Zhongwei Chen

List of Publications by Year in Descending Order

387 papers	32,214 citations	95 h-index	168 g-index
407 ext. papers	38,014 ext. citations	10.9 avg, IF	7.84 L-index

#	Paper	IF	Citations
387	Evidence of Morphological Change in Sulfur Cathodes upon Irradiation by Synchrotron X-rays. *ACS Energy Letters*, **2022**, 7, 577-582	20.1	1
386	A MOF-Derivative Decorated Hierarchical Porous Host Enabling Ultrahigh Rates and Superior Long-Term Cycling of Dendrite-Free Zn Metal Anodes.. *Advanced Materials*, **2022**, e2110047	24	19
385	Porous organic polymers for Li-chemistry-based batteries: functionalities and characterization studies.. *Chemical Society Reviews*, **2022**,	58.5	8
384	Linker-Compensated Metal-Organic Framework with Electron Delocalized Metal Sites for Bifunctional Oxygen Electrocatalysis.. *Journal of the American Chemical Society*, **2022**,	16.4	10
383	Emerging Trends in Sustainable CO Management Materials.. *Advanced Materials*, **2022**, e2201547	24	4
382	An improved capillary pressure model for coal seam gas reservoirs. *Journal of Natural Gas Science and Engineering*, **2022**, 104551	4.6	0
381	Frontispiece: Engineering Oversaturated Fe-N 5 Multifunctional Catalytic Sites for Durable Lithium-Sulfur Batteries. *Angewandte Chemie - International Edition*, **2021**, 60,	16.4	1
380	Effects of heterogenous interburden Young's modulus on permeability characteristics of underlying relieved coal seam: Implementation of damage-based permeability model. *Journal of Natural Gas Science and Engineering*, **2021**, 104317	4.6	1
379	Synergistic Binary Fe-Co Nanocluster Supported on Defective Tungsten Oxide as Efficient Oxygen Reduction Electrocatalyst in Zinc-Air Battery. *Advanced Science*, **2021**, 9, e2104237	13.6	6
378	Developing a new algorithm for numerical modeling of discrete fracture network (DFN) for anisotropic rock and percolation properties. *Journal of Petroleum Exploration and Production*, **2021**, 11, 839-856	2.2	1
377	Hierarchically Porous TiC MXene with Tunable Active Edges and Unsaturated Coordination Bonds for Superior Lithium-Sulfur Batteries. *ACS Nano*, **2021**,	16.7	10
376	Time-dependent coal permeability: Impact of gas transport from coal cleats to matrices. *Journal of Natural Gas Science and Engineering*, **2021**, 88, 103806	4.6	16
375	Coal permeability models for enhancing performance of clean gas drainage: A review. *Journal of Petroleum Science and Engineering*, **2021**, 199, 108283	4.4	10
374	Sauna Activation toward Intrinsic Lattice Deficiency in Carbon Nanotube Microspheres for High-Energy and Long-Lasting Lithium Sulfur Batteries. *Advanced Energy Materials*, **2021**, 11, 2100497	21.8	16
373	Defect Engineering for Expediting Li S Chemistry: Strategies, Mechanisms, and Perspectives. *Advanced Energy Materials*, **2021**, 11, 2100332	21.8	52
372	Poroelastic solution of a wellbore in a swelling rock with non-hydrostatic stress field. *Journal of Rock Mechanics and Geotechnical Engineering*, **2021**,	5.3	1
371	Multiple Fracture Growth in Modified Zipper Fracturing. *International Journal of Geomechanics*, **2021**, 21,	3.1	1

370	A Novel Design of High-Temperature Polymer Electrolyte Membrane Acetone Fuel Cell Sensor. *Sensors and Actuators B: Chemical*, **2021**, 329, 129006	8.5	2
369	High-performance anion exchange membrane alkaline seawater electrolysis. *Journal of Materials Chemistry A*, **2021**, 9, 9586-9592	13	13
368	Localized Polysulfide Injector for the Activation of Bulk Lithium Sulfide. *Journal of the American Chemical Society*, **2021**, 143, 2185-2189	16.4	14
