Xing-Zhong Cao

List of Publications by Year
in descending order

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368 papers	15,057 citations	20797 60 h-index	25770 108 g-index
372 all docs	372 docs citations	372 times ranked	15539 citing authors

#	Article	IF	Citations
1	Contributions of Phase, Sulfur Vacancies, and Edges to the Hydrogen Evolution Reaction Catalytic Activity of Porous Molybdenum Disulfide Nanosheets. Journal of the American Chemical Society, 2016, 138, 7965-7972.	6.6	1,055
2	Understanding the effect of surface/bulk defects on the photocatalytic activity of TiO2: anatase versus rutile. Physical Chemistry Chemical Physics, 2013, 15, 10978.	1.3	549
3	Oxygen vacancy-rich 2D/2D BiOCl-g-C3N4 ultrathin heterostructure nanosheets for enhanced visible-light-driven photocatalytic activity in environmental remediation. Applied Catalysis B: Environmental, 2018, 220, 290-302.	10.8	490
4	Synergistic Phase and Disorder Engineering in 1Tâ€MoSe₂ Nanosheets for Enhanced Hydrogenâ€Evolution Reaction. Advanced Materials, 2017, 29, 1700311.	11.1	411
5	A MOF Glass Membrane for Gas Separation. Angewandte Chemie - International Edition, 2020, 59, 4365-4369.	7.2	325
6	Defectâ€Tailoring Mediated Electronâ€“Hole Separation in Singleâ€Unitâ€Cell Bi₃O₄Br Nanosheets for Boosting Photocatalytic Hydrogen Evolution and Nitrogen Fixation. Advanced Materials, 2019, 31, e1807576.	11.1	311
7	Atomically-thin Bi2MoO6 nanosheets with vacancy pairs for improved photocatalytic CO2 reduction. Nano Energy, 2019, 61, 54-59.	8.2	243
8	Photocatalytic reduction of CO2 on BiOXï¼š Effect of halogen element type and surface oxygen vacancy mediated mechanism. Applied Catalysis B: Environmental, 2020, 274, 119063.	10.8	243
9	Roles of Oxygen Vacancies in the Bulk and Surface of CeO₂ for Toluene Catalytic Combustion. Environmental Science & Technology, 2020, 54, 12684-12692.	4.6	231
10	Generating Defectâ€Rich Bismuth for Enhancing the Rate of Nitrogen Electroreduction to Ammonia. Angewandte Chemie - International Edition, 2019, 58, 9464-9469.	7.2	226
11	Highly Selective Photoreduction of CO₂ with Suppressing H₂ Evolution over Monolayer Layered Double Hydroxide under Irradiation above 600â€...nm. Angewandte Chemie - International Edition, 2019, 58, 11860-11867.	7.2	224
12	Synergistic effect of combining carbon nanotubes and graphene oxide in mixed matrix membranes for efficient CO2 separation. Journal of Membrane Science, 2015, 479, 1-10.	4.1	219
13	Enhanced water permeation through sodium alginate membranes by incorporating graphene oxides. Journal of Membrane Science, 2014, 469, 272-283.	4.1	210
14	A highly permeable graphene oxide membrane with fast and selective transport nanochannels for efficient carbon capture. Energy and Environmental Science, 2016, 9, 3107-3112.	15.6	192
15	Alkali Etching of Layered Double Hydroxide Nanosheets for Enhanced Photocatalytic N₂ Reduction to NH₃. Advanced Energy Materials, 2020, 10, 2002199.	10.2	185
16	A Surface Defect-Promoted Ni Nanocatalyst with Simultaneously Enhanced Activity and Stability. Chemistry of Materials, 2013, 25, 1040-1046.	3.2	184
17	A superior catalyst with dual redox cycles for the selective reduction of NOx by ammonia. Chemical Communications, 2013, 49, 7726.	2.2	182
18	Self-assembled iron-containing mordenite monolith for carbon dioxide sieving. Science, 2021, 373, 315-320.	6.0	179

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19	Defect engineering in metalâ€“organic frameworks: a new strategy to develop applicable actinide sorbents. Chemical Communications, 2018, 54, 370-373.	2.2	167
