

# Renbi Bai

## List of Publications by Year in descending order

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101  
papers

9,278  
citations

34016

52  
h-index

38300

95  
g-index

103  
all docs

103  
docs citations

103  
times ranked

9948  
citing authors

#	ARTICLE	IF	CITATIONS
1	Mechanisms of Lead Adsorption on Chitosan/PVA Hydrogel Beads. <i>Langmuir</i> , 2002, 18, 9765-9770.	1.6	560
2	Copper adsorption on chitosan-cellulose hydrogel beads: behaviors and mechanisms. <i>Separation and Purification Technology</i> , 2005, 42, 237-247.	3.9	454
3	Membrane fouling and cleaning in microfiltration of activated sludge wastewater. <i>Journal of Membrane Science</i> , 2003, 216, 279-290.	4.1	400
4	Selective removal of copper and lead ions by diethylenetriamine-functionalized adsorbent: Behaviors and mechanisms. <i>Water Research</i> , 2008, 42, 1511-1522.	5.3	377
5	Aminated Polyacrylonitrile Fibers for Lead and Copper Removal. <i>Langmuir</i> , 2003, 19, 5058-5064.	1.6	347
6	Removal of trivalent and hexavalent chromium with aminated polyacrylonitrile fibers: performance and mechanisms. <i>Water Research</i> , 2004, 38, 2424-2432.	5.3	312
7	Modification of membrane surface for anti-biofouling performance: Effect of anti-adhesion and anti-bacteria approaches. <i>Journal of Membrane Science</i> , 2010, 346, 121-130.	4.1	265
8	Enhanced and Selective Adsorption of Mercury Ions on Chitosan Beads Grafted with Polyacrylamide via Surface-Initiated Atom Transfer Radical Polymerization. <i>Langmuir</i> , 2005, 21, 11780-11787.	1.6	230
9	Mechanisms and kinetics of humic acid adsorption onto chitosan-coated granules. <i>Journal of Colloid and Interface Science</i> , 2003, 264, 30-38.	5.0	211
10	Adsorptive removal of copper ions with highly porous chitosan/cellulose acetate blend hollow fiber membranes. <i>Journal of Membrane Science</i> , 2006, 284, 313-322.	4.1	207
11	Adsorption of lead and humic acid on chitosan hydrogel beads. <i>Water Research</i> , 2005, 39, 688-698.	5.3	201
12	Behaviors and mechanisms of copper adsorption on hydrolyzed polyacrylonitrile fibers. <i>Journal of Colloid and Interface Science</i> , 2003, 260, 265-272.	5.0	198
13	Characteristics of a bioflocculant produced by <i>Bacillus mucilaginosus</i> and its use in starch wastewater treatment. <i>Applied Microbiology and Biotechnology</i> , 2003, 60, 588-593.	1.7	193
14	In-situ growth of all-solid Z-scheme heterojunction photocatalyst of Bi <sub>2</sub> O <sub>3</sub> /g-C <sub>3</sub> N <sub>4</sub> and high efficient degradation of antibiotic under visible light. <i>Applied Catalysis B: Environmental</i> , 2020, 261, 118212.	10.8	192
15	The practice and challenges of solid waste management in Singapore. <i>Waste Management</i> , 2002, 22, 557-567.	3.7	189
16	Surface Electric Properties of Polypyrrole in Aqueous Solutions. <i>Langmuir</i> , 2003, 19, 10703-10709.	1.6	179
17	Microfiltration of activated sludge wastewater—the effect of system operation parameters. <i>Separation and Purification Technology</i> , 2002, 29, 189-198.	3.9	174
18	Highly hydrophilic and low-protein-fouling polypropylene membrane prepared by surface modification with sulfobetaine-based zwitterionic polymer through a combined surface polymerization method. <i>Journal of Membrane Science</i> , 2010, 362, 326-333.	4.1	170