367	Constructing multifunctional solid electrolyte interface via in-situ polymerization for dendrite-free and low N/P ratio lithium metal batteries. *Nature Communications*, **2021**, 12, 186	17.4	61
366	Hierarchical Micro-Nanoclusters of Bimetallic Layered Hydroxide Polyhedrons as Advanced Sulfur Reservoir for High-Performance Lithium-Sulfur Batteries. *Advanced Science*, **2021**, 8, 2003400	13.6	19
365	Reduction of N to NH by TiO-supported Ni cluster catalysts: a DFT study. *Physical Chemistry Chemical Physics*, **2021**, 23, 16707-16717	3.6	3
364	Understanding competing effect between sorption swelling and mechanical compression on coal matrix deformation and its permeability. *International Journal of Rock Mechanics and Minings Sciences*, **2021**, 138, 104639	6	12
363	Design Zwitterionic Amorphous Conjugated Micro-/Mesoporous Polymer Assembled Nanotentacle as Highly Efficient Sulfur Electrocatalyst for Lithium-Sulfur Batteries. *Advanced Energy Materials*, **2021**, 11, 2101926	21.8	10
362	Engineering Oversaturated Fe-N Multifunctional Catalytic Sites for Durable Lithium-Sulfur Batteries. *Angewandte Chemie - International Edition*, **2021**, 60, 26622-26629	16.4	23
361	Enhancing anaerobic digestion using free nitrous acid: Identifying the optimal pre-treatment condition in continuous operation. *Water Research*, **2021**, 205, 117694	12.5	2
360	Recent Progress on High-Performance Cathode Materials for Zinc-Ion Batteries. *Small Structures*, **2021**, 2, 2000064	8.7	36
359	Thin Film Polyamide Nanocomposite Membrane Decorated by Polyphenol-Assisted TiCT MXene Nanosheets for Reverse Osmosis.. *ACS Applied Materials & Interfaces*, **2021**,	9.5	3
358	Quantifying the impact of capillary trapping on coal seam gas recovery. *Journal of Natural Gas Science and Engineering*, **2020**, 83, 103588	4.6	5
357	Preferentially Engineering FeN Edge Sites onto Graphitic Nanosheets for Highly Active and Durable Oxygen Electrocatalysis in Rechargeable Zn-Air Batteries. *Advanced Materials*, **2020**, 32, e2004900	24	94
356	Three-Dimensional Modeling of All-Solid-State Lithium-Ion Batteries Using Synchrotron Transmission X-ray Microscopy Tomography. *Journal of the Electrochemical Society*, **2020**, 167, 100558	3.9	14
355	Insights into Multiphase Reactions during Self-Discharge of Li-S Batteries. *Chemistry of Materials*, **2020**, 32, 4518-4526	9.6	23
354	Two-Dimensional NiO@C-N Nanosheets Composite as a Superior Low-Temperature Anode Material for Advanced Lithium-/Sodium-Ion Batteries. *ChemElectroChem*, **2020**, 7, 3616-3622	4.3	8
353	High Voltage Stability and Characterization of P2-Na0.66Mn1-yMgyO2 Cathode for Sodium-Ion Batteries. *ChemElectroChem*, **2020**, 7, 3284-3290	4.3	5

352	Supramolecular preorganization effect to access single cobalt sites for enhanced photocatalytic hydrogen evolution and nitrogen fixation. *Chemical Engineering Journal*, **2020**, 394, 124822	14.7	9
351	Scaling Compressive Strength from Mini-cylinder Specimens of Sub-bituminous Coal. *Rock Mechanics and Rock Engineering*, **2020**, 53, 2839-2853	5.7	3
350	Constructing Safe and Durable High-Voltage P2 Layered Cathodes for Sodium Ion Batteries Enabled by Molecular Layer Deposition of Alucone. *Advanced Functional Materials*, **2020**, 30, 1910251	15.6	24
349	Superior performance of anion exchange membrane water electrolyzer: Ensemble of producing oxygen vacancies and controlling mass transfer resistance. *Applied Catalysis B: Environmental*, **2020**, 278, 119276	21.8	32
