

Shimou Chen

List of Publications by Year in descending order

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91
papers

5,498
citations

126708

33
h-index

82410

72
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91
all docs

91
docs citations

91
times ranked

7335
citing authors

#	ARTICLE	IF	CITATIONS
1	Nâ€Doped Grapheneâ€SnO ₂ Sandwich Paper for Highâ€Performance Lithiumâ€Ion Batteries. <i>Advanced Functional Materials</i> , 2012, 22, 2682-2690.	7.8	506
2	Hydrogenâ€Free and Dendriteâ€Free Allâ€Solidâ€State Znâ€Ion Batteries. <i>Advanced Materials</i> , 2020, 32, e1908121.	11.1	381
3	Activating Câ€Coordinated Iron of Iron Hexacyanoferrate for Zn Hybridâ€Ion Batteries with 10 000â€Cycle Lifespan and Superior Rate Capability. <i>Advanced Materials</i> , 2019, 31, e1901521.	11.1	363
4	Defects in Graphene: Generation, Healing, and Their Effects on the Properties of Graphene: A Review. <i>Journal of Materials Science and Technology</i> , 2015, 31, 599-606.	5.6	300
5	Achieving Both High Voltage and High Capacity in Aqueous Zincâ€Ion Battery for Record High Energy Density. <i>Advanced Functional Materials</i> , 2019, 29, 1906142.	7.8	285
6	Progress and future prospects of high-voltage and high-safety electrolytes in advanced lithium batteries: from liquid to solid electrolytes. <i>Journal of Materials Chemistry A</i> , 2018, 6, 11631-11663.	5.2	243
7	Transition of Ionic Liquid [bmim][PF6] from Liquid to High-Melting-Point Crystal When Confined in Multiwalled Carbon Nanotubes. <i>Journal of the American Chemical Society</i> , 2007, 129, 2416-2417.	6.6	229
8	A Wholly Degradable, Rechargeable Znâ€Ti ₃ C ₂ MXene Capacitor with Superior Anti-Self-Discharge Function. <i>ACS Nano</i> , 2019, 13, 8275-8283.	7.3	224
9	Initiating Hexagonal MoO ₃ for Superbâ€Stable and Fast NH ₄ ⁺ Storage Based on Hydrogen Bond Chemistry. <i>Advanced Materials</i> , 2020, 32, e1907802.	11.1	186
10	Recent Advances in Electrolytes for â€Beyond Aqueousâ€Zincâ€Ion Batteries. <i>Advanced Materials</i> , 2022, 34, e2106409.	11.1	167
11	â€Protrusionsâ€or â€holesâ€in graphene: which is the better choice for sodium ion storage?. <i>Energy and Environmental Science</i> , 2017, 10, 979-986.	15.6	164
12	Ionic liquid clusters: structure, formation mechanism, and effect on the behavior of ionic liquids. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 5893-5906.	1.3	155
13	Self-stacked Co ₃ O ₄ nanosheets for high-performance lithium ion batteries. <i>Chemical Communications</i> , 2011, 47, 12280.	2.2	119
14	Pinecone biomass-derived hard carbon anodes for high-performance sodium-ion batteries. <i>RSC Advances</i> , 2017, 7, 41504-41511.	1.7	117
15	Recent progress in all-solid-state lithium batteries: The emerging strategies for advanced electrolytes and their interfaces. <i>Energy Storage Materials</i> , 2020, 31, 401-433.	9.5	107
16	Insights into the stable layered structure of a Li-rich cathode material for lithium-ion batteries. <i>Journal of Materials Chemistry A</i> , 2017, 5, 19738-19744.	5.2	105
17	Synergistic Regulation of Polysulfides Conversion and Deposition by MOFâ€Derived Hierarchically Ordered Carbonaceous Composite for Highâ€Energy Lithiumâ€Sulfur Batteries. <i>Advanced Functional Materials</i> , 2019, 29, 1900875.	7.8	104
18	Morphology and Melting Behavior of Ionic Liquids inside Single-Walled Carbon Nanotubes. <i>Journal of the American Chemical Society</i> , 2009, 131, 14850-14856.	6.6	87

