

Xinsheng Peng

List of Publications by Year in descending order

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123
papers

8,978
citations

50273

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all docs

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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.	12.6	996
2	Ultrafast viscous water flow through nanostrand-channelled graphene oxide membranes. <i>Nature Communications</i> , 2013, 4, 2979.	12.8	673
3	Foldable interpenetrated metal-organic frameworks/carbon nanotubes thin film for lithium-sulfur batteries. <i>Nature Communications</i> , 2017, 8, 14628.	12.8	436
4	Understanding Water Permeation in Graphene Oxide Membranes. <i>ACS Applied Materials & Interfaces</i> , 2014, 6, 5877-5883.	8.0	415
5	Salt concentration, pH and pressure controlled separation of small molecules through lamellar graphene oxide membranes. <i>Chemical Communications</i> , 2013, 49, 5963.	4.1	367
6	Graphene oxide nanosheet: an emerging star material for novel separation membranes. <i>Journal of Materials Chemistry A</i> , 2014, 2, 13772-13782.	10.3	316
7	Ultrafast permeation of water through protein-based membranes. <i>Nature Nanotechnology</i> , 2009, 4, 353-357.	31.5	312
8	Co-Ferrocene MOF/Glucose Oxidase as Cascade Nanozyme for Effective Tumor Therapy. <i>Advanced Functional Materials</i> , 2020, 30, 1910085.	14.9	283
9	Laminar MoS ₂ membranes for molecule separation. <i>Chemical Communications</i> , 2013, 49, 10718.	4.1	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.	13.8	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.	8.0	167
12	Breakdown of fast water transport in graphene oxides. <i>Physical Review E</i> , 2014, 89, 012113.	2.1	164
13	Ionic Liquid Selectively Facilitates CO ₂ Transport through Graphene Oxide Membrane. <i>ACS Nano</i> , 2018, 12, 5385-5393.	14.6	161
14	General incorporation of diverse components inside metal-organic framework thin films at room temperature. <i>Nature Communications</i> , 2014, 5, 5532.	12.8	155
15	Recent advances of nanomaterial-based membrane for water purification. <i>Applied Materials Today</i> , 2017, 7, 144-158.	4.3	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.	13.8	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.	4.1	150
18	A DNA-Threaded ZIF-8 Membrane with High Proton Conductivity and Low Methanol Permeability. <i>Advanced Materials</i> , 2018, 30, 1705155.	21.0	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.	13.7	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.	10.3	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.	8.0	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.	13.8	96
23	Polyaniline-Coated MOFs Nanorod Arrays for Efficient Evaporation-Driven Electricity Generation and Solar Steam Desalination. <i>Advanced Science</i> , 2021, 8, 2004552.	11.2	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.	18.0	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.	10.0	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.	2.0	78
27	Enhanced Gas Separation through Nanoconfined Ionic Liquid in Laminated MoS ₂ Membrane. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 44251-44257.	8.0	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.	5.2	72
29	In-plane mesoporous graphene oxide nanosheet assembled membranes for molecular separation. <i>RSC Advances</i> , 2014, 4, 21425.	3.6	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.	10.3	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.	8.0	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.	8.0	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.	10.3	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.	14.9	62
36	Porous cellulose nanofiber stringed HKUST-1 polyhedron membrane for air purification. <i>Applied Materials Today</i> , 2019, 14, 96-101.	4.3	61