348	Stimulation Techniques of Coalbed Methane Reservoirs. *Geofluids*, **2020**, 2020, 1-23	1.5	12
347	Fast production of zinc–hexamethylenetetramine complex microflowers as an advanced sulfur reservoir for high-performance lithium–sulfur batteries. *Journal of Materials Chemistry A*, **2020**, 8, 5062-5069	12	7
346	Cationic and anionic redox in lithium-ion based batteries. *Chemical Society Reviews*, **2020**, 49, 1688-1705	58.5	84
345	Ni-Rich/Co-Poor Layered Cathode for Automotive Li-Ion Batteries: Promises and Challenges. *Advanced Energy Materials*, **2020**, 10, 1903864	21.8	119
344	Free nitrous acid pre-treatment enhances anaerobic digestion of waste activated sludge and rheological properties of digested sludge: A pilot-scale study. *Water Research*, **2020**, 172, 115515	12.5	21
343	Recycling of mixed cathode lithium-ion batteries for electric vehicles: Current status and future outlook **2020**, 2, 6-43		136
342	Advanced Electrode Materials Comprising of Structure-Engineered Quantum Dots for High-Performance Asymmetric Micro-Supercapacitors. *Advanced Energy Materials*, **2020**, 10, 1903724	21.8	23
341	Polysulfide Regulation by the Zwitterionic Barrier toward Durable Lithium-Sulfur Batteries. *Journal of the American Chemical Society*, **2020**, 142, 3583-3592	16.4	95
340	Boosting the Heat Dissipation Performance of Graphene/Polyimide Flexible Carbon Film via Enhanced Through-Plane Conductivity of 3D Hybridized Structure. *Small*, **2020**, 16, e1903315	11	23
339	Modelling of shaft based processes. *Mineral Processing and Extractive Metallurgy: Transactions of the Institute of Mining and Metallurgy*, **2020**, 129, 157-165	0.8	1
338	Predicting the radial heat transfer in the wellbore of cryogenic nitrogen fracturing: Insights into stimulating underground reservoir. *Energy Science and Engineering*, **2020**, 8, 582-591	3.4	1
337	Performance enhancement of horizontal underground-to-inseam gas drainage boreholes with double-phase-grouting sealing method for coal mining safety and clean gas resource. *Journal of Natural Gas Science and Engineering*, **2020**, 76, 103179	4.6	12
336	Hierarchical Defective Fe3-xC@C Hollow Microsphere Enables Fast and Long-Lasting Lithium–Sulfur Batteries. *Advanced Functional Materials*, **2020**, 30, 2001165	15.6	85
335	Ternary Cross-Linked Multi-Functional Blended Polymers for High-Performance Silicon Anodes in Lithium-Ion Batteries. *ECS Meeting Abstracts*, **2020**, MA2020-02, 3807-3807	0	

334	New Concepts in Electrolytes. *Chemical Reviews*, **2020**, 120, 6783-6819	68.1	267
333	Shore hardness measurements of sub-bituminous coal microlithotypes. *International Journal of Coal Geology*, **2020**, 217, 103341	5.5	1
332	Engineering the Conductive Network of Metal Oxide-Based Sulfur Cathode toward Efficient and Longevous Lithium–Sulfur Batteries. *Advanced Energy Materials*, **2020**, 10, 2002076	21.8	60
331	Promoting Ge Alloying Reaction via Heterostructure Engineering for High Efficient and Ultra-Stable Sodium-Ion Storage. *Advanced Science*, **2020**, 7, 2002358	13.6	14
330	Fast Charging Li-Ion Batteries for a New Era of Electric Vehicles. *Cell Reports Physical Science*, **2020**, 1, 100212	6.1	22
329	Developing high safety Li-metal anodes for future high-energy Li-metal batteries: strategies and perspectives. *Chemical Society Reviews*, **2020**, 49, 5407-5445	58.5	121
328	A Near-Isotropic Proton-Conducting Porous Graphene Oxide Membrane. *ACS Nano*, **2020**, 14, 14947-14956	13.7	5
