

# Dongchang Chen

## List of Publications by Year in Descending Order

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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.

55  
papers

5,262  
citations

35  
h-index

55  
g-index

55  
ext. papers

6,032  
ext. citations

15.3  
avg, IF

5.69  
L-index

#	Paper	IF	Citations
55	Application of Advanced Vibrational Spectroscopy in Revealing Critical Chemical Processes and Phenomena of Electrochemical Energy Storage and Conversion.. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2022</b> ,	9.5	4
54	Fluorination-Enhanced Surface Stability of Cation-Disordered Rocksalt Cathodes for Li-Ion Batteries. <i>Advanced Functional Materials</i> , <b>2021</b> , 31, 2101888	15.6	11
53	Understanding cation-disordered rocksalt oxyfluoride cathodes. <i>Journal of Materials Chemistry A</i> , <b>2021</b> , 9, 7826-7837	13	6
52	Atomic-scale mechanisms for fluorination-enhanced cycling stability of cation-disordered rocksalt cathodes. <i>Microscopy and Microanalysis</i> , <b>2021</b> , 27, 1256-1258	0.5	
51	Formation of LiF Surface Layer During Direct Fluorination of High-Capacity Co-Free Disordered Rocksalt Cathodes. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2021</b> , 13, 38221-38228	9.5	5
50	Role of Fluorine in Chemomechanics of Cation-Disordered Rocksalt Cathodes. <i>Chemistry of Materials</i> , <b>2021</b> , 33, 7028-7038	9.6	2
49	Role of Redox-Inactive Transition-Metals in the Behavior of Cation-Disordered Rocksalt Cathodes. <i>Small</i> , <b>2020</b> , 16, e2000656	11	22
48	A Fluorination Method for Improving Cation-Disordered Rocksalt Cathode Performance. <i>Advanced Energy Materials</i> , <b>2020</b> , 10, 2001671	21.8	18
47	Li-Ion Batteries: A Fluorination Method for Improving Cation-Disordered Rocksalt Cathode Performance (Adv. Energy Mater. 35/2020). <i>Advanced Energy Materials</i> , <b>2020</b> , 10, 2070146	21.8	
46	Evolution of Local Structural Ordering and Chemical Distribution upon Delithiation of a Rock Salt Structured Li <sub>1.3</sub> Ta <sub>0.3</sub> Mn <sub>0.4</sub> O <sub>2</sub> Cathode. <i>Advanced Functional Materials</i> , <b>2019</b> , 29, 1808294	15.6	29
45	Operando Investigation into Dynamic Evolution of Cathode-Electrolyte Interfaces in a Li-Ion Battery. <i>Nano Letters</i> , <b>2019</b> , 19, 2037-2043	11.5	45
44	Understanding Performance Degradation in Cation-Disordered Rock-Salt Oxide Cathodes. <i>Advanced Energy Materials</i> , <b>2019</b> , 9, 1901255	21.8	45
43	A high-performance supercapacitor electrode based on N-doped porous graphene. <i>Journal of Power Sources</i> , <b>2018</b> , 387, 43-48	8.9	152
42	Unravelling Solid-State Redox Chemistry in Li <sub>1.3</sub> Nb <sub>0.3</sub> Mn <sub>0.4</sub> O <sub>2</sub> Single-Crystal Cathode Material. <i>Chemistry of Materials</i> , <b>2018</b> , 30, 1655-1666	9.6	58
41	Rational Design of Nickel Hydroxide-Based Nanocrystals on Graphene for Ultrafast Energy Storage. <i>Advanced Energy Materials</i> , <b>2018</b> , 8, 1702247	21.8	172
40	A novel low-thermal-budget approach for the co-production of ethylene and hydrogen via the electrochemical non-oxidative deprotonation of ethane. <i>Energy and Environmental Science</i> , <b>2018</b> , 11, 1710-1716	35.4	55
39	An effective strategy to enhancing tolerance to contaminants poisoning of solid oxide fuel cell cathodes. <i>Nano Energy</i> , <b>2018</b> , 47, 474-480	17.1	48

