Shimou Chen

List of Publications by Year
in descending order

91 papers	5,498 citations	126708 33 h-index	82410 72 g-index
91 all docs	91 docs citations	91 times ranked	7335 citing authors

#	Article	IF	Citations
1	Recent Advances in Electrolytes for â€œBeyond Aqueousâ€•Zincâ€Ion Batteries. Advanced Materials, 2022, 34, e2106409.	11.1	167
2	Ce(NO3)3 as an electrolyte additive to regulate uniform lithium deposition for stable all-solid-state batteries. Solid State Ionics, 2022, 374, 115831.	1.3	4
3	Metal-organic frameworks containing solid-state electrolytes for lithium metal batteries and beyond. Materials Chemistry Frontiers, 2021, 5, 1771-1794.	3.2	34
4	Functional polyethylene glycol-based solid electrolytes with enhanced interfacial compatibility for room-temperature lithium metal batteries. Materials Chemistry Frontiers, 2021, 5, 3681-3691.	3.2	17
5	Self-shutdown function induced by sandwich-like gel polymer electrolytes for high safety lithium metal batteries. RSC Advances, 2021, 11, 14036-14046.	1.7	10
6	Regulated interfacial stability by coordinating ionic liquids with fluorinated solvent for high voltage and safety batteries. Journal of Power Sources, 2021, 491, 229603.	4.0	20
7	Coordinatively and Spatially Coconfining High-Loading Atomic Sb in Sulfur-Rich 2D Carbon Matrix for Fast K⁺ Diffusion and Storage. , 2021, 3, 790-798.		10
8	Inâ€Built Quasiâ€Solidâ€State Polyâ€Ether Electrolytes Enabling Stable Cycling of Highâ€Voltage and Wideâ€Temperature Li Metal Batteries. Advanced Functional Materials, 2021, 31, 2102347.	7.8	35
9	In-situ construction of stable cathode/Li interfaces simultaneously via different electron density azo compounds for solid-state lithium metal batteries. Energy Storage Materials, 2021, 40, 394-401.	9.5	20
10	Reconstructing Vanadium Oxide with Anisotropic Pathways for a Durable and Fast Aqueous K-Ion Battery. ACS Nano, 2021, 15, 17717-17728.	7.3	30
11	Ionic liquid electrodeposition of Ge nano-film on Cu wire mesh as stable anodes for lithium-ion batteries. Ionics, 2020, 26, 2225-2231.	1.2	8
12	A bifunctional additive bi(4-flurorophenyl) sulfone for enhancing the stability and safety of nickel-rich cathode based cells. Journal of Alloys and Compounds, 2020, 820, 153069.	2.8	20
13	Fast Li-ion transport and uniform Li-ion flux enabled by a doubleâ€“layered polymer electrolyte for high performance Li metal battery. Energy Storage Materials, 2020, 32, 55-64.	9.5	75
14	A dithiol-based new electrolyte additive for improving electrochemical performance of NCM811 lithium ion batteries. Ionics, 2020, 26, 6023-6033.	1.2	16
15	Supercritical fluid-assisted preparation of Si/CNTs@FG composites with hierarchical conductive networks as a high-performance anode material. Applied Surface Science, 2020, 522, 146507.	3.1	25
16	A new strategy for enhancing the room temperature conductivity of solid-state electrolyte by using a polymeric ionic liquid. Ionics, 2020, 26, 4803-4812.	1.2	22
17	Recent progress in all-solid-state lithium batteries: The emerging strategies for advanced electrolytes and their interfaces. Energy Storage Materials, 2020, 31, 401-433.	9.5	107
18	3-cyano-5-fluorobenzenzboronic acid as an electrolyte additive for enhancing the cycling stability of Li1.2Mn0.54Ni0.13Co0.13O2 cathode at high voltage. Journal of Alloys and Compounds, 2020, 829, 154491.	2.8	24