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19	Fast Li-ion transport and uniform Li-ion flux enabled by a double-layered polymer electrolyte for high performance Li metal battery. <i>Energy Storage Materials</i> , 2020, 32, 55-64.	9.5	75
20	Three-dimensional hierarchical pompon-like Co_3O_4 porous spheres for high-performance lithium-ion batteries. <i>Journal of Materials Chemistry A</i> , 2014, 2, 13801-13804.	5.2	73
21	Stress-relieving defects enable ultra-stable silicon anode for Li-ion storage. <i>Nano Energy</i> , 2020, 70, 104568.	8.2	72
22	A novel $\text{Li}_4\text{Ti}_5\text{O}_{12}$ -based high-performance lithium-ion electrode at elevated temperature. <i>Journal of Materials Chemistry A</i> , 2015, 3, 4938-4944.	5.2	65
23	Spider-Web-Inspired Nanocomposite-Modified Separator: Structural and Chemical Cooperativity Inhibiting the Shuttle Effect in $\text{Li}\text{-S}$ Batteries. <i>ACS Nano</i> , 2019, 13, 1563-1573.	7.3	65
24	Stabilized and size-tunable gold nanoparticles formed in a quaternary ammonium-based room-temperature ionic liquid under I^3 -irradiation. <i>Nanotechnology</i> , 2005, 16, 2360-2364.	1.3	58
25	Core-shell nano-structured carbon composites based on tannic acid for lithium-ion batteries. <i>Journal of Materials Chemistry A</i> , 2016, 4, 17215-17224.	5.2	56
26	A new additive 3-Isocyanatopropyltriethoxysilane to improve electrochemical performance of $\text{Li}/\text{NCM622}$ half-cell at high voltage. <i>Journal of Power Sources</i> , 2019, 423, 90-97.	4.0	54
27	Unravelling the Role of the Compressed Gas on Melting Point of Liquid Confined in Nanospace. <i>Journal of Physical Chemistry Letters</i> , 2012, 3, 1052-1055.	2.1	42
28	Fibrous-Root-Inspired Design and Lithium Storage Applications of a $\text{Co}\text{-Zn}$ Binary Synergistic Nanoarray System. <i>ACS Nano</i> , 2016, 10, 2500-2508.	7.3	41
29	Direct HRTEM Observation of Ultrathin Freestanding Ionic Liquid Film on Carbon Nanotube Grid. <i>ACS Nano</i> , 2011, 5, 4902-4908.	7.3	40
30	Partial Ion Exchange Derived 2D $\text{Cu}\text{-Zn}\text{-In}\text{-S}$ Nanosheets as Sensitizers of 1D TiO_2 Nanorods for Boosting Solar Water Splitting. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 26235-26243.	4.0	40
31	Nature-Inspired 2D-Mosaic 3D-Gradient Mesoporous Framework: Bimetal Oxide Dual-Composite Strategy toward Ultrastable and High-Capacity Lithium Storage. <i>ACS Nano</i> , 2018, 12, 2035-2047.	7.3	40
32	ZnS quantum dots@multilayered carbon: geological-plate-movement-inspired design for high-energy Li-ion batteries. <i>Journal of Materials Chemistry A</i> , 2018, 6, 8358-8365.	5.2	37
33	$\text{In}\text{-B}$ Built Quasi-Solid-State Poly-Ether Electrolytes Enabling Stable Cycling of High-Voltage and Wide-Temperature Li Metal Batteries. <i>Advanced Functional Materials</i> , 2021, 31, 2102347.	7.8	35
34	Vinyl-functionalized imidazolium ionic liquids as new electrolyte additives for high-voltage Li-ion batteries. <i>Journal of Solid State Electrochemistry</i> , 2013, 17, 2839-2848.	1.2	34
35	Metal-organic frameworks containing solid-state electrolytes for lithium metal batteries and beyond. <i>Materials Chemistry Frontiers</i> , 2021, 5, 1771-1794.	3.2	34
36	Three new bifunctional additives for safer nickel-cobalt-aluminum based lithium ion batteries. <i>Chinese Chemical Letters</i> , 2018, 29, 1781-1784.	4.8	32

