

Dan JI Brett

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/6484604/publications.pdf>

Version: 2024-02-01

480
papers

21,238
citations

12597

71
h-index

23841

115
g-index

493
all docs

493
docs citations

493
times ranked

20622
citing authors

#	ARTICLE	IF	CITATIONS
1	Intermediate temperature solid oxide fuel cells. <i>Chemical Society Reviews</i> , 2008, 37, 1568.	18.7	1,224
2	In-operando high-speed tomography of lithium-ion batteries during thermal runaway. <i>Nature Communications</i> , 2015, 6, 6924.	5.8	494
3	Fe ²⁺ -N-Doped Carbon Capsules with Outstanding Electrochemical Performance and Stability for the Oxygen Reduction Reaction in Both Acid and Alkaline Conditions. <i>ACS Nano</i> , 2016, 10, 5922-5932.	7.3	403
4	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.	19.8	381
5	Alleviation of Dendrite Formation on Zinc Anodes via Electrolyte Additives. <i>ACS Energy Letters</i> , 2021, 6, 395-403.	8.8	340
6	Review of gas diffusion cathodes for alkaline fuel cells. <i>Journal of Power Sources</i> , 2009, 187, 39-48.	4.0	317
7	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.	3.8	306
8	Ex-situ characterisation of gas diffusion layers for proton exchange membrane fuel cells. <i>Journal of Power Sources</i> , 2012, 218, 393-404.	4.0	269
9	A review of domestic heat pumps. <i>Energy and Environmental Science</i> , 2012, 5, 9291.	15.6	251
10	3D microstructure design of lithium-ion battery electrodes assisted by X-ray nano-computed tomography and modelling. <i>Nature Communications</i> , 2020, 11, 2079.	5.8	217
11	Rechargeable aqueous Zn-based energy storage devices. <i>Joule</i> , 2021, 5, 2845-2903.	11.7	201
12	Characterising thermal runaway within lithium-ion cells by inducing and monitoring internal short circuits. <i>Energy and Environmental Science</i> , 2017, 10, 1377-1388.	15.6	194
13	Insights on Flexible Zinc-Ion Batteries from Lab Research to Commercialization. <i>Advanced Materials</i> , 2021, 33, e2007548.	11.1	191
14	Characterization of the adsorption site energies and heterogeneous surfaces of porous materials. <i>Journal of Materials Chemistry A</i> , 2019, 7, 10104-10137.	5.2	187
15	Electrochemical Impedance Spectroscopy for All-Solid-State Batteries: Theory, Methods and Future Outlook. <i>ChemElectroChem</i> , 2021, 8, 1930-1947.	1.7	176
16	Multi-Scale Investigations of Ni _{0.25} V ₂ O ₅ ·nH ₂ O Cathode Materials in Aqueous Zinc-Ion Batteries. <i>Advanced Energy Materials</i> , 2020, 10, 2000058.	10.2	173
17	Tortuosity in electrochemical devices: a review of calculation approaches. <i>International Materials Reviews</i> , 2018, 63, 47-67.	9.4	172
18	Image based modelling of microstructural heterogeneity in LiFePO ₄ electrodes for Li-ion batteries. <i>Journal of Power Sources</i> , 2014, 247, 1033-1039.	4.0	162

#	ARTICLE	IF	CITATIONS
19	Palladium alloys used as electrocatalysts for the oxygen reduction reaction. <i>Energy and Environmental Science</i> , 2021, 14, 2639-2669.	15.6	158
20	Fuel cells for micro-combined heat and power generation. <i>Energy and Environmental Science</i> , 2009, 2, 729.	15.6	151
21	Superacidity in Nafion/MOF Hybrid Membranes Retains Water at Low Humidity to Enhance Proton Conduction for Fuel Cells. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 30687-30691.	4.0	139
22	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.	3.8	136
23	Exceptional supercapacitor performance from optimized oxidation of graphene-oxide. <i>Energy Storage Materials</i> , 2019, 17, 12-21.	9.5	135
24	A lung-inspired approach to scalable and robust fuel cell design. <i>Energy and Environmental Science</i> , 2018, 11, 136-143.	15.6	134
25	Three-dimensional characterization of electrodeposited lithium microstructures using synchrotron X-ray phase contrast imaging. <i>Chemical Communications</i> , 2015, 51, 266-268.	2.2	133
26	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.	1.3	130
27	Quartz Crystal Microbalance Electronic Interfacing Systems: A Review. <i>Sensors</i> , 2017, 17, 2799.	2.1	126
28	Measurement of the current distribution along a single flow channel of a solid polymer fuel cell. <i>Electrochemistry Communications</i> , 2001, 3, 628-632.	2.3	125
29	Spatial dynamics of lithiation and lithium plating during high-rate operation of graphite electrodes. <i>Energy and Environmental Science</i> , 2020, 13, 2570-2584.	15.6	124
30	Options for residential building services design using fuel cell based micro-CHP and the potential for heat integration. <i>Applied Energy</i> , 2015, 138, 685-694.	5.1	123
31	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.	10.2	119
32	Life cycle assessment of a polymer electrolyte membrane fuel cell system for passenger vehicles. <i>Journal of Cleaner Production</i> , 2017, 142, 4339-4355.	4.6	115
33	A new application for nickel foam in alkaline fuel cells. <i>International Journal of Hydrogen Energy</i> , 2009, 34, 6799-6808.	3.8	112
34	An efficient carbon-based ORR catalyst from low-temperature etching of ZIF-67 with ultra-small cobalt nanoparticles and high yield. <i>Journal of Materials Chemistry A</i> , 2019, 7, 3544-3551.	5.2	112
35	Rational Design of Hierarchically Core-Shell Structured Ni ₃ S ₂ @NiMoO ₄ Nanowires for Electrochemical Energy Storage. <i>Small</i> , 2018, 14, e1800791.	5.2	111
36	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.	4.0	108

#	ARTICLE	IF	CITATIONS
37	Effect of clamping pressure on ohmic resistance and compression of gas diffusion layers for polymer electrolyte fuel cells. <i>Journal of Power Sources</i> , 2012, 219, 52-59.	4.0	104
38	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
39	High power nano-Nb ₂ O ₅ negative electrodes for lithium-ion batteries. <i>Electrochimica Acta</i> , 2016, 192, 363-369.	2.6	102
40	Tracking Internal Temperature and Structural Dynamics during Nail Penetration of Lithium-Ion Cells. <i>Journal of the Electrochemical Society</i> , 2017, 164, A3285-A3291.	1.3	102
41	Cathode Design for Aqueous Rechargeable Multivalent Ion Batteries: Challenges and Opportunities. <i>Advanced Functional Materials</i> , 2021, 31, 2010445.	7.8	102
42	Enabling stable MnO ₂ matrix for aqueous zinc-ion battery cathodes. <i>Journal of Materials Chemistry A</i> , 2020, 8, 22075-22082.	5.2	101
43	Graphitic Carbon Nitride as a Catalyst Support in Fuel Cells and Electrolyzers. <i>Electrochimica Acta</i> , 2016, 222, 44-57.	2.6	97
44	Microstructural Evolution of Battery Electrodes During Calendaring. <i>Joule</i> , 2020, 4, 2746-2768.	11.7	95
45	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.	4.0	93
46	Localized Impedance Measurements along a Single Channel of a Solid Polymer Fuel Cell. <i>Electrochemical and Solid-State Letters</i> , 2003, 6, A63.	2.2	92
47	Performance of solid oxide electrolysis cells based on composite La _{0.8} Sr _{0.2} MnO ₃ yttria stabilized zirconia and Ba _{0.5} Sr _{0.5} Co _{0.8} Fe _{0.2} O ₃ oxygen electrodes. <i>International Journal of Hydrogen Energy</i> , 2010, 35, 3958-3966.	3.8	92
48	Towards intelligent engineering of SOFC electrodes: a review of advanced microstructural characterisation techniques. <i>International Materials Reviews</i> , 2010, 55, 347-363.	9.4	92
49	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.	10.2	89
50	Identifying the Cause of Rupture of Li-Ion Batteries during Thermal Runaway. <i>Advanced Science</i> , 2018, 5, 1700369.	5.6	89
51	A sizing-design methodology for hybrid fuel cell power systems and its application to an unmanned underwater vehicle. <i>Journal of Power Sources</i> , 2010, 195, 6559-6569.	4.0	88
52	Free-standing supercapacitors from Kraft lignin nanofibers with remarkable volumetric energy density. <i>Chemical Science</i> , 2019, 10, 2980-2988.	3.7	88
53	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.	15.8	87
54	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.	4.0	86

