carbon Nanomaterial Production. <i>ACS Sustainable Chemistry and Engineering</i> , 2022, 10, 800-809.	6.7	7
335	An open-source platform for 3D-printed redox flow battery test cells. <i>Sustainable Energy and Fuels</i> , 2022, 6, 1529-1540.	4.9	7
336	Precisely visit the performance modulation of functionalized separator in Li-S batteries via consecutive multiscale analysis. <i>Energy Storage Materials</i> , 2022, 49, 85-92.	18.0	7
337	A novel molten-salt electrochemical cell for investigating the reduction of uranium dioxide to uranium metal by lithium using <i>in situ</i> synchrotron radiation. <i>Journal of Synchrotron Radiation</i> , 2017, 24, 439-444.	2.4	6
338	Tracking the evolution of a single composite particle during redox cycling for application in H ₂ production. <i>Scientific Reports</i> , 2020, 10, 5266.	3.3	6
339	Optimisation of Mass Transport Parameters in a Polymer Electrolyte Membrane Electrolyser Using Factorial Design-of-Experiment. <i>Frontiers in Energy Research</i> , 2021, 9, .	2.3	6
340	A novel fuel cell design for operando energy-dispersive x-ray absorption measurements. <i>Journal of Physics Condensed Matter</i> , 2021, 33, 314002.	1.8	6
341	A nanoscale analysis method to reveal oxygen exchange between environment, oxide, and electrodes in ReRAM devices. <i>APL Materials</i> , 2021, 9, .	5.1	6
342	In-Situ Li-Ion Pouch Cell Diagnostics Utilising Plasmonic Based Optical Fibre Sensors. <i>Sensors</i> , 2022, 22, 738.	3.8	6

#	ARTICLE	IF	CITATIONS
343	Mechanistic Studies of Liquid Metal Anode SOFCs. <i>Journal of the Electrochemical Society</i> , 2015, 162, F988-F999.	2.9	5
344	Electrochemical Reduction of UO_2 to U in LiCl-KCl Molten Salt Eutectic Using the Fluidized Cathode Process. <i>Journal of the Electrochemical Society</i> , 2017, 164, H5280-H5285.	2.9	5
345	A Lab-Based Multi-Length Scale Approach to Characterize Lithium-Ion Cathode Materials. <i>ECS Transactions</i> , 2017, 77, 1119-1124.	0.5	5
346	Application of Photo-Electrochemically Generated Hydrogen with Fuel Cell Based Micro-Combined Heat and Power: A Dynamic System Modelling Study. <i>Molecules</i> , 2020, 25, 123.	3.8	5
347	Acoustic time-of-flight imaging of polymer electrolyte membrane water electrolyzers to probe internal structure and flow characteristics. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 11523-11535.	7.1	5
348	Investigation of the Effect of Temperature on Lithium-Sulfur Cell Cycle Life Performance Using System Identification and X-Ray Tomography. <i>Batteries and Supercaps</i> , 2022, 5, .	4.7	5
349	Correlative electrochemical acoustic time-of-flight spectroscopy and X-ray imaging to monitor the performance of single-crystal and polycrystalline NMC811/Gr lithium-ion batteries. <i>Journal of Power Sources</i> , 2022, 542, 231775.	7.8	5
350	Advanced 3D Imaging and Analysis of SOFC Electrodes. <i>ECS Transactions</i> , 2013, 57, 2553-2562.	0.5	4
351	Investigation of the Sodiation and Desodiation of Hard Carbon by Electrochemical Testing and X-Ray Computed Tomography. <i>ECS Transactions</i> , 2017, 75, 81-90.	0.5	4
352	Investigating the Three-Dimensional Microstructural Characteristics of Lithium-Sulfur Electrodes with X-ray Micro-Tomography. <i>ECS Transactions</i> , 2017, 77, 447-455.	0.5	4
353	Design of experiments to generate a fuel cell electro-thermal performance map and optimise transitional pathways. <i>International Journal of Powertrains</i> , 2018, 7, 118.	0.3	4
354	Evaluating microstructure evolution in an SOFC electrode using digital volume correlation. <i>Sustainable Energy and Fuels</i> , 2018, 2, 2625-2635.	4.9	4
355	Dimensional analysis of 3D-printed acetabular cups for hip arthroplasty using X-ray microcomputed tomography. <i>Rapid Prototyping Journal</i> , 2020, 26, 567-576.	3.2	4
356	The Role of Bi-Polar Plate Design and the Start-Up Protocol in the Spatiotemporal Dynamics during Solid Oxide Fuel Cell Anode Reduction. <i>Energies</i> , 2020, 13, 3552.	3.1	4
