

# Heqing Jiang

## List of Publications by Year in descending order

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94  
papers

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citations

126907

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144013

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all docs

101  
docs citations

101  
times ranked

3110  
citing authors

#	ARTICLE	IF	CITATIONS
1	Crosslinking improved ion transport in polymer inclusion membraneâ€electrodialysis process and the underlying mechanism. AICHE Journal, 2022, 68, e17397.	3.6	3
2	Roadmap for Sustainable Mixed Ionicâ€Electronic Conducting Membranes. Advanced Functional Materials, 2022, 32, .	14.9	49
3	Membrane Catalysis: N <sub>2</sub> O Decomposition over La <sub>0.2</sub> Sr <sub>0.8</sub> Ti <sub>0.2</sub> Fe <sub>0.8</sub> O <sub>3</sub> Membrane with Oxygen Permeability. Chemie-Ingenieur-Technik, 2022, 94, 70-77.	0.8	2
4	A reduced pressure-assisted vapor penetration of ionic liquid into the laminated graphene oxide membranes for efficient CO <sub>2</sub> separation. Separation and Purification Technology, 2022, 287, 120514.	7.9	10
5	Multifunctional reduced graphene oxide film as electrocatalysts and photothermal layer for broad spectrum solar-enhanced oxygen evolution reaction. Materials Today Energy, 2022, 25, 100966.	4.7	6
6	Single-Hole Hollow Carbon Nanospheres via a Poly(ethylene glycol)-Assisted Emulsion-Templating Strategy for Intensified Liquid-Phase Adsorption. Chemistry of Materials, 2022, 34, 3715-3723.	6.7	5
7	A general strategy for fabricating polymer/nanofiller composite membranes with enhanced CO <sub>2</sub> /N <sub>2</sub> separation performance. Journal of Cleaner Production, 2022, 350, 131468.	9.3	7
8	Zn ion-modulated polyamide membrane with enhanced facilitated transport effect for CO <sub>2</sub> separation. Separation and Purification Technology, 2022, 292, 121051.	7.9	7
9	Coupling solarâ€driven interfacial evaporation with forward osmosis for continuous water treatment. Exploration, 2022, 2, .	11.0	29
10	Gd-doped ceria enhanced triple-conducting membrane for efficient hydrogen separation. Separation and Purification Technology, 2021, 256, 117798.	7.9	10
11	Simultaneous production of pure nitrogen and syngas in BaCe <sub>0.5</sub> Fe <sub>0.5</sub> O <sub>3-Î´</sub> membrane reactor. Catalysis Today, 2021, 364, 125-131.	4.4	6
12	Hydrogen Purification through a Highly Stable Dualâ€Phase Oxygenâ€Permeable Membrane. Angewandte Chemie, 2021, 133, 5264-5268.	2.0	5
13	Hydrogen Purification through a Highly Stable Dualâ€Phase Oxygenâ€Permeable Membrane. Angewandte Chemie - International Edition, 2021, 60, 5204-5208.	13.8	24
14	Comparative study on the catalytic behaviors of zeolites with different diffusion limitation in ethane aromatization. Microporous and Mesoporous Materials, 2021, 315, 110926.	4.4	8
15	Polyethyleneimineâ€Mediated Polyamide Composite Membrane with High Permâ€Selectivity for Forward Osmosis. Macromolecular Materials and Engineering, 2021, 306, 2000818.	3.6	9
16	MOF-Mediated Interfacial Polymerization to Fabricate Polyamide Membranes with a Homogeneous Nanoscale Striped Turing Structure for CO <sub>2</sub> /CH <sub>4</sub> Separation. ACS Applied Materials & Interfaces, 2021, 13, 18380-18388.	8.0	26
17	Polyamide membrane with an ultrathin GO interlayer on macroporous substrate for minimizing internal concentration polarization in forward osmosis. Chemical Engineering Journal, 2021, 412, 128607.	12.7	57
18	Enhanced solar-driven evaporation process via f-MWCNTs/PVDF photothermal membrane for forward osmosis draw solution recovery. Nanotechnology, 2021, 32, 375703.	2.6	2

