Dan Jl Brett

List of Publications by Year
in descending order

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480 papers	21,238 citations	10979 71 h-index	20943 115 g-index
493 all docs	493 docs citations	493 times ranked	18074 citing authors

#	Article	IF	Citations
1	Intermediate temperature solid oxide fuel cells. Chemical Society Reviews, 2008, 37, 1568.	18.7	1,224
2	In-operando high-speed tomography of lithium-ion batteries during thermal runaway. Nature Communications, 2015, 6, 6924.	5.8	494
3	Feâ€“N-Doped Carbon Capsules with Outstanding Electrochemical Performance and Stability for the Oxygen Reduction Reaction in Both Acid and Alkaline Conditions. ACS Nano, 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. Nature Energy, 2020, 5, 160-168.	19.8	381
5	Alleviation of Dendrite Formation on Zinc Anodes via Electrolyte Additives. ACS Energy Letters, 2021, 6, 395-403.	8.8	340
6	Review of gas diffusion cathodes for alkaline fuel cells. Journal of Power Sources, 2009, 187, 39-48.	4.0	317
7	On the origin and application of the Bruggeman correlation for analysing transport phenomena in electrochemical systems. Current Opinion in Chemical Engineering, 2016, 12, 44-51.	3.8	306
8	Ex-situ characterisation of gas diffusion layers for proton exchange membrane fuel cells. Journal of Power Sources, 2012, 218, 393-404.	4.0	269
9	A review of domestic heat pumps. Energy and Environmental Science, 2012, 5, 9291.	15.6	251
10	3D microstructure design of lithium-ion battery electrodes assisted by X-ray nano-computed tomography and modelling. Nature Communications, 2020, 11, 2079.	5.8	217
11	Rechargeable aqueous Zn-based energy storage devices. Joule, 2021, 5, 2845-2903.	11.7	201
12	Characterising thermal runaway within lithium-ion cells by inducing and monitoring internal short circuits. Energy and Environmental Science, 2017, 10, 1377-1388.	15.6	194
13	Insights on Flexible Zincâ€ion Batteries from Lab Research to Commercialization. Advanced Materials, 2021, 33, e2007548.	11.1	191
14	Characterization of the adsorption site energies and heterogeneous surfaces of porous materials. Journal of Materials Chemistry A, 2019, 7, 10104-10137.	5.2	187
15	Electrochemical Impedance Spectroscopy for Allâ€Solidâ€State Batteries: Theory, Methods and Future Outlook. ChemElectroChem, 2021, 8, 1930-1947.	1.7	176
16	Multiâ€Scale Investigations of Î´â€Ni_{0.25}V₂O₅·nH₂O Cathode Materials in Aqueous Zincâ€ion Batteries. Advanced Energy Materials, 2020, 10, 2000058.	10.2	173
17	Tortuosity in electrochemical devices: a review of calculation approaches. International Materials Reviews, 2018, 63, 47-67.	9.4	172
18	Image based modelling of microstructural heterogeneity in LiFePO 4 electrodes for Li-ion batteries. Journal of Power Sources, 2014, 247, 1033-1039.	4.0	162