20	Enhanced Interfacial Interaction and CO₂ Separation Performance of Mixed Matrix Membrane by Incorporating Polyethylenimine-Decorated Metalâ€“Organic Frameworks. ACS Applied Materials & Interfaces, 2015, 7, 1065-1077.	4.0	162
21	The role of oxygen vacancies in improving the performance of CoO as a bifunctional cathode catalyst for rechargeable Liâ€“O₂ batteries. Journal of Materials Chemistry A, 2015, 3, 17598-17605.	5.2	155
22	Enhancing the CO₂ separation performance of composite membranes by the incorporation of amino acid-functionalized graphene oxide. Journal of Materials Chemistry A, 2015, 3, 6629-6641.	5.2	152
23	Ultrathin and Vacancy-Rich CoAl-Layered Double Hydroxide/Graphite Oxide Catalysts: Promotional Effect of Cobalt Vacancies and Oxygen Vacancies in Alcohol Oxidation. ACS Catalysis, 2018, 8, 3104-3115.	5.5	149
24	Defect Modulation of Z-Scheme TiO₂/Cu₂O Photocatalysts for Durable Water Splitting. ACS Catalysis, 2019, 9, 8346-8354.	5.5	146
25	Highly Dispersed TiO₆ Units in a Layered Double Hydroxide for Waterâ€‰Splitting. Chemistry - A European Journal, 2012, 18, 11949-11958.	1.7	132
26	A hierarchical heterostructure based on Pd nanoparticles/layered double hydroxide nanowalls for enhanced ethanol electrooxidation. Journal of Materials Chemistry A, 2013, 1, 5840.	5.2	130
27	The point defect and electronic structure of K doped LaCo0.9Fe0.1O3 perovskite with enhanced microwave absorbing ability. Nano Research, 2022, 15, 3720-3728.	5.8	129
28	Oxygen vacancyâ€“induced ferromagnetism in un-doped ZnO thin films. Journal of Applied Physics, 2012, 111, .	1.1	125
29	Lanthanum-doped ZnO quantum dots with greatly enhanced fluorescent quantum yield. Journal of Materials Chemistry, 2012, 22, 8221.	6.7	120
30	Oxygen vacancy-rich hierarchical BiOBr hollow microspheres with dramatic CO2 photoreduction activity. Journal of Colloid and Interface Science, 2021, 593, 231-243.	5.0	117
31	Incorporating Zwitterionic Graphene Oxides into Sodium Alginate Membrane for Efficient Water/Alcohol Separation. ACS Applied Materials & Interfaces, 2016, 8, 2097-2103.	4.0	113
32	Surface Local Polarization Induced by Bismuthâ€Oxygen Vacancy Pairs Tuning Nonâ€Covalent Interaction for CO₂ Photoreduction. Advanced Energy Materials, 2021, 11, 2102389.	10.2	109
33	Highly water-permeable and stable hybrid membrane with asymmetric covalent organic framework distribution. Journal of Membrane Science, 2016, 520, 583-595.	4.1	107
34	Functionally graded membranes from nanoporous covalent organic frameworks for highly selective water permeation. Journal of Materials Chemistry A, 2018, 6, 583-591.	5.2	103
35	Facilitated transport membranes by incorporating graphene nanosheets with high zinc ion loading for enhanced CO2 separation. Journal of Membrane Science, 2017, 522, 351-362.	4.1	102
36	Fabrication of Ultrathin Membrane via Layer-by-Layer Self-assembly Driven by Hydrophobic Interaction Towards High Separation Performance. ACS Applied Materials & Interfaces, 2013, 5, 13275-13283.	4.0	96

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37	Polyamide nanofiltration membrane with high separation performance prepared by EDC/NHS mediated interfacial polymerization. Journal of Membrane Science, 2013, 427, 92-100.	4.1	95
38	Embedding dopamine nanoaggregates into a poly(dimethylsiloxane) membrane to confer controlled interactions and free volume for enhanced separation performance. Journal of Materials Chemistry A, 2013, 1, 3713.	5.2	90
