

Dan JI Brett

List of Publications by Year in Descending Order

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Version: 2024-04-27

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

458
papers

13,337
citations

57
h-index

91
g-index

493
ext. papers

17,004
ext. citations

8.8
avg. IF

6.95
L-index

#	Paper	IF	Citations
458	Neutron imaging of lithium batteries. <i>Joule</i> , 2022 , 6, 35-52	27.8	1
457	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	1
456	Study of Tire Pyrolysis Oil Model Compound Structure on Carbon Nanomaterial Production. <i>ACS Sustainable Chemistry and Engineering</i> , 2022 , 10, 800-809	8.3	0
455	Dual-Metal Atom Electrocatalysts: Theory, Synthesis, Characterization, and Applications (Adv. Energy Mater. 3/2022). <i>Advanced Energy Materials</i> , 2022 , 12, 2270010	21.8	
454	Thermal Runaway of Li-Ion Cells: How Internal Dynamics, Mass Ejection, and Heat Vary with Cell Geometry and Abuse Type. <i>Journal of the Electrochemical Society</i> , 2022 , 169, 020526	3.9	0
453	The effect of non-uniform compression on the performance of polymer electrolyte fuel cells. <i>Journal of Power Sources</i> , 2022 , 521, 230973	8.9	0
452	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	8.9	1
451	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	8.9	0
450	The performance and durability of high-temperature proton exchange membrane fuel cells enhanced by single-layer graphene. <i>Nano Energy</i> , 2022 , 93, 106829	17.1	3
449	Characteristics of a gold-doped electrode for application in high-performance lithium-sulfur battery. <i>Journal of Energy Chemistry</i> , 2022 , 64, 116-128	12	3
448	Reversible lithium storage in sp ² hydrocarbon frameworks. <i>Journal of Energy Chemistry</i> , 2022 , 66, 161-167		0
447	An open-source platform for 3D-printed redox flow battery test cells. <i>Sustainable Energy and Fuels</i> , 2022 , 6, 1529-1540	5.8	1
446	liionpack: A Python package for simulating packs of batteries with PyBaMM. <i>Journal of Open Source Software</i> , 2022 , 7, 4051	5.2	0
445	Seed-Mediated, Shape-Controlled Synthesis Methods for Platinum-Based Electrocatalysts for the Oxygen Reduction Reaction-A Mini Review.. <i>Frontiers in Chemistry</i> , 2022 , 10, 865214	5	0
444	High-speed 4D neutron computed tomography for quantifying water dynamics in polymer electrolyte fuel cells.. <i>Nature Communications</i> , 2022 , 13, 1616	17.4	0
443	Disentangling water, ion and polymer dynamics in an anion exchange membrane.. <i>Nature Materials</i> , 2022 ,	27	5
442	Motion-enhancement assisted digital image correlation of lithium-ion batteries during lithiation. <i>Journal of Power Sources</i> , 2022 , 527, 231150	8.9	