#	ARTICLE	IF	CITATIONS
55	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.	10.2	85
56	Highly pseudocapacitive Nb-doped TiO ₂ high power anodes for lithium-ion batteries. <i>Journal of Materials Chemistry A</i> , 2015, 3, 22908-22914.	5.2	84
57	Visualizing the Carbon Binder Phase of Battery Electrodes in Three Dimensions. <i>ACS Applied Energy Materials</i> , 2018, 1, 3702-3710.	2.5	83
58	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.	3.8	81
59	Developments in X-ray tomography characterization for electrochemical devices. <i>Materials Today</i> , 2019, 31, 69-85.	8.3	79
60	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.	1.9	79
61	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.	2.6	78
62	Dual-Metal Atom Electrocatalysts: Theory, Synthesis, Characterization, and Applications. <i>Advanced Energy Materials</i> , 2022, 12, .	10.2	78
63	A general method for boosting the supercapacitor performance of graphitic carbon nitride/graphene hybrids. <i>Journal of Materials Chemistry A</i> , 2017, 5, 25545-25554.	5.2	77
64	The effect of current density on H ₂ S-poisoning of nickel-based solid oxide fuel cell anodes. <i>Journal of Power Sources</i> , 2011, 196, 7182-7187.	4.0	76
65	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.	4.0	76

66

#	ARTICLE	IF	CITATIONS
73	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.	4.0	73
74	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.	4.5	73
75	Spatial quantification of dynamic inter and intra particle crystallographic heterogeneities within lithium ion electrodes. <i>Nature Communications</i> , 2020, 11, 631.	5.8	73
76	The Role of Phosphate Group in Doped Cobalt Molybdate: Improved Electrocatalytic Hydrogen Evolution Performance. <i>Advanced Science</i> , 2020, 7, 1903674.	5.6	73
77	Solid oxide fuel cell/gas turbine hybrid system analysis for high-altitude long-endurance unmanned aerial vehicles. <i>International Journal of Hydrogen Energy</i> , 2008, 33, 7214-7223.	3.8	72
78	Identification and manipulation of dynamic active site deficiency-induced competing reactions in electrocatalytic oxidation processes. <i>Energy and Environmental Science</i> , 2022, 15, 2386-2396.	15.6	71
79	Rationally Designed Sodium Chromium Vanadium Phosphate Cathodes with Multi-Electron Reaction for Fast-Charging Sodium-Ion Batteries. <i>Advanced Energy Materials</i> , 2022, 12, .	10.2	71
80	Mesoporous nickel selenide N-doped carbon as a robust electrocatalyst for overall water splitting. <i>Electrochimica Acta</i> , 2019, 300, 93-101.	2.6	70
81	A Review of Lithium-Ion Battery Electrode Drying: Mechanisms and Metrology. <i>Advanced Energy Materials</i> , 2022, 12, .	10.2	70
82	Fuel cell systems optimisation – Methods and strategies. <i>International Journal of Hydrogen Energy</i> , 2011, 36, 14678-14703.	3.8	69
83	Dead-ended anode polymer electrolyte fuel cell stack operation investigated using electrochemical impedance spectroscopy, off-gas analysis and thermal imaging. <i>Journal of Power Sources</i> , 2014, 254, 1-9.	4.0	69
84	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.	2.3	69
85	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.	4.0	69
86	Progress and Perspectives of Organosulfur for Lithium-Sulfur Batteries. <i>Advanced Energy Materials</i> , 2022, 12, 2103483.	10.2	69
87	Effect of temperature uncertainty on polymer electrolyte fuel cell performance. <i>International Journal of Hydrogen Energy</i> , 2014, 39, 1439-1448.	3.8	67
88	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.	3.9	67
89	Two-dimensional model of low-pressure PEM electrolyser: Two-phase flow regime, electrochemical modelling and experimental validation. <i>International Journal of Hydrogen Energy</i> , 2017, 42, 26203-26216.	3.8	67
90	Fuel cell micro-CHP techno-economics: Part 1 – model concept and formulation. <i>International Journal of Hydrogen Energy</i> , 2009, 34, 9545-9557.	3.8	66

#	ARTICLE	IF	CITATIONS
91	Current density mapping and optical flow visualisation of a polymer electrolyte membrane water electrolyser. <i>Journal of Power Sources</i> , 2014, 265, 97-103.	4.0	66
92	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.	5.6	66
93	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.	4.0	65
94	Investigation of a Biomass Hydrogel Electrolyte Naturally Stabilizing Cathodes for Zinc-Ion Batteries. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 745-754.	4.0	64
95	Graphitic Carbon Nitride Supported Catalysts for Polymer Electrolyte Fuel Cells. <i>Journal of Physical Chemistry C</i> , 2014, 118, 6831-6838.	1.5	63
96	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.	4.0	63
97	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.	4.0	63
98	Raman Spectroscopy as a Probe of Temperature and Oxidation State for Gadolinium-Doped Ceria Used in Solid Oxide Fuel Cells. <i>Journal of Physical Chemistry A</i> , 2008, 112, 1497-1501.	1.1	62
99	Exploring 3D microstructural evolution in Li-Sulfur battery electrodes using in-situ X-ray tomography. <i>Scientific Reports</i> , 2016, 6, 35291.	1.6	61
100	Defected vanadium bronzes as superb cathodes in aqueous zinc-ion batteries. <i>Nanoscale</i> , 2020, 12, 20638-20648.	2.8	61
101	Fuel cell micro-CHP techno-economics: Part 2 – Model application to consider the economic and environmental impact of stack degradation. <i>International Journal of Hydrogen Energy</i> , 2009, 34, 9558-9569.	3.8	60
102	Mass transport in PEM water electrolyzers: A review. <i>International Journal of Hydrogen Energy</i> , 2022, 47, 30-56.	3.8	60
103	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.	15.6	59
104	Spatially resolved ultrasound diagnostics of Li-ion battery electrodes. <i>Physical Chemistry Chemical Physics</i> , 2019, 21, 6354-6361.	1.3	59
105	Sodium Superionic Conductors (NASICONs) as Cathode Materials for Sodium-Ion Batteries. <i>Electrochemical Energy Reviews</i> , 2021, 4, 793-823.	13.1	59
106	Cage-like MnO ₂ -Mn ₂ O ₃ hollow spheres with high specific capacitance and high rate capability as supercapacitor material. <i>Electrochimica Acta</i> , 2016, 219, 540-546.	2.6	58
107	The effect of fuel composition and temperature on the interaction of H ₂ S with nickel-ceria anodes for Solid Oxide Fuel Cells. <i>Journal of Power Sources</i> , 2008, 183, 232-239.	4.0	57
108	A techno-economic appraisal of hydrogen generation and the case for solid oxide electrolyser cells. <i>International Journal of Hydrogen Energy</i> , 2011, 36, 5782-5796.	3.8	57

#	ARTICLE	IF	CITATIONS
109	Comparison of three-dimensional analysis and stereological techniques for quantifying lithium-ion battery electrode microstructures. <i>Journal of Microscopy</i> , 2016, 263, 280-292.	0.8	57
110	Review of Materials and Characterization Methods for Polymer Electrolyte Fuel Cell Flow-Field Plates. <i>Journal of Fuel Cell Science and Technology</i> , 2007, 4, 29-44.	0.8	56
111	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.	4.0	56
112	A cost effective, highly porous, manganese oxide/carbon supercapacitor material with high rate capability. <i>Journal of Materials Chemistry A</i> , 2016, 4, 5390-5394.	5.2	56
113	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.	5.8	56
114	Elucidating the Sodiation Mechanism in Hard Carbon by Operando Raman Spectroscopy. <i>ACS Applied Energy Materials</i> , 2020, 3, 7474-7484.	2.5	56
115	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.	7.1	56
116	Enhancing the Electrochemical Performance of Sodium-ion Batteries by Building Optimized NiS ₂ /NiSe ₂ Heterostructures. <i>Small</i> , 2021, 17, e2104186.	5.2	56
117	Ranunculus flower-like Ni(OH) ₂ @Mn ₂ O ₃ as a high specific capacitance cathode material for alkaline supercapacitors. <i>Journal of Materials Chemistry A</i> , 2016, 4, 7591-7595.	5.2	55
118	Laser-preparation of geometrically optimised samples for X-ray nano-CT. <i>Journal of Microscopy</i> , 2017, 267, 384-396.	0.8	54
119	Microstructural degradation of silicon electrodes during lithiation observed via operando X-ray tomographic imaging. <i>Journal of Power Sources</i> , 2017, 342, 904-912.	4.0	54
120	Transition-Metal-Doped γ -MnO ₂ Nanorods as Bifunctional Catalysts for Efficient Oxygen Reduction and Evolution Reactions. <i>ChemistrySelect</i> , 2018, 3, 2613-2622.	0.7	54
121	ZIF-8-Derived Hollow Carbon for Efficient Adsorption of Antibiotics. <i>Nanomaterials</i> , 2019, 9, 117.	1.9	54
122	Tracking lithium penetration in solid electrolytes in 3D by in-situ synchrotron X-ray computed tomography. <i>Nano Energy</i> , 2021, 82, 105744.	8.2	54
123	Design of Scalable, Next-Generation Thick Electrodes: Opportunities and Challenges. <i>ACS Nano</i> , 2021, 15, 18624-18632.	7.3	54
124	A multi-objective optimisation model for a general polymer electrolyte membrane fuel cell system. <i>Journal of Power Sources</i> , 2010, 195, 2754-2763.	4.0	53
125	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.	3.8	53
126	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.	4.0	53

