Ce-Wen Nan

List of Publications by Year
in descending order

114	10,209	57631	33814
papers	citations	44 h-index	99 g-index

117	117	117	8120
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	New horizons for inorganic solid state ion conductors. Energy and Environmental Science, 2018, 11, 1945-1976.	15.6	894
2	Synergistic Coupling between Li_{6.75}La₃Zr_{1.75}Ta_{0.25}O₁₂ and Poly(vinylidene fluoride) Induces High Ionic Conductivity, Mechanical Strength, and Thermal Stability of Solid Composite Electrolytes. Journal of the American Chemical Society, 2017, 139, 13779-13785.	6.6	698
3	Ultrahighâ€“energy density lead-free dielectric films via polymorphic nanodomain design. Science, 2019, 365, 578-582.	6.0	662
4	Giant Energy Density and Improved Discharge Efficiency of Solutionâ€Processed Polymer Nanocomposites for Dielectric Energy Storage. Advanced Materials, 2016, 28, 2055-2061.	11.1	534
5	Ultrahigh Energy Density of Polymer Nanocomposites Containing BaTiO₃@TiO₂ Nanofibers by Atomicâ€Scale Interface Engineering. Advanced Materials, 2015, 27, 819-824.	11.1	503
6	Giant energy density and high efficiency achieved in bismuth ferrite-based film capacitors via domain engineering. Nature Communications, 2018, 9, 1813.	5.8	408
7	Topologicalâ€Structure Modulated Polymer Nanocomposites Exhibiting Highly Enhanced Dielectric Strength and Energy Density. Advanced Functional Materials, 2014, 24, 3172-3178.	7.8	371
8	Improving the dielectric constants and breakdown strength of polymer composites: effects of the shape of the BaTiO3 nanoinclusions, surface modification and polymer matrix. Journal of Materials Chemistry, 2012, 22, 16491.	6.7	341
9	Selfâ€Suppression of Lithium Dendrite in Allâ€Solidâ€State Lithium Metal Batteries with Poly(vinylidene) Tj ETQq1 1 0.784314 rgBT /Ov	11.1	295
10	Ultrahigh energy storage in superparaelectric relaxor ferroelectrics. Science, 2021, 374, 100-104.	6.0	276
11	Super-elastic ferroelectric single-crystal membrane with continuous electric dipole rotation. Science, 2019, 366, 475-479.	6.0	272
12	High-Energy-Density Ferroelectric Polymer Nanocomposites for Capacitive Energy Storage: Enhanced Breakdown Strength and Improved Discharge Efficiency. Materials Today, 2019, 29, 49-67.	8.3	262
13	Highâ€Throughput Phaseâ€Field Design of Highâ€Energyâ€Density Polymer Nanocomposites. Advanced Materials, 2018, 30, 1704380.	11.1	254
14	Polymer Nanocomposites with Ultrahigh Energy Density and High Discharge Efficiency by Modulating their Nanostructures in Three Dimensions. Advanced Materials, 2018, 30, e1707269.	11.1	226
15	BiFeO₃â€“SrTiO₃thin film as a new lead-free relaxor-ferroelectric capacitor with ultrahigh energy storage performance. Journal of Materials Chemistry A, 2017, 5, 5920-5926.	5.2	218
16	Phase-field modeling and machine learning of electric-thermal-mechanical breakdown of polymer-based dielectrics. Nature Communications, 2019, 10, 1843.	5.8	174
17	High-Conductivity Argyrodite Li₆PS₅Cl Solid Electrolytes Prepared via Optimized Sintering Processes for All-Solid-State Lithiumâ€“Sulfur Batteries. ACS Applied Materials & Interfaces, 2018, 10, 42279-42285.	4.0	170
18	Controllable conductive readout in self-assembled, topologically confined ferroelectric domain walls. Nature Nanotechnology, 2018, 13, 947-952.	15.6	163

