

Xinsheng Peng

List of Publications by Year in descending order

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123
papers

8,978
citations

50170

46
h-index

42291

92
g-index

123
all docs

123
docs citations

123
times ranked

9850
citing authors

#	ARTICLE	IF	CITATIONS
1	Polyamide membranes with nanoscale Turing structures for water purification. <i>Science</i> , 2018, 360, 518-521.	6.0	996
2	Ultrafast viscous water flow through nanostrand-channelled graphene oxide membranes. <i>Nature Communications</i> , 2013, 4, 2979.	5.8	673
3	Foldable interpenetrated metal-organic frameworks/carbon nanotubes thin film for lithium-sulfur batteries. <i>Nature Communications</i> , 2017, 8, 14628.	5.8	436
4	Understanding Water Permeation in Graphene Oxide Membranes. <i>ACS Applied Materials & Interfaces</i> , 2014, 6, 5877-5883.	4.0	415
5	Salt concentration, pH and pressure controlled separation of small molecules through lamellar graphene oxide membranes. <i>Chemical Communications</i> , 2013, 49, 5963.	2.2	367
6	Graphene oxide nanosheet: an emerging star material for novel separation membranes. <i>Journal of Materials Chemistry A</i> , 2014, 2, 13772-13782.	5.2	316
7	Ultrafast permeation of water through protein-based membranes. <i>Nature Nanotechnology</i> , 2009, 4, 353-357.	15.6	312
8	Co-Ferrocene MOF/Glucose Oxidase as Cascade Nanozyme for Effective Tumor Therapy. <i>Advanced Functional Materials</i> , 2020, 30, 1910085.	7.8	283
9	Laminar MoS ₂ membranes for molecule separation. <i>Chemical Communications</i> , 2013, 49, 10718.	2.2	274
10	Polystyrene Sulfonate Threaded through a Metal-Organic Framework Membrane for Fast and Selective Lithium-Ion Separation. <i>Angewandte Chemie - International Edition</i> , 2016, 55, 15120-15124.	7.2	272
11	Flexible and Binder-Free Hierarchical Porous Carbon Film for Supercapacitor Electrodes Derived from MOFs/CNT. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 14043-14050.	4.0	167
12	Breakdown of fast water transport in graphene oxides. <i>Physical Review E</i> , 2014, 89, 012113.	0.8	164
13	Ionic Liquid Selectively Facilitates CO ₂ Transport through Graphene Oxide Membrane. <i>ACS Nano</i> , 2018, 12, 5385-5393.	7.3	161
14	General incorporation of diverse components inside metal-organic framework thin films at room temperature. <i>Nature Communications</i> , 2014, 5, 5532.	5.8	155
15	Recent advances of nanomaterial-based membrane for water purification. <i>Applied Materials Today</i> , 2017, 7, 144-158.	2.3	154
16	Strings of Porous Carbon Polyhedrons as Self-Standing Cathode Host for High-Energy-Density Lithium-Sulfur Batteries. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 6176-6180.	7.2	153
17	The highly enhanced performance of lamellar WS ₂ nanosheet electrodes upon intercalation of single-walled carbon nanotubes for supercapacitors and lithium ions batteries. <i>Chemical Communications</i> , 2014, 50, 4485.	2.2	150
18	A DNA-Threaded ZIF-8 Membrane with High Proton Conductivity and Low Methanol Permeability. <i>Advanced Materials</i> , 2018, 30, 1705155.	11.1	142