#	ARTICLE	IF	CITATIONS
127	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.	4.0	53
128	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.	2.5	53
129	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.	4.0	53
130	Core-shell TiO ₂ @C ultralong nanotubes with enhanced adsorption of antibiotics. <i>Journal of Materials Chemistry A</i> , 2019, 7, 19081-19086.	5.2	53
131	Self-standing electrodes with core-shell structures for high-performance supercapacitors. <i>Energy Storage Materials</i> , 2017, 9, 119-125.	9.5	52
132	Structural engineering of cathodes for improved Zn-ion batteries. <i>Journal of Energy Chemistry</i> , 2021, 58, 147-155.	7.1	52
133	Concept and system design for a ZEBRA battery-intermediate temperature solid oxide fuel cell hybrid vehicle. <i>Journal of Power Sources</i> , 2006, 157, 782-798.	4.0	50
134	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.	4.0	50
135	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.	5.2	50
136	Four-Dimensional Studies of Morphology Evolution in Lithium-Sulfur Batteries. <i>ACS Applied Energy Materials</i> , 2018, 1, 5090-5100.	2.5	49
137	Co-gasification of beech-wood and polyethylene in a fluidized-bed reactor. <i>Fuel Processing Technology</i> , 2019, 190, 29-37.	3.7	49
138	Nano-engineered intrapores in nanoparticles of PtNi networks for increased oxygen reduction reaction activity. <i>Journal of Power Sources</i> , 2018, 374, 48-54.	4.0	48
139	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.	15.6	48
140	Fair electricity transfer price and unit capacity selection for microgrids. <i>Energy Economics</i> , 2013, 36, 581-593.	5.6	47
141	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.	2.6	47
142	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.	1.3	47
143	Cracking predictions of lithium-ion battery electrodes by X-ray computed tomography and modelling. <i>Journal of Power Sources</i> , 2022, 526, 231119.	4.0	47
144	Hydrogen Oxidation on PdIr/C Catalysts in Alkaline Media. <i>Journal of the Electrochemical Society</i> , 2014, 161, F458-F463.	1.3	46

#	ARTICLE	IF	CITATIONS
145	VO ₂ nano-sheet negative electrodes for lithium-ion batteries. <i>Electrochemistry Communications</i> , 2016, 64, 56-60.	2.3	46
146	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.	4.0	46
147	Measurement and modelling of carbon monoxide poisoning distribution within a polymer electrolyte fuel cell. <i>International Journal of Hydrogen Energy</i> , 2007, 32, 863-871.	3.8	45
148	Application of infrared thermal imaging to the study of pellet solid oxide fuel cells. <i>Journal of Power Sources</i> , 2007, 166, 112-119.	4.0	45
149	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.	4.0	45
150	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.	3.8	45
151	Toward high practical capacitance of Ni(OH) ₂ using highly conductive CoB nanochain supports. <i>Journal of Materials Chemistry A</i> , 2017, 5, 92-96.	5.2	45
152	Facile Fabrication of Robust Hydrogen Evolution Electrodes under High Current Densities via Pt@Cu Interactions. <i>Advanced Functional Materials</i> , 2021, 31, 2105579.	7.8	45
153	Membrane resistance and current distribution measurements under various operating conditions in a polymer electrolyte fuel cell. <i>Journal of Power Sources</i> , 2007, 172, 2-13.	4.0	44
154	What Happens Inside a Fuel Cell? Developing an Experimental Functional Map of Fuel Cell Performance. <i>ChemPhysChem</i> , 2010, 11, 2714-2731.	1.0	44
155	Biobutanol as Fuel for Direct Alcohol Fuel Cells—Investigation of Sn-Modified Pt Catalyst for Butanol Electro-oxidation. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 12859-12870.	4.0	43
156	The use of contrast enhancement techniques in X-ray imaging of lithium-ion battery electrodes. <i>Chemical Engineering Science</i> , 2016, 154, 27-33.	1.9	43
157	Design and synthesis of tremella-like Ni-Co-S flakes on co-coated cotton textile as high-performance electrode for flexible supercapacitor. <i>Journal of Alloys and Compounds</i> , 2020, 814, 151789.	2.8	43
158	In situ compression and X-ray computed tomography of flow battery electrodes. <i>Journal of Energy Chemistry</i> , 2018, 27, 1353-1361.	7.1	42
159	New insights into the electrochemical behaviour of porous carbon electrodes for supercapacitors. <i>Journal of Energy Storage</i> , 2018, 19, 337-347.	3.9	42
160	High-Density Lignin-Derived Carbon Nanofiber Supercapacitors with Enhanced Volumetric Energy Density. <i>Advanced Science</i> , 2021, 8, e2100016.	5.6	42
161	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.	3.8	41
162	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

#	ARTICLE	IF	CITATIONS
163	An anti-aging polymer electrolyte for flexible rechargeable zinc-ion batteries. <i>Journal of Materials Chemistry A</i> , 2020, 8, 22637-22644.	5.2	41
164	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.	4.0	41
165	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
166	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.	10.2	41
167	Dendrite suppression by anode polishing in zinc-ion batteries. <i>Journal of Materials Chemistry A</i> , 2021, 9, 15355-15362.	5.2	41
168	Characterizing Batteries by In Situ Electrochemical Atomic Force Microscopy: A Critical Review. <i>Advanced Energy Materials</i> , 2021, 11, 2101518.	10.2	40
169	Feasibility study and techno-economic analysis of an SOFC/battery hybrid system for vehicle applications. <i>Journal of Power Sources</i> , 2007, 171, 186-197.	4.0	39
170	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.	3.8	39
171	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.	2.6	39
172	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.	1.3	39
173	An improved cathode for alkaline fuel cells. <i>International Journal of Hydrogen Energy</i> , 2010, 35, 1783-1788.	3.8	38
174	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.	1.3	38
175	Cobalt nickel nitride coated by a thin carbon layer anchoring on nitrogen-doped carbon nanotube anodes for high-performance lithium-ion batteries. <i>Journal of Materials Chemistry A</i> , 2018, 6, 19853-19862.	5.2	38
176	High capacity nanocomposite Fe ₃ O ₄ /Fe anodes for Li-ion batteries. <i>Journal of Power Sources</i> , 2015, 291, 102-107.	4.0	37
177	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.	2.6	37
178	4D nano-tomography of electrochemical energy devices using lab-based X-ray imaging. <i>Nano Energy</i> , 2018, 47, 556-565.	8.2	37
179	Capillaries for water management in polymer electrolyte membrane fuel cells. <i>International Journal of Hydrogen Energy</i> , 2018, 43, 21949-21958.	3.8	37
180	Examining the Cycling Behaviour of Li-Ion Batteries Using Ultrasonic Time-of-Flight Measurements. <i>Journal of Power Sources</i> , 2019, 444, 227318.	4.0	37