327	Coupled multiscale-modeling of microwave-heating-induced fracturing in shales. *International Journal of Rock Mechanics and Minings Sciences*, **2020**, 136, 104520	6	9
326	d-Orbital steered active sites through ligand editing on heterometal imidazole frameworks for rechargeable zinc-air battery. *Nature Communications*, **2020**, 11, 5858	17.4	49
325	A Combined Ordered Macro-Mesoporous Architecture Design and Surface Engineering Strategy for High-Performance Sulfur Immobilizer in Lithium-Sulfur Batteries. *Small*, **2020**, 16, e2001089	11	27
324	Regulating the Li -Solvation Structure of Ester Electrolyte for High-Energy-Density Lithium Metal Batteries. *Small*, **2020**, 16, e2004688	11	15
323	Applying low-salinity water to alter wettability in carbonate oil reservoirs: an experimental study. *Journal of Petroleum Exploration and Production*, **2020**, 11, 451	2.2	2
322	A review of composite solid-state electrolytes for lithium batteries: fundamentals, key materials and advanced structures. *Chemical Society Reviews*, **2020**, 49, 8790-8839	58.5	153
321	Radial Permeability Measurements for Shale Using Variable Pressure Gradients. *Acta Geologica Sinica*, **2020**, 94, 269-279	0.7	2
320	Zwitterionic impetus on single lithium-ion conduction in solid polymer electrolyte for all-solid-state lithium-ion batteries. *Chemical Engineering Journal*, **2020**, 384, 123237	14.7	24
319	Testing Impact Load Cell Calculations of Material Fracture Toughness and Strength Using 3D-Printed Sandstone. *Geotechnical and Geological Engineering*, **2020**, 38, 1065-1096	1.5	4
318	The Current State of Aqueous Zn-Based Rechargeable Batteries. *ACS Energy Letters*, **2020**, 5, 1665-1675	20.1	127
317	Dynamic electrocatalyst with current-driven oxyhydroxide shell for rechargeable zinc-air battery. *Nature Communications*, **2020**, 11, 1952	17.4	93

316	A 'trimurti' heterostructured hybrid with an intimate CoO/CoxP interface as a robust bifunctional air electrode for rechargeable Zn–air batteries. *Journal of Materials Chemistry A*, **2020**, 8, 9177-9184	13	39
315	Rational design of tailored porous carbon-based materials for CO2 capture. *Journal of Materials Chemistry A*, **2019**, 7, 20985-21003	13	84
314	Nitrogen-doped graphene-TiO N nanocomposite electrode for highly efficient capacitive deionization.. *RSC Advances*, **2019**, 9, 28186-28193	3.7	7
313	The use of short impact load cell to derive geomechanical properties of sub-bituminous coal and mudstone. *Journal of Natural Gas Science and Engineering*, **2019**, 72, 103018	4.6	2
312	Unravelling the influences of sewer-dosed iron salts on activated sludge properties with implications on settleability, dewaterability and sludge rheology. *Water Research*, **2019**, 167, 115089	12.5	14
311	A 3D ordered hierarchically porous non-carbon electrode for highly effective and efficient capacitive deionization. *Journal of Materials Chemistry A*, **2019**, 7, 15633-15639	13	30
310	3D Nanowire Arrayed Cu Current Collector toward Homogeneous Alloying Anode Deposition for Enhanced Sodium Storage. *Advanced Energy Materials*, **2019**, 9, 1900673	21.8	21
309	Water sorptivity of unsaturated fractured sandstone: Fractal modeling and neutron radiography experiment. *Advances in Water Resources*, **2019**, 130, 172-183	4.7	12
308	Reassessment of coal permeability evolution using steady-state flow methods: The role of flow regime transition. *International Journal of Coal Geology*, **2019**, 211, 103210	5.5	47
