Baochang Sun

List of Publications by Year in Descending Order

113 papers	2,070 citations	26 h-index	39 g-index
115 ext. papers	2,531 ext. citations	5.3 avg, IF	5.12 L-index

#	Paper	IF	Citations
113	Study on the Effective Mass Transfer Area and the Local Gas-Side Mass Transfer Coefficient in a Rotor–Stator Reactor. *Industrial & Engineering Chemistry Research*, **2022**, 61, 1523-1530	3.9	0
112	Desulfurization performance in a HiGee reactor with packing containing different fiber cross-sectional shapes. *Separation and Purification Technology*, **2022**, 287, 120536	8.3	0
111	Kinetic study of SO2 with sodium lactate based deep eutectic solvents and modelling of desulfurization intensification in rotating packed bed reactor. *Chemical Engineering Science*, **2022**, 248, 117197	4.4	0
110	Sulfur recycle in biogas production: Novel Higee desulfurization process using natural amino acid salts.. *Chemosphere*, **2022**, 134215	8.4	1
109	Polymerization of Isobutylene in a Rotating Packed Bed Reactor: Experimental and Modeling Studies. *Applied Sciences (Switzerland)*, **2021**, 11, 10194	2.6	
108	An Evaluation of Metronidazole Degradation in a Plasma-Assisted Rotating Disk Reactor Coupled with TiO2 in Aqueous Solution. *Engineering*, **2021**, 7, 1603-1603	9.7	2
107	Feasibility study on micromixing intensification in a spinning disk reactor utilizing heterogeneous surface wettability. *Chemical Engineering and Processing: Process Intensification*, **2021**, 108707	3.7	0
106	Oxygen mass transfer intensification in an inner-loop rotor-stator reactor: Production of sodium gluconate as an example. *Chemical Engineering and Processing: Process Intensification*, **2021**, 160, 108290	3.7	4
105	Mechanism of Liquid Dispersion Enhancement by the Hydrophobic Wire Mesh at Macro- and Micro-Scale. *Industrial & Engineering Chemistry Research*, **2021**, 60, 8927-8934	3.9	
104	Characterization of petroleum sulfonate synthesized via gas-phase SO3 sulfonation in rotating packed bed and its application in enhanced oil recovery. *Chemical Engineering Science*, **2021**, 230, 116216	4.4	3
103	Investigation on Designing Meltblown Fibers for the Filtering Layer of a Mask by Cross-Scale Simulations. *Industrial & Engineering Chemistry Research*, **2021**, 60, 1962-1971	3.9	2
102	Liquid droplet dispersion in a rotating packed bed: Experimental and numerical studies. *Chemical Engineering Science*, **2021**, 240, 116675	4.4	5
101	Carbon dioxide capture by non-aqueous blend in rotating packed bed reactor: Absorption and desorption investigation. *Separation and Purification Technology*, **2021**, 269, 118714	8.3	7
100	Intensification of micromixing efficiency in a spinning disk reactor: Experimental investigation. *Chemical Engineering and Processing: Process Intensification*, **2021**, 166, 108500	3.7	4
99	Flow behavior in a rotating packed bed reactor with single-layer mesh: Effect of fiber cross-sectional shape. *Chemical Engineering Science*, **2021**, 117147	4.4	2
98	Enhanced Regeneration of Triethylene Glycol Solution by Rotating Packed Bed for Offshore Natural Gas Dehydration Process: Experimental and Modeling Study. *Chemical Engineering and Processing: Process Intensification*, **2021**, 168, 108562	3.7	4
97	Rapid and continuous polymer dissolution by rotating packed bed for enhanced oil recovery. *Chemical Engineering and Processing: Process Intensification*, **2020**, 153, 107952	3.7	4