357	The Detection of Monoclinic Zirconia and Non-Uniform 3D Crystallographic Strain in a Re-Oxidized Ni-YSZ Solid Oxide Fuel Cell Anode. <i>Crystals</i> , 2020, 10, 941.	2.2	4
358	Motion-enhancement assisted digital image correlation of lithium-ion batteries during lithiation. <i>Journal of Power Sources</i> , 2022, 527, 231150.	7.8	4
359	Effective Ultrasound Acoustic Measurement to Monitor the Lithium-Ion Battery Electrode Drying Process with Various Coating Thicknesses. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 2092-2101.	8.0	4
360	In situ x-ray computed tomography of zinc-air primary cells during discharge: correlating discharge rate to anode morphology. <i>JPhys Materials</i> , 2022, 5, 014001.	4.2	4

#	ARTICLE	IF	CITATIONS
361	Solid Oxide Fuel Cell Electrode 3D Microstructure and Performance Modeling. ECS Transactions, 2011, 35, 1097-1105.	0.5	3
362	Microstructural Characterization of SOFC Electrodes: Observations and Simulations. ECS Transactions, 2011, 35, 1367-1377.	0.5	3
363	Effect of Controlled Anode Flow Release on Dead-Ended Anode Proton Exchange Membrane Fuel Cells. ECS Transactions, 2014, 61, 239-247.	0.5	3
364	An Electrochemical Impedance Spectroscopy Study and Two Phase Flow Analysis of the Anode of Polymer Electrolyte Membrane Water Electrolyser. ECS Transactions, 2015, 68, 117-131.	0.5	3
365	Comparison of Ionic and Diffusive Mass Transport Resistance in Porous Structures. ECS Transactions, 2017, 75, 135-145.	0.5	3
366	Editorial: Fuel cells and Electrolyzers. Current Opinion in Electrochemistry, 2017, 5, 1-2.	4.8	3
367	Scalable Sacrificial Templating to Increase Porosity and Platinum Utilisation in Graphene-Based Polymer Electrolyte Fuel Cell Electrodes. Nanomaterials, 2021, 11, 2530.	4.1	3
368	liionpack: A Python package for simulating packs of batteries with PyBaMM. Journal of Open Source Software, 2022, 7, 4051.	4.6	3
369	The Time-Dependent Role of Bisphosphonates on Atherosclerotic Plaque Calcification. Journal of Cardiovascular Development and Disease, 2022, 9, 168.	1.6	3
370	A greyscale erosion algorithm for tomography (GREAT) to rapidly detect battery particle defects. Npj Materials Degradation, 2022, 6, .	5.8	3
371	Thermal Gradients in Solid Oxide Fuel Cell Anodes: X-Ray Diffraction, Thermal Imaging and Model Prediction. ECS Transactions, 2015, 68, 1053-1067.	0.5	2
372	Reliable Energy Systems Design for Continuous Processes incorporating Renewables Generation. Computer Aided Chemical Engineering, 2016, 38, 469-474.	0.5	2
373	Analyzing the Mechanical Performance of Solid Oxide Fuel Cells at Interfacial Anode/Electrolyte Regions Using Sub-Micron Resolution 3D X-Ray Computed Tomography. ECS Transactions, 2017, 78, 2317-2321.	0.5	2
374	Understanding transport phenomena in electrochemical energy devices via X-ray nano CT. Journal of Physics: Conference Series, 2017, 849, 012018.	0.4	2
375	Flow Batteries: Insights into the Effect of Structural Heterogeneity in Carbonized Electrospun Fibrous Mats for Flow Battery Electrodes by X-Ray Tomography (Small 9/2018). Small, 2018, 14, 1870040.	10.0	2
376	Representative resolution analysis for X-ray CT: A Solid oxide fuel cell case study. Chemical Engineering Science: X, 2019, 4, 100043.	1.5	2
377	Supercapacitors: History, Theory, Emerging Technologies, and Applications. , 2021, , 417-449.		2
378	Dynamic acoustic emission analysis of polymer electrolyte membrane fuel cells. Energy Advances, 2022, 1, 258-268.	3.3	2

#	ARTICLE	IF	CITATIONS
379	Effects of Process Conditions on the Fluidised Cathode Electrochemical Reduction of Tungsten Oxide in Molten LiCl-KCl Eutectic. ECS Transactions, 2014, 64, 323-331.	0.5	1
380	Mapping electrochemical activity in solid oxide fuel cells. Materials Today, 2017, 20, 155-156.	14.2	1
381	X-ray attenuation properties of commonly employed solid oxide fuel cell materials. Journal of Physics: Conference Series, 2017, 849, 012017.	0.4	1