307	Modelling and optimization of enhanced coalbed methane recovery using CO2/N2 mixtures. *Fuel*, **2019**, 253, 1114-1129	7.1	108
306	Improved Composite Solid Electrolyte through Ionic Liquid-Assisted Polymer Phase for Solid-State Lithium Ion Batteries. *Journal of the Electrochemical Society*, **2019**, 166, A1785-A1792	3.9	14
305	Multidimensional Ordered Bifunctional Air Electrode Enables Flash Reactants Shuttling for High-Energy Flexible Zn-Air Batteries. *Advanced Energy Materials*, **2019**, 9, 1900911	21.8	85
304	Coalbed methane emissions and drainage methods in underground mining for mining safety and environmental benefits: A review. *Chemical Engineering Research and Design*, **2019**, 127, 103-124	5.5	65
303	Phase evolution of conversion-type electrode for lithium ion batteries. *Nature Communications*, **2019**, 10, 2224	17.4	59
302	"Ship in a Bottle" Design of Highly Efficient Bifunctional Electrocatalysts for Long-Lasting Rechargeable Zn-Air Batteries. *ACS Nano*, **2019**, 13, 7062-7072	16.7	78
301	Rational Design of Environmental Benign Organic–Inorganic Hybrid as a Prospective Cathode for Stable High-Voltage Sodium Ion Batteries. *Journal of Physical Chemistry C*, **2019**, 123, 11464-11475	3.8	6
300	Anisotropic coal permeability estimation by determining cleat compressibility using mercury intrusion porosimetry and stress–strain measurements. *International Journal of Coal Geology*, **2019**, 205, 75-86	5.5	23
299	A high performance wastewater-fed flow-photocatalytic fuel cell. *Journal of Power Sources*, **2019**, 425, 69-75	8.9	24

298	Application of Artificial Intelligence to State-of-Charge and State-of-Health Estimation of Calendar-Aged Lithium-Ion Pouch Cells. *Journal of the Electrochemical Society*, **2019**, 166, A605-A615	3.9	20
297	Layer-Based Heterostructured Cathodes for Lithium-Ion and Sodium-Ion Batteries. *Advanced Functional Materials*, **2019**, 29, 1808522	15.6	61
296	Advances in fibre optic based geotechnical monitoring systems for underground excavations. *International Journal of Mining Science and Technology*, **2019**, 29, 229-238	7.1	19
295	Multifunctional Nano-Architecting of Si Electrode for High-Performance Lithium-Ion Battery Anode. *Journal of the Electrochemical Society*, **2019**, 166, A2776-A2783	3.9	3
294	Flow field characters near fracture entrance in supercritical carbon dioxide sand fracturing **2019**, 9, 999-1009		9
293	A highly sensitive breathable fuel cell gas sensor with nanocomposite solid electrolyte. *Informa Materi*, **2019**, 1, 234-241	23.1	23
292	The influence of closed pores on the gas transport and its application in coal mine gas extraction. *Fuel*, **2019**, 254, 115605	7.1	16
291	Defect-Enriched Nitrogen Doped-Graphene Quantum Dots Engineered NiCo S Nanoarray as High-Efficiency Bifunctional Catalyst for Flexible Zn-Air Battery. *Small*, **2019**, 15, e1903610	11	61
290	Molecular Trapping Strategy To Stabilize Subnanometric Pt Clusters for Highly Active Electrocatalysis. *ACS Catalysis*, **2019**, 9, 11603-11613	13.1	19
289	Towards the development of a baseline for surface movement in the Surat Cumulative Management Area. *APPEA Journal*, **2019**, 59, 95	0.6	2
288	Impact of capillary trapping on CSG recovery: an overlooked phenomenon. *APPEA Journal*, **2019**, 59, 343	0.6	3
287	Interaction of Cleat-Matrix on Coal Permeability from Experimental Observations and Numerical Analysis. *Geofluids*, **2019**, 2019, 1-15	1.5	2
286	A Stochastic Anisotropic Coal Permeability Model Using Mercury Intrusion Porosimetry, MIP and Stress-Strain Measurements **2019**,		1