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19	A Novel Amine-Shielded Surface Cross-Linking of Chitosan Hydrogel Beads for Enhanced Metal Adsorption Performance. <i>Industrial &amp; Engineering Chemistry Research</i> , 2005, 44, 6692-6700.	1.8	167
20	A novel membrane showing both hydrophilic and oleophobic surface properties and its non-fouling performances for potential water treatment applications. <i>Journal of Membrane Science</i> , 2013, 436, 47-56.	4.1	156
21	Membrane surfaces immobilized with ionic or reduced silver and their anti-biofouling performances. <i>Journal of Membrane Science</i> , 2010, 363, 278-286.	4.1	144
22	Diethylenetriamine-grafted poly(glycidyl methacrylate) adsorbent for effective copper ion adsorption. <i>Journal of Colloid and Interface Science</i> , 2006, 303, 99-108.	5.0	142
23	Preparation of chitosan/cellulose acetate blend hollow fibers for adsorptive performance. <i>Journal of Membrane Science</i> , 2005, 267, 68-77.	4.1	138
24	Adsorption of mercury( $\text{Hg}^{2+}$ ) with an $\text{Fe}_3\text{O}_4$ magnetic polypyrrole-graphene oxide nanocomposite. <i>RSC Advances</i> , 2017, 7, 18466-18479.	1.7	136
25	Fabrication of superhydrophilic and underwater superoleophobic membranes via an in situ crosslinking blend strategy for highly efficient oil/water emulsion separation. <i>Journal of Membrane Science</i> , 2019, 569, 60-70.	4.1	136
26	Effective and low fouling oil/water separation by a novel hollow fiber membrane with both hydrophilic and oleophobic surface properties. <i>Journal of Membrane Science</i> , 2014, 466, 36-44.	4.1	132
27	Aminated Polyacrylonitrile Fibers for Humic Acid Adsorption: Behaviors and Mechanisms. <i>Environmental Science &amp; Technology</i> , 2003, 37, 5799-5805.	4.6	121
28	Produced water from polymer flooding process in crude oil extraction: characterization and treatment by a novel crossflow oil-water separator. <i>Separation and Purification Technology</i> , 2002, 29, 207-216.	3.9	119
29	Effects of alkaline/surfactant/polymer on stability of oil droplets in produced water from ASP flooding. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2002, 211, 275-284.	2.3	117
30	Analysis of cake growth in cake filtration: Effect of fine particle retention. <i>AIChE Journal</i> , 1997, 43, 33-44.	1.8	99
31	Achieving Highly Effective Non-biofouling Performance for Polypropylene Membranes Modified by UV-Induced Surface Graft Polymerization of Two Oppositely Charged Monomers. <i>Journal of Physical Chemistry B</i> , 2010, 114, 2422-2429.	1.2	99
32	A Novel Electrolyte-Responsive Membrane with Tunable Permeation Selectivity for Protein Purification. <i>ACS Applied Materials &amp; Interfaces</i> , 2010, 2, 203-211.	4.0	98
33	Highly Enhanced Adsorption of Lead Ions on Chitosan Granules Functionalized with Poly(acrylic) Tj ETQq1 1 0.784314 rgBT /Qyerlock	1.8	94
34	Buoyant Photocatalyst with Greatly Enhanced Visible-Light Activity Prepared through a Low Temperature Hydrothermal Method. <i>Industrial &amp; Engineering Chemistry Research</i> , 2009, 48, 2891-2898.	1.8	92
35	Polypyrrole-Coated Granules for Humic Acid Removal. <i>Journal of Colloid and Interface Science</i> , 2001, 243, 52-60.	5.0	91
36	Removal of mercury( $\text{Hg}^{2+}$ ) and methylene blue from a wastewater environment with magnetic graphene oxide: adsorption kinetics, isotherms and mechanism. <i>RSC Advances</i> , 2016, 6, 82523-82536.	1.7	85