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37	Grafting of Poly(tBA) and PtBA-b-PMMA onto the Surface of SWNTs Using Carbanions as the Initiator. <i>Macromolecular Rapid Communications</i> , 2006, 27, 882-887.	2.0	31
38	Core-Shell Structured $\text{LiMnO}_2 @ \text{Li}_2\text{CO}_3$ Nanosheet Array Cathode for High-Performance, Wide-Temperature-Tolerance Lithium-Ion Batteries. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 16116-16124.	4.0	31
39	Reconstructing Vanadium Oxide with Anisotropic Pathways for a Durable and Fast Aqueous K-Ion Battery. <i>ACS Nano</i> , 2021, 15, 17717-17728.	7.3	30
40	In-situ synthesis of interconnected SWCNT/OMC framework on silicon nanoparticles for high performance lithium-ion batteries. <i>Green Energy and Environment</i> , 2016, 1, 91-99.	4.7	28
41	Compression of ionic liquid when confined in porous silica nanoparticles. <i>RSC Advances</i> , 2013, 3, 9618.	1.7	27
42	A $\text{LiPO}_2\text{F}_2 / \text{LiPF}_6$ dual-salt electrolyte enabled stable cycling performance of nickel-rich lithium ion batteries. <i>RSC Advances</i> , 2020, 10, 1704-1710.	1.7	27
43	An effective interface-regulating mechanism enabled by non-sacrificial additives for high-voltage nickel-rich cathode. <i>Journal of Power Sources</i> , 2020, 453, 227852.	4.0	26
44	Supercritical fluid-assisted preparation of Si/CNTs@FG composites with hierarchical conductive networks as a high-performance anode material. <i>Applied Surface Science</i> , 2020, 522, 146507.	3.1	25
45	3-cyano-5-fluorobenzboronic acid as an electrolyte additive for enhancing the cycling stability of $\text{Li}_{1.2}\text{Mn}_{0.54}\text{Ni}_{0.13}\text{Co}_{0.13}\text{O}_2$ cathode at high voltage. <i>Journal of Alloys and Compounds</i> , 2020, 829, 154491.	2.8	24
46	Amidation-Dominated Reassembly Strategy for Single-Atom Design/Nano-Engineering: Constructing Ni/S/C Nanotubes with Fast and Stable K ⁺ Storage. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 6459-6465.	7.2	23
47	Imidazolium modified carbon nanohorns: switchable solubility and stabilization of metal nanoparticles. <i>Journal of Materials Chemistry</i> , 2010, 20, 2959.	6.7	22
48	Temperature-Induced Molecular Rearrangement of an Ionic Liquid Confined in Nanospaces: An <i>in Situ</i> X-ray Absorption Fine Structure Study. <i>Journal of Physical Chemistry C</i> , 2015, 119, 22724-22731.	1.5	22
49	A new strategy for enhancing the room temperature conductivity of solid-state electrolyte by using a polymeric ionic liquid. <i>Ionics</i> , 2020, 26, 4803-4812.	1.2	22
50	A piperidinium-based ionic liquid electrolyte to enhance the electrochemical properties of LiFePO_4 battery. <i>Ionics</i> , 2015, 21, 2109-2117.	1.2	21
51	A bidirectional growth mechanism for a stable lithium anode by a platinum nanolayer sputtered on a polypropylene separator. <i>RSC Advances</i> , 2018, 8, 13034-13039.	1.7	21
52	Electrodeposition of crystalline silicon directly from silicon tetrachloride in ionic liquid at low temperature. <i>RSC Advances</i> , 2016, 6, 12061-12067.	1.7	20
53	A bifunctional additive bi(4-fluorophenyl) sulfone for enhancing the stability and safety of nickel-rich cathode based cells. <i>Journal of Alloys and Compounds</i> , 2020, 820, 153069.	2.8	20
54	Regulated interfacial stability by coordinating ionic liquids with fluorinated solvent for high voltage and safety batteries. <i>Journal of Power Sources</i> , 2021, 491, 229603.	4.0	20