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19	Nitrogen-doped Sr <sub>2</sub> Fe <sub>1.5</sub> Mo <sub>0.5</sub> O <sub>6-<math>\delta</math></sub> perovskite as an efficient and stable catalyst for hydrogen evolution reaction. <i>Materials Today Energy</i> , 2021, 20, 100695.	4.7	16
20	Barium Titanate as a Highly Stable Oxygen Permeable Membrane Reactor for Hydrogen Production from Thermal Water Splitting. <i>ACS Sustainable Chemistry and Engineering</i> , 2021, 9, 11147-11154.	6.7	9
21	Controllable amorphization engineering on bimetallic metal-organic frameworks for ultrafast oxygen evolution reaction. <i>Chemical Engineering Journal</i> , 2021, 418, 129330.	12.7	51
22	Enhanced H <sub>2</sub> production by using La <sub>5.5</sub> WO <sub>11.25</sub> -La <sub>0.8</sub> Sr <sub>0.2</sub> FeO <sub>3-<math>\delta</math></sub> mixed oxygen ion-proton-electron triple-conducting membrane. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 33143-33151.	7.1	7
23	A facile and economic route assisted by trace tannic acid to construct a high-performance thin film composite NF membrane for desalination. <i>Environmental Science: Water Research and Technology</i> , 2021, 7, 956-968.	2.4	9
24	Geopolymerization: a promising technique for membrane synthesis. <i>Materials Research Express</i> , 2021, 8, 112002.	1.6	4
25	Bilayer rGO-Based Photothermal Evaporator for Efficient Solar-Driven Water Purification. <i>Chemistry - A European Journal</i> , 2021, 27, 17428-17436.	3.3	14
26	Ethane aromatization and evolution of carbon deposits over nanosized and microsized Zn/ZSM-5 catalysts. <i>Catalysis Science and Technology</i> , 2020, 10, 835-843.	4.1	40
27	Hydrogen permeation through dual-phase ceramic membrane derived from automatic phase-separation of SrCe <sub>0.5</sub> Fe <sub>0.5</sub> O <sub>3-<math>\delta</math></sub> precursor. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 4625-4634.	7.1	13
28	Microstructure regulation of polyamide nanocomposite membrane by functional mesoporous polymer for high-efficiency desalination. <i>Journal of Membrane Science</i> , 2020, 597, 117783.	8.2	41
29	Ordered Mesoporous Alumina and Their Composites Based on Evaporation Induced Self-Assembly for Adsorption and Catalysis. <i>Chemistry of Materials</i> , 2020, 32, 3-26.	6.7	50
30	Effect of reduction temperature on the structure and catalytic performance of mesoporous Ni <sub>2</sub> FeAl <sub>2</sub> O <sub>3</sub> in oxidative dehydrogenation of ethane. <i>New Journal of Chemistry</i> , 2020, 44, 18994-19001.	2.8	6
31	Multifunctional Nickel Sulfide Nanosheet Arrays for Solar-Intensified Oxygen Evolution Reaction. <i>Small</i> , 2020, 16, e2002550.	10.0	25
32	Mesoporous HZSM-5 Supported Zn Catalyst for Improved Ethane Aromatization. <i>Catalysis Letters</i> , 2020, 150, 3495-3504.	2.6	8
33	A permeation model study of oxygen transport kinetics of Ba <sub>x</sub> Sr <sub>1-x</sub> Co <sub>0.8</sub> Fe <sub>0.2</sub> O <sub>3-<math>\delta</math></sub> . <i>AIChE Journal</i> , 2020, 66, e16291.	3.6	5
34	Improved ethane conversion to ethylene and aromatics over a Zn/ZSM-5 and CaMnO <sub>3-<math>\delta</math></sub> composite catalyst. <i>Journal of Energy Chemistry</i> , 2020, 51, 161-166.	12.9	4
35	Wettable photothermal hollow fibers arrays for efficient solar-driven desalination under omnidirectional illumination without salt precipitation. <i>Materials Today Energy</i> , 2020, 16, 100391.	4.7	22
36	Multifunctional perovskite oxide for efficient solar-driven evaporation and energy-saving regeneration. <i>Nano Energy</i> , 2020, 70, 104538.	16.0	32