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19	General Method for Ultrathin Free-Standing Films of Nanofibrous Composite Materials. <i>Journal of the American Chemical Society</i> , 2007, 129, 8625-8633.	6.6	115
20	CNT-threaded N-doped porous carbon film as binder-free electrode for high-capacity supercapacitor and Li-S battery. <i>Journal of Materials Chemistry A</i> , 2017, 5, 9775-9784.	5.2	115
21	One Stone Two Birds: Zr-Fc Metal-Organic Framework Nanosheet for Synergistic Photothermal and Chemodynamic Cancer Therapy. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 20321-20330.	4.0	105
22	A Light-Responsive Metal-Organic Framework Hybrid Membrane with High On/Off Photoswitchable Proton Conductivity. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 7732-7737.	7.2	96
23	Polyaniline-Coated MOFs Nanorod Arrays for Efficient Evaporation-Driven Electricity Generation and Solar Steam Desalination. <i>Advanced Science</i> , 2021, 8, 2004552.	5.6	95
24	2D Zr-Fc metal-organic frameworks with highly efficient anchoring and catalytic conversion ability towards polysulfides for advanced Li-S battery. <i>Energy Storage Materials</i> , 2021, 36, 466-477.	9.5	90
25	Hierarchical Porous SWCNT Stringed Carbon Polyhedrons and PSS Threaded MOF Bilayer Membrane for Efficient Solar Vapor Generation. <i>Small</i> , 2019, 15, e1900354.	5.2	89
26	Polystyrene Sulfonate Threaded through a Metal-Organic Framework Membrane for Fast and Selective Lithium-Ion Separation. <i>Angewandte Chemie</i> , 2016, 128, 15344-15348.	1.6	78
27	Enhanced Gas Separation through Nanoconfined Ionic Liquid in Laminated MoS ₂ Membrane. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 44251-44257.	4.0	77
28	Highly enhanced capacitance of CuO nanosheets by formation of CuO/SWCNT networks through electrostatic interaction. <i>Electrochimica Acta</i> , 2013, 104, 289-294.	2.6	72
29	In-plane mesoporous graphene oxide nanosheet assembled membranes for molecular separation. <i>RSC Advances</i> , 2014, 4, 21425.	1.7	72
30	Anodic electrodeposition of a porous nickel oxide-hydroxide film on passivated nickel foam for supercapacitors. <i>Journal of Materials Chemistry A</i> , 2014, 2, 7161-7164.	5.2	70
31	Blocking Polysulfides and Facilitating Lithium-Ion Transport: Polystyrene Sulfonate@HKUST-1 Membrane for Lithium-Sulfur Batteries. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 30451-30459.	4.0	69
32	Phase-Dependent Fluorescence Quenching Efficiency of MoS ₂ Nanosheets and Their Applications in Multiplex Target Biosensing. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 42009-42017.	4.0	68
33	A photothermal and Fenton active MOF-based membrane for high-efficiency solar water evaporation and clean water production. <i>Journal of Materials Chemistry A</i> , 2020, 8, 22728-22735.	5.2	64
34	Ultrathin freestanding nanoporous membranes prepared from polystyrene nanoparticles. <i>Journal of Materials Chemistry</i> , 2011, 21, 1684-1688.	6.7	62
35	Green-Chemical Synthesis of Ultrathin MnOOH Nanofibers for Separation Membranes. <i>Advanced Functional Materials</i> , 2011, 21, 2080-2087.	7.8	62
36	Porous cellulose nanofiber stringed HKUST-1 polyhedron membrane for air purification. <i>Applied Materials Today</i> , 2019, 14, 96-101.	2.3	61