39	A novel pathway for high performance RO membrane: Preparing active layer with decreased thickness and enhanced compactness by incorporating tannic acid into the support. Journal of Membrane Science, 2018, 555, 157-168.	4.1	88
40	Preparation of ultrathin, robust membranes through reactive layer-by-layer (LbL) assembly for pervaporation dehydration. Journal of Membrane Science, 2017, 537, 229-238.	4.1	87
41	Metal-organic framework enables ultraselective polyamide membrane for desalination and water reuse. Science Advances, 2022, 8, eabm4149.	4.7	87
42	SPEEK/amine-functionalized TiO2 submicrospheres mixed matrix membranes for CO2 separation. Journal of Membrane Science, 2014, 467, 23-35.	4.1	84
43	Preparation and properties of anion exchange membranes with exceptional alkaline stable polymer backbone and cation groups. Journal of Membrane Science, 2020, 596, 117720.	4.1	84
44	Correlation between Cu precipitates and irradiation defects in Feâ€“Cu model alloys investigated by positron annihilation spectroscopy. Acta Materialia, 2016, 103, 658-664.	3.8	78
45	Manipulating the interfacial interactions of composite membranes via a mussel-inspired approach for enhanced separation selectivity. Journal of Materials Chemistry A, 2015, 3, 19980-19988.	5.2	76
46	Ni-Ce-Ti as a superior catalyst for the selective catalytic reduction of NOx with NH3. Molecular Catalysis, 2018, 445, 179-186.	1.0	76
47	The role of Sn in enhancing the visible-light photocatalytic activity of hollow hierarchical microspheres of the Bi/BiOBr heterojunction. Physical Chemistry Chemical Physics, 2015, 17, 8078-8086.	1.3	74
48	Highly water-selective membranes based on hollow covalent organic frameworks with fast transport pathways. Journal of Membrane Science, 2018, 565, 331-341.	4.1	73
49	Precise nanopore tuning for a high-throughput desalination membrane via co-deposition of dopamine and multifunctional POSS. Journal of Materials Chemistry A, 2018, 6, 13191-13202.	5.2	73
50	Boosting the Catalytic Performance of CeO₂ in Toluene Combustion via the Ceâ€“Ce Homogeneous Interface. Environmental Science & Technology, 2021, 55, 12630-12639.	4.6	71
51	Enhanced pervaporation performance of MIL-101 (Cr) filled polysiloxane hybrid membranes in desulfurization of model gasoline. Chemical Engineering Science, 2015, 135, 479-488.	1.9	70
52	Fabrication of a PdAg mesocrystal catalyst for the partial hydrogenation of acetylene. Journal of Catalysis, 2015, 330, 61-70.	3.1	68
53	Origin of the defects-induced ferromagnetism in un-doped ZnO single crystals. Applied Physics Letters, 2013, 102, .	1.5	67
54	Integrated polyamide thin-film nanofibrous composite membrane regulated by functionalized interlayer for efficient water/isopropanol separation. Journal of Membrane Science, 2018, 553, 70-81.	4.1	67

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55	Intrinsic room temperature ferromagnetism in boron-doped ZnO. Applied Physics Letters, 2010, 97, .	1.5	66
56	Fabrication of supported PdAu nanoflower catalyst for partial hydrogenation of acetylene. Journal of Catalysis, 2014, 317, 263-271.	3.1	65
57	Polydimethyl siloxaneâ€“graphene nanosheets hybrid membranes with enhanced pervaporative desulfurization performance. Journal of Membrane Science, 2015, 487, 152-161.	4.1	65
58	MXene versus graphene oxide: Investigation on the effects of 2D nanosheets in mixed matrix membranes for CO2 separation. Journal of Membrane Science, 2021, 620, 118850.	4.1	65
59	The effect of oxygen vacancies in ZnO at an Au/ZnO interface on its catalytic selective oxidation of glycerol. Journal of Catalysis, 2019, 377, 271-282.	3.1	64