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37	Nanocomposite membranes embedded with dopamine-melanin nanospheres for enhanced interfacial compatibility and nanofiltration performance. <i>Separation and Purification Technology</i> , 2020, 242, 116816.	7.9	26
38	Temperature-Induced Structural Reorganization of W-Doped Ba <sub>0.5</sub> Sr <sub>0.5</sub> Co <sub>0.8</sub> Fe <sub>0.2</sub> O <sub>3-<math>\delta</math></sub> Composite Membranes for Air Separation. <i>Chemistry of Materials</i> , 2019, 31, 7487-7492.	6.7	17
39	Innovative steam methane reforming for coproducing CO-free hydrogen and syngas in proton conducting membrane reactor. <i>AIChE Journal</i> , 2019, 65, e16740.	3.6	20
40	Chemical Environment-Induced Mixed Conductivity of Titanate as a Highly Stable Oxygen Transport Membrane. <i>IScience</i> , 2019, 19, 955-964.	4.1	23
41	Phase stability and oxygen permeability of Fe-based BaFe <sub>0.9</sub> Mg <sub>0.05</sub> X <sub>0.05</sub> O <sub>3</sub> (X <sup>2+</sup> =Zr, Ce, Ca) membranes for air separation. <i>Separation and Purification Technology</i> , 2019, 220, 176-182.	7.9	10
42	Solar-Intensified Ultrafiltration System Based on Porous Photothermal Membrane for Efficient Water Treatment. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 4889-4896.	6.7	27
43	A CO-Induced Assembly Strategy To Repair MOF Nanosheet-Based Membrane for Efficient H <sub>2</sub> /CO Separation. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 990-997.	8.0	63
44	Cobalt-free dual-phase oxygen transporting membrane reactor for the oxidative dehydrogenation of ethane. <i>Separation and Purification Technology</i> , 2019, 211, 966-971.	7.9	14
45	A Facile and General Strategy to Deposit Polypyrrole on Various Substrates for Efficient Solar-Driven Evaporation. <i>Advanced Sustainable Systems</i> , 2019, 3, 1800108.	5.3	52
46	Simultaneous production of synthesis gases H <sub>2</sub> /N <sub>2</sub> and H <sub>2</sub> /CO in a dual-phase mixed conducting membrane reactor. <i>Catalysis Today</i> , 2019, 331, 2-6.	4.4	12
47	Novel MgO/hollow carbon sphere composites for CO <sub>2</sub> adsorption. <i>New Journal of Chemistry</i> , 2018, 42, 5674-5679.	2.8	11
48	Improved light-harvesting and thermal management for efficient solar-driven water evaporation using 3D photothermal cones. <i>Journal of Materials Chemistry A</i> , 2018, 6, 9874-9881.	10.3	266
49	A facile nanocomposite strategy to fabricate a rGO-MWCNT photothermal layer for efficient water evaporation. <i>Journal of Materials Chemistry A</i> , 2018, 6, 963-971.	10.3	256
50	Methane conversion to syngas and hydrogen in a dual-phase Ce <sub>0.8</sub> Sm <sub>0.2</sub> O <sub>2-<math>\delta</math></sub> -Sr <sub>2</sub> Fe <sub>1.5</sub> Mo <sub>0.5</sub> O <sub>5+<math>\delta</math></sub> membrane reactor with improved stability. <i>International Journal of Hydrogen Energy</i> , 2018, 43, 14478-14485.	7.1	22
51	Nitrogen Production by Efficiently Removing Oxygen From Air Using a Perovskite Hollow-Fiber Membrane With Porous Catalytic Layer. <i>Frontiers in Chemistry</i> , 2018, 6, 329.	3.6	13
52	A nanosized metal-organic framework confined inside a functionalized mesoporous polymer: an efficient CO <sub>2</sub> adsorbent with metal defects. <i>Journal of Materials Chemistry A</i> , 2018, 6, 17220-17226.	10.3	20
53	A novel route to improve methane aromatization by using a simple composite catalyst. <i>Chemical Communications</i> , 2018, 54, 10343-10346.	4.1	37
54	Enhanced durability and activity of the perovskite electrocatalyst Pr <sub>0.5</sub> Ba <sub>0.5</sub> CoO <sub>3-<math>\delta</math></sub> by Ca doping for the oxygen evolution reaction at room temperature. <i>Chemical Communications</i> , 2017, 53, 5132-5135.	4.1	46