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19	High-entropy enhanced capacitive energy storage. Nature Materials, 2022, 21, 1074-1080.	13.3	161
20	Synergy of micro-/mesoscopic interfaces in multilayered polymer nanocomposites induces ultrahigh energy density for capacitive energy storage. Nano Energy, 2019, 62, 220-229.	8.2	144
21	Modulation of topological structure induces ultrahigh energy density of graphene/Ba 0.6 Sr 0.4 TiO 3 nanofiber/polymer nanocomposites. Nano Energy, 2015, 18, 176-186.	8.2	136
22	Polymer Nanocomposites with Interpenetrating Gradient Structure Exhibiting Ultrahigh Discharge Efficiency and Energy Density. Advanced Energy Materials, 2019, 9, 1803411.	10.2	132
23	Ultrahigh discharge efficiency in multilayered polymer nanocomposites of high energy density. Energy Storage Materials, 2019, 18, 213-221.	9.5	125
24	Ultrahigh Breakdown Strength and Improved Energy Density of Polymer Nanocomposites with Gradient Distribution of Ceramic Nanoparticles. Advanced Functional Materials, 2020, 30, 1906112.	7.8	116
25	Enhanced electrochemical performance of bulk type oxide ceramic lithium batteries enabled by interface modification. Journal of Materials Chemistry A, 2018, 6, 4649-4657.	5.2	98
26	Challenges, interface engineering, and processing strategies toward practical <scp>sulfideâ€based allâ€solidâ€state</scp> lithium batteries. InformaÃ•nÃ-MateriÃ¡ly, 2022, 4, .	8.5	92
27	Composition Modulation and Structure Design of Inorganicâ€inâ€Polymer Composite Solid Electrolytes for Advanced Lithium Batteries. Small, 2020, 16, e1902813.	5.2	87
28	Electric-field control of ferromagnetism through oxygen ion gating. Nature Communications, 2017, 8, 2156.	5.8	85
29	Electric-field control of skyrmions in multiferroic heterostructure via magnetoelectric coupling. Nature Communications, 2021, 12, 322.	5.8	83
30	Interfacial challenges for all-solid-state batteries based on sulfide solid electrolytes. Journal of Materiomics, 2021, 7, 209-218.	2.8	82
31	Tuning Phase Composition of Polymer Nanocomposites toward High Energy Density and High Discharge Efficiency by Nonequilibrium Processing. ACS Applied Materials & Interfaces, 2017, 9, 29717-29731.	4.0	81
32	Current-controlled propagation of spin waves in antiparallel, coupled domains. Nature Nanotechnology, 2019, 14, 691-697.	15.6	71
33	Dielectric films for high performance capacitive energy storage: multiscale engineering. Nanoscale, 2020, 12, 19582-19591.	2.8	69
34	2D Metals by Repeated Size Reduction. Advanced Materials, 2016, 28, 8170-8176.	11.1	68
35	Unlocking the energy capabilities of micron-sized LiFePO4. Nature Communications, 2015, 6, 7898.	5.8	65
36	Influence of Crystallinity of Lithium Thiophosphate Solid Electrolytes on the Performance of Solidâ€State Batteries. Advanced Energy Materials, 2021, 11, 2100654.	10.2	64