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19	Initiating Hexagonal MoO₃ for Superbâ€Stable and Fast NH₄⁺ Storage Based on Hydrogen Bond Chemistry. Advanced Materials, 2020, 32, e1907802.	11.1	186
20	Hydrogenâ€Free and Dendriteâ€Free Allâ€Solidâ€State Znâ€Ion Batteries. Advanced Materials, 2020, 32, e1908121.	11.1	381
21	An effective interface-regulating mechanism enabled by non-sacrificial additives for high-voltage nickel-rich cathode. Journal of Power Sources, 2020, 453, 227852.	4.0	26
22	Amidationâ€Dominated Reâ€Assembly Strategy for Singleâ€Atom Design/Nanoâ€Engineering: Constructing Ni/S/C Nanotubes with Fast and Stable Kâ€Storage. Angewandte Chemie - International Edition, 2020, 59, 6459-6465.	7.2	23
23	Amidationâ€Dominated Reâ€Assembly Strategy for Singleâ€Atom Design/Nanoâ€Engineering: Constructing Ni/S/C Nanotubes with Fast and Stable Kâ€Storage. Angewandte Chemie, 2020, 132, 6521-6527.	1.6	1
24	A LiPO₂F₂/LiPF₆ dual-salt electrolyte enabled stable cycling performance of nickel-rich lithium ion batteries. RSC Advances, 2020, 10, 1704-1710.	1.7	27
25	Stress-relieving defects enable ultra-stable silicon anode for Li-ion storage. Nano Energy, 2020, 70, 104568.	8.2	72
26	Mixed Lithium Salts Electrolyte Improves the High-Temperature Performance of Nickel-Rich Based Lithium-Ion Batteries. Journal of the Electrochemical Society, 2020, 167, 110544.	1.3	13
27	Solvation effect of [BMIM]Cl/AlCl3 ionic liquid electrolyte. Ionics, 2019, 25, 163-169.	1.2	3
28	A new solid-state electrolyte based on polymeric ionic liquid for high-performance supercapacitor. Ionics, 2019, 25, 241-251.	1.2	14
29	Fluoroethylene carbonate as an electrolyte additive for improving interfacial stability of high-voltage LiNi0.6Co0.2Mn0.2O2 cathode. Ionics, 2019, 25, 1035-1043.	1.2	12
30	Neuron-Mimic Smart Electrode: A Two-Dimensional Multiscale Synergistic Strategy for Densely Packed and High-Rate Lithium Storage. ACS Nano, 2019, 13, 9148-9160.	7.3	15
31	Achieving Both High Voltage and High Capacity in Aqueous Zincâ€Ion Battery for Record High Energy Density. Advanced Functional Materials, 2019, 29, 1906142.	7.8	285
32	2D Meso/Microporous Platelet Carbon Derived from Metalâ€Organic frameworks and Its Application in Highâ€Performance Liâ€S Batteries. ChemElectroChem, 2019, 6, 3091-3100.	1.7	6
33	A Wholly Degradable, Rechargeable Znâ€"Ti₃C₂ MXene Capacitor with Superior Anti-Self-Discharge Function. ACS Nano, 2019, 13, 8275-8283.	7.3	224
34	Activating Câ€Coordinated Iron of Iron Hexacyanoferrate for Zn Hybridâ€Ion Batteries with 10 000â€Cycle Lifespan and Superior Rate Capability. Advanced Materials, 2019, 31, e1901521.	11.1	363
35	A new additive 3-Isocyanatopropyltriethoxysilane to improve electrochemical performance of Li/NCM622 half-cell at high voltage. Journal of Power Sources, 2019, 423, 90-97.	4.0	54
36	Synergistic Regulation of Polysulfides Conversion and Deposition by MOFâ€Derived Hierarchically Ordered Carbonaceous Composite for Highâ€Energy Lithiumâ€"Sulfur Batteries. Advanced Functional Materials, 2019, 29, 1900875.	7.8	104