60	Insight into cobalt-doping in Li2FeSiO4 cathode material for lithium-ion battery. Journal of Power Sources, 2015, 274, 194-202.	4.0	62
61	Investigation on the activation mechanism of hydrogen absorption in TiZrNbTa high entropy alloy. Journal of Alloys and Compounds, 2019, 781, 613-620.	2.8	62
62	Porous Î²-Bi2O3 with multiple vacancy associates on highly exposed active {220} facets for enhanced photocatalytic activity. Applied Catalysis B: Environmental, 2020, 265, 118563.	10.8	62
63	High-Performance Composite Membrane with Enriched CO₂-philic Groups and Improved Adhesion at the Interface. ACS Applied Materials & Interfaces, 2014, 6, 6654-6663.	4.0	61
64	Effect of NiO-doping on the microstructure and the dielectric properties of CaCu3Ti4O12 ceramics. Ceramics International, 2014, 40, 9061-9067.	2.3	61
65	Embedding Ag + @COFs within Pebax membrane to confer mass transport channels and facilitated transport sites for elevated desulfurization performance. Journal of Membrane Science, 2018, 552, 1-12.	4.1	61
66	Heterostructured filler in mixed matrix membranes to coordinate physical and chemical selectivities for enhanced CO2 separation. Journal of Membrane Science, 2018, 567, 272-280.	4.1	60
67	Hydrogenated Oxygen-Deficient Blue Anatase as Anode for High-Performance Lithium Batteries. ACS Applied Materials & Interfaces, 2015, 7, 23431-23438.	4.0	58
68	Water-selective permeation in hybrid membrane incorporating multi-functional hollow ZIF-8 nanospheres. Journal of Membrane Science, 2018, 555, 146-156.	4.1	57
69	A MOF Glass Membrane for Gas Separation. Angewandte Chemie, 2020, 132, 4395-4399.	1.6	57
70	Elevated pervaporation performance of polysiloxane membrane using channels and active sites of metal organic framework CuBTC. Journal of Membrane Science, 2015, 481, 73-81.	4.1	56
71	Deuterium occupation of vacancy-type defects in argon-damaged tungsten exposed to high flux and low energy deuterium plasma. Nuclear Fusion, 2016, 56, 036010.	1.6	55
72	Graphene oxide quantum dots incorporated nanocomposite membranes with high water flux for pervaporative dehydration. Journal of Membrane Science, 2018, 563, 903-913.	4.1	55

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73	Synergistic effect of internal electric field and oxygen vacancy on the photocatalytic activity of BiOBrxI1â^'x with isomorphous fluorine substitution. Journal of Colloid and Interface Science, 2019, 554, 500-511.	5.0	55
74	High boron removal polyamide reverse osmosis membranes by swelling induced embedding of a sulfonyl molecular plug. Journal of Membrane Science, 2020, 597, 117716.	4.1	53
75	Mixed matrix membranes for CO2 separations by incorporating microporous polymer framework fillers with amine-rich nanochannels. Journal of Membrane Science, 2021, 620, 118923.	4.1	53
76	Combining co-solvent-optimized interfacial polymerization and protective coating-controlled chlorination for highly permeable reverse osmosis membranes with high rejection. Journal of Membrane Science, 2019, 572, 61-72.	4.1	52
77	Investigations on Zr incorporation into Li₃V₂(PO₄)₃/C cathode materials for lithium ion batteries. Physical Chemistry Chemical Physics, 2017, 19, 5155-5162.	1.3	51
78	Graphene quantum dots (GQDs)-assembled membranes with intrinsic functionalized nanochannels for high-performance nanofiltration. Chemical Engineering Journal, 2021, 420, 127602.	6.6	51
79	Incorporating one-dimensional aminated titania nanotubes into sulfonated poly(ether ether ketone) membrane to construct CO2-facilitated transport pathways for enhanced CO2 separation. Journal of Membrane Science, 2015, 488, 13-29.	4.1	49