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55	A hybrid composite catalyst of Fe <sub>3</sub> O <sub>4</sub> nanoparticles-based carbon for electrochemical reduction of oxygen. <i>New Journal of Chemistry</i> , 2017, 41, 4959-4965.	2.8	13
56	Oxygen Transport Membrane for Thermochemical Conversion of Water and Carbon Dioxide into Synthesis Gas. <i>ACS Sustainable Chemistry and Engineering</i> , 2017, 5, 8657-8662.	6.7	40
57	Syngas Production by Biogas Reforming in a Redox-Stable and CO <sub>2</sub> -Tolerant Oxygen Transporting Membrane Reactor. <i>Industrial &amp; Engineering Chemistry Research</i> , 2017, 56, 10134-10141.	3.7	19
58	Catalytic Abatement of Nitrous Oxide Coupled with Ethane Oxydehydrogenation over Mesoporous Cr/Al <sub>2</sub> O <sub>3</sub> Catalyst. <i>Catalysts</i> , 2017, 7, 137.	3.5	5
59	Coupled cobalt oxide/hollow carbon sphere as an efficient electrocatalyst for the oxygen reduction reaction. <i>RSC Advances</i> , 2016, 6, 34159-34164.	3.6	14
60	Codoping Strategy To Improve Stability and Permeability of Ba <sub>0.6</sub> Sr <sub>0.4</sub> FeO <sub>3-<math>\delta</math></sub> -Based Perovskite Membranes. <i>Industrial &amp; Engineering Chemistry Research</i> , 2016, 55, 10386-10393.	3.7	13
61	A mixed-valent Cu <sup>I</sup> /Cu <sup>II</sup> metal-organic framework with selective chemical sensing properties. <i>CrystEngComm</i> , 2016, 18, 8683-8687.	2.6	14
62	Coupling of N <sub>2</sub> O decomposition with CO <sub>2</sub> reforming of CH <sub>4</sub> in novel cobalt-free BaFe <sub>0.9</sub> Zr <sub>0.05</sub> Al <sub>0.05</sub> O <sub>3-<math>\delta</math></sub> oxygen transport membrane reactor. <i>Chemical Engineering Journal</i> , 2016, 305, 176-181.	12.7	26
63	Effect of reduction-oxidation treatment on structure and catalytic properties of ordered mesoporous Cu-Mg-Al composite oxides. <i>Science Bulletin</i> , 2015, 60, 1108-1113.	9.0	8
64	An Efficient Oxygen Activation Route for Improved Ammonia Oxidation through an Oxygen-Permeable Catalytic Membrane. <i>ChemCatChem</i> , 2014, 6, 1190-1194.	3.7	7