441	Cracking predictions of lithium-ion battery electrodes by X-ray computed tomography and modelling. <i>Journal of Power Sources</i> , 2022 , 526, 231119	8.9	0
440	In situ x-ray computed tomography of zinc-air primary cells during discharge: correlating discharge rate to anode morphology. <i>JPhys Materials</i> , 2022 , 5, 014001	4.2	0
439	Dual-Metal Atom Electrocatalysts: Theory, Synthesis, Characterization, and Applications. <i>Advanced Energy Materials</i> , 2022 , 12, 2102715	21.8	12
438	MOF-based nanomaterials for zinc-based battery cathodes 2022 , 315-340		
437	Rechargeable aqueous Zn-based energy storage devices. <i>Joule</i> , 2021 ,	27.8	37
436	Nanoscale state-of-charge heterogeneities within polycrystalline nickel-rich layered oxide cathode materials. <i>Cell Reports Physical Science</i> , 2021 , 100647	6.1	4
435	Mass transport in PEM water electrolyzers: A review. <i>International Journal of Hydrogen Energy</i> , 2021 , 47, 30-30	6.7	4
434	Rapid synthesis of supported single metal nanoparticles and effective removal of stabilizing ligands. <i>Journal of Materials Chemistry A</i> , 2021 , 9, 24283-24289	13	2
433	A New High: Cannabis as a budding source of carbon-based materials for electrochemical power sources. <i>Current Opinion in Electrochemistry</i> , 2021 , 100860	7.2	
432	Machine Learning as an Online Diagnostic Tool for PEM Fuel Cells. <i>Current Opinion in Electrochemistry</i> , 2021 , 100867	7.2	2
431	Determining the electrochemical transport parameters of sodium-ions in hard carbon composite electrodes. <i>Electrochimica Acta</i> , 2021 , 401, 139481	6.7	1
430	Enhancing the Electrochemical Performance of Sodium-Ion Batteries by Building Optimized NiS/NiSe Heterostructures. <i>Small</i> , 2021 , 17, e2104186	11	9
429	Electro-thermal mapping of polymer electrolyte membrane fuel cells with a fractal flow-field. <i>Energy Conversion and Management</i> , 2021 , 250, 114924	10.6	0
428	Investigation of a Biomass Hydrogel Electrolyte Naturally Stabilizing Cathodes for Zinc-Ion Batteries. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 745-754	9.5	22
427	Multivalent Ion Batteries: Cathode Design for Aqueous Rechargeable Multivalent Ion Batteries: Challenges and Opportunities (Adv. Funct. Mater. 13/2021). <i>Advanced Functional Materials</i> , 2021 , 31, 2170089	15.6	1
426	Prevention of lithium-ion battery thermal runaway using polymer-substrate current collectors. <i>Cell Reports Physical Science</i> , 2021 , 2, 100360	6.1	4
425	A Multiscale X-Ray Tomography Study of the Cycled-Induced Degradation in Magnesium-Sulfur Batteries.. <i>Small Methods</i> , 2021 , 5, e2001193	12.8	7
424	2021 roadmap on lithium sulfur batteries. <i>JPhys Energy</i> , 2021 , 3, 031501	4.9	32

4 ²³	Tracking lithium penetration in solid electrolytes in 3D by in-situ synchrotron X-ray computed tomography. <i>Nano Energy</i> , 2021 , 82, 105744	17.1	24
4 ²²	Insights on Flexible Zinc-Ion Batteries from Lab Research to Commercialization. <i>Advanced Materials</i> , 2021 , 33, e2007548	24	50
4 ²¹	Optimisation of Mass Transport Parameters in a Polymer Electrolyte Membrane Electrolyser Using Factorial Design-of-Experiment. <i>Frontiers in Energy Research</i> , 2021 , 9,	3.8	1
4 ²⁰	Developments in Dilatometry for Characterisation of Electrochemical Devices. <i>Batteries and Supercaps</i> , 2021 , 4, 1378-1396	5.6	6
4 ¹⁹	High-Density Lignin-Derived Carbon Nanofiber Supercapacitors with Enhanced Volumetric Energy Density. <i>Advanced Science</i> , 2021 , 8, e2100016	13.6	17
4 ¹⁸	Evaluation and realization of safer Mg-S battery: The decisive role of the electrolyte. <i>Nano Energy</i> , 2021 , 83, 105832	17.1	3
4 ¹⁷	Zinc-Ion Batteries: Insights on Flexible Zinc-Ion Batteries from Lab Research to Commercialization (Adv. Mater. 20/2021). <i>Advanced Materials</i> , 2021 , 33, 2170158	24	2
4 ¹⁶	Electrochemical Impedance Spectroscopy for All-Solid-State Batteries: Theory, Methods and Future Outlook. <i>ChemElectroChem</i> , 2021 , 8, 1930-1947	4.3	36
4 ¹⁵	Enhancing Hydrogen Evolution Electrocatalytic Performance in Neutral Media via Nitrogen and Iron Phosphide Interactions. <i>Small Science</i> , 2021 , 1, 2100032		12
4 ¹⁴	Flexible all-solid-state supercapacitors based on PPy/rGO nanocomposite on cotton fabric. <i>Nanotechnology</i> , 2021 , 32,	3.4	6
4 ¹³	A novel fuel cell design forenergy-dispersive x-ray absorption measurements. <i>Journal of Physics Condensed Matter</i> , 2021 , 33,	1.8	3
4 ¹²	Microstructure analysis and image-based modelling of face masks for COVID-19 virus protection. <i>Communications Materials</i> , 2021 , 2,	6	9
4 ¹¹	Open-circuit dissolution of platinum from the cathode in polymer electrolyte membrane water electrolyzers. <i>Journal of Power Sources</i> , 2021 , 498, 229937	8.9	4
4 ¹⁰	Recent advances in acoustic diagnostics for electrochemical power systems. <i>JPhys Energy</i> , 2021 , 3, 032011	11.9	9
4 ⁰⁹	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	9.6	2
4 ⁰⁸	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	9.6	7
4 ⁰⁷	Structural engineering of cathodes for improved Zn-ion batteries. <i>Journal of Energy Chemistry</i> , 2021 , 58, 147-155	12	13
4 ⁰⁶	Self-activated cathode substrates in rechargeable zinc-air batteries. <i>Energy Storage Materials</i> , 2021 , 35, 530-537	19.4	6