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37	Coaxialâ€Structured Weavable and Wearable Electroluminescent Fibers. Advanced Electronic Materials, 2017, 3, 1700401.	2.6	63
38	Self-Propagating Enabling High Lithium Metal Utilization Ratio Composite Anodes for Lithium Metal Batteries. Nano Letters, 2021, 21, 791-797.	4.5	63
39	Controlled functionalization of poly(4-methyl-1-pentene) films for high energy storage applications. Journal of Materials Chemistry A, 2016, 4, 4797-4807.	5.2	58
40	Lithium Argyrodite as Solid Electrolyte and Cathode Precursor for Solidâ€State Batteries with Long Cycle Life. Advanced Energy Materials, 2021, 11, 2101370.	10.2	56
41	Ge Incorporation to Stabilize Efficient Inorganic CsPbI₃ Perovskite Solar Cells. Advanced Energy Materials, 2022, 12, .	10.2	55
42	High-conductivity free-standing Li6PS5Cl/poly(vinylidene difluoride) composite solid electrolyte membranes for lithium-ion batteries. Journal of Materiomics, 2020, 6, 70-76.	2.8	51
43	High Capacity, Superior Cyclic Performances in All-Solid-State Lithium-Ion Batteries Based on 78Li₂S-22P₂S₅ Glass-Ceramic Electrolytes Prepared via Simple Heat Treatment. ACS Applied Materials & Interfaces, 2017, 9, 28542-28548.	4.0	49
44	High-performance all-solid-state lithiumâ€“sulfur batteries with sulfur/carbon nano-hybrids in a composite cathode. Journal of Materials Chemistry A, 2018, 6, 23345-23356.	5.2	48
45	Good Low-Temperature Properties of Nitrogen-Enriched Porous Carbon as Sulfur Hosts for High-Performance Liâ€“S Batteries. ACS Applied Materials & Interfaces, 2016, 8, 17253-17259.	4.0	46
46	Manipulation of Magnetic Properties by Oxygen Vacancies in Multiferroic YMnO₃. Advanced Functional Materials, 2016, 26, 3589-3598.	7.8	45
47	Machine learning in energy storage materials. , 2022, 1, 175-195.		45
48	Topologically protected oxygen redox in a layered manganese oxide cathode for sustainable batteries. Nature Sustainability, 2022, 5, 214-224.	11.5	44
49	High-performance Li₆PS₅Cl-based all-solid-state lithium-ion batteries. Journal of Materials Chemistry A, 2019, 7, 18612-18618.	5.2	40
50	Response to Comment on â€œSelfâ€Suppression of Lithium Dendrite in Allâ€Solidâ€State Lithium Metal Batteries with Poly(vinylidene difluoride)â€Based Solid Electrolytesâ€. Advanced Materials, 2020, 32, e2000026.	11.1	40
51	Controllable electrical, magnetoelectric and optical properties of BiFeO3 via domain engineering. Progress in Materials Science, 2022, 127, 100943.	16.0	40
52	Designing polymer nanocomposites with high energy density using machine learning. Npj Computational Materials, 2021, 7, .	3.5	39
53	Ferroelectric Photodetector with High Current onâ€“off Ratio (â¼1 Ã— 10⁴%) in Self-Assembled Topological Nanoislands. ACS Applied Electronic Materials, 2019, 1, 862-868.	2.0	38
54	Electrical and Thermal Transport Behavior in Zn-Doped BiCuSeO Oxyselenides. Journal of Electronic Materials, 2015, 44, 1627-1631.	1.0	37

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55	High Capacity and Superior Cyclic Performances of All-Solid-State Lithium Batteries Enabled by a Glassâ€“Ceramics Solo. ACS Applied Materials & Interfaces, 2018, 10, 10029-10035.	4.0	37
56	Interface reconstruction with emerging charge ordering in hexagonal manganite. Science Advances, 2018, 4, eaar4298.	4.7	37
57	Ferroelectric domain-wall logic units. Nature Communications, 2022, 13, .	5.8	37
58	Tunable magnetic and electrical behaviors in perovskite oxides by oxygen octahedral tilting. Science China Materials, 2015, 58, 302-312.	3.5	36
59	A four-state memory cell based on magnetoelectric composite. Science Bulletin, 2008, 53, 2135-2138.	4.3	33
60	Role of the interface on the magnetoelectric properties of BaTiO₃thin films deposited on polycrystalline Ni foils. Journal of Materials Chemistry C, 2014, 2, 708-714.	2.7	31
61	Photoelectrochemical Performance Observed in Mn-Doped BiFeO3 Heterostructured Thin Films. Nanomaterials, 2016, 6, 215.	1.9	31
62	Strong phonon localization in PbTe with dislocations and large deviation to Matthiessenâ€™s rule. Npj Computational Materials, 2019, 5, .	3.5	29
63	Self-Reconstructed Formation of a One-Dimensional Hierarchical Porous Nanostructure Assembled by Ultrathin TiO₂ Nanobelts for Fast and Stable Lithium Storage. ACS Applied Materials & Interfaces, 2018, 10, 19047-19058.	4.0	27
64	Mechanical properties of polymer-infiltrated-ceramic (sodium aluminum silicate) composites for dental restoration. Journal of Dentistry, 2017, 62, 91-97.	1.7	24
65	Enhanced electric resistivity and dielectric energy storage by vacancy defect complex. Energy Storage Materials, 2021, 42, 836-844.	9.5	24
66	Tunable pseudocapacitive contribution in nanosheet-constructed titania hierarchical tubes to achieve superior lithium-storage properties by phase control. Journal of Materials Chemistry A, 2018, 6, 24298-24310.	5.2	23
67	Strain-Mediated Converse Magnetoelectric Coupling in La0.7Sr0.3MnO3/Pb(Mg1/3Nb2/3)O3â€“PbTiO3 Multiferroic Heterostructures. Crystal Growth and Design, 2018, 18, 5934-5939.	1.4	21
68	Robust polarization switching in self-assembled BiFeO3 nanoislands with quad-domain structures. Acta Materialia, 2019, 175, 324-330.	3.8	21
69	Room temperature magnetoelectric coupling in intrinsic multiferroic Aurivillius phase textured ceramics. Dalton Transactions, 2016, 45, 14049-14052.	1.6	20
70	Bi_{3.25}La_{0.75}Ti_{2.5}Nb_{0.25}(Fe_{0.5}Co_{0.5})_{0.25}O a single phase room temperature multiferroic. Journal of Materials Chemistry C, 2018, 6, 2733-2740.	2.7	19
71	Scalable preparation of hierarchical porous activated carbon/graphene composites for high-performance supercapacitors. Journal of Materials Chemistry A, 2019, 7, 10058-10066.	5.2	19
72	Three-dimensional structured asymmetric electrolytes for high interface stability and fast Li-ion transport in solid-state Li-metal batteries. Materials Today Energy, 2020, 18, 100522.	2.5	19