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55	In-situ construction of stable cathode/Li interfaces simultaneously via different electron density azo compounds for solid-state lithium metal batteries. <i>Energy Storage Materials</i> , 2021, 40, 394-401.	9.5	20
56	Triethylbutylammonium bis(trifluoromethanesulphonyl)imide ionic liquid as an effective electrolyte additive for Li-ion batteries. <i>Ionics</i> , 2013, 19, 887-894.	1.2	18
57	Immobilization and molecular rearrangement of ionic liquids on the surface of carbon nanotubes. <i>RSC Advances</i> , 2014, 4, 16267-16273.	1.7	17
58	Solidâ€“Liquid Electrolyte as a Nanoion Modulator for Dendrite-Free Lithium Anodes. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 20412-20421.	4.0	17
59	Functional polyethylene glycol-based solid electrolytes with enhanced interfacial compatibility for room-temperature lithium metal batteries. <i>Materials Chemistry Frontiers</i> , 2021, 5, 3681-3691.	3.2	17
60	Urchin-like CoOâ€“C micro/nano hierarchical structures as high performance anode materials for Li-ion batteries. <i>RSC Advances</i> , 2017, 7, 2637-2643.	1.7	16
61	A dithiol-based new electrolyte additive for improving electrochemical performance of NCM811 lithium ion batteries. <i>Ionics</i> , 2020, 26, 6023-6033.	1.2	16
62	Neuron-Mimic Smart Electrode: A Two-Dimensional Multiscale Synergistic Strategy for Densely Packed and High-Rate Lithium Storage. <i>ACS Nano</i> , 2019, 13, 9148-9160.	7.3	15
63	A lithium salt additive Li ₂ ZrF ₆ for enhancing the electrochemical performance of high-voltage LiNi _{0.5} Mn _{1.5} O ₄ cathode. <i>Ionics</i> , 2018, 24, 2965-2972.	1.2	14
64	A new solid-state electrolyte based on polymeric ionic liquid for high-performance supercapacitor. <i>Ionics</i> , 2019, 25, 241-251.	1.2	14
65	Ternary nanoarray electrode with corn-inspired hierarchical design for synergistic lithium storage. <i>Nano Research</i> , 2017, 10, 172-186.	5.8	13
66	Mixed Lithium Salts Electrolyte Improves the High-Temperature Performance of Nickel-Rich Based Lithium-Ion Batteries. <i>Journal of the Electrochemical Society</i> , 2020, 167, 110544.	1.3	13
67	Fluoroethylene carbonate as an electrolyte additive for improving interfacial stability of high-voltage LiNi _{0.6} Co _{0.2} Mn _{0.2} O ₂ cathode. <i>Ionics</i> , 2019, 25, 1035-1043.	1.2	12
68	Self-shutdown function induced by sandwich-like gel polymer electrolytes for high safety lithium metal batteries. <i>RSC Advances</i> , 2021, 11, 14036-14046.	1.7	10
69	Coordinatively and Spatially Confining High-Loading Atomic Sb in Sulfur-Rich 2D Carbon Matrix for Fast K ⁺ Diffusion and Storage. , 2021, 3, 790-798.		10
70	Transformation of ionic liquid into carbon nanotubes in confined nanospace. <i>Chemical Communications</i> , 2011, 47, 10368.	2.2	9
71	Ni-enhanced Co ₃ O ₄ nanoarrays grown in situ on a Cu substrate as integrated anode materials for high-performance Li-ion batteries. <i>RSC Advances</i> , 2015, 5, 7388-7394.	1.7	8
72	Effects of lithium bis(oxalato)borate on electrochemical stability of [Emim][Al ₂ Cl ₇] ionic liquid for aluminum electrolysis. <i>Ionics</i> , 2017, 23, 959-966.	1.2	8