285	Characterizations of macroscopic deformation and particle crushing of crushed gangue particle material under cyclic loading: In solid backfilling coal mining. *Powder Technology*, **2019**, 343, 159-169	5.2	23
284	Zn-free MOFs like MIL-53(Al) and MIL-125(Ti) for the preparation of defect-rich, ultrafine ZnO nanosheets with high photocatalytic performance. *Applied Catalysis B: Environmental*, **2019**, 244, 719-731	21.8	44
283	Recent Progress in Electrically Rechargeable Zinc-Air Batteries. *Advanced Materials*, **2019**, 31, e1805230	24	204
282	Evaluation of air blast parameters in block cave mining using particle flow code. *International Journal of Mining, Reclamation and Environment*, **2019**, 33, 87-101	2.2	5
281	Simulation of microwave heating effect on coal seam permeability enhancement. *International Journal of Mining Science and Technology*, **2019**, 29, 785-789	7.1	21

280	Phosphorus and Nitrogen Centers in Doped Graphene and Carbon Nanotubes Analyzed through Solid-State NMR. *Journal of Physical Chemistry C*, **2018**, 122, 6593-6601	3.8	27
279	Revisiting the Role of Polysulfides in Lithium-Sulfur Batteries. *Advanced Materials*, **2018**, 30, e1705590	24	291
278	Characterization of unsaturated diffusivity of tight sandstones using neutron radiography. *International Journal of Heat and Mass Transfer*, **2018**, 124, 693-705	4.9	16
277	Batteries and fuel cells for emerging electric vehicle markets. *Nature Energy*, **2018**, 3, 279-289	62.3	1176
276	Chemisorption of polysulfides through redox reactions with organic molecules for lithium-sulfur batteries. *Nature Communications*, **2018**, 9, 705	17.4	159
275	Role of multi-seam interaction on gas drainage engineering design for mining safety and environmental benefits: Linking coal damage to permeability variation. *Chemical Engineering Research and Design*, **2018**, 114, 310-322	5.5	25
274	Two-Dimensional Phosphorus-Doped Carbon Nanosheets with Tunable Porosity for Oxygen Reactions in Zinc-Air Batteries. *ACS Catalysis*, **2018**, 8, 2464-2472	13.1	129
273	Interpenetrating Triphase Cobalt-Based Nanocomposites as Efficient Bifunctional Oxygen Electrocatalysts for Long-Lasting Rechargeable Zn–Air Batteries. *Advanced Energy Materials*, **2018**, 8, 1702900	21.8	183
272	Platinum-Palladium Core–Shell Nanoflower Catalyst with Improved Activity and Excellent Durability for the Oxygen Reduction Reaction. *Advanced Materials Interfaces*, **2018**, 5, 1701508	4.6	5
271	Controllable Urchin-Like NiCo2S4 Microsphere Synergized with Sulfur-Doped Graphene as Bifunctional Catalyst for Superior Rechargeable Zn–Air Battery. *Advanced Functional Materials*, **2018**, 28, 1706675	15.6	160
270	Silicon-Based Anodes for Lithium-Ion Batteries: From Fundamentals to Practical Applications. *Small*, **2018**, 14, 1702737	11	433
269	Effects of geomechanical properties of interburden on the damage-based permeability variation in the underlying coal seam. *Journal of Natural Gas Science and Engineering*, **2018**, 55, 42-51	4.6	8
268	Predicting Erosion-Induced Water Inrush of Karst Collapse Pillars Using Inverse Velocity Theory. *Geofluids*, **2018**, 2018, 1-18	1.5	22
267	Fluid Flow in Unconventional Gas Reservoirs. *Geofluids*, **2018**, 2018, 1-2	1.5	4
266	Conformal formation of Carbon-TiOX matrix encapsulating silicon for high-performance lithium-ion battery anode. *Journal of Power Sources*, **2018**, 399, 98-104	8.9	2
265	Li S- or S-Based Lithium-Ion Batteries. *Advanced Materials*, **2018**, 30, e1801190	24	39