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19	Palladium alloys used as electrocatalysts for the oxygen reduction reaction. Energy and Environmental Science, 2021, 14, 2639-2669.	15.6	158
20	Fuel cells for micro-combined heat and power generation. Energy and Environmental Science, 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. ACS Applied Materials & Interfaces, 2016, 8, 30687-30691.	4.0	139
22	In situ diagnostic techniques for characterisation of polymer electrolyte membrane water electrolysers â€“ Flow visualisation and electrochemical impedance spectroscopy. International Journal of Hydrogen Energy, 2014, 39, 4468-4482.	3.8	136
23	Exceptional supercapacitor performance from optimized oxidation of graphene-oxide. Energy Storage Materials, 2019, 17, 12-21.	9.5	135
24	A lung-inspired approach to scalable and robust fuel cell design. Energy and Environmental Science, 2018, 11, 136-143.	15.6	134
25	Three-dimensional characterization of electrodeposited lithium microstructures using synchrotron X-ray phase contrast imaging. Chemical Communications, 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. Physical Chemistry Chemical Physics, 2016, 18, 30912-30919.	1.3	130
27	Quartz Crystal Microbalance Electronic Interfacing Systems: A Review. Sensors, 2017, 17, 2799.	2.1	126
28	Measurement of the current distribution along a single flow channel of a solid polymer fuel cell. Electrochemistry Communications, 2001, 3, 628-632.	2.3	125
29	Spatial dynamics of lithiation and lithium plating during high-rate operation of graphite electrodes. Energy and Environmental Science, 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. Applied Energy, 2015, 138, 685-694.	5.1	123
31	Identifying the Origins of Microstructural Defects Such as Cracking within Niâ€Rich NMC811 Cathode Particles for Lithiumâ€Ion Batteries. Advanced Energy Materials, 2020, 10, 2002655.	10.2	119
32	Life cycle assessment of a polymer electrolyte membrane fuel cell system for passenger vehicles. Journal of Cleaner Production, 2017, 142, 4339-4355.	4.6	115
33	A new application for nickel foam in alkaline fuel cells. International Journal of Hydrogen Energy, 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. Journal of Materials Chemistry A, 2019, 7, 3544-3551.	5.2	112
35	Rational Design of Hierarchically Coreâ€“Shell Structured Ni₃S₂@NiMoO₄ Nanowires for Electrochemical Energy Storage. Small, 2018, 14, e1800791.	5.2	111
36	Non-uniform temperature distribution in Li-ion batteries during discharge â€“ A combined thermal imaging, X-ray micro-tomography and electrochemical impedance approach. Journal of Power Sources, 2014, 252, 51-57.	4.0	108

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37	Effect of clamping pressure on ohmic resistance and compression of gas diffusion layers for polymer electrolyte fuel cells. Journal of Power Sources, 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. Nature Communications, 2020, 11, 777.	5.8	104
39	High power nano-Nb2O5 negative electrodes for lithium-ion batteries. Electrochimica Acta, 2016, 192, 363-369.	2.6	102
40	Tracking Internal Temperature and Structural Dynamics during Nail Penetration of Lithium-Ion Cells. Journal of the Electrochemical Society, 2017, 164, A3285-A3291.	1.3	102
41	Cathode Design for Aqueous Rechargeable Multivalent Ion Batteries: Challenges and Opportunities. Advanced Functional Materials, 2021, 31, 2010445.	7.8	102
42	Enabling stable MnO₂ matrix for aqueous zinc-ion battery cathodes. Journal of Materials Chemistry A, 2020, 8, 22075-22082.	5.2	101
43	Graphitic Carbon Nitride as a Catalyst Support in Fuel Cells and Electrolyzers. Electrochimica Acta, 2016, 222, 44-57.	2.6	97
44	Microstructural Evolution of Battery Electrodes During Calendering. Joule, 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. Journal of Power Sources, 2019, 417, 29-41.	4.0	93
46	Localized Impedance Measurements along a Single Channel of a Solid Polymer Fuel Cell. Electrochemical and Solid-State Letters, 2003, 6, A63.	2.2	92
47	Performance of solid oxide electrolysis cells based on composite La0.8Sr0.2MnO3â˜Î´â€“ yttria stabilized zirconia and Ba0.5Sr0.5Co0.8Fe0.2O3â˜Î´ oxygen electrodes. International Journal of Hydrogen Energy, 2010, 35, 3958-3966.	3.8	92
48	Towards intelligent engineering of SOFC electrodes: a review of advanced microstructural characterisation techniques. International Materials Reviews, 2010, 55, 347-363.	9.4	92
49	Lithiationâ€Induced Dilation Mapping in a Lithiumâ€Ion Battery Electrode by 3D Xâ€Ray Microscopy and Digital Volume Correlation. Advanced Energy Materials, 2014, 4, 1300506.	10.2	89
50	Identifying the Cause of Rupture of Liâ€Ion Batteries during Thermal Runaway. Advanced Science, 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. Journal of Power Sources, 2010, 195, 6559-6569.	4.0	88
52	Free-standing supercapacitors from Kraft lignin nanofibers with remarkable volumetric energy density. Chemical Science, 2019, 10, 2980-2988.	3.7	88
53	Carbon monoxide poisoning and mitigation strategies for polymer electrolyte membrane fuel cells â€“ A review. Progress in Energy and Combustion Science, 2020, 79, 100842.	15.8	87
54	High power TiO2 and high capacity Sn-doped TiO2 nanomaterial anodes for lithium-ion batteries. Journal of Power Sources, 2015, 294, 94-102.	4.0	86