65	B-site La-doped BaFe <sub>0.95</sub> La <sub>x</sub> Zr <sub>0.05</sub> O <sub>3-<math>\delta</math></sub> perovskite-type membranes for oxygen separation. <i>Journal of Materials Chemistry A</i> , 2013, 1, 746-751.	10.3	52
66	Natural Gas to Fuels and Chemicals: Improved Methane Aromatization in an Oxygen-Permeable Membrane Reactor. <i>Angewandte Chemie - International Edition</i> , 2013, 52, 13794-13797.	13.8	111
67	High-purity oxygen production by a dead-end Ba <sub>0.5</sub> Sr <sub>0.5</sub> Co <sub>0.8</sub> Fe <sub>0.2</sub> O <sub>3-<math>\delta</math></sub> tube membrane. <i>Catalysis Today</i> , 2012, 193, 95-100.	4.4	16
68	Simultaneous overcome of the equilibrium limitations in BSCF oxygen-permeable membrane reactors: Water splitting and methane coupling. <i>Catalysis Today</i> , 2012, 193, 2-7.	4.4	52
69	Rapid glycine-nitrate combustion synthesis of the CO <sub>2</sub> -stable dual phase membrane 40Mn <sub>1.5</sub> Co <sub>1.5</sub> O <sub>4</sub> -60Ce <sub>0.9</sub> Pr <sub>0.1</sub> O <sub>2-<math>\delta</math></sub> for CO <sub>2</sub> capture via an oxy-fuel process. <i>Journal of Membrane Science</i> , 2012, 423-424, 450-458.	8.2	28
70	One-pot synthesis of mesoporous Cu-Al <sub>2</sub> O <sub>3</sub> as bifunctional catalyst for direct dimethyl ether synthesis. <i>Microporous and Mesoporous Materials</i> , 2012, 164, 3-8.	4.4	52
71	Novel Cobalt-Free, Noble Metal-Free Oxygen-Permeable 40Pr <sub>0.6</sub> Sr <sub>0.4</sub> FeO <sub>3-<math>\delta</math></sub> -60Ce <sub>0.9</sub> Pr <sub>0.1</sub> O <sub>2-<math>\delta</math></sub> Dual-Phase Membrane. <i>Chemistry of Materials</i> , 2012, 24, 2148-2154.	11.3	113
72	Phase Stability and Permeation Behavior of a Dead-End Ba <sub>0.5</sub> Sr <sub>0.5</sub> Co <sub>0.8</sub> Fe <sub>0.2</sub> O <sub>3-<math>\delta</math></sub> Tube Membrane in High-Purity Oxygen Production. <i>Chemistry of Materials</i> , 2011, 23, 4765-4772.	6.7	66