#	ARTICLE	IF	CITATIONS
181	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.	2.5	37
182	CuCo ₂ S ₄ nanocrystals as a nanoplatform for photothermal therapy of arterial inflammation. <i>Nanoscale</i> , 2019, 11, 9733-9742.	2.8	37
183	Lignin-derived electrospun freestanding carbons as alternative electrodes for redox flow batteries. <i>Carbon</i> , 2020, 157, 847-856.	5.4	37
184	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.	0.8	37
185	Identifying Defects in Li-Ion Cells Using Ultrasound Acoustic Measurements. <i>Journal of the Electrochemical Society</i> , 2020, 167, 120530.	1.3	37
186	Communication—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.	1.3	37
187	Reduction Dynamics of Doped Ceria, Nickel Oxide, and Cermet Composites Probed Using In Situ Raman Spectroscopy. <i>Advanced Science</i> , 2016, 3, 1500146.	5.6	36
188	Effect of Mass Transport on the Electrochemical Oxidation of Alcohols Over Electrodeposited Film and Carbon-Supported Pt Electrodes. <i>Topics in Catalysis</i> , 2018, 61, 240-253.	1.3	36
189	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.	4.0	36
190	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.	2.6	36
191	Synergistic storage of lithium ions in defective anatase/rutile TiO ₂ for high-rate batteries. <i>Energy Storage Materials</i> , 2019, 22, 441-449.	9.5	36
192	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.	1.3	35
193	Electrochemical pressure impedance spectroscopy applied to the study of polymer electrolyte fuel cells. <i>Electrochemistry Communications</i> , 2017, 75, 60-63.	2.3	35
194	Iron, Nitrogen Co-Doped Carbon Spheres as Low Cost, Scalable Electrocatalysts for the Oxygen Reduction Reaction. <i>Advanced Functional Materials</i> , 2021, 31, 2102974.	7.8	35
195	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.	2.6	34
196	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.	3.8	34
197	Detection of Internal Defects in Lithium-Ion Batteries Using Lock-in Thermography. <i>ECS Electrochemistry Letters</i> , 2015, 4, A106-A109.	1.9	34
198	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.	1.3	34

#	ARTICLE	IF	CITATIONS
199	A modelling study for the integration of a PEMFC micro-CHP in domestic building services design. <i>Applied Energy</i> , 2018, 225, 85-97.	5.1	34
200	Size-Related Electrochemical Performance in Active Carbon Nanostructures: A MOFs-Derived Carbons Case Study. <i>Advanced Science</i> , 2019, 6, 1901517.	5.6	34
201	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.	3.8	34
202	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.	4.0	33
203	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
204	Evolution of Electrochemical Cell Designs for In-Situ and Operando 3D Characterization. <i>Materials</i> , 2018, 11, 2157.	1.3	33
205	Differential Phagocytosis-Based Photothermal Ablation of Inflammatory Macrophages in Atherosclerotic Disease. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 41009-41018.	4.0	33
206	MoS ₂ /NiS core-shell structures for improved electrocatalytic process of hydrogen evolution. <i>Journal of Power Sources</i> , 2020, 472, 228497.	4.0	33
207	Thermo-chemical conversion of carbonaceous wastes for CNT and hydrogen production: a review. <i>Sustainable Energy and Fuels</i> , 2021, 5, 4173-4208.	2.5	33
208	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.	3.8	33
209	Investigation of reactant transport within a polymer electrolyte fuel cell using localised CO stripping voltammetry and adsorption transients. <i>Journal of Power Sources</i> , 2004, 133, 205-213.	4.0	32
210	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.	4.0	32
211	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.	4.1	32
212	Solid solution nitride/carbon nanotube hybrids enhance electrocatalysis of oxygen in zinc-air batteries. <i>Energy Storage Materials</i> , 2018, 15, 380-387.	9.5	32
213	Disentangling water, ion and polymer dynamics in an anion exchange membrane. <i>Nature Materials</i> , 2022, 21, 555-563.	13.3	32
214	System modelling and integration of an intermediate temperature solid oxide fuel cell and ZEBRA battery for automotive applications. <i>Journal of Power Sources</i> , 2006, 163, 514-522.	4.0	31
215	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.	5.2	31
216	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.	1.5	31

#	ARTICLE	IF	CITATIONS
217	3D Imaging of Lithium Protrusions in Solid-State Lithium Batteries using X-ray Computed Tomography. <i>Advanced Functional Materials</i> , 2021, 31, 2007564.	7.8	31
218	Evaluating the Potential Benefits of Metal Ion Doping in SnO ₂ Negative Electrodes for Lithium Ion Batteries. <i>Electrochimica Acta</i> , 2017, 242, 400-407.	2.6	30
219	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.	1.3	30
220	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.	4.0	30
221	Microstructure analysis and image-based modelling of face masks for COVID-19 virus protection. <i>Communications Materials</i> , 2021, 2, .	2.9	30
222	Thermal Imaging of Electrochemical Power Systems: A Review. <i>Journal of Imaging</i> , 2016, 2, 2.	1.7	29
223	MnO/Ni-Doped Mesoporous Carbon as Advanced Oxygen Reduction Reaction Electrocatalyst for Zinc-Air Batteries. <i>Chemistry - A European Journal</i> , 2019, 25, 2868-2876.	1.7	29
224	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.	1.3	29
225	Neutron imaging of lithium batteries. <i>Joule</i> , 2022, 6, 35-52.	11.7	29
226	A study of carbon deposition on solid oxide fuel cell anodes using electrochemical impedance spectroscopy in combination with a high temperature crystal microbalance. <i>Journal of Power Sources</i> , 2013, 235, 14-19.	4.0	28
227	High power layered titanate nano-sheets as pseudocapacitive lithium-ion battery anodes. <i>Journal of Power Sources</i> , 2016, 305, 115-121.	4.0	28
228	Optimization of the performance, operation conditions and purge rate for a dead-ended anode proton exchange membrane fuel cell using an analytical model. <i>Energy</i> , 2019, 179, 173-185.	4.5	28
229	A lung-inspired printed circuit board polymer electrolyte fuel cell. <i>Energy Conversion and Management</i> , 2019, 202, 112198.	4.4	28
230	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.	10.8	28
231	Exploring cycling induced crystallographic change in NMC with X-ray diffraction computed tomography. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 17814-17823.	1.3	28
232	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.	4.0	28
233	The effect of water content on the electrochemical impedance response and microstructure of Ni-CCO anodes for solid oxide fuel cells. <i>Journal of Power Sources</i> , 2009, 189, 1060-1065.	4.0	27
234	Electro-thermal impedance spectroscopy applied to an open-cathode polymer electrolyte fuel cell. <i>Journal of Power Sources</i> , 2016, 302, 210-214.	4.0	27

#	ARTICLE	IF	CITATIONS
235	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.	4.0	27
236	Room Temperature Synthesis of Phosphine-Capped Lead Bromide Perovskite Nanocrystals without Coordinating Solvents. <i>Particle and Particle Systems Characterization</i> , 2020, 37, 1900391.	1.2	27
237	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.	1.3	27
238	Novel fluidised cathode approach for the electrochemical reduction of tungsten oxide in molten LiCl-KCl eutectic. <i>Electrochemistry Communications</i> , 2014, 41, 44-46.	2.3	26
239	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.	1.5	26
240	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, .	1.1	26
241	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
242	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.	6.4	26
243	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.	4.0	26
244	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.	5.6	26
245	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.	4.0	25
246	Pd nanoparticles supported on reduced graphene-E. coli hybrid with enhanced crystallinity in bacterial biomass. <i>RSC Advances</i> , 2015, 5, 84093-84103.	1.7	25
247	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.	1.3	25
248	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.	3.8	25
249	Operando flow regime diagnosis using acoustic emission in a polymer electrolyte membrane water electrolyser. <i>Journal of Power Sources</i> , 2019, 424, 138-149.	4.0	25
250	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.	4.0	25
251	Fe ₃ S ₄ nanoparticles for arterial inflammation therapy: Integration of magnetic hyperthermia and photothermal treatment. <i>Applied Materials Today</i> , 2020, 18, 100457.	2.3	25
252	The performance and durability of high-temperature proton exchange membrane fuel cells enhanced by single-layer graphene. <i>Nano Energy</i> , 2022, 93, 106829.	8.2	25