96	Hydrothermal controllable synthesis of hollow carbon particles: Reaction-growth mechanism. *Chemical Engineering Science*, **2020**, 225, 115787	4.4	3
95	Dispersion behaviors of droplet impacting on wire mesh and process intensification by surface micro/nano-structure. *Chemical Engineering Science*, **2020**, 219, 115593	4.4	10
94	Can Masks Be Reused After Hot Water Decontamination During the COVID-19 Pandemic?. *Engineering*, **2020**, 6, 1115-1121	9.7	38
93	Modeling for Temperature Distribution of Water in a Multiwaveguide Microwave Reactor. *Industrial & Engineering Chemistry Research*, **2020**, 59, 4762-4774	3.9	2
92	Scale-Up of a Rotating Packed Bed Reactor with a Mesh-Pin Rotor: (I) Hydrodynamic Studies. *Industrial & Engineering Chemistry Research*, **2020**, 59, 5114-5123	3.9	7
91	Scale-Up of a Rotating Packed Bed Reactor with a Mesh-Pin Rotor: (II) Mass Transfer and Application. *Industrial & Engineering Chemistry Research*, **2020**, 59, 5124-5132	3.9	6
90	Intensified regeneration performance of spent caustic from LPG sweetening by HiGee reactor. *Chemical Engineering Research and Design*, **2020**, 156, 281-288	5.5	1
89	Process Intensification of Quasi-Homogeneous Catalytic Hydrogenation in a Rotating Packed Bed Reactor. *Industrial & Engineering Chemistry Research*, **2020**, 59, 1383-1392	3.9	6
88	Experimental investigation of effective gas-liquid specific interfacial area in a rotor-stator reactor. *Chemical Engineering and Processing: Process Intensification*, **2020**, 148, 107801	3.7	6
87	Process intensification of 2,3,6-trimethylphenol oxidation in a rotating packed bed reactor. *Chemical Engineering and Processing: Process Intensification*, **2020**, 149, 107842	3.7	5
86	Wetting Behavior of the Stainless Steel Wire Mesh with Al2O3 Coatings and Mass Transfer Intensification in a Rotating Packed Bed. *Industrial & Engineering Chemistry Research*, **2020**, 59, 1374-1382	3.9	10
85	Three-dimensional large eddy simulation of wave characteristics of liquid film flow in a spinning disk reactor. *AICHE Journal*, **2020**, 66, e16894	3.6	3
84	Novel Wire Mesh Packing with Controllable Cross-Sectional Area in a Rotating Packed Bed: Mass Transfer Studies. *Industrial & Engineering Chemistry Research*, **2020**, 59, 16043-16051	3.9	10
83	Liquid flow behavior in a multiliquid-inlet rotating packed bed reactor with three-dimensional printed packing. *Chemical Engineering Journal*, **2020**, 386, 121537	14.7	15
82	Liquid microflow inside the packing of a rotating packed bed reactor: Computational, observational and experimental studies. *Chemical Engineering Journal*, **2020**, 386, 121134	14.7	20
81	Using dielectric barrier discharge and rotating packed bed reactor for NOx removal. *Separation and Purification Technology*, **2020**, 235, 116141	8.3	10
80	Preparation of cordierite monolithic catalyst for α-methylstyrene hydrogenation in a rotating packed bed reactor. *Chemical Engineering and Processing: Process Intensification*, **2020**, 150, 107882	3.7	3
79	Simultaneous Absorption of H2S and CO2 into the MDEA + PZ Aqueous Solution in a Rotating Packed Bed. *Industrial & Engineering Chemistry Research*, **2020**, 59, 8295-8303	3.9	11

78	NOx removal in a rotating packed bed: Oxidation and enhanced absorption process optimization. *Separation and Purification Technology*, **2019**, 227, 115682	8.3	10
77	Desulfurization of Offshore Natural Gas by Chelated Iron Solution in a HiGee Reactor: A Feasibility Study. *Industrial & Engineering Chemistry Research*, **2019**, 58, 10629-10634	3.9	7
76	Enhancement of CO2 Absorption into K2CO3 Solution by Cyclohexane in a High-Shear Reactor. *Energy & Fuels*, **2019**, 33, 6628-6633	4.1	6
75	Effective Mass Transfer Area Measurement Using a CO2NaOH System: Impact of Different Sources of Kinetics Models and Physical Properties. *Industrial & Engineering Chemistry Research* , **2019**, 58, 11082-11092	3.9	9
74	Initial liquid dispersion and mass transfer performance in a rotating packed bed. *Chemical Engineering and Processing: Process Intensification*, **2019**, 140, 136-141	3.7	13
73	Simultaneous Absorption of NOx and SO2 into Na2SO3 Solution in a Rotating Packed Bed with Preoxidation by Ozone. *Industrial & Engineering Chemistry Research*, **2019**, 58, 8332-8341	3.9	18
72	Mass transfer in a rotating packed bed reactor with a mesh-pin rotor: Modeling and experimental studies. *Chemical Engineering Journal*, **2019**, 369, 600-610	14.7	22
71	Liquid jet impaction on the single-layer stainless steel wire mesh in a rotating packed bed reactor. *AICHE Journal*, **2019**, 65, e16597	3.6	24
70	Study on phenol sulfonation by concentrated sulfuric acid: Kinetics and process optimization. *Chemical Engineering Science*, **2019**, 202, 15-25	4.4	8
69	CFD Simulation and High-Speed Photography of Liquid Flow in the Outer Cavity Zone of a Rotating Packed Bed Reactor. *Industrial & Engineering Chemistry Research*, **2019**, 58, 5280-5290	3.9	12
68	A three-zone mass transfer model for a rotating packed bed. *AICHE Journal*, **2019**, 65, e16595	3.6	15
67	Synthesis of carbon materials with different morphologies by solvothermal method with premixing. *Canadian Journal of Chemical Engineering*, **2019**, 97, 2447-2452	2.3	1
66	Plasma-Assisted Rotating Disk Reactor toward Disinfection of Aquatic Microorganisms. *Industrial & Engineering Chemistry Research*, **2019**, 58, 13977-13986	3.9	1
65	Synthesis of ZSM-5 by hydrothermal method with pre-mixing in a stirred-tank reactor. *Canadian Journal of Chemical Engineering*, **2019**, 97, 3063-3073	2.3	5
64	Porous PdO-Flower Induced by Nanomicrostructure on Monolith with Traditional Immersion-Pyrolysis Technique for Hydrogenation. *Industrial & Engineering Chemistry Research*, **2019**, 58, 14646-14654	3.9	3
63	Dispersion and hydrogenation property of nano-Ni in ethanol solution in a stirring tank reactor. *Chemical Engineering Journal*, **2019**, 377, 119826	14.7	2
62	Efficient Coating Method via Matching Rough Surface of Stainless Steel with Al2O3 Particles. *Industrial & Engineering Chemistry Research*, **2019**, 58, 1848-1856	3.9	5
61	Controllable wettability on stainless steel substrates with highly stable coatings. *Chemical Engineering Science*, **2019**, 195, 791-800	4.4	10