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37	A 3D molecular cantilever based on interfacial self-assembly and the cobra-like actuation of long-chain imidazolium ionic liquids. Nanoscale, 2019, 11, 7277-7286.	2.8	5
38	Spider-Web-Inspired Nanocomposite-Modified Separator: Structural and Chemical Cooperativity Inhibiting the Shuttle Effect in Liâ€“S Batteries. ACS Nano, 2019, 13, 1563-1573.	7.3	65
39	ZnS quantum dots@multilayered carbon: geological-plate-movement-inspired design for high-energy Li-ion batteries. Journal of Materials Chemistry A, 2018, 6, 8358-8365.	5.2	37
40	A bidirectional growth mechanism for a stable lithium anode by a platinum nanolayer sputtered on a polypropylene separator. RSC Advances, 2018, 8, 13034-13039.	1.7	21
41	Nature-Inspired 2D-Mosaic 3D-Gradient Mesoporous Framework: Bimetal Oxide Dual-Composite Strategy toward Ultrastable and High-Capacity Lithium Storage. ACS Nano, 2018, 12, 2035-2047.	7.3	40
42	Double-Confined Sulfur Inside Compressed Nickel Foam and Pencil-Plating Graphite for Lithiumâ€“Sulfur Battery. Industrial & Engineering Chemistry Research, 2018, 57, 4880-4886.	1.8	2
43	A lithium salt additive Li2ZrF6 for enhancing the electrochemical performance of high-voltage LiNi0.5Mn1.5O4 cathode. Ionics, 2018, 24, 2965-2972.	1.2	14
44	Template-free preparation of spherical Al particles in aluminum chloride and 1-butyl-3-methylimidazolium chloride ionic liquid. Ionics, 2018, 24, 1781-1788.	1.2	5
45	In Situ Tracking of Organic Reactions at the Vapor/Liquid Interfaces of Ionic Liquids. ChemPhysChem, 2018, 19, 2741-2750.	1.0	2
46	Three new bifunctional additives for safer nickel-cobalt-aluminum based lithium ion batteries. Chinese Chemical Letters, 2018, 29, 1781-1784.	4.8	32
47	Progress and future prospects of high-voltage and high-safety electrolytes in advanced lithium batteries: from liquid to solid electrolytes. Journal of Materials Chemistry A, 2018, 6, 11631-11663.	5.2	243
48	Solidâ€“Liquid Electrolyte as a Nanoion Modulator for Dendrite-Free Lithium Anodes. ACS Applied Materials & Interfaces, 2018, 10, 20412-20421.	4.0	17
49	Urchin-like CoOâ€“C micro/nano hierarchical structures as high performance anode materials for Li-ion batteries. RSC Advances, 2017, 7, 2637-2643.	1.7	16
50	Facile fabrication of layer-cake-like nano-micro hierarchical structure for high performance Li storage. RSC Advances, 2017, 7, 28548-28555.	1.7	4
51	â€œProtrusionsâ€•or â€œholesâ€•in graphene: which is the better choice for sodium ion storage?. Energy and Environmental Science, 2017, 10, 979-986.	15.6	164
52	Pinecone biomass-derived hard carbon anodes for high-performance sodium-ion batteries. RSC Advances, 2017, 7, 41504-41511.	1.7	117
53	Insights into the stable layered structure of a Li-rich cathode material for lithium-ion batteries. Journal of Materials Chemistry A, 2017, 5, 19738-19744.	5.2	105
54	Effects of lithium bis(oxalato)borate on electrochemical stability of [Emim][Al2Cl7] ionic liquid for aluminum electrolysis. Ionics, 2017, 23, 959-966.	1.2	8

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55	Ternary nanoarray electrode with corn-inspired hierarchical design for synergistic lithium storage. Nano Research, 2017, 10, 172-186.	5.8	13
56	Geometries and Electronic States of Divacancy Defect in Finite-Size Hexagonal Graphene Flakes. Journal of Chemistry, 2017, 2017, 1-7.	0.9	3
57	A double-layered Ge/carbon cloth integrated anode for high performance lithium ion batteries. RSC Advances, 2016, 6, 63414-63417.	1.7	3
58	Coreâ€“shell nano-structured carbon composites based on tannic acid for lithium-ion batteries. Journal of Materials Chemistry A, 2016, 4, 17215-17224.	5.2	56
59	Partial Ion Exchange Derived 2D Cuâ€“Znâ€“Inâ€“S Nanosheets as Sensitizers of 1D TiO₂ Nanorods for Boosting Solar Water Splitting. ACS Applied Materials & Interfaces, 2016, 8, 26235-26243.	4.0	40
60	Crystallization and temperature-dependent structure deflection of C₆mimBr ionic liquid intercalated in LAPONITEÂ®. RSC Advances, 2016, 6, 98018-98025.	1.7	7
61	In-situ synthesis of interconnected SWCNT/OMC framework on silicon nanoparticles for high performance lithium-ion batteries. Green Energy and Environment, 2016, 1, 91-99.	4.7	28
62	Coreâ€“Shell Structured <i>o</i>-LiMnO₂@Li₂CO₃ Nanosheet Array Cathode for High-Performance, Wide-Temperature-Tolerance Lithium-Ion Batteries. ACS Applied Materials & Interfaces, 2016, 8, 16116-16124.	4.0	31
63	Electrodeposition of crystalline silicon directly from silicon tetrachloride in ionic liquid at low temperature. RSC Advances, 2016, 6, 12061-12067.	1.7	20
64	Fibrous-Root-Inspired Design and Lithium Storage Applications of a Coâ€“Zn Binary Synergistic Nanoarray System. ACS Nano, 2016, 10, 2500-2508.	7.3	41
65	Nanomaterials for Renewable Energy. Journal of Nanomaterials, 2015, 2015, 1-2.	1.5	4
66	Theoretical Study on Cyclopeptides as the Nanocarriers for Li+, Na+, K+and Fâˆ’, Clâˆ’, Brâˆ’. Journal of Nanomaterials, 2015, 2015, 1-7.	1.5	3
67	A self-assembled Si/SWNT 3D-composite-nanonetwork as a high-performance lithium ion battery anode. RSC Advances, 2015, 5, 97289-97294.	1.7	4
68	Defects in Graphene: Generation, Healing, and Their Effects on the Properties of Graphene: A Review. Journal of Materials Science and Technology, 2015, 31, 599-606.	5.6	300
69	Ni-enhanced Co3O4 nanoarrays grown in situ on a Cu substrate as integrated anode materials for high-performance Li-ion batteries. RSC Advances, 2015, 5, 7388-7394.	1.7	8
70	A piperidinium-based ionic liquid electrolyte to enhance the electrochemical properties of LiFePO4 battery. Ionics, 2015, 21, 2109-2117.	1.2	21
71	A novel Li4Ti5O12-based high-performance lithium-ion electrode at elevated temperature. Journal of Materials Chemistry A, 2015, 3, 4938-4944.	5.2	65
72	Temperature-Induced Molecular Rearrangement of an Ionic Liquid Confined in Nanospaces: An <i>in Situ</i> X-ray Absorption Fine Structure Study. Journal of Physical Chemistry C, 2015, 119, 22724-22731.	1.5	22