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37	Hierarchical Mesoporous Metal-Organic Frameworks for Enhanced CO ₂ Capture. Chemistry - A European Journal, 2015, 21, 15127-15132.	1.7	59
38	Nanoconfined deep eutectic solvent in laminated MXene for efficient CO ₂ separation. Chemical Engineering Journal, 2021, 405, 126961.	6.6	56
39	Light-gated cation-selective transport in metal-organic framework membranes. Journal of Materials Chemistry A, 2020, 8, 11399-11405.	5.2	54
40	Binder-free three-dimensional porous Mn ₃ O ₄ nanorods/reduced graphene oxide paper-like electrodes for electrochemical energy storage. RSC Advances, 2014, 4, 16374.	1.7	53
41	CO ₂ -philic Separation Membrane: Deep Eutectic Solvent Filled Graphene Oxide Nanoslits. Small, 2019, 15, e1904145.	5.2	53
42	Facilitate Gas Transport through Metal-Organic Polyhedra Constructed Porous Liquid Membrane. Small, 2020, 16, e1907016.	5.2	52
43	Efficiently cogenerating drinkable water and electricity from seawater <i>via</i> flexible MOF nanorod arrays. Journal of Materials Chemistry A, 2021, 9, 9048-9055.	5.2	52
44	Keggin-type polyoxometalates molecularly loaded in Zr-ferrocene metal organic framework nanosheets for solar-driven CO ₂ cycloaddition. Applied Catalysis B: Environmental, 2021, 296, 120329.	10.8	52
45	Time-dependent growth of zinc hydroxide nanostrands and their crystal structure. Chemical Communications, 2008, , 1904.	2.2	49
46	ZIF-8 coated polyvinylidene fluoride (PVDF) hollow fiber for highly efficient separation of small dye molecules. Applied Materials Today, 2016, 5, 103-110.	2.3	48
47	Selectively tuning gas transport through ionic liquid filled graphene oxide nanoslits using an electric field. Journal of Materials Chemistry A, 2019, 7, 15062-15067.	5.2	48
48	Enhanced gas separation through well-intergrown MOF membranes: seed morphology and crystal growth effects. Journal of Materials Chemistry A, 2013, 1, 11711.	5.2	45
49	Electrical field facilitates selective transport of CO ₂ through a laminated MoS ₂ supported ionic liquid membrane. Journal of Materials Chemistry A, 2019, 7, 10041-10046.	5.2	40
50	Mass transport through metal organic framework membranes. Science China Materials, 2019, 62, 25-42.	3.5	40
51	CO ₂ -philic WS ₂ laminated membranes with a nanoconfined ionic liquid. Journal of Materials Chemistry A, 2018, 6, 16566-16573.	5.2	39
52	Strings of Porous Carbon Polyhedrons as Self-Standing Cathode Host for High-Energy-Density Lithium-Sulfur Batteries. Angewandte Chemie, 2017, 129, 6272-6276.	1.6	37
53	Carbon nanotubes decorated hollow metal-organic frameworks for efficient solar-driven atmospheric water harvesting. Chemical Engineering Journal, 2022, 430, 133086.	6.6	37
54	Single Cobalt Atom Anchored Black Phosphorous Nanosheets as an Effective Cocatalyst Promotes Photocatalysis. ChemCatChem, 2020, 12, 3870-3879.	1.8	34