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73	An alternating multilayer architecture boosts ultrahigh energy density and high discharge efficiency in polymer composites. RSC Advances, 2020, 10, 5886-5893.	1.7	19
74	Optimization of the thermoelectric properties of Bi2O2Se ceramics by altering the temperature of spark plasma sintering. Journal of Electroceramics, 2016, 37, 66-72.	0.8	18
75	Magnetoelectric phase transition driven by interfacial-engineered Dzyaloshinskii-Moriya interaction. Nature Communications, 2021, 12, 5453.	5.8	18
76	Understanding and predicting geometrical constraint ferroelectric charged domain walls in a BiFeO3 island via phase-field simulations. Applied Physics Letters, 2018, 113, .	1.5	17
77	A Ferroconcreteâ€Like Allâ€Organic Nanocomposite Exhibiting Improved Mechanical Property, High Breakdown Strength, and High Energy Efficiency. Macromolecular Materials and Engineering, 2019, 304, 1900433.	1.7	17
78	Structure and electrochemical properties of C-coated Li₂Oâ€“V₂O₅â€“P₂O₅ glass-ceramic as cathode material for lithium-ion batteries. Functional Materials Letters, 2019, 12, 1951002.	0.7	16
79	Robust Ferromagnetism in Highly Strained <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi>SrCoO</mml:mi></mml:mrow><mml:mrow><mml:mn>3</mml:mn></mml:mr Thin Films. Physical Review X, 2020, 10, .	2.8	15
80	A sandwich structure assisted by defect engineering for higher thermoelectric performance in ZnOâ€based films. Journal of the American Ceramic Society, 2021, 104, 1370-1378.	1.9	15
81	Long decay length of magnon-polarons in BiFeO3/La0.67Sr0.33MnO3 heterostructures. Nature Communications, 2021, 12, 7258.	5.8	15
82	Nanoscale Bandgap Tuning across an Inhomogeneous Ferroelectric Interface. ACS Applied Materials & Interfaces, 2017, 9, 24704-24710.	4.0	14
83	Mechanisms of Skyrmion and Skyrmion Crystal Formation from the Conical Phase. Nano Letters, 2020, 20, 4731-4738.	4.5	14
84	Thermoelectric Properties of Cl-Doped BiCuSeO Oxyselenides. Journal of Electronic Materials, 2017, 46, 2593-2598.	1.0	13
85	Self-assembly growth of a multiferroic topological nanoisland array. Nanoscale, 2019, 11, 20514-20521.	2.8	13
86	Structure design boosts concomitant enhancement of permittivity, breakdown strength, discharged energy density and efficiency in allâ€organic dielectrics. IET Nanodielectrics, 2020, 3, 147-155.	2.0	13
87	Modulating interfacial charge distribution and compatibility boosts high energy density and discharge efficiency of polymer nanocomposites. RSC Advances, 2019, 9, 35990-35997.	1.7	12
88	Multifieldâ€Inspired Tunable Carrier Effects Based on Ferroelectricâ€Silicon PN Heterojunction. Advanced Electronic Materials, 2020, 6, 1900795.	2.6	12
89	Mechanical and biocompatible properties of polymer-infiltrated-ceramic-network materials for dental restoration. Journal of Advanced Ceramics, 2020, 9, 123-128.	8.9	12
90	Highâ€temperature electrical and thermal transport behaviors in layered structure WSe₂. Journal of the American Ceramic Society, 2017, 100, 5528-5535.	1.9	10