405	3D Imaging of Lithium Protrusions in Solid-State Lithium Batteries using X-Ray Computed Tomography. <i>Advanced Functional Materials</i> , 2021 , 31, 2007564	15.6	14
404	Electrospinning as a route to advanced carbon fibre materials for selected low-temperature electrochemical devices: A review. <i>Journal of Energy Chemistry</i> , 2021 , 59, 492-529	12	14
403	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	7.8	6
402	Effect of reactant gas flow orientation on the current and temperature distribution in self-heating polymer electrolyte fuel cells. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 7502-7514	6.7	3
401	Bragg Coherent Diffraction Imaging of LiNiMnCoO Primary Particles within Commercially Printed NMC811 Electrode Sheets. <i>ACS Nano</i> , 2021 , 15, 1321-1330	16.7	6
400	Probing adsorbent heterogeneity using Toth isotherms. <i>Journal of Materials Chemistry A</i> , 2021 , 9, 944-962		2
399	Hard Carbon Composite Electrodes for Sodium-Ion Batteries with Nano-Zeolite and Carbon Black Additives. <i>Batteries and Supercaps</i> , 2021 , 4, 163-172	5.6	3
398	Towards a mechanistic understanding of particle shrinkage during biomass pyrolysis via synchrotron X-ray microtomography and in-situ radiography. <i>Scientific Reports</i> , 2021 , 11, 2656	4.9	5
397	Alleviation of Dendrite Formation on Zinc Anodes via Electrolyte Additives. <i>ACS Energy Letters</i> , 2021 , 6, 395-403	20.1	110
396	Thermo-chemical conversion of carbonaceous wastes for CNT and hydrogen production: a review. <i>Sustainable Energy and Fuels</i> , 2021 , 5, 4173-4208	5.8	7
395	Palladium alloys used as electrocatalysts for the oxygen reduction reaction. <i>Energy and Environmental Science</i> , 2021 , 14, 2639-2669	35.4	47
394	Contrasting the EXAFS obtained under air and H environments to reveal details of the surface structure of Pt-Sn nanoparticles. <i>Physical Chemistry Chemical Physics</i> , 2021 , 23, 11738-11745	3.6	
393	3D X-Ray Characterization of Energy Storage and Conversion Devices 2021 , 513-544		
392	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	10.6	6
391	Porous 3D graphene aerogel co-doped with nitrogen and sulfur for high-performance supercapacitors. <i>Nanotechnology</i> , 2021 , 32, 195405	3.4	4
390	Current Imbalance in Parallel Battery Strings Measured Using a Hall-Effect Sensor Array. <i>Energy Technology</i> , 2021 , 9, 2001014	3.5	6
389	Acoustic time-of-flight imaging of polymer electrolyte membrane water electrolyzers to probe internal structure and flow characteristics. <i>International Journal of Hydrogen Energy</i> , 2021 , 46, 11523-11535	6.7	3
388	Ultrasound Acoustic Measurement of the Lithium-Ion Battery Electrode Drying Process. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 36605-36620	9.5	3