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37	An assessment of the conventional cake filtration theory. <i>Chemical Engineering Science</i> , 2003, 58, 1323-1336.	1.9	82
38	Defining the Interactions between Proteins and Surfactants for Nanoparticle Surface Imprinting through Miniemulsion Polymerization. <i>Chemistry of Materials</i> , 2008, 20, 118-127.	3.2	82
39	Particle Detachment in Deep Bed Filtration. <i>Journal of Colloid and Interface Science</i> , 1997, 186, 307-317.	5.0	80
40	Selective adsorption behaviors of proteins on polypyrrole-based adsorbents. <i>Separation and Purification Technology</i> , 2006, 52, 161-169.	3.9	80
41	Highly effective buoyant photocatalyst prepared with a novel layered-TiO <sub>2</sub> configuration on polypropylene fabric and the degradation performance for methyl orange dye under UV-Vis and Vis lights. <i>Separation and Purification Technology</i> , 2010, 73, 142-150.	3.9	79
42	Adsorption and desorption of humic acid on aminated polyacrylonitrile fibers. <i>Journal of Colloid and Interface Science</i> , 2004, 280, 36-43.	5.0	72
43	Distribution and composition of extracellular polymeric substances in membrane-aerated biofilm. <i>Journal of Biotechnology</i> , 2008, 135, 52-57.	1.9	72
44	Particle Deposition under Unfavorable Surface Interactions. <i>Journal of Colloid and Interface Science</i> , 1999, 218, 488-499.	5.0	71
45	Membrane-Aerated Biofilm Reactor for the Treatment of Acetonitrile Wastewater. <i>Environmental Science &amp; Technology</i> , 2008, 42, 2099-2104.	4.6	71
46	Adsorption behavior of humic acid onto polypyrrole-coated nylon 6,6 granules. <i>Journal of Materials Chemistry</i> , 2002, 12, 2733-2739.	6.7	70
47	Effect of Deposition in Deep-Bed Filtration: Determination and Search of Rate Parameters. <i>Journal of Colloid and Interface Science</i> , 2000, 231, 299-311.	5.0	66
48	Development of a multifunctional membrane for chromatic warning and enhanced adsorptive removal of heavy metal ions: Application to cadmium. <i>Journal of Membrane Science</i> , 2011, 379, 69-79.	4.1	66
49	Formic acid enhanced effective degradation of methyl orange dye in aqueous solutions under UV-Vis irradiation. <i>Water Research</i> , 2016, 101, 103-113.	5.3	66
50	Biodegradation of organonitriles by adapted activated sludge consortium with acetonitrile-degrading microorganisms. <i>Water Research</i> , 2007, 41, 3465-3473.	5.3	63
51	Recent advances in chitosan and its derivatives as adsorbents for removal of pollutants from water and wastewater. <i>Current Opinion in Chemical Engineering</i> , 2014, 4, 62-70.	3.8	63
52	Flower-like Bi <sub>2</sub> WO <sub>6</sub> /ZnO composite with excellent photocatalytic capability under visible light irradiation. <i>Chinese Journal of Catalysis</i> , 2018, 39, 810-820.	6.9	55
53	Development of chitosan-based granular adsorbents for enhanced and selective adsorption performance in heavy metal removal. <i>Water Science and Technology</i> , 2006, 54, 103-113.	1.2	53
54	Synthesis of novel p-n heterojunction m-Bi <sub>2</sub> O <sub>4</sub> /BiOCl nanocomposite with excellent photocatalytic activity through ion-etching method. <i>Chinese Journal of Catalysis</i> , 2018, 39, 1792-1803.	6.9	53