264	Particle-Crushing Characteristics and Acoustic-Emission Patterns of Crushing Gangue Backfilling Material under Cyclic Loading. *Minerals (Basel, Switzerland)*, **2018**, 8, 244	2.4	20
263	Effects of Water Soaked Height on the Deformation and Crushing Characteristics of Loose Gangue Backfill Material in Solid Backfill Coal Mining. *Processes*, **2018**, 6, 64	2.9	18

262	New Interpretation of the Performance of Nickel-Based Air Electrodes for Rechargeable Zinc–Air Batteries. *Journal of Physical Chemistry C*, **2018**, 122, 20153-20166	3.8	19
261	Hollow Multivoid Nanocuboids Derived from Ternary NiCoFe Prussian Blue Analog for Dual-Electrocatalysis of Oxygen and Hydrogen Evolution Reactions. *Advanced Functional Materials*, **2018**, 28, 1802129	15.6	180
260	Bifunctionally active and durable hierarchically porous transition metal-based hybrid electrocatalyst for rechargeable metal-air batteries. *Applied Catalysis B: Environmental*, **2018**, 239, 677-687	21.8	53
259	An all-aqueous redox flow battery with unprecedented energy density. *Energy and Environmental Science*, **2018**, 11, 2010-2015	35.4	99
258	30 Years of Lithium-Ion Batteries. *Advanced Materials*, **2018**, 30, e1800561	24	1694
257	A Polyanion Host as a Prospective High Voltage Cathode Material for Sodium Ion Batteries. *Journal of the Electrochemical Society*, **2018**, 165, A1822-A1828	3.9	9
256	Range-extending Zinc-air battery for electric vehicle. *AIMS Energy*, **2018**, 6, 121-145	1.8	22
255	Web-like 3D Architecture of Pt Nanowires and Sulfur-Doped Carbon Nanotube with Superior Electrocatalytic Performance. *ACS Sustainable Chemistry and Engineering*, **2018**, 6, 93-98	8.3	36
254	3D Porous Carbon Sheets with Multidirectional Ion Pathways for Fast and Durable Lithium–Sulfur Batteries. *Advanced Energy Materials*, **2018**, 8, 1702381	21.8	132
253	Hierarchical Core-Shell Nickel Cobaltite Chestnut-like Structures as Bifunctional Electrocatalyst for Rechargeable Metal-Air Batteries. *ChemSusChem*, **2018**, 11, 406-414	8.3	21
252	Conductive Nanocrystalline Niobium Carbide as High-Efficiency Polysulfides Tamer for Lithium-Sulfur Batteries. *Advanced Functional Materials*, **2018**, 28, 1704865	15.6	173
251	Pore structure characterization of coal by synchrotron radiation nano-CT. *Fuel*, **2018**, 215, 102-110	7.1	84
250	A new approach for selecting best development face ventilation mode based on G1-coefficient of variation method. *Journal of Central South University*, **2018**, 25, 2462-2471	2.1	7
249	Highly Efficient Removal of Suspended Solid Pollutants from Wastewater by Magnetic Fe3O4-Graphene Oxides Nanocomposite. *ChemistrySelect*, **2018**, 3, 11643-11648	1.8	2
248	Computational and Experimental Investigations of Fluid Flow in Rock Materials. *Advances in Civil Engineering*, **2018**, 2018, 1-3	1.3	
247	High performance organic sodium-ion hybrid capacitors based on nano-structured disodium rhodizonate rivaling inorganic hybrid capacitors. *Green Chemistry*, **2018**, 20, 4920-4931	10	10
246	Experimental study on radon exhalation characteristics of coal samples under varying gas pressures. *Results in Physics*, **2018**, 10, 1006-1014	3.7	2
245	Highly durable 3D conductive matrixed silicon anode for lithium-ion batteries. *Journal of Power Sources*, **2018**, 407, 84-91	8.9	20

244	The Dual-Play of 3D Conductive Scaffold Embedded with Co, N Codoped Hollow Polyhedra toward High-Performance Li–S Full Cell. *Advanced Energy Materials*, **2018**, 8, 1802561	21.8	83