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55	Robust QODs Modified Thermally Reduced Graphene Oxide Membranes for Ultrafast and Long-Term Purification of Dye-Wasted Water. <i>Advanced Materials Interfaces</i> , 2017, 4, 1700209.	1.9	33
56	Photothermal-Responsive Microporous Nanosheets Confined Ionic Liquid for Efficient CO ₂ Separation. <i>Small</i> , 2020, 16, e2002699.	5.2	33
57	Zwitterion threaded metal-organic framework membranes for direct methanol fuel cells. <i>Journal of Materials Chemistry A</i> , 2018, 6, 19547-19554.	5.2	32
58	Zinc hydroxide nanostrands: unique precursors for synthesis of ZIF-8 thin membranes exhibiting high size-sieving ability for gas separation. <i>CrystEngComm</i> , 2014, 16, 9788-9791.	1.3	31
59	Thin copper oxide nanowires/carbon nanotubes interpenetrating networks for lithium ion batteries. <i>CrystEngComm</i> , 2012, 14, 7294.	1.3	30
60	Manganese oxyhydroxide and oxide nanofibers for high efficiency degradation of organic pollutants. <i>Nanotechnology</i> , 2011, 22, 015701.	1.3	29
61	Mesoporous separation membranes of {[Cu(BTC)(H ₂ O) ₂ ·(H ₂ O) ₂]}·3H ₂ O nanobelts synthesized by ultrasonication at room temperature. <i>CrystEngComm</i> , 2013, 15, 265-270.	1.3	29
62	Highly conductive PEDOT:PSS threaded HKUST-1 thin films. <i>Chemical Communications</i> , 2018, 54, 13865-13868.	2.2	28
63	Blue metal-organic framework encapsulated denatured R-phycoerythrin proteins for a white-light-emitting thin film. <i>Journal of Materials Chemistry C</i> , 2020, 8, 240-246.	2.7	28
64	Molecular-confinement synthesis of sub-nano Fe/N/C catalysts with high oxygen reduction reaction activity and excellent durability for rechargeable Zn-Air batteries. <i>Journal of Power Sources</i> , 2020, 450, 227660.	4.0	27
65	Au/CuO nanosheets composite for glucose sensor and CO oxidation. <i>RSC Advances</i> , 2015, 5, 9130-9137.	1.7	26
66	Sulfonated Sub-Nanochannels in a Robust MOF Membrane: Harvesting Salinity Gradient Power. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 35496-35500.	4.0	26
67	Laminated mica nanosheets supported ionic liquid membrane for CO ₂ separation. <i>Nanotechnology</i> , 2019, 30, 385705.	1.3	25
68	A robust asymmetric porous SWCNT/Gelatin thin membrane with salt-resistant for efficient solar vapor generation. <i>Applied Materials Today</i> , 2020, 18, 100459.	2.3	24
69	Cu-TCP nanosheets blended polysulfone ultrafiltration membranes with enhanced antifouling and photo-tunable porosity. <i>Separation and Purification Technology</i> , 2021, 268, 118688.	3.9	24
70	Accelerating CO ₂ transport through nanoconfined magnetic ionic liquid in laminated BN membrane. <i>Chemical Engineering Journal</i> , 2021, 423, 130309.	6.6	24
71	Simultaneous Recovery of Metal Ions and Electricity Harvesting via K-Carrageenan@ZIF-8 Membrane. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 34039-34045.	4.0	23
72	Ferrocenyl metal-organic framework hollow microspheres for <i>in situ</i> loading palladium nanoparticles as a heterogeneous catalyst. <i>Dalton Transactions</i> , 2019, 48, 8995-9003.	1.6	23

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73	Nanoporous ZnO nanostructures for photocatalytic degradation of organic pollutants. <i>Applied Physics A: Materials Science and Processing</i> , 2013, 110, 351-359.	1.1	22
74	Ferrocene Dicarboxylic Acid Ligand-Exchanged Hollow MIL-101(Cr) Nanospheres for Solar-Driven Atmospheric Water Harvesting. <i>ACS Sustainable Chemistry and Engineering</i> , 2022, 10, 6446-6455.	3.2	22
75	Fe ₃ O ₄ nanoparticle anchored layered graphene films for high performance lithium storage. <i>New Journal of Chemistry</i> , 2016, 40, 2649-2654.	1.4	20
76	Photothermal responsive ultrathin Cu-TCPP nanosheets/sulfonated polystyrene nanocomposite photo-switch proton conducting membranes. <i>Journal of Membrane Science</i> , 2021, 620, 118888.	4.1	20
77	Charge separation in hybrid metal-organic framework films for enhanced catalytic CO ₂ conversion. <i>Journal of Materials Chemistry A</i> , 2021, 9, 2694-2699.	5.2	20
78	Superior separation performance of ultrathin gelatin films. <i>Journal of Materials Chemistry A</i> , 2013, 1, 1899-1906.	5.2	18
79	Room temperature synthesis of ZIF-8 membranes from seeds anchored in gelatin films for gas separation. <i>CrystEngComm</i> , 2015, 17, 1576-1582.	1.3	18
80	Self-confined synthesis of HKUST-1 membranes from CuO nanosheets at room temperature. <i>ChemistrySelect</i> , 2016, 1, 108-113.	0.7	18
81	Solid Confinement of Quantum Dots in ZIF-8 for Efficient and Stable Color Conversion White LEDs. <i>ChemSusChem</i> , 2017, 10, 1346-1350.	3.6	18
82	Oriental seawater transportation through Cu(TCNQ) nanorod arrays for efficient solar desalination and salt production. <i>Desalination</i> , 2022, 522, 115399.	4.0	18
83	Stable Two-dimensional Nanoconfined Ionic Liquids with Highly Efficient Ionic Conductivity. <i>Small</i> , 2022, 18, e2108026.	5.2	18
84	Fe ₃ Pt intermetallic nanoparticles anchored on N-doped mesoporous carbon for the highly efficient oxygen reduction reaction. <i>Chemical Communications</i> , 2020, 56, 4898-4901.	2.2	17
85	Dual emission from nanoconfined R-phycoerythrin fluorescent proteins for white light emission diodes. <i>RSC Advances</i> , 2019, 9, 9777-9782.	1.7	16
86	High catalytic performance of gold nanoparticle-gelatin mesoporous composite thin films. <i>Journal of Materials Chemistry</i> , 2012, 22, 21117.	6.7	15
87	Ferrocenecarboxylic acid: a functional modulator for UiO-66 synthesis and incorporation of Pd nanoparticles. <i>CrystEngComm</i> , 2019, 21, 1772-1779.	1.3	15
88	CaCl ₂ Nanocrystals decorated photothermal Fe-ferrocene MOFs hollow microspheres for atmospheric water harvesting. <i>Applied Materials Today</i> , 2021, 23, 101076.	2.3	15
89	Near-Infrared-Light emitting diode driven white light Emission: Upconversion nanoparticles decorated Metal-Organic Frameworks thin film. <i>Chemical Engineering Journal</i> , 2021, 409, 128220.	6.6	14
90	Superhydrophilic and Photothermal Fe-TCPP Nanofibrous Membrane for Efficient Oil-in-Water Nanoemulsion Separation. <i>Langmuir</i> , 2021, 37, 12981-12989.	1.6	13