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55	Preparing highly porous chitosan/cellulose acetate blend hollow fibers as adsorptive membranes: Effect of polymer concentrations and coagulant compositions. <i>Journal of Membrane Science</i> , 2006, 279, 336-346.	4.1	51
56	Functionalization of adsorbent with different aliphatic polyamines for heavy metal ion removal: Characteristics and performance. <i>Journal of Colloid and Interface Science</i> , 2010, 345, 454-460.	5.0	50
57	Highly promoted removal of Hg( <i>II</i> ) with magnetic CoFe <sub>2</sub> O <sub>4</sub> @SiO <sub>2</sub> core-shell nanoparticles modified by thiol groups. <i>RSC Advances</i> , 2017, 7, 39204-39215.	1.7	48
58	Thiol functionalization of short channel SBA-15 through a safe, mild and facile method and application for the removal of mercury (II). <i>Journal of Environmental Chemical Engineering</i> , 2018, 6, 5420-5433.	3.3	47
59	Removal of mercury by magnetic nanomaterial with bifunctional groups and core-shell structure: Synthesis, characterization and optimization of adsorption parameters. <i>Applied Surface Science</i> , 2020, 500, 143970.	3.1	47
60	A New Correlation for the Initial Filter Coefficient under Unfavorable Surface Interactions. <i>Journal of Colloid and Interface Science</i> , 1996, 179, 631-634.	5.0	40
61	A novel method to prepare high chitosan content blend hollow fiber membranes using a non-acidic dope solvent for highly enhanced adsorptive performance. <i>Journal of Membrane Science</i> , 2007, 302, 150-159.	4.1	39
62	Immobilization of silver in polypropylene membrane for anti-biofouling performance. <i>Biofouling</i> , 2011, 27, 773-786.	0.8	36
63	Simultaneous alkaline hydrolysis and non-solvent induced phase separation method for polyacrylonitrile (PAN) membrane with highly hydrophilic and enhanced anti-fouling performance. <i>Journal of Membrane Science</i> , 2021, 635, 119499.	4.1	36
64	Further work on cake filtration analysis. <i>Chemical Engineering Science</i> , 2005, 60, 301-313.	1.9	34
65	Poly (vinyl alcohol)/carboxymethyl cellulose sodium blend composite nanofiltration membranes developed via interfacial polymerization. <i>Journal of Membrane Science</i> , 2015, 493, 654-663.	4.1	34
66	Removal of mercury (II) from aqueous solution with three commercial raw activated carbons. <i>Research on Chemical Intermediates</i> , 2017, 43, 2273-2297.	1.3	33
67	Deposition/Adsorption of Colloids to Surface-Modified Granules: Effect of Surface Interactions. <i>Langmuir</i> , 2002, 18, 3459-3465.	1.6	32
68	Coating of TiO <sub>2</sub> Thin Films on the Surface of SiO <sub>2</sub> Microspheres: Toward Industrial Photocatalysis. <i>Industrial &amp; Engineering Chemistry Research</i> , 2008, 47, 8228-8232.	1.8	32
69	Preparation of antifouling cellulose acetate membranes with good hydrophilic and oleophobic surface properties. <i>Materials Letters</i> , 2019, 252, 1-4.	1.3	30
70	Membrane Aerated Biofilm Reactors: A Brief Current Review. <i>Recent Patents on Biotechnology</i> , 2008, 2, 88-93.	0.4	28
71	Extended study of DETA-functionalized PGMA adsorbent in the selective adsorption behaviors and mechanisms for heavy metal ions of Cu, Co, Ni, Zn, and Cd. <i>Journal of Colloid and Interface Science</i> , 2010, 350, 282-289.	5.0	25
72	Enhanced photocatalytic degradation for organic pollutants by a novel m-Bi <sub>2</sub> O <sub>4</sub> /Bi <sub>2</sub> O <sub>2</sub> CO <sub>3</sub> photocatalyst under visible light. <i>Research on Chemical Intermediates</i> , 2018, 44, 3061-3079.	1.3	25