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91	Interfacial-hybridization-modified Ir ferromagnetism and electronic structure in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>LaMnO</mml:mi><mml:mn>3</mml:mn> superlattices. Physical Review Research, 2020, 2, .	1.3	10
92	Large-scale self-assembled ag nanotubes. Tsinghua Science and Technology, 2005, 10, 736-740.	4.1	9
93	In Vitro Cell Proliferation and Mechanical Behaviors Observed in Porous Zirconia Ceramics. Materials, 2016, 9, 218.	1.3	9
94	Thermoelectric transport properties of BiCuSeO with embedded La0.8Sr0.2CoO3 nanoinclusions. Science China Technological Sciences, 2016, 59, 1036-1041.	2.0	9
95	Highly (001)-Textured Tetragonal BiFeO₃ Film and Its Photoelectrochemical Behaviors Tuned by Magnetic Field. ACS Applied Materials & Interfaces, 2017, 9, 30127-30132.	4.0	9
96	Stabilization of ferroelastic charged domain walls in self-assembled BiFeO3 nanoislands. Journal of Applied Physics, 2020, 128, 124103.	1.1	9
97	Perspectives on domain engineering for dielectric energy storage thin films. Applied Physics Letters, 2022, 120, .	1.5	8
98	The Effects of Spark-Plasma Sintering (SPS) on the Microstructure and Mechanical Properties of BaTiO3/3Y-TZP Composites. Materials, 2016, 9, 320.	1.3	7
99	Polarization-switching pathway determined electrical transport behaviors in rhombohedral BiFeO₃ thin films. Nanoscale, 2021, 13, 17746-17753.	2.8	7
100	Selective tuning of order parameters of multiferroic BiFeO3 in picoseconds using midinfrared terahertz laser pulses. Physical Review B, 2022, 105, .	1.1	6
101	Synthesis and Broadband Spectra Photocatalytic Properties of Bi2O2(CO3)1â^'xSx. Materials, 2018, 11, 791.	1.3	5
102	Highly Sensitive Strain Sensor from Topologicalâ€Structure Modulated Dielectric Elastic Nanocomposites. Advanced Materials Technologies, 2022, 7, 2101190.	3.0	5
103	Magnetic and electrical properties of PbTiO3/Mn-Zn ferrite multiphase nanotube arrays by electro-deposition. Journal of Applied Physics, 2012, 112, 104310.	1.1	4
104	Growth behaviors and characteristics of low temperature spin-sprayed ZnO and Al-doped ZnO microstructures. Journal of Materials Science: Materials in Electronics, 2013, 24, 2058-2066.	1.1	4
105	The Phase Characterization of BaTiO₃-LaCaMnO₃Complete Solid Solution and Its Physical Properties. Ferroelectrics, 2015, 489, 60-64.	0.3	4
106	Tunable photoelectric response in NiO-based heterostructures by various orientations. Applied Physics Letters, 2018, 112, .	1.5	3
107	Photoenhanced Electroresistance at Dislocation-Mediated Phase Boundary. ACS Applied Materials & Interfaces, 2022, 14, 18662-18670.	4.0	3
108	Bismuth Oxysulfide and Its Polymer Nanocomposites for Efficient Purification. Materials, 2018, 11, 447.	1.3	2

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109	Strain-induced modulation of magnetic anisotropy in Co/BaTiO3 composite. Science Bulletin, 2014, 59, 5191-5193.	1.7	1
110	Voltage-controlled Kerr response in Ni/Pb(Zr0.52Ti0.48)O3 heterostructures. Science Bulletin, 2014, 59, 5218-5222.	1.7	1
111	2D Metals: 2D Metals by Repeated Size Reduction (Adv. Mater. 37/2016). Advanced Materials, 2016, 28, 8169-8169.	11.1	1
112	Oxide Semiconductors: Arcâ€Melting to Narrow the Bandgap of Oxide Semiconductors (Adv. Mater.) Tj ETQq0 0 0 rgBT /Overlock 10 Tf	11.1	0
113	Well-Dispersed Co/CoO/C Nanospheres with Tunable Morphology as High-Performance Anodes for Lithium Ion Batteries. Materials, 2016, 9, 955.	1.3	0
114	Integrating Novel Microscopy into Battery Research: From Atomic Resolution to In Situ and Functional Imaging. Microscopy and Microanalysis, 2017, 23, 1998-1999.	0.2	0