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73	CO <sub>2</sub> -Tolerant Oxygen-Permeable Fe <sub>2</sub> O <sub>3</sub> -Ce <sub>0.9</sub> Gd <sub>0.1</sub> O <sub>2-<math>\delta</math></sub> Dual Phase Membranes. <i>Industrial &amp; Engineering Chemistry Research</i> , 2011, 50, 13508-13517.	3.7	69
74	Influence of the preparation methods on the microstructure and oxygen permeability of a CO <sub>2</sub> -stable dual phase membrane. <i>AIChE Journal</i> , 2011, 57, 2738-2745.	3.6	57
75	CO <sub>2</sub> -stable and Cobalt-Free Dual-Phase Membrane for Oxygen Separation. <i>Angewandte Chemie - International Edition</i> , 2011, 50, 759-763.	13.8	190
76	Catalytic Membrane Reactors for Chemical Upgrading and Pollution Control. <i>Chemie-Ingenieur-Technik</i> , 2011, 83, 2219-2228.	0.8	6
77	Oxygen permeability and structural stability of a novel tantalum-doped perovskite BaCo <sub>0.7</sub> Fe <sub>0.2</sub> Ta <sub>0.1</sub> O <sub>3-<math>\delta</math></sub> . <i>AIChE Journal</i> , 2010, 56, 604-610.	3.6	17
78	Hydrogen Production by Water Dissociation in Surface-Modified BaCo <sub>x</sub> Fe <sub>y</sub> Zr <sub>1-x-y</sub> O <sub>3-<math>\delta</math></sub> Hollow-Fiber Membrane Reactor with Improved Oxygen Permeation. <i>Chemistry - A European Journal</i> , 2010, 16, 7898-7903.	3.3	50
79	A Coupling Strategy to Produce Hydrogen and Ethylene in a Membrane Reactor. <i>Angewandte Chemie - International Edition</i> , 2010, 49, 5656-5660.	13.8	115
80	Performance of a ceramic membrane reactor with high oxygen flux Ta-containing perovskite for the partial oxidation of methane to syngas. <i>Journal of Membrane Science</i> , 2010, 350, 154-160.	8.2	105
81	Improved water dissociation and nitrous oxide decomposition by in situ oxygen removal in perovskite catalytic membrane reactor. <i>Catalysis Today</i> , 2010, 156, 187-190.	4.4	41
82	High-Purity Oxygen Production from Air Using Perovskite Hollow Fiber Membranes. <i>Industrial &amp; Engineering Chemistry Research</i> , 2010, 49, 9377-9384.	3.7	32
83	Direct Decomposition of Nitrous Oxide to Nitrogen by In-Situ Oxygen Removal with a Perovskite Membrane. <i>Angewandte Chemie - International Edition</i> , 2009, 48, 2983-2986.	13.8	130
84	Cover Picture: Direct Decomposition of Nitrous Oxide to Nitrogen by In-Situ Oxygen Removal with a Perovskite Membrane ( <i>Angew. Chem. Int. Ed.</i> 16/2009). <i>Angewandte Chemie - International Edition</i> , 2009, 48, 2807-2807.	13.8	1
85	Highly effective NO decomposition by in situ removal of inhibitor oxygen using an oxygen transporting membrane. <i>Chemical Communications</i> , 2009, , 6738.	4.1	48
86	Simultaneous Production of Hydrogen and Synthesis Gas by Combining Water Splitting with Partial Oxidation of Methane in a Hollow-Fiber Membrane Reactor. <i>Angewandte Chemie - International Edition</i> , 2008, 47, 9341-9344.	13.8	204
87	A simple route to incorporate redox mediator into carbon nanotubes/Nafion composite film and its application to determine NADH at low potential. <i>Talanta</i> , 2007, 74, 132-139.	5.5	46
88	Spontaneous Formation of Two-Dimensional Gold Networks at the Air-Water Interface and Their Application in Surface-Enhanced Raman Scattering (SERS). <i>Crystal Growth and Design</i> , 2007, 7, 1771-1776.	3.0	14
89	Rapid Self-Assembly of Oligo(o-phenylenediamine) into One-Dimensional Structures through a Facile Reprecipitation Route. <i>Langmuir</i> , 2006, 22, 3358-3361.	3.5	62
90	Synthesis of copper nanoparticles containing diamond-like carbon films by electrochemical method. <i>Electrochemistry Communications</i> , 2006, 8, 262-266.	4.7	83

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91	Facile Deposition of Copper-Doped Diamond-Like Carbon Nanocomposite Films by a Liquid-Phase Electrochemical Route.. ChemInform, 2005, 36, no.	0.0	0
92	Designed Nanostructured Pt Film for Electrocatalytic Activities by Underpotential Deposition Combined Chemical Replacement Techniques. Journal of Physical Chemistry B, 2005, 109, 15264-15271.	2.6	45
93	Small molecules as cross-linkers: fabrication of carbon nanotubes/thionine self-assembled multilayers on amino functionalized surfaces. Chemical Communications, 2005, , 5560.	4.1	34
94	Facile deposition of copper-doped diamond-like carbon nanocomposite films by a liquid-phase electrochemical route. Chemical Communications, 2004, , 2196.	4.1	14