80	Localized Defects on Copper Sulfide Surface for Enhanced Plasmon Resonance and Water Splitting. Small, 2017, 13, 1700867.	5.2	48
81	Enhanced pervaporation dehydration performance of ultrathin hybrid membrane by incorporating bioinspired multifunctional modifier and TiCl4 into chitosan. Journal of Membrane Science, 2013, 446, 395-404.	4.1	47
82	Highly Selective Photoreduction of CO₂ with Suppressing H₂ Evolution over Monolayer Layered Double Hydroxide under Irradiation above 600â€…nm. Angewandte Chemie, 2019, 131, 11986-11993.	1.6	47
83	Generating Defectâ€Rich Bismuth for Enhancing the Rate of Nitrogen Electroreduction to Ammonia. Angewandte Chemie, 2019, 131, 9564-9569.	1.6	47
84	600 nm-driven photoreduction of CO2 through the topological transformation of layered double hydroxides nanosheets. Applied Catalysis B: Environmental, 2020, 270, 118884.	10.8	46
85	Constructing CO2 transport passageways in MatrimidÂ® membranes using nanohydrogels for efficient carbon capture. Journal of Membrane Science, 2015, 474, 156-166.	4.1	45
86	SIFSIX-3-Zn/PIM-1 mixed matrix membranes with enhanced permeability for propylene/propane separation. Journal of Membrane Science, 2019, 588, 117201.	4.1	45
87	In situ synthesis of Z-scheme BiPO4/BiOCl0.9I0.1 heterostructure with multiple vacancies and valence for efficient photocatalytic degradation of organic pollutant. Separation and Purification Technology, 2019, 213, 34-44.	3.9	45
88	Bimetallic metal-organic frameworks nanocages as multi-functional fillers for water-selective membranes. Journal of Membrane Science, 2018, 545, 19-28.	4.1	44
89	Nanoparticle-Assembled Thin Film with Amphipathic Nanopores for Organic Solvent Nanofiltration. ACS Applied Materials & Interfaces, 2019, 11, 17804-17813.	4.0	44
90	Ultrathin heterostructured covalent organic framework membranes with interfacial molecular sieving capacity for fast water-selective permeation. Journal of Materials Chemistry A, 2020, 8, 19328-19336.	5.2	43

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91	Investigation of vacancy-type defects in helium irradiated FeCrNi alloy by slow positron beam. Journal of Nuclear Materials, 2015, 458, 240-244.	1.3	42
92	Constructing facilitated transport pathway in hybrid membranes by incorporating MoS2 nanosheets. Journal of Membrane Science, 2018, 545, 29-37.	4.1	42
93	Interface engineering of mixed matrix membrane via CO2-philic polymer brush functionalized graphene oxide nanosheets for efficient gas separation. Journal of Membrane Science, 2019, 586, 23-33.	4.1	42
94	Significantly enhanced CO2 capture properties by synergy of zinc ion and sulfonate in Pebax-pitch hybrid membranes. Journal of Membrane Science, 2018, 549, 670-679.	4.1	41
95	Combining tannic acid-modified support and a green co-solvent for high performance reverse osmosis membranes. Journal of Membrane Science, 2020, 595, 117474.	4.1	41
96	High performance composite membranes with a polycarbophil calcium transition layer for pervaporation dehydration of ethanol. Journal of Membrane Science, 2013, 429, 409-417.	4.1	40
97	Probing sub-nano level molecular packing and correlated positron annihilation characteristics of ionic cross-linked chitosan membranes using positron annihilation spectroscopy. Physical Chemistry Chemical Physics, 2017, 19, 3616-3626.	1.3	40
98	Microporous Polyamide Membranes for Molecular Sieving of Nitrogen from Volatile Organic Compounds. Angewandte Chemie - International Edition, 2017, 56, 5755-5759.	7.2	40