382	Size-Related Electrochemical Performance in Active Carbon Nanostructures: A MOFs-Derived Carbons Case Study (Adv. Sci. 20/2019). Advanced Science, 2019, 6, 1970123.	11.2	1
383	Improvement in the Electrical Properties of Nickel-Plated Steel Using Graphitic Carbon Coatings. Advanced Engineering Materials, 2019, 21, 1900408.	3.5	1
384	Nanoporous Carbons: Superior Multifunctional Activity of Nanoporous Carbons with Widely Tunable Porosity: Enhanced Storage Capacities for Carbon Dioxide, Hydrogen, Water, and Electric Charge (Adv.) Tj ETQq010.0 rgBT /Overlock 1	0.0	1
385	Data on the theoretical X-Ray attenuation and transmissions for lithium-ion battery cathodes. Data in Brief, 2020, 30, 105539.	1.0	1
386	Multivalent Ion Batteries: Cathode Design for Aqueous Rechargeable Multivalent Ion Batteries: Challenges and Opportunities (Adv. Funct. Mater. 13/2021). Advanced Functional Materials, 2021, 31, 2170089.	14.9	1
387	High-resolution imaging of depth filter structures using X-ray computed tomography. Journal of Materials Science, 2021, 56, 15313.	3.7	1
388	Design of experiments to generate a fuel cell electro-thermal performance map and optimise transitional pathways. International Journal of Powertrains, 2018, 7, 118.	0.3	1
389	Acoustic Emission Analysis of Polymer Electrolyte Membrane Fuel Cells. ECS Transactions, 2020, 98, 177-184.	0.5	1
390	Liposome Sterile Filtration Characterization via X-ray Computed Tomography and Confocal Microscopy. Membranes, 2021, 11, 905.	3.0	1
391	Acoustic Emission Analysis of Polymer Electrolyte Membrane Fuel Cells. ECS Meeting Abstracts, 2020, MA2020-02, 2178-2178.	0.0	1
392	Fascicular Organisation and Neuroanatomy of the Porcine and Human Vagus Nerves: Allowing for Spatially Selective Vagus Nerve Stimulation. FASEB Journal, 2022, 36, .	0.5	1
393	A Review of Progress in the UK Supergen Fuel Cell Programme. ECS Transactions, 2009, 25, 35-42.	0.5	0
394	Correlative Microscopy in the Laboratory: Analysis of the Triple-Phase Boundary in a Solid-Oxide Fuel Cell Electrode Using X-ray Computed Nanotomography and FIB-SEM. Microscopy and Microanalysis, 2010, 16, 872-873.	0.4	0
395	Stochastic Simulation Model for the 3D Morphology of Composite Materials in Li-Ion Batteries. ECS Meeting Abstracts, 2011, .	0.0	0
396	A Fluidised Cathode Process for the Electrochemical Reduction of Tungsten Oxide in A Molten LiCl-KCl Eutectic. ECS Transactions, 2014, 58, 65-74.	0.5	0

#	ARTICLE	IF	CITATIONS
397	Characterizing Failure in Commercial Li-Ion Batteries with 4D X-Ray Microscopy. <i>Microscopy and Microanalysis</i> , 2015, 21, 447-448.	0.4	0
398	Mechanistic Considerations of Liquid Metal Anode SOFCs Fueled with Hydrogen. <i>ECS Transactions</i> , 2015, 68, 1557-1566.	0.5	0
399	Revealing Microstructural Defects in Commercial Li-Ion Batteries under Electrochemical Fatigue Cycling. <i>Microscopy and Microanalysis</i> , 2016, 22, 1304-1305.	0.4	0
400	Mechanistic Studies of Liquid Metal Anode SOFCs II: Development of a Coulometric Titration Technique to Aid Reactor Design. <i>Chemical Engineering Science</i> , 2016, 154, 100-107.	3.8	0
401	Electrochemical Reduction of UO ₂ to U in LiCl-KCl Molten Salt Eutectic Using the Fluidized Cathode Process. <i>ECS Transactions</i> , 2016, 75, 69-78.	0.5	0
402	A 4D Framework for Probing Structure-Property Relationships in Lithium Ion Batteries. <i>Microscopy and Microanalysis</i> , 2017, 23, 2102-2103.	0.4	0
403	Use of Photon Scattering Interactions in Diagnosis and Treatment of Disease. , 2018, , 135-158.		0
404	3D X-Ray Characterization of Energy Storage and Conversion Devices. , 2021, , 513-544.		0
405	MOF-based nanomaterials for zinc-based battery cathodes. , 2022, , 315-340.		0
406	Cover Feature: Investigation of the Effect of Temperature on Lithium-Sulfur Cell Cycle Life Performance Using System Identification and X-Ray Tomography (<i>Batteries & Supercaps</i> 8/2022). <i>Batteries and Supercaps</i> , 2022, 5, .	4.7	0