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73	A Facile and Fast Approach To Coat Various Substrates with Poly(styrene-co-maleic anhydride) and Polyethyleneimine for Oil/Water Separation. <i>Industrial &amp; Engineering Chemistry Research</i> , 2019, 58, 19475-19485.	1.8	25
74	Preconcentration of Phenanthrene from Aqueous Solution by a Slightly Hydrophobic Nonionic Surfactant. <i>Langmuir</i> , 2004, 20, 6068-6070.	1.6	23
75	Suspended particle size distribution and the performance of deep bed filters. <i>Water Research</i> , 1992, 26, 1571-1575.	5.3	22
76	Effect of Thickness of Photocatalyst Film Immobilized on a Buoyant Substrate on the Degradation of Methyl Orange Dye in Aqueous Solutions under Different Light Irradiations. <i>Industrial &amp; Engineering Chemistry Research</i> , 2011, 50, 11922-11929.	1.8	21
77	Effect of a commercial alcohol ethoxylate surfactant (C11-15E7) on. <i>Biodegradation</i> , 2005, 16, 57-65.	1.5	20
78	Surface functionalization of Cu-Ni alloys via grafting of a bactericidal polymer for inhibiting biocorrosion by <i>Desulfovibrio desulfuricans</i> in anaerobic seawater. <i>Biofouling</i> , 2009, 25, 109-125.	0.8	18
79	Enhanced performance in phenol removal from aqueous solutions by a buoyant composite photocatalyst prepared with a two-layered configuration on polypropylene substrate. <i>Journal of Environmental Chemical Engineering</i> , 2016, 4, 230-239.	3.3	18
80	microfiltration of polydispersed suspension by a membrane screen/hollow-fiber composite module. <i>Desalination</i> , 2001, 140, 277-287.	4.0	16
81	Transient behavior of particle deposition in granular media under various surface interactions. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2000, 165, 95-114.	2.3	15
82	Modeling and experimental study of microfiltration using a composite module. <i>Journal of Membrane Science</i> , 2002, 204, 359-377.	4.1	15
83	Immobilization of chitosan on nylon 6,6 and pet granules through hydrolysis pretreatment. <i>Journal of Applied Polymer Science</i> , 2003, 90, 3973-3979.	1.3	15
84	Biodegradation of acetonitrile by adapted biofilm in a membrane-aerated biofilm reactor. <i>Biodegradation</i> , 2009, 20, 569-580.	1.5	15
85	Synthesis of flower-like Bi <sub>2</sub> O <sub>4</sub> /ZnO heterojunction and mechanism of enhanced photodegradation for organic contaminants under visible light. <i>Research on Chemical Intermediates</i> , 2018, 44, 6569-6590.	1.3	15
86	Removal of phenol in aqueous solutions by novel buoyant Composite photocatalysts and the kinetics. <i>Separation and Purification Technology</i> , 2013, 115, 180-189.	3.9	14
87	Conversion of Waste Polystyrene into Porous and Functionalized Adsorbent and Its Application in Humic Acid Removal. <i>Industrial &amp; Engineering Chemistry Research</i> , 2008, 47, 1861-1867.	1.8	13
88	Fabrication of antifouling membranes by blending poly(vinylidene fluoride) with cationic polyionic liquid. <i>Journal of Applied Polymer Science</i> , 2020, 137, 48878.	1.3	12
89	A novel method for obtaining a high-concentration chitosan solution and preparing a high-strength chitosan hollow-fiber membrane with an excellent adsorption capacity. <i>Journal of Applied Polymer Science</i> , 2010, 115, 1913-1921.	1.3	8
90	Poly(imidazoled glycidyl methacrylate-co-diethyleneglycol methyl ether methacrylate) – A new copolymer with tunable LCST and UCST behavior in water. <i>Polymer</i> , 2018, 157, 79-86.	1.8	8

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91	Nylon screen incorporated into hollow fiber microfiltration system for wastewater treatment. <i>Water Science and Technology: Water Supply</i> , 2001, 1, 131-139.	1.0	8
92	Separation of Biologically Active Compounds by Membrane Operations. <i>Current Pharmaceutical Design</i> , 2017, 23, 218-230.	0.9	8
93	Modelling the transition between deposition modes in deep bed filtration. <i>Water Research</i> , 1995, 29, 2601-2604.	5.3	7
94	Preparing Microgranules from Waste Polystyrene through a Novel Temperature- and Nonsolvent-Induced Phase Separation Method for Potential Adsorbent. <i>Industrial &amp; Engineering Chemistry Research</i> , 2005, 44, 825-831.	1.8	6
95	Development and characterization of quaternized poly (vinyl alcohol) composite nanofiltration membranes. <i>Journal of Materials Science</i> , 2016, 51, 1855-1863.	1.7	6
96	Highly Effective Anti-Organic Fouling Performance of a Modified PVDF Membrane Using a Triple-Component Copolymer of P(Stx-co-MAAy)-g-fPEGz as the Additive. <i>Membranes</i> , 2021, 11, 951.	1.4	5
97	Novel multifunctional membrane technology for visual detection and enhanced adsorptive removal of lead ions in water and wastewater. <i>Water Science and Technology: Water Supply</i> , 2011, 11, 113-120.	1.0	3
98	SOLID WASTE MANAGEMENT IN SINGAPORE. , 2000, , .		1
99	Affinity Membranes for Purification of Enzymes. , 2016, , 20-22.		0
100	APPLICATION OF A MEMBRANE-HOLLOW FIBER COMPOSITE MODULE FOR SOLID-LIQUID SEPARATION. , 2000, , .		0
101	NATURAL ORGANIC MATTER REMOVAL IN DIRECT FILTRATION SYSTEM. , 2000, , .		0