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55	Engineering Catalyst Layers for Nextâ€Generation Polymer Electrolyte Fuel Cells: A Review of Design, Materials, and Methods. Advanced Energy Materials, 2021, 11, 2101025.	10.2	85
56	Highly pseudocapacitive Nb-doped TiO₂ high power anodes for lithium-ion batteries. Journal of Materials Chemistry A, 2015, 3, 22908-22914.	5.2	84
57	Visualizing the Carbon Binder Phase of Battery Electrodes in Three Dimensions. ACS Applied Energy Materials, 2018, 1, 3702-3710.	2.5	83
58	Two-phase flow behaviour and performance of polymer electrolyte membrane electrolysers: Electrochemical and optical characterisation. International Journal of Hydrogen Energy, 2018, 43, 15659-15672.	3.8	81
59	Developments in X-ray tomography characterization for electrochemical devices. Materials Today, 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. Chemical Engineering Science, 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. Electrochimica Acta, 2016, 211, 478-487.	2.6	78
62	Dualâ€Metal Atom Electrocatalysts: Theory, Synthesis, Characterization, and Applications. Advanced Energy Materials, 2022, 12, .	10.2	78
63	A general method for boosting the supercapacitor performance of graphitic carbon nitride/graphene hybrids. Journal of Materials Chemistry A, 2017, 5, 25545-25554.	5.2	77
64	The effect of current density on H2S-poisoning of nickel-based solid oxide fuel cell anodes. Journal of Power Sources, 2011, 196, 7182-7187.	4.0	76
65	Mechanisms and effects of mechanical compression and dimensional change in polymer electrolyte fuel cells â€“ A review. Journal of Power Sources, 2015, 284, 305-320.	4.0	76
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73	High power Nb-doped LiFePO4 Li-ion battery cathodes; pilot-scale synthesis and electrochemical properties. Journal of Power Sources, 2016, 326, 476-481.	4.0	73
74	Spatially Resolving Lithiation in Siliconâ€“Graphite Composite Electrodes via in Situ High-Energy X-ray Diffraction Computed Tomography. Nano Letters, 2019, 19, 3811-3820.	4.5	73
75	Spatial quantification of dynamic inter and intra particle crystallographic heterogeneities within lithium ion electrodes. Nature Communications, 2020, 11, 631.	5.8	73
76	The Role of Phosphate Group in Doped Cobalt Molybdate: Improved Electrocatalytic Hydrogen Evolution Performance. Advanced Science, 2020, 7, 1903674.	5.6	73
77	Solid oxide fuel cell/gas turbine hybrid system analysis for high-altitude long-endurance unmanned aerial vehicles. International Journal of Hydrogen Energy, 2008, 33, 7214-7223.	3.8	72
78	Identification and manipulation of dynamic active site deficiency-induced competing reactions in electrocatalytic oxidation processes. Energy and Environmental Science, 2022, 15, 2386-2396.	15.6	71
79	Rationally Designed Sodium Chromium Vanadium Phosphate Cathodes with Multiâ€Electron Reaction for Fastâ€Charging Sodiumâ€Ion Batteries. Advanced Energy Materials, 2022, 12, .	10.2	71
80	Mesoporous nickel selenide N-doped carbon as a robust electrocatalyst for overall water splitting. Electrochimica Acta, 2019, 300, 93-101.	2.6	70
81	A Review of Lithiumâ€Ion Battery Electrode Drying: Mechanisms and Metrology. Advanced Energy Materials, 2022, 12, .	10.2	70
82	Fuel cell systems optimisation â€“ Methods and strategies. International Journal of Hydrogen Energy, 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. Journal of Power Sources, 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. Electrochemistry Communications, 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. Journal of Power Sources, 2015, 297, 315-322.	4.0	69
86	Progress and Perspectives of Organosulfur for Lithiumâ€“Sulfur Batteries. Advanced Energy Materials, 2022, 12, 2103483.	10.2	69
87	Effect of temperature uncertainty on polymer electrolyte fuel cell performance. International Journal of Hydrogen Energy, 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. Journal of Energy Storage, 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. International Journal of Hydrogen Energy, 2017, 42, 26203-26216.	3.8	67
90	Fuel cell micro-CHP techno-economics: Part 1 â€“ model concept and formulation. International Journal of Hydrogen Energy, 2009, 34, 9545-9557.	3.8	66