#	ARTICLE	IF	CITATIONS
253	The Use of Graphitic Carbon Nitride Based Composite Anodes for Lithium-Ion Battery Applications. <i>Electroanalysis</i> , 2015, 27, 2614-2619.	1.5	24
254	Electrochemical reduction of carbon dioxide on copper-based nanocatalysts using the rotating ring-disc electrode. <i>Electrochimica Acta</i> , 2018, 283, 1037-1044.	2.6	24
255	Enhancing Hydrogen Evolution Electrocatalytic Performance in Neutral Media via Nitrogen and Iron Phosphide Interactions. <i>Small Science</i> , 2021, 1, 2100032.	5.8	24
256	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.	5.2	24
257	The influence of adsorbed hydrogen and extended cycling on the EQCM response of electrodeposited Pt electrodes. <i>Electrochimica Acta</i> , 2000, 45, 3649-3658.	2.6	23
258	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.	1.3	23
259	X-ray Nano Computed Tomography of Electrospun Fibrous Mats as Flow Battery Electrodes. <i>Energy Technology</i> , 2018, 6, 2488-2500.	1.8	23
260	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.	9.5	23
261	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.	7.3	23
262	Modelling and Optimisation in Terms of CO ₂ Emissions of a Solid Oxide Fuel Cell based Micro-CHP System in a Four Bedroom House in London. <i>Energy Procedia</i> , 2013, 42, 201-209.	1.8	22
263	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.	3.8	22
264	Three-dimensional image based modelling of transport parameters in lithium-sulfur batteries. <i>Physical Chemistry Chemical Physics</i> , 2019, 21, 4145-4154.	1.3	22
265	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.	1.6	22
266	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.	1.3	22
267	Investigating high-performance sulfur-metal nanocomposites for lithium batteries. <i>Sustainable Energy and Fuels</i> , 2020, 4, 2907-2923.	2.5	22
268	Prevention of lithium-ion battery thermal runaway using polymer-substrate current collectors. <i>Cell Reports Physical Science</i> , 2021, 2, 100360.	2.8	22
269	Flexible all-solid-state supercapacitors based on PPy/rGO nanocomposite on cotton fabric. <i>Nanotechnology</i> , 2021, 32, 305401.	1.3	22
270	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.	1.3	21

#	ARTICLE	IF	CITATIONS
271	The Importance of Using Alkaline Ionomer Binders for Screening Electrocatalysts in Alkaline Electrolyte. <i>Journal of the Electrochemical Society</i> , 2017, 164, F1551-F1555.	1.3	21
272	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
273	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.	4.4	21
274	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.	3.9	21
275	Characteristics of a gold-doped electrode for application in high-performance lithium-sulfur battery. <i>Journal of Energy Chemistry</i> , 2022, 64, 116-128.	7.1	21
276	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.	4.0	20
277	Recent advances in acoustic diagnostics for electrochemical power systems. <i>JPhys Energy</i> , 2021, 3, 032011.	2.3	20
278	Ultra-high surface area and mesoporous N-doped carbon derived from sheep bones with high electrocatalytic performance toward the oxygen reduction reaction. <i>Journal of Solid State Electrochemistry</i> , 2017, 21, 2947-2954.	1.2	19
279	Mn Nanoparticles Encapsulated within Mesoporous Helical N-Doped Carbon Nanotubes as Highly Active Air Cathode for Zinc-Air Batteries. <i>Advanced Sustainable Systems</i> , 2019, 3, 1900085.	2.7	19
280	Optimizing the architecture of lung-inspired fuel cells. <i>Chemical Engineering Science</i> , 2020, 215, 115375.	1.9	19
281	Realizing optimal hydrogen evolution reaction properties via tuning phosphorous and transition metal interactions. <i>Green Energy and Environment</i> , 2020, 5, 506-512.	4.7	19
282	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
283	Electrochemical properties of graphitic carbon nitrides. <i>International Journal of Nanotechnology</i> , 2014, 11, 737.	0.1	18
284	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.	1.9	18
285	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.	4.1	18
286	Hybrid Thermo-Electrochemical In-Situ Instrumentation for Lithium-Ion Energy Storage. <i>Batteries and Supercaps</i> , 2019, 2, 934-940.	2.4	18
287	A novel polymer electrolyte fuel cell flow-field: The through-plane array. <i>Journal of Power Sources</i> , 2019, 442, 227218.	4.0	18
288	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.	9.5	18

#	ARTICLE	IF	CITATIONS
289	<i>In Situ</i> Ultrasound Acoustic Measurement of the Lithium-Ion Battery Electrode Drying Process. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 36605-36620.	4.0	18
290	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.	4.0	18
291	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.	15.6	18
292	Stripping voltammetry using sequential standard addition calibration with the analytes themselves acting as internal standards. <i>Analytica Chimica Acta</i> , 2009, 635, 1-5.	2.6	17
293	UK microgeneration. Part I: policy and behavioural aspects. <i>Proceedings of Institution of Civil Engineers: Energy</i> , 2009, 162, 23-36.	0.5	17
294	Carbon Nitride Materials as Efficient Catalyst Supports for Proton Exchange Membrane Water Electrolyzers. <i>Nanomaterials</i> , 2018, 8, 432.	1.9	17
295	Study of H ₂ S Removal Capability from Simulated Biogas by Using Waste-Derived Adsorbent Materials. <i>Processes</i> , 2020, 8, 1030.	1.3	17
296	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.	1.3	17
297	Hard Carbon Composite Electrodes for Sodium-Ion Batteries with Nano-Zeolite and Carbon Black Additives. <i>Batteries and Supercaps</i> , 2021, 4, 163-172.	2.4	17
298	Inconsistent responses of cells on operating conditions in a 5 kW proton exchange membrane fuel cell stack. <i>Electrochimica Acta</i> , 2021, 391, 138925.	2.6	17
299	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.	4.0	17
300	Application of a GaPO ₄ Crystal Microbalance for the Detection of Coke Formation in High-Temperature Reactors and Solid Oxide Fuel Cells. <i>Industrial & Engineering Chemistry Research</i> , 2011, 50, 8371-8375.	1.8	16
301	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.	1.5	16
302	Spatially resolved diagnostic methods for polymer electrolyte fuel cells: a review. <i>Wiley Interdisciplinary Reviews: Energy and Environment</i> , 2014, 3, 254-275.	1.9	16
303	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.	1.3	16
304	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.	4.0	16
305	The multiscale hierarchical structure of <i>Heloderma suspectum</i> osteoderms and their mechanical properties. <i>Acta Biomaterialia</i> , 2020, 107, 194-203.	4.1	16
306	Machine learning as an online diagnostic tool for proton exchange membrane fuel cells. <i>Current Opinion in Electrochemistry</i> , 2022, 31, 100867.	2.5	16

#	ARTICLE	IF	CITATIONS
307	Self-assembled carbon nanoribbons with the heteroatom doping used as ultrafast charging cathodes in zinc-ion hybrid supercapacitors. <i>Science China Materials</i> , 2022, 65, 1495-1502.	3.5	16
308	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.	1.3	16
309	Synthesis of high surface area mesoporous MnO ₂ via a "metastable" aqueous interfacial reaction. <i>Journal of Colloid and Interface Science</i> , 2017, 503, 76-85.	5.0	15
310	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.	1.3	15
311	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.	3.8	15
312	Nanoporous Carbon: Liquid-Free Synthesis and Geometry-Dependent Catalytic Performance. <i>ACS Nano</i> , 2019, 13, 2463-2472.	7.3	15
313	Vacancy engineering of group VI anions in NiCo ₂ A ₄ (A = O, S, Se) for efficient hydrogen production by weakening the shackles of hydronium ion. <i>Electrochimica Acta</i> , 2020, 333, 135515.	2.6	15
314	Dendritic silver self-assembly in molten-carbonate membranes for efficient carbon dioxide capture. <i>Energy and Environmental Science</i> , 2020, 13, 1766-1775.	15.6	15
315	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.	4.7	15
316	A combinatorial nanoprecursor route for direct solid state chemistry: Discovery and electronic properties of new iron-doped lanthanum nickelates up to La ₄ Ni ₂ FeO ₁₀ . <i>Solid State Ionics</i> , 2012, 225, 176-181.	1.3	14
317	Effects of heat treatment atmosphere on the structure and activity of Pt ₃ Sn nanoparticle electrocatalysts: a characterisation case study. <i>Faraday Discussions</i> , 2018, 208, 555-573.	1.6	14
318	Integration of supercapacitors into printed circuit boards. <i>Journal of Energy Storage</i> , 2018, 19, 28-34.	3.9	14
319	Thermally Driven SOFC Degradation in 4D: Part I. Microscale. <i>Journal of the Electrochemical Society</i> , 2018, 165, F921-F931.	1.3	14
320	A study of coke formed by heavy oil volatilization/decomposition on Y-zeolite. <i>Journal of Analytical and Applied Pyrolysis</i> , 2019, 141, 104630.	2.6	14
321	X-ray Nano-computed Tomography of Electrochemical Conversion in Lithium-ion Battery. <i>ChemSusChem</i> , 2019, 12, 3550-3561.	3.6	14
322	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.	4.0	14
323	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.	2.6	14
324	Determining the electrochemical transport parameters of sodium-ions in hard carbon composite electrodes. <i>Electrochimica Acta</i> , 2022, 401, 139481.	2.6	14