99	High-temperature dielectrics based on (1-y)[(1-x)Bi0.5Na0.5TiO3-xBiAlO3]-yCaZrO3 ternary system with stable permittivity and low dielectric loss in a wide temperature range. Journal of the European Ceramic Society, 2019, 39, 4160-4167.	2.8	40
100	Boosting the thermoelectric performance of Bi₂O₂Se by isovalent doping. Journal of the American Ceramic Society, 2018, 101, 4634-4644.	1.9	39
101	1-methylimidazole as a novel additive for reverse osmosis membrane with high flux-rejection combinations and good stability. Journal of Membrane Science, 2020, 599, 117830.	4.1	39
102	Enhanced desulfurization performance and stability of Pebax membrane by incorporating Cu+ and Fe2+ ions co-impregnated carbon nitride. Journal of Membrane Science, 2017, 526, 94-105.	4.1	38
103	Enhanced pervaporation performance of PDMS membranes based on nano-sized Octa[(trimethoxysilyl)ethyl]-POSS as macro-crosslinker. Applied Surface Science, 2019, 473, 785-798.	3.1	38
104	Systematic investigation on Cadmium-incorporation in Li2FeSiO4/C cathode material for lithium-ion batteries. Scientific Reports, 2014, 4, 5064.	1.6	37
105	Ru-Cluster-Modified Ni Surface Defects toward Selective Bond Breaking between Câ€“O and Câ€“C. Chemistry of Materials, 2016, 28, 4751-4761.	3.2	37
106	Substrate effect on the room-temperature ferromagnetism in un-doped ZnO films. Applied Physics Letters, 2012, 101, .	1.5	36
107	A loosely stacked lamellar membrane of irregular MoS₂ flakes for ultrahigh water and organics permeation. Journal of Materials Chemistry A, 2019, 7, 12698-12705.	5.2	36
108	Synergetic effects of defects and acid sites of 2D-ZnO photocatalysts on the photocatalytic performance. Journal of Hazardous Materials, 2020, 385, 121527.	6.5	36

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109	Amorphous Domains in Black Titanium Dioxide. Advanced Materials, 2021, 33, e2100407.	11.1	36
110	Enhancing the electrochemical properties of NiFe2O4 anode for lithium ion battery through a simple hydrogenation modification. International Journal of Hydrogen Energy, 2014, 39, 11258-11266.	3.8	35
111	Enhanced desulfurization performance of PDMS membranes by incorporating silver decorated dopamine nanoparticles. Journal of Materials Chemistry A, 2014, 2, 12907.	5.2	35
112	A facile approach to construct hierarchical dense membranes via polydopamine for enhanced propylene/nitrogen separation. Journal of Membrane Science, 2016, 499, 290-300.	4.1	35
113	Anionic surfactant-doped Pebax membrane with optimal free volume characteristics for efficient CO 2 separation. Journal of Membrane Science, 2015, 493, 460-469.	4.1	34
114	Microstructure and catalytic performances of chitosan intercalated montmorillonite supported palladium (0) and copper (II) catalysts for Sonogashira reactions. International Journal of Biological Macromolecules, 2018, 113, 1308-1315.	3.6	34
115	Support morphology-dependent alloying behaviour and interfacial effects of bimetallic Niâ€“Cu/CeO₂ catalysts. Chemical Science, 2019, 10, 3556-3566.	3.7	34
116	Hierarchical pore architectures from 2D covalent organic nanosheets for efficient water/alcohol separation. Journal of Membrane Science, 2018, 561, 79-88.	4.1	33
117	Two-dimensional covalent organic frameworks (COF-LZU1) based mixed matrix membranes for pervaporation. Separation and Purification Technology, 2020, 241, 116406.	3.9	33
118	Facile Aluminum Reduction Synthesis of Blue TiO₂ with Oxygen Deficiency for Lithiumâ€ion Batteries. Chemistry - A European Journal, 2015, 21, 18309-18315.	1.7	32