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91	Current density mapping and optical flow visualisation of a polymer electrolyte membrane water electrolyser. Journal of Power Sources, 2014, 265, 97-103.	4.0	66
92	Quantifying Bulk Electrode Strain and Material Displacement within Lithium Batteries via Highâ€Speed Operando Tomography and Digital Volume Correlation. Advanced Science, 2016, 3, 1500332.	5.6	66
93	Operando Electrochemical Atomic Force Microscopy of Solidâ€“Electrolyte Interphase Formation on Graphite Anodes: The Evolution of SEI Morphology and Mechanical Properties. ACS Applied Materials & Interfaces, 2020, 12, 35132-35141.	4.0	65
94	Investigation of a Biomass Hydrogel Electrolyte Naturally Stabilizing Cathodes for Zinc-Ion Batteries. ACS Applied Materials & Interfaces, 2021, 13, 745-754.	4.0	64
95	Graphitic Carbon Nitride Supported Catalysts for Polymer Electrolyte Fuel Cells. Journal of Physical Chemistry C, 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. Journal of Power Sources, 2016, 333, 184-192.	4.0	63
97	Pilot-scale continuous synthesis of a vanadium-doped LiFePO4/C nanocomposite high-rate cathodes for lithium-ion batteries. Journal of Power Sources, 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. Journal of Physical Chemistry A, 2008, 112, 1497-1501.	1.1	62
99	Exploring 3D microstructural evolution in Li-Sulfur battery electrodes using in-situ X-ray tomography. Scientific Reports, 2016, 6, 35291.	1.6	61
100	Defected vanadium bronzes as superb cathodes in aqueous zinc-ion batteries. Nanoscale, 2020, 12, 20638-20648.	2.8	61
101	Fuel cell micro-CHP techno-economics: Part 2 â€“ Model application to consider the economic and environmental impact of stack degradation. International Journal of Hydrogen Energy, 2009, 34, 9558-9569.	3.8	60
102	Mass transport in PEM water electrolysers: A review. International Journal of Hydrogen Energy, 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. Energy and Environmental Science, 2018, 11, 2390-2403.	15.6	59
104	Spatially resolved ultrasound diagnostics of Li-ion battery electrodes. Physical Chemistry Chemical Physics, 2019, 21, 6354-6361.	1.3	59
105	Sodium Superionic Conductors (NASICONs) as Cathode Materials for Sodium-Ion Batteries. Electrochemical Energy Reviews, 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. Electrochimica Acta, 2016, 219, 540-546.	2.6	58
107	The effect of fuel composition and temperature on the interaction of H2S with nickelâ€“ceria anodes for Solid Oxide Fuel Cells. Journal of Power Sources, 2008, 183, 232-239.	4.0	57
108	A techno-economic appraisal of hydrogen generation and the case for solid oxide electrolyser cells. International Journal of Hydrogen Energy, 2011, 36, 5782-5796.	3.8	57

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109	Comparison of threeâ€dimensional analysis and stereological techniques for quantifying lithiumâ€ion battery electrode microstructures. Journal of Microscopy, 2016, 263, 280-292.	0.8	57
110	Review of Materials and Characterization Methods for Polymer Electrolyte Fuel Cell Flow-Field Plates. Journal of Fuel Cell Science and Technology, 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. Journal of Power Sources, 2015, 291, 261-269.	4.0	56
112	A cost effective, highly porous, manganese oxide/carbon supercapacitor material with high rate capability. Journal of Materials Chemistry A, 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. Nature Communications, 2019, 10, 1497.	5.8	56
114	Elucidating the Sodiation Mechanism in Hard Carbon by Operando Raman Spectroscopy. ACS Applied Energy Materials, 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. Journal of Energy Chemistry, 2021, 59, 492-529.	7.1	56
116	Enhancing the Electrochemical Performance of Sodiumâ€ion Batteries by Building Optimized NiS₂/NiSe₂ Heterostructures. Small, 2021, 17, e2104186.	5.2	56
117	Ranunculus flower-like Ni(OH)₂@Mn₂O₃ as a high specific capacitance cathode material for alkaline supercapacitors. Journal of Materials Chemistry A, 2016, 4, 7591-7595.	5.2	55
118	Laserâ€preparation of geometrically optimised samples for Xâ€ray nanoâ€CT. Journal of Microscopy, 2017, 267, 384-396.	0.8	54
119	Microstructural degradation of silicon electrodes during lithiation observed via operando X-ray tomographic imaging. Journal of Power Sources, 2017, 342, 904-912.	4.0	54
120	Transitionâ€Metalâ€Doped Î±â€MnO₂ Nanorods as Bifunctional Catalysts for Efficient Oxygen Reduction and Evolution Reactions. ChemistrySelect, 2018, 3, 2613-2622.	0.7	54
121	ZIF-8-Derived Hollow Carbon for Efficient Adsorption of Antibiotics. Nanomaterials, 2019, 9, 117.	1.9	54
122	Tracking lithium penetration in solid electrolytes in 3D by in-situ synchrotron X-ray computed tomography. Nano Energy, 2021, 82, 105744.	8.2	54
123	Design of Scalable, Next-Generation Thick Electrodes: Opportunities and Challenges. ACS Nano, 2021, 15, 18624-18632.	7.3	54
124	A multi-objective optimisation model for a general polymer electrolyte membrane fuel cell system. Journal of Power Sources, 2010, 195, 2754-2763.	4.0	53
125	A study of the effect of compression on the performance ofÂpolymer electrolyte fuel cells using electrochemical impedance spectroscopy and dimensional change analysis. International Journal of Hydrogen Energy, 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. Journal of Power Sources, 2016, 320, 196-203.	4.0	53