#	ARTICLE	IF	CITATIONS
325	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.	4.0	14
326	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.	1.3	13
327	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.	3.8	13
328	Contradictory concepts in tortuosity determination in porous media in electrochemical devices. <i>Chemical Engineering Science</i> , 2017, 166, 235-245.	1.9	13
329	UK microgeneration. Part II: technology overviews. <i>Proceedings of Institution of Civil Engineers: Energy</i> , 2010, 163, 143-165.	0.5	12
330	Thermally Driven SOFC Degradation in 4D: Part II. Macroscale. <i>Journal of the Electrochemical Society</i> , 2018, 165, F932-F941.	1.3	12
331	Effect of Anode Flow Channel Depth on the Performance of Polymer Electrolyte Membrane Water Electrolyser. <i>ECS Transactions</i> , 2018, 85, 1593-1603.	0.3	12
332	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.	9.5	12
333	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.	4.1	12
334	Probing adsorbent heterogeneity using Toth isotherms. <i>Journal of Materials Chemistry A</i> , 2021, 9, 944-962.	5.2	12
335	Porous 3D graphene aerogel co-doped with nitrogen and sulfur for high-performance supercapacitors. <i>Nanotechnology</i> , 2021, 32, 195405.	1.3	12
336	Developments in Dilatometry for Characterisation of Electrochemical Devices. <i>Batteries and Supercaps</i> , 2021, 4, 1378-1396.	2.4	12
337	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.	1.3	12
338	Nanoscale state-of-charge heterogeneities within polycrystalline nickel-rich layered oxide cathode materials. <i>Cell Reports Physical Science</i> , 2021, 2, 100647.	2.8	12
339	Proton exchange membrane fuel cell performance investigation considering internal heterogeneity of current density – A novel method study. <i>International Journal of Hydrogen Energy</i> , 2022, 47, 20205-20217.	3.8	12
340	Long-term equilibrium potential and electrochemical impedance study of Ag/AgCl electrodes used in Harned Cell measurements of pH. <i>Accreditation and Quality Assurance</i> , 2009, 14, 139-145.	0.4	11
341	Development of Graphitic-Carbon Nitride Materials as Catalyst Supports for Polymer Electrolyte Fuel Cells. <i>ECS Transactions</i> , 2013, 58, 1767-1778.	0.3	11
342	Electrochemical Reduction of Tungsten Oxide in LiCl-KCl Molten Salt Eutectic using the Fluidised Cathode Process. <i>Electrochimica Acta</i> , 2017, 226, 18-28.	2.6	11

#	ARTICLE	IF	CITATIONS
343	Thermal Runaway: Identifying the Cause of Rupture of Li-ion Batteries during Thermal Runaway (Adv.) Tj ETQq1 1 0,784314 rgBT /Ove	5.6	11
344	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.	0.5	11
345	Realising the electrochemical stability of graphene: scalable synthesis of an ultra-durable platinum catalyst for the oxygen reduction reaction. Nanoscale, 2020, 12, 16113-16122.	2.8	11
346	Tailoring hollow structure within NiCoP nanowire arrays via nanoscale Kirkendall diffusion to enhance hydrogen evolution reaction. Nanotechnology, 2020, 31, 425404.	1.3	11
347	Self-activated cathode substrates in rechargeable zinc-air batteries. Energy Storage Materials, 2021, 35, 530-537.	9.5	11
348	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.	3.8	11
349	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.	1.3	11
350	Operational Experience of an IT-SOFC / Battery Hybrid System for Automotive Applications. ECS Transactions, 2007, 7, 113-122.	0.3	10
351	Current collector design for closed-plenum polymer electrolyte membrane fuel cells. Journal of Power Sources, 2014, 249, 247-262.	4.0	10
352	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.	4.0	10
353	Diagnosing Stagnant Gas Bubbles in a Polymer Electrolyte Membrane Water Electrolyser Using Acoustic Emission. Frontiers in Energy Research, 2020, 8, .	1.2	10
354	Towards a mechanistic understanding of particle shrinkage during biomass pyrolysis via synchrotron X-ray microtomography and in-situ radiography. Scientific Reports, 2021, 11, 2656.	1.6	10
355	A Multiscale X-Ray Tomography Study of the Cycled-Induced Degradation in Magnesium-Sulfur Batteries. Small Methods, 2021, 5, e2001193.	4.6	10
356	Evaluation and realization of safer Mg-S battery: The decisive role of the electrolyte. Nano Energy, 2021, 83, 105832.	8.2	10
357	Tuning the Linkers in Polymer-Based Cathodes to Realize High Sulfur Content and High-Performance Potassium-Sulfur Batteries. Journal of Physical Chemistry C, 2021, 125, 18604-18613.	1.5	10
358	Pure Curcumin Spherulites from Impure Solutions <i>via</i> Nonclassical Crystallization. ACS Omega, 2021, 6, 23884-23900.	1.6	10
359	Recovery of cobalt from lithium-ion batteries using fluidised cathode molten salt electrolysis. Electrochimica Acta, 2021, 391, 138846.	2.6	10
360	The effect of non-uniform compression on the performance of polymer electrolyte fuel cells. Journal of Power Sources, 2022, 521, 230973.	4.0	10

#	ARTICLE	IF	CITATIONS
361	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
362	Applications of advanced metrology for understanding the effects of drying temperature in the lithium-ion battery electrode manufacturing process. <i>Journal of Materials Chemistry A</i> , 2022, 10, 10593-10603.	5.2	10
363	Microelectrode voltammetry as a high accuracy method for determination of diffusion coefficients. <i>Mikrochimica Acta</i> , 2009, 164, 337-344.	2.5	9
364	An electrochemical quartz crystal microbalance study of platinum phthalocyanine thin films. <i>Journal of Electroanalytical Chemistry</i> , 2009, 633, 339-346.	1.9	9
365	Role of fuel cell based micro-cogeneration in low carbon heating. <i>Proceedings of the Institution of Mechanical Engineers, Part A: Journal of Power and Energy</i> , 2011, 225, 198-207.	0.8	9
366	Advanced Diagnostics Applied to a Self-Breathing Fuel Cell. <i>ECS Transactions</i> , 2014, 61, 249-258.	0.3	9
367	A novel high-temperature furnace for combined <i>in situ</i> synchrotron X-ray diffraction and infrared thermal imaging to investigate the effects of thermal gradients upon the structure of ceramic materials. <i>Journal of Synchrotron Radiation</i> , 2014, 21, 1134-1139.	1.0	9
368	Development of a PtSn bimetallic catalyst for direct fuel cells using bio-butanol fuel. <i>Chemical Communications</i> , 2015, 51, 13412-13415.	2.2	9
369	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.	3.8	9
370	Nano-sized Co/Co(OH) ₂ core-shell structure synthesized in molten salt as electrode materials for supercapacitors. <i>Ionics</i> , 2017, 23, 725-730.	1.2	9
371	Mixed molybdenum and vanadium oxide nanoparticles with excellent high-power performance as Li-ion battery negative electrodes. <i>Electrochimica Acta</i> , 2019, 322, 134695.	2.6	9
372	Theoretical transmissions for X-ray computed tomography studies of lithium-ion battery cathodes. <i>Materials and Design</i> , 2020, 191, 108585.	3.3	9
373	Current Imbalance in Parallel Battery Strings Measured Using a Hall Effect Sensor Array. <i>Energy Technology</i> , 2021, 9, 2001014.	1.8	9
374	Open-circuit dissolution of platinum from the cathode in polymer electrolyte membrane water electrolyzers. <i>Journal of Power Sources</i> , 2021, 498, 229937.	4.0	9
375	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, .	1.3	9
376	Design and Characterisation of a Fuel Cell-Battery Powered Hybrid System for Vehicle Applications. , 2006, , .		8
377	Project ABSOLUTE: A ZEBRA Battery/Intermediate Temperature Solid Oxide Fuel Cell Hybrid for Automotive Applications. <i>Journal of Fuel Cell Science and Technology</i> , 2006, 3, 254-262.	0.8	8
378	Graphitic Carbon Nitride-Graphene Hybrid Nanostructure as a Catalyst Support for Polymer Electrolyte Membrane Fuel Cells. <i>ECS Transactions</i> , 2016, 75, 885-897.	0.3	8