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91	A self-confinement synthesis of a POM-decorated MOF thin film for actively hydrolyzing ethyl acetate. <i>Chemical Communications</i> , 2020, 56, 13840-13843.	2.2	12
92	NH ₂ -UiO-66 Metal-Organic Framework Nanoparticles for Hydroxide Ion Conductive Photoswitches. <i>ACS Applied Nano Materials</i> , 2021, 4, 8352-8359.	2.4	12
93	Ultra-fast photothermal-responsive Fe-TCPP-based thin-film nanocomposite membranes for ON/OFF switchable nanofiltration. <i>Separation and Purification Technology</i> , 2021, 278, 119528.	3.9	12
94	A unique photoswitch: intrinsic photothermal heating induced reversible proton conductivity of a HKUST-1 membrane. <i>Dalton Transactions</i> , 2021, 50, 2731-2735.	1.6	12
95	Photothermal-driven interfacial-polymerized ultrathin polyamide selective layer for nanofiltration. <i>Chemical Engineering Journal</i> , 2022, 440, 136012.	6.6	12
96	Flexible ultrathin free-standing fluorescent films of CdSexS1~x/ZnS nanocrystalline and protein. <i>Journal of Materials Chemistry</i> , 2011, 21, 4424.	6.7	11
97	Filtration-assembling colloidal crystal templates for ordered macroporous nanoparticle films. <i>Journal of Materials Chemistry</i> , 2011, 21, 18089.	6.7	11
98	Carbon nanofiber stringed hierarchical porous carbon polyhedrons flexible thin films for solar vapor generation. <i>Applied Physics A: Materials Science and Processing</i> , 2019, 125, 1.	1.1	11
99	R-phycoerythrin proteins@ZIF-8 composite thin films for mercury ion detection. <i>Analyst</i> , The, 2019, 144, 3892-3897.	1.7	11
100	Graphene oxide nanoslit-confined AgBF ₄ /ionic liquid for efficiently separating olefin from paraffin. <i>Nanotechnology</i> , 2020, 31, 085703.	1.3	11
101	Graphene oxide constructed nano Newton's cradle for ultrafast and highly selective CO ₂ transport. <i>Journal of Membrane Science</i> , 2022, 652, 120475.	4.1	11
102	Mesoporous protein thin films for molecule delivery. <i>Journal of Materials Chemistry</i> , 2011, 21, 13172.	6.7	10
103	Porous reduced graphene oxide paper as a binder-free electrode for high-performance supercapacitors. <i>RSC Advances</i> , 2015, 5, 27175-27180.	1.7	10
104	Au nanoparticle-decorated ultrathin CdS nanowires for high-efficiency photodegradation of organic dyes. <i>Applied Physics A: Materials Science and Processing</i> , 2015, 120, 1291-1297.	1.1	10
105	Cross-flow-assembled ultrathin and robust graphene oxide membranes for efficient molecule separation. <i>Nanotechnology</i> , 2018, 29, 155602.	1.3	10
106	Nitrogen-doped porous carbon sponge-confined ZnO quantum dots for metal collector-free lithium ion battery. <i>Journal of Electroanalytical Chemistry</i> , 2019, 848, 113275.	1.9	10
107	Photogated proton conductivity of ZIF-8 membranes co-modified with graphene quantum dots and polystyrene sulfonate. <i>Science China Materials</i> , 2021, 64, 1997-2007.	3.5	10
108	Starfish-like Au@CdS hybrids for the highly efficient photocatalytic degradation of organic dyes. <i>RSC Advances</i> , 2014, 4, 42441-42444.	1.7	9