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127	Correlation between triple phase boundary and the microstructure of Solid Oxide Fuel Cell anodes: The role of composition, porosity and Ni densification. Journal of Power Sources, 2017, 365, 210-219.	4.0	53
128	Synergistic relationship between the three-dimensional nanostructure and electrochemical performance in biocarbon supercapacitor electrode materials. Sustainable Energy and Fuels, 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. Journal of Power Sources, 2018, 399, 254-263.	4.0	53
130	Coreâ€“shell TiO₂@C ultralong nanotubes with enhanced adsorption of antibiotics. Journal of Materials Chemistry A, 2019, 7, 19081-19086.	5.2	53
131	Self-standing electrodes with core-shell structures for high-performance supercapacitors. Energy Storage Materials, 2017, 9, 119-125.	9.5	52
132	Structural engineering of cathodes for improved Zn-ion batteries. Journal of Energy Chemistry, 2021, 58, 147-155.	7.1	52
133	Concept and system design for a ZEBRA batteryâ€“intermediate temperature solid oxide fuel cell hybrid vehicle. Journal of Power Sources, 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. Journal of Power Sources, 2017, 357, 77-86.	4.0	50
135	A universal pH range and a highly efficient Mo₂C-based electrocatalyst for the hydrogen evolution reaction. Journal of Materials Chemistry A, 2020, 8, 19879-19886.	5.2	50
136	Four-Dimensional Studies of Morphology Evolution in Lithiumâ€“Sulfur Batteries. ACS Applied Energy Materials, 2018, 1, 5090-5100.	2.5	49
137	Co-gasification of beech-wood and polyethylene in a fluidized-bed reactor. Fuel Processing Technology, 2019, 190, 29-37.	3.7	49
138	Nano-engineered intrapores in nanoparticles of PtNi networks for increased oxygen reduction reaction activity. Journal of Power Sources, 2018, 374, 48-54.	4.0	48
139	Multi-length scale microstructural design of lithium-ion battery electrodes for improved discharge rate performance. Energy and Environmental Science, 2021, 14, 5929-5946.	15.6	48
140	Fair electricity transfer price and unit capacity selection for microgrids. Energy Economics, 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. Electrochimica Acta, 2015, 180, 307-315.	2.6	47
142	Investigating the evolving microstructure of lithium metal electrodes in 3D using X-ray computed tomography. Physical Chemistry Chemical Physics, 2017, 19, 22111-22120.	1.3	47
143	Cracking predictions of lithium-ion battery electrodes by X-ray computed tomography and modelling. Journal of Power Sources, 2022, 526, 231119.	4.0	47
144	Hydrogen Oxidation on PdIr/C Catalysts in Alkaline Media. Journal of the Electrochemical Society, 2014, 161, F458-F463.	1.3	46