38	In Situ and Surface-Enhanced Raman Spectroscopy Study of Electrode Materials in Solid Oxide Fuel Cells. <i>Electrochemical Energy Reviews</i> , <b>2018</b> , 1, 433-459	29.3	14
37	An In Situ Formed, Dual-Phase Cathode with a Highly Active Catalyst Coating for Protonic Ceramic Fuel Cells. <i>Advanced Functional Materials</i> , <b>2018</b> , 28, 1704907	15.6	59
36	A bi-functional WO <sub>3</sub> -based anode enables both energy storage and conversion in an intermediate-temperature fuel cell. <i>Energy Storage Materials</i> , <b>2018</b> , 12, 79-84	19.4	8
35	A tailored double perovskite nanofiber catalyst enables ultrafast oxygen evolution. <i>Nature Communications</i> , <b>2017</b> , 8, 14586	17.4	251
34	Controlled synthesis of three-phase Ni <sub>3</sub> S <sub>2</sub> /rGO nanoflake electrodes for hybrid supercapacitors with high energy and power density. <i>Nano Energy</i> , <b>2017</b> , 33, 522-531	17.1	167
33	Functionalized Bimetallic Hydroxides Derived from Metal-Organic Frameworks for High-Performance Hybrid Supercapacitor with Exceptional Cycling Stability. <i>ACS Energy Letters</i> , <b>2017</b> , 2, 1263-1269	20.1	128
32	Unraveling the Nature of Anomalously Fast Energy Storage in T-NbO. <i>Journal of the American Chemical Society</i> , <b>2017</b> , 139, 7071-7081	16.4	118
31	A high-energy, long cycle-life hybrid supercapacitor based on graphene composite electrodes. <i>Energy Storage Materials</i> , <b>2017</b> , 7, 32-39	19.4	124
30	A durable polyvinyl butyral-CsH <sub>2</sub> PO <sub>4</sub> composite electrolyte for solid acid fuel cells. <i>Journal of Power Sources</i> , <b>2017</b> , 359, 1-6	8.9	6
29	A robust and active hybrid catalyst for facile oxygen reduction in solid oxide fuel cells. <i>Energy and Environmental Science</i> , <b>2017</b> , 10, 964-971	35.4	145
28	Systematic study on structural and electronic properties of diamine/triamine functionalized graphene networks for supercapacitor application. <i>Nano Energy</i> , <b>2017</b> , 31, 183-193	17.1	99
27	One-step synthesis of architectural Ni <sub>3</sub> S <sub>2</sub> nanosheet-on-nanorods array for use as high-performance electrodes for supercapacitors. <i>NPG Asia Materials</i> , <b>2016</b> , 8, e300-e300	10.3	69
26	In situ Raman spectroscopic analysis of the coking resistance mechanism on SrZr <sub>0.95</sub> Y <sub>0.05</sub> O <sub>3-<math>\lambda</math></sub> surface for solid oxide fuel cell anodes. <i>Journal of Power Sources</i> , <b>2016</b> , 324, 282-287	8.9	2
25	A high-performance, cobalt-free cathode for intermediate-temperature solid oxide fuel cells with excellent CO <sub>2</sub> tolerance. <i>Journal of Power Sources</i> , <b>2016</b> , 319, 178-184	8.9	25
24	Dramatically enhanced reversibility of Li <sub>2</sub> O in SnO <sub>2</sub> -based electrodes: the effect of nanostructure on high initial reversible capacity. <i>Energy and Environmental Science</i> , <b>2016</b> , 9, 595-603	35.4	257
23	A Scalable Free-Standing V <sub>2</sub> O <sub>5</sub> /CNT Film Electrode for Supercapacitors with a Wide Operation Voltage (1.6 V) in an Aqueous Electrolyte. <i>Advanced Functional Materials</i> , <b>2016</b> , 26, 6114-6120	15.6	88
22	Inhibiting Sn coarsening to enhance the reversibility of conversion reaction in lithiated SnO <sub>2</sub> anodes by application of super-elastic NiTi films. <i>Acta Materialia</i> , <b>2016</b> , 109, 248-258	8.4	45
21	Nickel-based pillared MOFs for high-performance supercapacitors: Design, synthesis and stability study. <i>Nano Energy</i> , <b>2016</b> , 26, 66-73	17.1	238