387	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	9.5	1
386	Developments in Dilatometry for Characterisation of Electrochemical Devices. <i>Batteries and Supercaps</i> , 2021 , 4, 1376-1377	5.6	
385	Tuning the Linkers in Polymer-Based Cathodes to Realize High Sulfur Content and High-Performance Potassium Sulfur Batteries. <i>Journal of Physical Chemistry C</i> , 2021 , 125, 18604-18613	3.8	3
384	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	21.8	14
383	Characterizing Batteries by In Situ Electrochemical Atomic Force Microscopy: A Critical Review. <i>Advanced Energy Materials</i> , 2021 , 11, 2101518	21.8	8
382	Pure Curcumin Spherulites from Impure Solutions Nonclassical Crystallization. <i>ACS Omega</i> , 2021 , 6, 23884-23900	3.9	1
381	Neutron studies of Na-ion battery materials. <i>JPhys Materials</i> , 2021 , 4, 042008	4.2	1
380	Recovery of cobalt from lithium-ion batteries using fluidised cathode molten salt electrolysis. <i>Electrochimica Acta</i> , 2021 , 391, 138846	6.7	3
379	Inconsistent responses of cells on operating conditions in a 5 kW proton exchange membrane fuel cell stack. <i>Electrochimica Acta</i> , 2021 , 391, 138925	6.7	4
378	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	8.9	3
377	Dendrite suppression by anode polishing in zinc-ion batteries. <i>Journal of Materials Chemistry A</i> , 2021 , 9, 15355-15362	13	9
376	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	13	9
375	Cathode Design for Aqueous Rechargeable Multivalent Ion Batteries: Challenges and Opportunities. <i>Advanced Functional Materials</i> , 2021 , 31, 2010445	15.6	40
374	Supercapacitors: History, Theory, Emerging Technologies, and Applications 2021 , 417-449		1
373	Design of Scalable, Next-Generation Thick Electrodes: Opportunities and Challenges. <i>ACS Nano</i> , 2021 ,	16.7	8
372	Effect of extended short-circuiting in proton exchange membrane fuel cells. <i>Sustainable Energy and Fuels</i> , 2020 , 4, 5739-5746	5.8	3
371	The Detection of Monoclinic Zirconia and Non-Uniform 3D Crystallographic Strain in a Re-Oxidized Ni-YSZ Solid Oxide Fuel Cell Anode. <i>Crystals</i> , 2020 , 10, 941	2.3	2
370	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	21.8	49