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145	VO2 nano-sheet negative electrodes for lithium-ion batteries. Electrochemistry Communications, 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. Journal of Power Sources, 2019, 426, 97-110.	4.0	46
147	Measurement and modelling of carbon monoxide poisoning distribution within a polymer electrolyte fuel cell. International Journal of Hydrogen Energy, 2007, 32, 863-871.	3.8	45
148	Application of infrared thermal imaging to the study of pellet solid oxide fuel cells. Journal of Power Sources, 2007, 166, 112-119.	4.0	45
149	A study of the effect of water management and electrode flooding onÂthe dimensional change of polymer electrolyte fuel cells. Journal of Power Sources, 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. International Journal of Hydrogen Energy, 2015, 40, 16760-16766.	3.8	45
151	Toward high practical capacitance of Ni(OH)‹sub›2‹/sub› using highly conductive CoB nanochain supports. Journal of Materials Chemistry A, 2017, 5, 92-96.	5.2	45
152	Facile Fabrication of Robust Hydrogen Evolution Electrodes under High Current Densities via Pt@Cu Interactions. Advanced Functional Materials, 2021, 31, 2105579.	7.8	45
153	Membrane resistance and current distribution measurements under various operating conditions in a polymer electrolyte fuel cell. Journal of Power Sources, 2007, 172, 2-13.	4.0	44
154	What Happens Inside a Fuel Cell? Developing an Experimental Functional Map of Fuel Cell Performance. ChemPhysChem, 2010, 11, 2714-2731.	1.0	44
155	Biobutanol as Fuel for Direct Alcohol Fuel Cellsâ€"Investigation of Sn-Modified Pt Catalyst for Butanol Electro-oxidation. ACS Applied Materials & Interfaces, 2016, 8, 12859-12870.	4.0	43
156	The use of contrast enhancement techniques in X-ray imaging of lithiumâ€"ion battery electrodes. Chemical Engineering Science, 2016, 154, 27-33.	1.9	43
157	Design and synthesis of tremella-like Niâ€"Coâ€"S flakes on co-coated cotton textile as high-performance electrode for flexible supercapacitor. Journal of Alloys and Compounds, 2020, 814, 151789.	2.8	43
158	In situ compression and X-ray computed tomography of flow battery electrodes. Journal of Energy Chemistry, 2018, 27, 1353-1361.	7.1	42
159	New insights into the electrochemical behaviour of porous carbon electrodes for supercapacitors. Journal of Energy Storage, 2018, 19, 337-347.	3.9	42
160	Highâ€Ðensity Ligninâ€Ðerived Carbon Nanofiber Supercapacitors with Enhanced Volumetric Energy Density. Advanced Science, 2021, 8, e2100016.	5.6	42
161	Correlative study of microstructure and performance for porous transport layers in polymer electrolyte membrane water electrolysers by X-ray computed tomography and electrochemical characterization. International Journal of Hydrogen Energy, 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. International Journal of Hydrogen Energy, 2020, 45, 2195-2205.	3.8	41

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163	An anti-aging polymer electrolyte for flexible rechargeable zinc-ion batteries. Journal of Materials Chemistry A, 2020, 8, 22637-22644.	5.2	41
164	High-Performance Zincâ€“Air Batteries with Scalable Metalâ€“Organic Frameworks and Platinum Carbon Black Bifunctional Catalysts. ACS Applied Materials & Interfaces, 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. Journal of Power Sources, 2020, 455, 227968.	4.0	41
166	Superior Multifunctional Activity of Nanoporous Carbons with Widely Tunable Porosity: Enhanced Storage Capacities for Carbonâ€Dioxide, Hydrogen, Water, and Electric Charge. Advanced Energy Materials, 2020, 10, 1903649.	10.2	41
167	Dendrite suppression by anode polishing in zinc-ion batteries. Journal of Materials Chemistry A, 2021, 9, 15355-15362.	5.2	41
168	Characterizing Batteries by In Situ Electrochemical Atomic Force Microscopy: A Critical Review. Advanced Energy Materials, 2021, 11, 2101518.	10.2	40
169	Feasibility study and techno-economic analysis of an SOFC/battery hybrid system for vehicle applications. Journal of Power Sources, 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. International Journal of Hydrogen Energy, 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. Electrochimica Acta, 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. Journal of the Electrochemical Society, 2020, 167, 140530.	1.3	39
173	An improved cathode for alkaline fuel cells. International Journal of Hydrogen Energy, 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. Solid State Ionics, 2010, 181, 827-834.	1.3	38
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