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109	Rational design of a Fe/S/N/C catalyst from ZIF-8 for efficient oxygen reduction reaction. <i>Nanotechnology</i> , 2020, 31, 475404.	1.3	9
110	Ag-DNA@ZIF-8 membrane: A proton conductive photoswitch. <i>Applied Materials Today</i> , 2020, 20, 100761.	2.3	8
111	Hydrophobic and porous cellulose nanofibrous screen for efficient particulate matter (PM2.5) blocking. <i>Journal Physics D: Applied Physics</i> , 2017, 50, 405304.	1.3	7
112	Highly conductive and transparent metal-organic frameworks thin film. <i>Science China Materials</i> , 2019, 62, 1350-1356.	3.5	7
113	A Light-Responsive Metal-Organic Framework Hybrid Membrane with High On/Off Photoswitchable Proton Conductivity. <i>Angewandte Chemie</i> , 2020, 132, 7806-7811.	1.6	7
114	Mechanical enhancement of a nanoconfined-electrodeposited nacre-like Cu ₂ O layered crystal/graphene oxide nanosheet composite thin film. <i>RSC Advances</i> , 2016, 6, 94845-94850.	1.7	6
115	Ammonia assisted formation of tubular MOP-18 crystals. <i>CrystEngComm</i> , 2014, 16, 10916-10920.	1.3	5
116	Facile synthesis of highly fluorescent gelatin/Si nanocrystals composite thin films for optical detection of amines in water. <i>Journal of Materials Chemistry C</i> , 2014, 2, 1971.	2.7	5
117	Benzenedicarboxylic acid-assisted synthesis of ZnO micro-hexagons from zinc hydroxide nanostrands and their photoluminescence properties. <i>Applied Physics A: Materials Science and Processing</i> , 2015, 118, 683-690.	1.1	4
118	Optical-switched proton logic gate: Indocyanine green decorated HSB-W5 MOFs nanosheets. <i>Science China Materials</i> , 0, , 1.	3.5	4
119	Bio-inspired ferromagnetic graphene oxide/magnetic ionic liquid membrane for highly efficient CO ₂ separation. <i>Applied Materials Today</i> , 2021, 24, 101164.	2.3	3
120	Turing Structured Au/Graphene Oxide-Polyethylene Glycol Thin Film for Surface Enhanced Raman Scattering Detection of Trace Dye. <i>Advanced Materials Interfaces</i> , 0, , 2102461.	1.9	3
121	Enhanced molecular transport in two-dimensional nanoconfined ionic liquids. <i>Applied Materials Today</i> , 2022, 27, 101458.	2.3	3
122	Au ₃ Cu nanosquares and frames for glucose sensor and CO oxidation catalyst. <i>Applied Physics A: Materials Science and Processing</i> , 2020, 126, 1.	1.1	2
123	High aspect ratio tungsten grating on ultrathin Si membranes for extreme UV lithography. <i>Nanotechnology</i> , 2016, 27, 352501.	1.3	0