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37	Hierarchical Mesoporous Metal-Organic Frameworks for Enhanced CO ₂ Capture. Chemistry - A European Journal, 2015, 21, 15127-15132.	3.3	59
38	Nanoconfined deep eutectic solvent in laminated MXene for efficient CO ₂ separation. Chemical Engineering Journal, 2021, 405, 126961.	12.7	56
39	Light-gated cation-selective transport in metal-organic framework membranes. Journal of Materials Chemistry A, 2020, 8, 11399-11405.	10.3	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.	3.6	53
41	CO ₂ -philic Separation Membrane: Deep Eutectic Solvent Filled Graphene Oxide Nanoslits. Small, 2019, 15, e1904145.	10.0	53
42	Facilitate Gas Transport through Metal-Organic Polyhedra Constructed Porous Liquid Membrane. Small, 2020, 16, e1907016.	10.0	52
43	Efficiently cogenerating drinkable water and electricity from seawater via flexible MOF nanorod arrays. Journal of Materials Chemistry A, 2021, 9, 9048-9055.	10.3	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.	20.2	52
45	Time-dependent growth of zinc hydroxide nanostrands and their crystal structure. Chemical Communications, 2008, , 1904.	4.1	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.	4.3	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.	10.3	48
48	Enhanced gas separation through well-intergrown MOF membranes: seed morphology and crystal growth effects. Journal of Materials Chemistry A, 2013, 1, 11711.	10.3	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.	10.3	40
50	Mass transport through metal organic framework membranes. Science China Materials, 2019, 62, 25-42.	6.3	40
51	CO ₂ -philic WS ₂ laminated membranes with a nanoconfined ionic liquid. Journal of Materials Chemistry A, 2018, 6, 16566-16573.	10.3	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.	2.0	37
53	Carbon nanotubes decorated hollow metal-organic frameworks for efficient solar-driven atmospheric water harvesting. Chemical Engineering Journal, 2022, 430, 133086.	12.7	37
54	Single Cobalt Atom Anchored Black Phosphorous Nanosheets as an Effective Cocatalyst Promotes Photocatalysis. ChemCatChem, 2020, 12, 3870-3879.	3.7	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.	3.7	33
56	Photothermal-Responsive Microporous Nanosheets Confined Ionic Liquid for Efficient CO ₂ Separation. <i>Small</i> , 2020, 16, e2002699.	10.0	33
57	Zwitterion threaded metal-organic framework membranes for direct methanol fuel cells. <i>Journal of Materials Chemistry A</i> , 2018, 6, 19547-19554.	10.3	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.	2.6	31
59	Thin copper oxide nanowires/carbon nanotubes interpenetrating networks for lithium ion batteries. <i>CrystEngComm</i> , 2012, 14, 7294.	2.6	30
60	Manganese oxyhydroxide and oxide nanofibers for high efficiency degradation of organic pollutants. <i>Nanotechnology</i> , 2011, 22, 015701.	2.6	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.	2.6	29
62	Highly conductive PEDOT:PSS threaded HKUST-1 thin films. <i>Chemical Communications</i> , 2018, 54, 13865-13868.	4.1	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.	5.5	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.	7.8	27
65	Au/CuO nanosheets composite for glucose sensor and CO oxidation. <i>RSC Advances</i> , 2015, 5, 9130-9137.	3.6	26
66	Sulfonated Sub-Nanochannels in a Robust MOF Membrane: Harvesting Salinity Gradient Power. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 35496-35500.	8.0	26
67	Laminated mica nanosheets supported ionic liquid membrane for CO ₂ separation. <i>Nanotechnology</i> , 2019, 30, 385705.	2.6	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.	4.3	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.	7.9	24
70	Accelerating CO ₂ transport through nanoconfined magnetic ionic liquid in laminated BN membrane. <i>Chemical Engineering Journal</i> , 2021, 423, 130309.	12.7	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.	8.0	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.	3.3	23