#	ARTICLE	IF	CITATIONS
379	Acoustic emission as a function of polarisation: Diagnosis of polymer electrolyte fuel cell hydration state. <i>Electrochemistry Communications</i> , 2019, 109, 106582.	2.3	8
380	4D Bragg Edge Tomography of Directional Ice Templated Graphite Electrodes. <i>Journal of Imaging</i> , 2020, 6, 136.	1.7	8
381	Effect of extended short-circuiting in proton exchange membrane fuel cells. <i>Sustainable Energy and Fuels</i> , 2020, 4, 5739-5746.	2.5	8
382	Zinc-Ion Batteries: Multi-Scale Investigations of $\text{Ni}_{0.25}\text{V}_2\text{O}_5 \cdot n\text{H}_2\text{O}$ Cathode Materials in Aqueous Zinc-Ion Batteries (Adv. Energy Mater. 15/2020). <i>Advanced Energy Materials</i> , 2020, 10, 2070068.	10.2	8
383	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.	4.1	8
384	Electro-thermal mapping of polymer electrolyte membrane fuel cells with a fractal flow-field. <i>Energy Conversion and Management</i> , 2021, 250, 114924.	4.4	8
385	Study of the tortuosity factors at multi-scale for a novel-structured SOFC anode. <i>Journal of Physics: Conference Series</i> , 2017, 849, 012020.	0.3	7
386	Multiscale tomographic analysis of the thermal failure of Na-Ion batteries. <i>Journal of Power Sources</i> , 2018, 400, 360-368.	4.0	7
387	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.	2.8	7
388	Water distribution mapping in polymer electrolyte fuel cells using lock-in thermography. <i>Journal of Power Sources</i> , 2019, 440, 227160.	4.0	7
389	Rapid Preparation of Geometrically Optimal Battery Electrode Samples for Nano Scale X-ray Characterisation. <i>Journal of the Electrochemical Society</i> , 2020, 167, 060512.	1.3	7
390	Nature-Inspired Flow-Fields and Water Management for PEM Fuel Cells. <i>ECS Transactions</i> , 2020, 98, 145-152.	0.3	7
391	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
392	Rapid synthesis of supported single metal nanoparticles and effective removal of stabilizing ligands. <i>Journal of Materials Chemistry A</i> , 2021, 9, 24283-24289.	5.2	7
393	Study of Tire Pyrolysis Oil Model Compound Structure on Carbon Nanomaterial Production. <i>ACS Sustainable Chemistry and Engineering</i> , 2022, 10, 800-809.	3.2	7
394	An open-source platform for 3D-printed redox flow battery test cells. <i>Sustainable Energy and Fuels</i> , 2022, 6, 1529-1540.	2.5	7
395	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.	9.5	7
396	Temperature effects on the voltammetry of ferrocene terminated self-assembled monolayers. <i>Journal of Electroanalytical Chemistry</i> , 2002, 538-539, 65-74.	1.9	6

#	ARTICLE	IF	CITATIONS
397	Numerical Modeling of a Single Channel Polymer Electrolyte Fuel Cell. Journal of Fuel Cell Science and Technology, 2007, 4, 336-344.	0.8	6
398	Fuel cell systems for small and micro combined heat and power (CHP) applications. , 2011, , 233-261.		6
399	A modelling approach to assessing the feasibility of the integration of power stations with steam electrolyzers. Chemical Engineering Research and Design, 2014, 92, 1988-2005.	2.7	6
400	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. Journal of Synchrotron Radiation, 2017, 24, 439-444.	1.0	6
401	Optimisation of Mass Transport Parameters in a Polymer Electrolyte Membrane Electrolyser Using Factorial Design-of-Experiment. Frontiers in Energy Research, 2021, 9, .	1.2	6
402	A novel fuel cell design for operando energy-dispersive x-ray absorption measurements. Journal of Physics Condensed Matter, 2021, 33, 314002.	0.7	6
403	In-Situ Li-Ion Pouch Cell Diagnostics Utilising Plasmonic Based Optical Fibre Sensors. Sensors, 2022, 22, 738.	2.1	6
404	A Novel Three Electrode Design for Electrochemical Investigations of an Intermediate Temperature SOFC. ECS Transactions, 2007, 7, 1645-1652.	0.3	5
405	Design of fuel cell microgeneration systems through modeling and optimization. Wiley Interdisciplinary Reviews: Energy and Environment, 2012, 1, 181-193.	1.9	5
406	Thick-film amperometric zirconia oxygen sensors: influence of cobalt oxide as a sintering aid. Measurement Science and Technology, 2014, 25, 065104.	1.4	5
407	Mechanistic Studies of Liquid Metal Anode SOFCs. Journal of the Electrochemical Society, 2015, 162, F988-F999.	1.3	5
408	Electrochemical Reduction of UO_2 to U in LiCl-KCl Molten Salt Eutectic Using the Fluidized Cathode Process. Journal of the Electrochemical Society, 2017, 164, H5280-H5285.	1.3	5
409	A Lab-Based Multi-Length Scale Approach to Characterize Lithium-Ion Cathode Materials. ECS Transactions, 2017, 77, 1119-1124.	0.3	5
410	Flexible electrode with composite structure for large-scale production. Journal of Alloys and Compounds, 2019, 810, 151871.	2.8	5
411	Adjusted method to calculate an electric wheelchair power cycle: fuel cell implementation example. Journal of Energy Storage, 2019, 23, 371-380.	3.9	5
412	Hydrogen Evolution: The Role of Phosphate Group in Doped Cobalt Molybdate: Improved Electrocatalytic Hydrogen Evolution Performance (Adv. Sci. 12/2020). Advanced Science, 2020, 7, 2070067.	5.6	5
413	Application of Photo-Electrochemically Generated Hydrogen with Fuel Cell Based Micro-Combined Heat and Power: A Dynamic System Modelling Study. Molecules, 2020, 25, 123.	1.7	5
414	Acoustic time-of-flight imaging of polymer electrolyte membrane water electrolyzers to probe internal structure and flow characteristics. International Journal of Hydrogen Energy, 2021, 46, 11523-11535.	3.8	5

#	ARTICLE	IF	CITATIONS
415	Zinc-ion Batteries: Insights on Flexible Zinc-ion Batteries from Lab Research to Commercialization (Adv.) Tj ETQq1 1 0.784314 rgB	11.1	5
416	Neutron studies of Na-ion battery materials. JPhys Materials, 2021, 4, 042008.	1.8	5
417	Investigation of the Effect of Temperature on Lithium-Sulfur Cell Cycle Life Performance Using System Identification and X-Ray Tomography. Batteries and Supercaps, 2022, 5, .	2.4	5
418	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. Journal of Power Sources, 2022, 542, 231775.	4.0	5
419	Investigation of the Sodiation and Desodiation of Hard Carbon by Electrochemical Testing and X-Ray Computed Tomography. ECS Transactions, 2017, 75, 81-90.	0.3	4
420	Investigating the Three-Dimensional Microstructural Characteristics of Lithium-Sulfur Electrodes with X-ray Micro-Tomography. ECS Transactions, 2017, 77, 447-455.	0.3	4
421	Design of experiments to generate a fuel cell electro-thermal performance map and optimise transitional pathways. International Journal of Powertrains, 2018, 7, 118.	0.1	4
422	Evaluating microstructure evolution in an SOFC electrode using digital volume correlation. Sustainable Energy and Fuels, 2018, 2, 2625-2635.	2.5	4
423	The Role of Bi-Polar Plate Design and the Start-Up Protocol in the Spatiotemporal Dynamics during Solid Oxide Fuel Cell Anode Reduction. Energies, 2020, 13, 3552.	1.6	4
424	The Detection of Monoclinic Zirconia and Non-Uniform 3D Crystallographic Strain in a Re-Oxidized Ni-YSZ Solid Oxide Fuel Cell Anode. Crystals, 2020, 10, 941.	1.0	4
425	Motion-enhancement assisted digital image correlation of lithium-ion batteries during lithiation. Journal of Power Sources, 2022, 527, 231150.	4.0	4
426	Effective Ultrasound Acoustic Measurement to Monitor the Lithium-Ion Battery Electrode Drying Process with Various Coating Thicknesses. ACS Applied Materials & Interfaces, 2022, 14, 2092-2101.	4.0	4
427	In situ x-ray computed tomography of zinc-air primary cells during discharge: correlating discharge rate to anode morphology. JPhys Materials, 2022, 5, 014001.	1.8	4
428	Electrochemical Study of Biotin-Modified Self-Assembled Monolayers: Recommendations for Robust Preparation. Scientific World Journal, The, 2006, 6, 20-29.	0.8	3
429	The role of the fuel in the operation, performance and degradation of fuel cells. , 2012, , 249-278.		3
430	Novel PdIr/C Catalysts for the Hydrogen Oxidation Reaction in Alkaline Media. ECS Transactions, 2013, 58, 637-650.	0.3	3
431	A review of liquid metal anode solid oxide fuel cells. Journal of Electrochemical Science and Engineering, 2013, , .	1.6	3
432	Effect of Controlled Anode Flow Release on Dead-Ended Anode Proton Exchange Membrane Fuel Cells. ECS Transactions, 2014, 61, 239-247.	0.3	3