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73	Ionic liquid electrodeposition of Ge nano-film on Cu wire mesh as stable anodes for lithium-ion batteries. <i>Ionics</i> , 2020, 26, 2225-2231.	1.2	8
74	Crystallization and temperature-dependent structure deflection of C ₆ mimBr ionic liquid intercalated in LAPONITE [®] . <i>RSC Advances</i> , 2016, 6, 98018-98025.	1.7	7
75	INVESTIGATION ON THE MORPHOLOGY OF PRECIPITATED CHEMICALS FROM TE BUFFER ON SOLID SUBSTRATES. <i>Surface Review and Letters</i> , 2007, 14, 1121-1128.	0.5	6
76	Influence of FeCl ₃ on radiation stability of ionic liquid BmimCl. <i>Science Bulletin</i> , 2013, 58, 1150-1155.	1.7	6
77	2D Meso/Microporous Platelet Carbon Derived from Metal-Organic frameworks and Its Application in High-Performance Li-S Batteries. <i>ChemElectroChem</i> , 2019, 6, 3091-3100.	1.7	6
78	Template-free preparation of spherical Al particles in aluminum chloride and 1-butyl-3-methylimidazolium chloride ionic liquid. <i>Ionics</i> , 2018, 24, 1781-1788.	1.2	5
79	A 3D molecular cantilever based on interfacial self-assembly and the cobra-like actuation of long-chain imidazolium ionic liquids. <i>Nanoscale</i> , 2019, 11, 7277-7286.	2.8	5
80	Nanomaterials for Renewable Energy. <i>Journal of Nanomaterials</i> , 2015, 2015, 1-2.	1.5	4
81	A self-assembled Si/SWNT 3D-composite-nanonetwork as a high-performance lithium ion battery anode. <i>RSC Advances</i> , 2015, 5, 97289-97294.	1.7	4
82	Facile fabrication of layer-cake-like nano-micro hierarchical structure for high performance Li storage. <i>RSC Advances</i> , 2017, 7, 28548-28555.	1.7	4
83	Ce(NO ₃) ₃ as an electrolyte additive to regulate uniform lithium deposition for stable all-solid-state batteries. <i>Solid State Ionics</i> , 2022, 374, 115831.	1.3	4
84	Theoretical Study on Cyclopeptides as the Nanocarriers for Li ⁺ , Na ⁺ , K ⁺ and F ⁻ , Cl ⁻ , Br ⁻ . <i>Journal of Nanomaterials</i> , 2015, 2015, 1-7.	1.5	3
85	A double-layered Ge/carbon cloth integrated anode for high performance lithium ion batteries. <i>RSC Advances</i> , 2016, 6, 63414-63417.	1.7	3
86	Geometries and Electronic States of Divacancy Defect in Finite-Size Hexagonal Graphene Flakes. <i>Journal of Chemistry</i> , 2017, 2017, 1-7.	0.9	3
87	Solvation effect of [BMIM]Cl/AlCl ₃ ionic liquid electrolyte. <i>Ionics</i> , 2019, 25, 163-169.	1.2	3
88	Double-Confined Sulfur Inside Compressed Nickel Foam and Pencil-Plating Graphite for Lithium-Sulfur Battery. <i>Industrial & Engineering Chemistry Research</i> , 2018, 57, 4880-4886.	1.8	2
89	In Situ Tracking of Organic Reactions at the Vapor/Liquid Interfaces of Ionic Liquids. <i>ChemPhysChem</i> , 2018, 19, 2741-2750.	1.0	2
90	Amidation-Dominated Reassembly Strategy for Single-Atom Design/Nano-Engineering: Constructing Ni/S/C Nanotubes with Fast and Stable K ⁺ Storage. <i>Angewandte Chemie</i> , 2020, 132, 6521-6527.	1.6	1

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91	Ionic Liquid Based Electrolyte for Electrochemical Energy Storage Application. ECS Meeting Abstracts, 2014, , .	0.0	0