119	Elevating the selectivity of layer-by-layer membranes by in situ bioinspired mineralization. Journal of Membrane Science, 2016, 520, 364-373.	4.1	32
120	Adsorption-Assisted Interfacial Polymerization toward Ultrathin Active Layers for Ultrafast Organic Permeation. ACS Applied Materials & Interfaces, 2018, 10, 10445-10453.	4.0	32
121	A novel sulfonated reverse osmosis membrane for seawater desalination: Experimental and molecular dynamics studies. Journal of Membrane Science, 2018, 550, 470-479.	4.1	32
122	Hybrid membranes with Cu(II) loaded metal organic frameworks for enhanced desulfurization performance. Separation and Purification Technology, 2019, 210, 258-267.	3.9	31
123	Development of ultrathin polyamide nanofilm with enhanced inner-pore interconnectivity via graphene quantum dots-assembly intercalation for high-performance organic solvent nanofiltration. Journal of Membrane Science, 2021, 635, 119498.	4.1	31
124	A novel fluoro-terminated hyperbranched poly(phenylene oxide) (FHPPO): synthesis, characterization, and application in low-k epoxy materials. RSC Advances, 2013, 3, 14509.	1.7	30
125	Photocatalytic Properties Dependent on the Interfacial Defects of Intergrains within TiO₂ Mesocrystals. Chemistry - A European Journal, 2018, 24, 17105-17116.	1.7	30
126	Interfacial Property Modulation of PIM-1 through Polydopamine-Derived Submicrospheres for Enhanced CO₂/N₂ Separation Performance. ACS Applied Materials & Interfaces, 2019, 11, 19613-19622.	4.0	30

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127	Passivation mechanism of thermal atomic layer-deposited Al2O3 films on silicon at different annealing temperatures. Nanoscale Research Letters, 2013, 8, 114.	3.1	29
128	Mussel-inspired construction of organic-inorganic interfacial nanochannels for ion/organic molecule selective permeation. Journal of Membrane Science, 2018, 555, 337-347.	4.1	29
129	Accurately controlling the hierarchical nanostructure of polyamide membranesviaelectrostatic atomization-assisted interfacial polymerization. Journal of Materials Chemistry A, 2020, 8, 9160-9167.	5.2	29
130	Positron annihilation Doppler broadening spectroscopy study on Fe-ion irradiated NHS steel. Nuclear Instruments & Methods in Physics Research B, 2015, 344, 5-10.	0.6	27
131	Highly swelling resistant membranes for model gasoline desulfurization. Journal of Membrane Science, 2016, 514, 440-449.	4.1	27
132	Helium/hydrogen synergistic effect in reduced activation ferritic/martensitic steel investigated by slow positron beam. Philosophical Magazine, 2016, 96, 253-260.	0.7	27
133	Efficient design principle for interfacial charge separation in hydrogen-intercalated nonstoichiometric oxides. Nano Energy, 2018, 53, 887-897.	8.2	27
134	Oxygen-Cluster-Modified Anatase with Graphene Leads to Efficient and Recyclable Photo-Catalytic Conversion of CO2 to CH4 Supported by the Positron Annihilation Study. Scientific Reports, 2019, 9, 13103.	1.6	27
135	Electronâ€Doping Mottronics in Strongly Correlated Perovskite. Advanced Materials, 2020, 32, e1905060.	11.1	27
136	Creation of hierarchical structures within membranes by incorporating mesoporous microcapsules for enhanced separation performance and stability. Journal of Materials Chemistry A, 2014, 2, 5267.	5.2	26
137	Effect of heavy ion pre-irradiation on blistering and deuterium retention in tungsten exposed to high-fluence deuterium plasma. Journal of Nuclear Materials, 2018, 508, 395-402.	1.3	26
138	Band gap engineering of BiOI via oxygen vacancies induced by graphene for improved photocatalysis. New Journal of Chemistry, 2019, 43, 1523-1530.	1.4	26