369	Rapid Preparation of Geometrically Optimal Battery Electrode Samples for Nano Scale X-ray Characterisation. <i>Journal of the Electrochemical Society</i> , 2020 , 167, 060512	3.9	3
368	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	3.9	16
367	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	8.9	12
366	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	19.4	5
365	Exploring cycling induced crystallographic change in NMC with X-ray diffraction computed tomography. <i>Physical Chemistry Chemical Physics</i> , 2020 , 22, 17814-17823	3.6	15
364	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	3.9	8
363	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	10.6	10
362	Investigating high-performance sulfur/metal nanocomposites for lithium batteries. <i>Sustainable Energy and Fuels</i> , 2020 , 4, 2907-2923	5.8	14
361	Theoretical transmissions for X-ray computed tomography studies of lithium-ion battery cathodes. <i>Materials and Design</i> , 2020 , 191, 108585	8.1	5
360	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	8.9	14
359	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	3.9	8
358	Nanoporous Carbons: Superior Multifunctional Activity of Nanoporous Carbons with Widely Tunable Porosity: Enhanced Storage Capacities for Carbon-Dioxide, Hydrogen, Water, and Electric Charge (Adv. Energy Mater. 9/2020). <i>Advanced Energy Materials</i> , 2020 , 10, 2070039	21.8	1
357	Realising the electrochemical stability of graphene: scalable synthesis of an ultra-durable platinum catalyst for the oxygen reduction reaction. <i>Nanoscale</i> , 2020 , 12, 16113-16122	7.7	4
356	Spatial dynamics of lithiation and lithium plating during high-rate operation of graphite electrodes. <i>Energy and Environmental Science</i> , 2020 , 13, 2570-2584	35.4	63
355	MoS ₂ /NiS core-shell structures for improved electrocatalytic process of hydrogen evolution. <i>Journal of Power Sources</i> , 2020 , 472, 228497	8.9	14
354	Hydrogen Evolution: The Role of Phosphate Group in Doped Cobalt Molybdate: Improved Electrocatalytic Hydrogen Evolution Performance (Adv. Sci. 12/2020). <i>Advanced Science</i> , 2020 , 7, 2070067	13.6	3
353	Defected vanadium bronzes as superb cathodes in aqueous zinc-ion batteries. <i>Nanoscale</i> , 2020 , 12, 20638-20648	7.7	4
352	Tailoring hollow structure within NiCoP nanowire arrays via nanoscale Kirkendall diffusion to enhance hydrogen evolution reaction. <i>Nanotechnology</i> , 2020 , 31, 425404	3.4	8

351	4D imaging of lithium-batteries using correlative neutron and X-ray tomography with a virtual unrolling technique. <i>Nature Communications</i> , 2020 , 11, 777	17.4	52
350	Multi-Scale Investigations of $\text{Ni}_0.25\text{V}_2\text{O}_5 \cdot \text{H}_2\text{O}$ Cathode Materials in Aqueous Zinc-Ion Batteries. <i>Advanced Energy Materials</i> , 2020 , 10, 2000058	21.8	92
349	The multiscale hierarchical structure of <i>Heloderma suspectum</i> osteoderms and their mechanical properties. <i>Acta Biomaterialia</i> , 2020 , 107, 194-203	10.8	3
348	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	62.3	205
347	Spatial quantification of dynamic inter and intra particle crystallographic heterogeneities within lithium ion electrodes. <i>Nature Communications</i> , 2020 , 11, 631	17.4	48
346	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	21.8	26
345	Dendritic silver self-assembly in molten-carbonate membranes for efficient carbon dioxide capture. <i>Energy and Environmental Science</i> , 2020 , 13, 1766-1775	35.4	10
344	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	13.6	15
343	3D microstructure design of lithium-ion battery electrodes assisted by X-ray nano-computed tomography and modelling. <i>Nature Communications</i> , 2020 , 11, 2079	17.4	96
342	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	33.6	38
341	The Role of Phosphate Group in Doped Cobalt Molybdate: Improved Electrocatalytic Hydrogen Evolution Performance. <i>Advanced Science</i> , 2020 , 7, 1903674	13.6	42
340	Nature-Inspired Flow-Fields and Water Management for PEM Fuel Cells. <i>ECS Transactions</i> , 2020 , 98, 145-152		5
339	Identifying Defects in Li-Ion Cells Using Ultrasound Acoustic Measurements. <i>Journal of the Electrochemical Society</i> , 2020 , 167, 120530	3.9	10
338	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	3.9	6
337	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	3.9	2
336	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	3.9	10
335	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	3.9	12
334	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	6.7	4