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73	Ionic liquid clusters: structure, formation mechanism, and effect on the behavior of ionic liquids. Physical Chemistry Chemical Physics, 2014, 16, 5893-5906.	1.3	155
74	Immobilization and molecular rearrangement of ionic liquids on the surface of carbon nanotubes. RSC Advances, 2014, 4, 16267-16273.	1.7	17
75	Three-dimensional hierarchical pompon-like Co₃O₄ porous spheres for high-performance lithium-ion batteries. Journal of Materials Chemistry A, 2014, 2, 13801-13804.	5.2	73
76	Ionic Liquid Based Electrolyte for Electrochemical Energy Storage Application. ECS Meeting Abstracts, 2014, , .	0.0	0
77	Vinyl-functionalized imidazolium ionic liquids as new electrolyte additives for high-voltage Li-ion batteries. Journal of Solid State Electrochemistry, 2013, 17, 2839-2848.	1.2	34
78	Triethylbutylammonium bis(trifluoromethanesulphonyl)imide ionic liquid as an effective electrolyte additive for Li-ion batteries. Ionics, 2013, 19, 887-894.	1.2	18
79	Influence of FeCl3 on radiation stability of ionic liquid BmimCl. Science Bulletin, 2013, 58, 1150-1155.	1.7	6
80	Compression of ionic liquid when confined in porous silica nanoparticles. RSC Advances, 2013, 3, 9618.	1.7	27
81	Unravelling the Role of the Compressed Gas on Melting Point of Liquid Confined in Nanospace. Journal of Physical Chemistry Letters, 2012, 3, 1052-1055.	2.1	42
82	Nâ€Doped Grapheneâ€SnO₂ Sandwich Paper for Highâ€Performance Lithiumâ€Ion Batteries. Advanced Functional Materials, 2012, 22, 2682-2690.	7.8	506
83	Transformation of ionic liquid into carbon nanotubes in confined nanospace. Chemical Communications, 2011, 47, 10368.	2.2	9
84	Self-stacked Co3O4 nanosheets for high-performance lithium ion batteries. Chemical Communications, 2011, 47, 12280.	2.2	119
85	Direct HRTEM Observation of Ultrathin Freestanding Ionic Liquid Film on Carbon Nanotube Grid. ACS Nano, 2011, 5, 4902-4908.	7.3	40
86	Imidazolium modified carbon nanohorns: switchable solubility and stabilization of metal nanoparticles. Journal of Materials Chemistry, 2010, 20, 2959.	6.7	22
87	Morphology and Melting Behavior of Ionic Liquids inside Single-Walled Carbon Nanotubes. Journal of the American Chemical Society, 2009, 131, 14850-14856.	6.6	87
88	INVESTIGATION ON THE MORPHOLOGY OF PRECIPITATED CHEMICALS FROM TE BUFFER ON SOLID SUBSTRATES. Surface Review and Letters, 2007, 14, 1121-1128.	0.5	6
89	Transition of Ionic Liquid [bmim][PF6] from Liquid to High-Melting-Point Crystal When Confined in Multiwalled Carbon Nanotubes. Journal of the American Chemical Society, 2007, 129, 2416-2417.	6.6	229
90	Grafting of Poly(tBA) and PtBA-b-PMMA onto the Surface of SWNTs Using Carbanions as the Initiator. Macromolecular Rapid Communications, 2006, 27, 882-887.	2.0	31

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91	Stabilized and size-tunable gold nanoparticles formed in a quaternary ammonium-based room-temperature ionic liquid under Î³-irradiation. Nanotechnology, 2005, 16, 2360-2364.	1.3	58