20	Probing Structural Evolution and Charge Storage Mechanism of NiOH Electrode Materials using In Operando Resonance Raman Spectroscopy. <i>Advanced Science</i> , <b>2016</b> , 3, 1500433	13.6	58
19	Controlled synthesis of NiCo <sub>2</sub> S <sub>4</sub> nanostructured arrays on carbon fiber paper for high-performance pseudocapacitors. <i>Nano Energy</i> , <b>2015</b> , 16, 71-80	17.1	292
18	Probing the Charge Storage Mechanism of a Pseudocapacitive MnO <sub>2</sub> Electrode Using in Operando Raman Spectroscopy. <i>Chemistry of Materials</i> , <b>2015</b> , 27, 6608-6619	9.6	141
17	Oxygen- and Nitrogen-Enriched 3D Porous Carbon for Supercapacitors of High Volumetric Capacity. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2015</b> , 7, 24622-8	9.5	125
16	Electrostatic Force Microscopic Characterization of Early Stage Carbon Deposition on Nickel Anodes in Solid Oxide Fuel Cells. <i>Nano Letters</i> , <b>2015</b> , 15, 6047-50	11.5	9
15	Evaluation of La <sub>0.4</sub> Ba <sub>0.6</sub> Fe <sub>0.8</sub> Zn <sub>0.2</sub> O <sub>3-<math>\delta</math></sub> /Sm <sub>0.2</sub> Ce <sub>0.8</sub> O <sub>1.9</sub> as a potential cobalt-free composite cathode for intermediate temperature solid oxide fuel cells. <i>Journal of Power Sources</i> , <b>2015</b> , 275, 808-814	8.9	25
14	Three-dimensional ultrathin Ni(OH) <sub>2</sub> nanosheets grown on nickel foam for high-performance supercapacitors. <i>Nano Energy</i> , <b>2015</b> , 11, 154-161	17.1	329
13	Controllable interior structure of ZnCo <sub>2</sub> O <sub>4</sub> microspheres for high-performance lithium-ion batteries. <i>Nano Energy</i> , <b>2015</b> , 11, 64-70	17.1	107
12	Crosslinking Graphene Oxide into Robust 3D Porous N-Doped Graphene. <i>Advanced Materials</i> , <b>2015</b> , 27, 5171-5	24	165
11	Deformable fibrous carbon supported ultrafine nano-SnO <sub>2</sub> as a high volumetric capacity and cyclic durable anode for Li storage. <i>Journal of Materials Chemistry A</i> , <b>2015</b> , 3, 15097-15107	13	44
10	Phase evolution of an alpha MnO <sub>2</sub> -based electrode for pseudo-capacitors probed by in operando Raman spectroscopy. <i>Nano Energy</i> , <b>2014</b> , 9, 161-167	17.1	138
9	Contribution of carbon fiber paper (CFP) to the capacitance of a CFP-supported manganese oxide supercapacitor. <i>Journal of Power Sources</i> , <b>2014</b> , 248, 1197-1200	8.9	15
8	High-temperature surface enhanced Raman spectroscopy for in situ study of solid oxide fuel cell materials. <i>Energy and Environmental Science</i> , <b>2014</b> , 7, 306-310	35.4	51
7	Carbon fiber paper supported hybrid nanonet/nanoflower nickel oxide electrodes for high-performance pseudo-capacitors. <i>Journal of Materials Chemistry A</i> , <b>2013</b> , 1, 7709	13	64
6	Hybrid composite Ni(OH) <sub>2</sub> @NiCo <sub>2</sub> O <sub>4</sub> grown on carbon fiber paper for high-performance supercapacitors. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2013</b> , 5, 11159-62	9.5	162
5	High-performance NiBaZr <sub>0.1</sub> Ce <sub>0.7</sub> Y <sub>0.1</sub> Yb <sub>0.1</sub> O <sub>3-<math>\delta</math></sub> (BZCYyb) membranes for hydrogen separation. <i>International Journal of Hydrogen Energy</i> , <b>2013</b> , 38, 14743-14749	6.7	39
4	Well-organized raspberry-like Ag@Cu bimetal nanoparticles for highly reliable and reproducible surface-enhanced Raman scattering. <i>Nanoscale</i> , <b>2013</b> , 5, 11620-4	7.7	51
3	High-performance, ceria-based solid oxide fuel cells fabricated at low temperatures. <i>Journal of Power Sources</i> , <b>2013</b> , 241, 454-459	8.9	32

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| 2 | Nickel-cobalt hydroxide nanosheets coated on NiCo <sub>2</sub> O <sub>4</sub> nanowires grown on carbon fiber paper for high-performance pseudocapacitors. <i>Nano Letters</i> , <b>2013</b> , 13, 3135-9 | 11.5 | 888 |
| 1 | An Overview of Cation-Disordered Lithium-Excess Rocksalt Cathodes. <i>ACS Energy Letters</i> , 1358-1376  | 20.1 | 12  |