#	ARTICLE	IF	CITATIONS
433	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.	0.3	3
434	Preliminary Investigation on the Electrochemical Activity of Butanol Isomers as Potential Fuel for Direct Alcohol Fuel Cell. ECS Transactions, 2015, 69, 809-816.	0.3	3
435	Comparison of Ionic and Diffusive Mass Transport Resistance in Porous Structures. ECS Transactions, 2017, 75, 135-145.	0.3	3
436	Editorial: Fuel cells and Electrolyzers. Current Opinion in Electrochemistry, 2017, 5, 1-2.	2.5	3
437	Contrasting the EXAFS obtained under air and H ₂ environments to reveal details of the surface structure of Pt-Sn nanoparticles. Physical Chemistry Chemical Physics, 2021, 23, 11738-11745.	1.3	3
438	Scalable Sacrificial Templating to Increase Porosity and Platinum Utilisation in Graphene-Based Polymer Electrolyte Fuel Cell Electrodes. Nanomaterials, 2021, 11, 2530.	1.9	3
439	liionpack: A Python package for simulating packs of batteries with PyBaMM. Journal of Open Source Software, 2022, 7, 4051.	2.0	3
440	A greyscale erosion algorithm for tomography (GREAT) to rapidly detect battery particle defects. Npj Materials Degradation, 2022, 6, .	2.6	3
441	Application of Infrared Thermal Imaging to Map Stress Distributions in a Solid Oxide Fuel Cell. ECS Transactions, 2007, 5, 521-532.	0.3	2
442	A model for the multi-objective optimisation of a polymer electrolyte fuel cell micro-combined heat and power system. Computer Aided Chemical Engineering, 2010, , 949-954.	0.3	2
443	Thermal Gradients in Solid Oxide Fuel Cell Anodes: X-Ray Diffraction, Thermal Imaging and Model Prediction. ECS Transactions, 2015, 68, 1053-1067.	0.3	2
444	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.	0.3	2
445	Understanding transport phenomena in electrochemical energy devices via X-ray nano CT. Journal of Physics: Conference Series, 2017, 849, 012018.	0.3	2
446	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.	5.2	2
447	Representative resolution analysis for X-ray CT: A Solid oxide fuel cell case study. Chemical Engineering Science: X, 2019, 4, 100043.	1.5	2
448	Increased Stability of Palladium-Cobalt-Gold Electrocatalyst for the Hydrogen Oxidation Reaction in Polymer Electrolyte Membrane Fuel Cells. Electroanalysis, 2020, 32, 2893-2901.	1.5	2
449	Supercapacitors: History, Theory, Emerging Technologies, and Applications. , 2021, , 417-449.		2
450	Dynamic acoustic emission analysis of polymer electrolyte membrane fuel cells. Energy Advances, 2022, 1, 258-268.	1.4	2

#	ARTICLE	IF	CITATIONS
451	Fuels and fuel processing for low temperature fuel cells. , 2012, , 3-26.		1
452	A Rotating Electrolyte Disc (RED) for Operation in Liquid Metal Anode SOFCs. ECS Transactions, 2013, 58, 65-70.	0.3	1
453	Effects of Process Conditions on the Fluidised Cathode Electrochemical Reduction of Tungsten Oxide in Molten LiCl-KCl Eutectic. ECS Transactions, 2014, 64, 323-331.	0.3	1
454	Mapping electrochemical activity in solid oxide fuel cells. Materials Today, 2017, 20, 155-156.	8.3	1
455	Life Cycle Assessment of Emerging Catalyst Technologies: The Case of Polymer Electrolyte Membrane Fuel Cells. , 2017, , 289-312.		1
456	X-ray attenuation properties of commonly employed solid oxide fuel cell materials. Journal of Physics: Conference Series, 2017, 849, 012017.	0.3	1
457	Size-Effects: Size-Related Electrochemical Performance in Active Carbon Nanostructures: A MOFs-Derived Carbons Case Study (Adv. Sci. 20/2019). Advanced Science, 2019, 6, 1970123.	5.6	1
458	Improvement in the Electrical Properties of Nickel-Plated Steel Using Graphitic Carbon Coatings. Advanced Engineering Materials, 2019, 21, 1900408.	1.6	1
459	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 ETQq11b0.784314 rgBT		1
460	Data on the theoretical X-Ray attenuation and transmissions for lithium-ion battery cathodes. Data in Brief, 2020, 30, 105539.	0.5	1
461	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.	7.8	1
462	Reversible lithium storage in sp ² hydrocarbon frameworks. Journal of Energy Chemistry, 2022, 66, 161-167.	7.1	1
463	Design of experiments to generate a fuel cell electro-thermal performance map and optimise transitional pathways. International Journal of Powertrains, 2018, 7, 118.	0.1	1
464	Seed-Mediated, Shape-Controlled Synthesis Methods for Platinum-Based Electrocatalysts for the Oxygen Reduction Reaction – A Mini Review. Frontiers in Chemistry, 2022, 10, 865214.	1.8	1
465	Acoustic Emission Analysis of Polymer Electrolyte Membrane Fuel Cells. ECS Meeting Abstracts, 2020, MA2020-02, 2178-2178.	0.0	1
466	A Review of Progress in the UK Supergen Fuel Cell Programme. ECS Transactions, 2009, 25, 35-42.	0.3	0
467	Improvements to Zirconia Thick-Film Oxygen Sensors. Journal of Physics: Conference Series, 2013, 450, 012030.	0.3	0
468	A Fluidised Cathode Process for the Electrochemical Reduction of Tungsten Oxide in A Molten LiCl-KCl Eutectic. ECS Transactions, 2014, 58, 65-74.	0.3	0

#	ARTICLE	IF	CITATIONS
469	Characterizing Failure in Commercial Li-Ion Batteries with 4D X-Ray Microscopy. <i>Microscopy and Microanalysis</i> , 2015, 21, 447-448.	0.2	0
470	Mechanistic Considerations of Liquid Metal Anode SOFCs Fueled with Hydrogen. <i>ECS Transactions</i> , 2015, 68, 1557-1566.	0.3	0
471	Revealing Microstructural Defects in Commercial Li-Ion Batteries under Electrochemical Fatigue Cycling. <i>Microscopy and Microanalysis</i> , 2016, 22, 1304-1305.	0.2	0
472	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.	1.9	0
473	A 4D Framework for Probing Structure-Property Relationships in Lithium Ion Batteries. <i>Microscopy and Microanalysis</i> , 2017, 23, 2102-2103.	0.2	0
474	3D X-Ray Characterization of Energy Storage and Conversion Devices. , 2021, , 513-544.		0
475	Developments in Dilatometry for Characterisation of Electrochemical Devices. <i>Batteries and Supercaps</i> , 2021, 4, 1376-1377.	2.4	0
476	A New High: Cannabis as a budding source of carbon-based materials for electrochemical power sources. <i>Current Opinion in Electrochemistry</i> , 2021, , 100860.	2.5	0
477	Spacers to Improve Performance and Porosity of Graphene Based Polymer Electrolyte Fuel Cells. <i>ECS Transactions</i> , 2020, 98, 141-146.	0.3	0
478	Dual-Metal Atom Electrocatalysts: Theory, Synthesis, Characterization, and Applications (<i>Adv. Energy</i>) Tj ETQq0 0,0 rrgBT /Oyerlock 10	10.2	0
479	MOF-based nanomaterials for zinc-based battery cathodes. , 2022, , 315-340.		0
480	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, .	2.4	0