139	Bis(phenyl)fluorene-based polymer of intrinsic microporosity/functionalized multi-walled carbon nanotubes mixed matrix membranes for enhanced CO2 separation performance. Reactive and Functional Polymers, 2020, 147, 104465.	2.0	26
140	Surface Engineering to Reduce the Interfacial Resistance for Enhanced Photocatalytic Water Oxidation. ACS Catalysis, 2020, 10, 8742-8750.	5.5	26
141	Dielectric and mechanical properties of diglycidyl ether of bisphenol a modified by a new fluoro-terminated hyperbranched poly(phenylene oxide). Polymer Composites, 2013, 34, 1051-1060.	2.3	25
142	Rapid proton exchange between surface bridging hydroxyls and adsorbed molecules on TiO2. Applied Catalysis B: Environmental, 2020, 277, 119234.	10.8	25
143	Origination and evolution of point defects in AlN film annealed at high temperature. Journal of Luminescence, 2021, 235, 118032.	1.5	25
144	Detection of helium in irradiated Fe9Cr alloys by coincidence Doppler broadening of slow positron annihilation. Applied Physics A: Materials Science and Processing, 2017, 123, 1.	1.1	24

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145	Characterization of helium-vacancy complexes in He-ions implanted Fe9Cr by using positron annihilation spectroscopy. Journal of Nuclear Materials, 2018, 505, 69-72.	1.3	24
146	Elevated performance of hybrid membranes by incorporating metal organic framework CuBTC for pervaporative desulfurization of gasoline. Chemical Engineering and Processing: Process Intensification, 2018, 123, 12-19.	1.8	24
147	Modification of source contribution in PALS by simulation using Geant4 code. Nuclear Instruments & Methods in Physics Research B, 2017, 397, 75-81.	0.6	23
148	Bridge-type interface optimization on a dual-semiconductor heterostructure toward high performance overall water splitting. Journal of Materials Chemistry A, 2018, 6, 7871-7876.	5.2	23
149	Enhanced photocatalytic destruction of pollutants by surface W vacancies in VW-Bi2WO6 under visible light. Journal of Colloid and Interface Science, 2020, 576, 385-393.	5.0	23
150	Polyvinyl pyrrolidone-coordinated ultrathin bismuth oxybromide nanosheets for boosting photoreduction of carbon dioxide via ligand-to-metal charge transfer. Journal of Colloid and Interface Science, 2022, 606, 1087-1100.	5.0	23
151	Helium self-trapping and diffusion behaviors in deformed 316L stainless steel exposed to high flux and low energy helium plasma. Nuclear Fusion, 2018, 58, 046011.	1.6	22
152	Layer-by-layer self-assembled nanocomposite membranes via bio-inspired mineralization for pervaporation dehydration. Journal of Membrane Science, 2019, 570-571, 44-52.	4.1	22
153	Selenium vacancy-rich and carbon-free VSe₂ nanosheets for high-performance lithium storage. Nanoscale, 2020, 12, 8858-8866.	2.8	22
154	Exploration of the Synergy Between 2D Nanosheets and a Non-2D Filler in Mixed Matrix Membranes for Gas Separation. Frontiers in Chemistry, 2020, 8, 58.	1.8	22
155	Mechanism of magnetoresistance ratio enhancement in MgO/NiFe/MgO heterostructure by rapid thermal annealing. Applied Physics Letters, 2012, 101, 072404.	1.5	21
156	Impact of Li doping on the microstructure, defects, and physical properties of CuFeO2 multiferroic ceramics. Ceramics International, 2019, 45, 24570-24577.	2.3	21
157	Concurrent Improvement of Photocarrier Separation and Extraction in ZnO Nanocrystal Ultraviolet Photodetectors. Journal of Physical Chemistry C, 2019, 123, 14766-14773.	1.5	21
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