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73	Nanoporous ZnO nanostructures for photocatalytic degradation of organic pollutants. Applied Physics A: Materials Science and Processing, 2013, 110, 351-359.	2.3	22
74	Ferrocene Dicarboxylic Acid Ligand-Exchanged Hollow MIL-101(Cr) Nanospheres for Solar-Driven Atmospheric Water Harvesting. ACS Sustainable Chemistry and Engineering, 2022, 10, 6446-6455.	6.7	22
75	Fe ₃ O ₄ nanoparticle anchored layered graphene films for high performance lithium storage. New Journal of Chemistry, 2016, 40, 2649-2654.	2.8	20
76	Photothermal responsive ultrathin Cu-TCPP nanosheets/sulfonated polystyrene nanocomposite photo-switch proton conducting membranes. Journal of Membrane Science, 2021, 620, 118888.	8.2	20
77	Charge separation in hybrid metal-organic framework films for enhanced catalytic CO ₂ conversion. Journal of Materials Chemistry A, 2021, 9, 2694-2699.	10.3	20
78	Superior separation performance of ultrathin gelatin films. Journal of Materials Chemistry A, 2013, 1, 1899-1906.	10.3	18
79	Room temperature synthesis of ZIF-8 membranes from seeds anchored in gelatin films for gas separation. CrystEngComm, 2015, 17, 1576-1582.	2.6	18
80	Self-confined synthesis of HKUST-1 membranes from CuO nanosheets at room temperature. ChemistrySelect, 2016, 1, 108-113.	1.5	18
81	Solid Confinement of Quantum Dots in ZIF-8 for Efficient and Stable Color Conversion White LEDs. ChemSusChem, 2017, 10, 1346-1350.	6.8	18
82	Oriental seawater transportation through Cu(TCNQ) nanorod arrays for efficient solar desalination and salt production. Desalination, 2022, 522, 115399.	8.2	18
83	Stable Two-dimensional Nanoconfined Ionic Liquids with Highly Efficient Ionic Conductivity. Small, 2022, 18, e2108026.	10.0	18
84	Fe ₃ Pt intermetallic nanoparticles anchored on N-doped mesoporous carbon for the highly efficient oxygen reduction reaction. Chemical Communications, 2020, 56, 4898-4901.	4.1	17
85	Dual emission from nanoconfined R-phycoerythrin fluorescent proteins for white light emission diodes. RSC Advances, 2019, 9, 9777-9782.	3.6	16
86	High catalytic performance of gold nanoparticle-gelatin mesoporous composite thin films. Journal of Materials Chemistry, 2012, 22, 21117.	6.7	15
87	Ferrocenecarboxylic acid: a functional modulator for UiO-66 synthesis and incorporation of Pd nanoparticles. CrystEngComm, 2019, 21, 1772-1779.	2.6	15
88	CaCl ₂ Nanocrystals decorated photothermal Fe-ferrocene MOFs hollow microspheres for atmospheric water harvesting. Applied Materials Today, 2021, 23, 101076.	4.3	15
89	Near-Infrared-Light emitting diode driven white light Emission: Upconversion nanoparticles decorated Metal-Organic Frame-works thin film. Chemical Engineering Journal, 2021, 409, 128220.	12.7	14
90	Superhydrophilic and Photothermal Fe-TCPP Nanofibrous Membrane for Efficient Oil-in-Water Nanoemulsion Separation. Langmuir, 2021, 37, 12981-12989.	3.5	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.	4.1	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.	5.0	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.	7.9	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.	3.3	12
95	Photothermal-driven interfacial-polymerized ultrathin polyamide selective layer for nanofiltration. <i>Chemical Engineering Journal</i> , 2022, 440, 136012.	12.7	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.	2.3	11
99	R-phycoerythrin proteins@ZIF-8 composite thin films for mercury ion detection. <i>Analyst</i> , The, 2019, 144, 3892-3897.	3.5	11
100	Graphene oxide nanoslit-confined AgBF ₄ /ionic liquid for efficiently separating olefin from paraffin. <i>Nanotechnology</i> , 2020, 31, 085703.	2.6	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.	8.2	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.	3.6	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.	2.3	10
105	Cross-flow-assembled ultrathin and robust graphene oxide membranes for efficient molecule separation. <i>Nanotechnology</i> , 2018, 29, 155602.	2.6	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.	3.8	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.	6.3	10
108	Starfish-like Au@CdS hybrids for the highly efficient photocatalytic degradation of organic dyes. <i>RSC Advances</i> , 2014, 4, 42441-42444.	3.6	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.	2.6	9
110	Ag-DNA@ZIF-8 membrane: A proton conductive photoswitch. <i>Applied Materials Today</i> , 2020, 20, 100761.	4.3	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.	2.8	7
112	Highly conductive and transparent metal-organic frameworks thin film. <i>Science China Materials</i> , 2019, 62, 1350-1356.	6.3	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.	2.0	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.	3.6	6
115	Ammonia assisted formation of tubular MOP-18 crystals. <i>CrystEngComm</i> , 2014, 16, 10916-10920.	2.6	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.	5.5	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.	2.3	4
118	Optical-switched proton logic gate: Indocyanine green decorated HSB-W5 MOFs nanosheets. <i>Science China Materials</i> , 0, , 1.	6.3	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.	4.3	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.	3.7	3
121	Enhanced molecular transport in two-dimensional nanoconfined ionic liquids. <i>Applied Materials Today</i> , 2022, 27, 101458.	4.3	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.	2.3	2
123	High aspect ratio tungsten grating on ultrathin Si membranes for extreme UV lithography. <i>Nanotechnology</i> , 2016, 27, 352501.	2.6	0