333	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	35.4	6
332	Lignin-derived electrospun freestanding carbons as alternative electrodes for redox flow batteries. <i>Carbon</i> , 2020 , 157, 847-856	10.4	15
331	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	21.8	16
330	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	6.7	9
329	Room Temperature Synthesis of Phosphine-Capped Lead Bromide Perovskite Nanocrystals without Coordinating Solvents. <i>Particle and Particle Systems Characterization</i> , 2020 , 37, 1900391	3.1	20
328	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	6.7	18
327	Optimizing the architecture of lung-inspired fuel cells. <i>Chemical Engineering Science</i> , 2020 , 215, 115375	4.4	9
326	Enabling stable MnO ₂ matrix for aqueous zinc-ion battery cathodes. <i>Journal of Materials Chemistry A</i> , 2020 , 8, 22075-22082	13	47
325	Increased Stability of Palladium-Iridium-Gold Electrocatalyst for the Hydrogen Oxidation Reaction in Polymer Electrolyte Membrane Fuel Cells. <i>Electroanalysis</i> , 2020 , 32, 2893-2901	3	2
324	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	8.9	15
323	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	9.5	30
322	Realizing optimal hydrogen evolution reaction properties via tuning phosphorous and transition metal interactions. <i>Green Energy and Environment</i> , 2020 , 5, 506-512	5.7	11
321	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	3.9	11
320	Diagnosing Stagnant Gas Bubbles in a Polymer Electrolyte Membrane Water Electrolyser Using Acoustic Emission. <i>Frontiers in Energy Research</i> , 2020 , 8,	3.8	4
319	Microstructural Evolution of Battery Electrodes During Calendering. <i>Joule</i> , 2020 , 4, 2746-2768	27.8	34
318	Using In-Situ Laboratory and Synchrotron-Based X-ray Diffraction for Lithium-Ion Batteries Characterization: A Review on Recent Developments. <i>Condensed Matter</i> , 2020 , 5, 75	1.8	17
317	Elucidating the Sodiation Mechanism in Hard Carbon by Operando Raman Spectroscopy. <i>ACS Applied Energy Materials</i> , 2020 , 3, 7474-7484	6.1	23
316	The Role of Bi-Polar Plate Design and the Start-Up Protocol in the Spatiotemporal Dynamics during Solid Oxide Fuel Cell Anode Reduction. <i>Energies</i> , 2020 , 13, 3552	3.1	1

315	Data for an Advanced Microstructural and Electrochemical Datasheet on 18650 Li-ion Batteries with Nickel-Rich NMC811 Cathodes and Graphite-Silicon Anodes. <i>Data in Brief</i> , 2020 , 32, 106033	1.2	3
314	An anti-aging polymer electrolyte for flexible rechargeable zinc-ion batteries. <i>Journal of Materials Chemistry A</i> , 2020 , 8, 22637-22644	13	18
313	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	9.5	19
312	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	13	23
311	Study of H ₂ S Removal Capability from Simulated Biogas by Using Waste-Derived Adsorbent Materials. <i>Processes</i> , 2020 , 8, 1030	2.9	6
310	4D Bragg Edge Tomography of Directional Ice Templated Graphite Electrodes. <i>Journal of Imaging</i> , 2020 , 6,	3.1	4
309	Design and synthesis of tremella-like Ni ₁₀ S flakes on co-coated cotton textile as high-performance electrode for flexible supercapacitor. <i>Journal of Alloys and Compounds</i> , 2020 , 814, 151789	5.7	26
308	Fe ₃ S ₄ nanoparticles for arterial inflammation therapy: Integration of magnetic hyperthermia and photothermal treatment. <i>Applied Materials Today</i> , 2020 , 18, 100457	6.6	14
307	Zinc-Ion Batteries: Multi-Scale Investigations of Ni _{0.25} V ₂ O ₅ ·H ₂ O Cathode Materials in Aqueous Zinc-Ion Batteries (Adv. Energy Mater. 15/2020). <i>Advanced Energy Materials</i> , 2020 , 10, 2070068	21.8	5
306	Data on the theoretical X-Ray attenuation and transmissions for lithium-ion battery cathodes. <i>Data in Brief</i> , 2020 , 30, 105539	1.2	
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