243	Fundamental Understanding and Material Challenges in Rechargeable Nonaqueous Li–O2 Batteries: Recent Progress and Perspective. *Advanced Energy Materials*, **2018**, 8, 1800348	21.8	101
242	A coupled electromagnetic irradiation, heat and mass transfer model for microwave heating and its numerical simulation on coal. *Fuel Processing Technology*, **2018**, 177, 237-245	7.2	56
241	Analysis on the multi-phase flow characterization in cross-measure borehole during coal hydraulic slotting. *International Journal of Mining Science and Technology*, **2018**, 28, 701-705	7.1	17
240	Stringed-cube on cube-nanohybrids as compact cathode matrix for high-loading and lean-electrolyte lithium–sulfur batteries. *Energy and Environmental Science*, **2018**, 11, 2372-2381	35.4	193
239	Dimensional analysis and prediction of coal fines generation under two-phase flow conditions. *Fuel*, **2017**, 194, 460-479	7.1	21
238	Modified chalcogens with a tuned nano-architecture for high energy density and long life hybrid super capacitors. *Journal of Materials Chemistry A*, **2017**, 5, 7523-7532	13	12
237	Representative volume element model of lithium-ion battery electrodes based on X-ray nano-tomography. *Journal of Applied Electrochemistry*, **2017**, 47, 281-293	2.6	21
236	A facile self-templating synthesis of carbon frameworks with tailored hierarchical porosity for enhanced energy storage performance. *Chemical Communications*, **2017**, 53, 5028-5031	5.8	9
235	Self-Supported Cobalt Nickel Nitride Nanowires Electrode for Overall Electrochemical Water Splitting. *Energy Technology*, **2017**, 5, 1908-1911	3.5	31
234	CNT-threaded N-doped porous carbon film as binder-free electrode for high-capacity supercapacitor and Li–S battery. *Journal of Materials Chemistry A*, **2017**, 5, 9775-9784	13	99
233	Reconciled Nanoarchitecture with Overlapped 2 D Anatomy for High-Energy Hybrid Supercapacitors. *Energy Technology*, **2017**, 5, 1919-1926	3.5	3
232	Design of ultralong single-crystal nanowire-based bifunctional electrodes for efficient oxygen and hydrogen evolution in a mild alkaline electrolyte. *Journal of Materials Chemistry A*, **2017**, 5, 10895-10901	13	20
231	Effects of coal properties on ventilation air leakage into methane gas drainage boreholes: Application of the orthogonal design. *Journal of Natural Gas Science and Engineering*, **2017**, 45, 88-95	4.6	19
230	Hot-Chemistry Structural Phase Transformation in Single-Crystal Chalcogenides for Long-Life Lithium Ion Batteries. *ACS Applied Materials & Interfaces*, **2017**, 9, 20603-20612	9.5	14
229	Self-Assembly of Spinel Nanocrystals into Mesoporous Spheres as Bifunctionally Active Oxygen Reduction and Evolution Electrocatalysts. *ChemSusChem*, **2017**, 10, 2258-2266	8.3	19
228	Characterisation of creep in coal and its impact on permeability: An experimental study. *International Journal of Coal Geology*, **2017**, 173, 200-211	5.5	39
227	Strings of Porous Carbon Polyhedrons as Self-Standing Cathode Host for High-Energy-Density Lithium–Sulfur Batteries. *Angewandte Chemie*, **2017**, 129, 6272-6276	3.6	30

226	Strings of Porous Carbon Polyhedrons as Self-Standing Cathode Host for High-Energy-Density Lithium-Sulfur Batteries. *Angewandte Chemie - International Edition*, **2017**, 56, 6176-6180	16.4	127
225	Is the rapid initial performance loss of Fe/N/C non precious metal catalysts due to micropore flooding?. *Energy and Environmental Science*, **2017**, 10, 296-305	35.4	103
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