60	Low-Concentration CO2 Capture from Natural Gas Power Plants Using a Rotating Packed Bed Reactor. *Energy & Fuels*, **2019**, 33, 1713-1721	4.1	10
59	Preparation of lithium carbonate by thermal decomposition in a rotating packed bed reactor. *Chemical Engineering Journal*, **2019**, 377, 119929	14.7	3
58	Mass transfer study of water deoxygenation in a rotor□tator reactor based on principal component regression method. *Chemical Engineering Research and Design*, **2018**, 132, 677-685	5.5	13
57	Flue-Gas Desulfurization by Using a HiGee Electric-Field Device. *Chemical Engineering and Technology*, **2018**, 41, 860-866	2	1
56	Synthesis of Nano-Ni by Liquid Reduction Method in a Combined Reactor of Rotating Packed Bed and Stirred Tank Reactor. *Industrial & Engineering Chemistry Research*, **2018**, 57, 3908-3913	3.9	8
55	Mass Transfer Study of Dehydration by Triethylene Glycol in Rotating Packed Bed for Natural Gas Processing. *Industrial & Engineering Chemistry Research*, **2018**, 57, 5394-5400	3.9	13
54	Removal of SO2 with Sodium Sulfite Solution in a Rotating Packed Bed. *Industrial & Engineering Chemistry Research*, **2018**, 57, 2329-2335	3.9	23
53	Gas-Side Mass Transfer in a Rotating Packed Bed with Structured Nickel Foam Packing. *Industrial & Engineering Chemistry Research*, **2018**, 57, 4743-4747	3.9	22
52	Feasibility studies of micromixing and mass-transfer in an ultrasonic assisted rotating packed bed reactor. *Chemical Engineering Journal*, **2018**, 331, 510-516	14.7	19
51	Microwave-assisted fast and efficient dissolution of silkworm silk for constructing fibroin-based biomaterials. *Chemical Engineering Science*, **2018**, 189, 286-295	4.4	11
50	Study on the Synthesis of 2,3,5-Trimethyl-1,4-Benzoquinone by an RSR+STR Tandem Process. *Industrial & Engineering Chemistry Research*, **2018**, 57, 13381-13386	3.9	3
49	Intensification of CO2 capture using aqueous diethylenetriamine (DETA) solution from simulated flue gas in a rotating packed bed. *Fuel*, **2018**, 234, 1518-1527	7.1	21
48	Visual Study of Liquid Flow in a Spinning Disk Reactor with a Hydrophobic Surface. *Industrial & Engineering Chemistry Research*, **2018**, 57, 7692-7699	3.9	8
47	Study on the removal of fine particles by using water in a rotating packed bed. *Canadian Journal of Chemical Engineering*, **2017**, 95, 1063-1068	2.3	9
46	3D numerical simulation of a rotating packed bed with structured stainless steel wire mesh packing. *Chemical Engineering Science*, **2017**, 170, 365-377	4.4	37
45	Mass Transfer Characteristics in a Rotor-Stator Reactor. *Chemical Engineering and Technology*, **2017**, 40, 1078-1083	2	10
44	Removal of hydrogen sulfide from coke oven gas by catalytic oxidative absorption in a rotating packed bed. *Fuel*, **2017**, 204, 47-53	7.1	43
43	A hydrophobic wire mesh for better liquid dispersion in air. *Chemical Engineering Science*, **2017**, 170, 204-212	4.4	26

42	Study on the Removal of Fine Particles from Gas Steam Using Water in a Rotating Packed Bed Combined with a Charged Device. *Energy & Fuels*, **2017**, 31, 1764-1770	4.1	7
41	Modeling and experimental studies of mass transfer in the cavity zone of a rotating packed bed. *Chemical Engineering Science*, **2017**, 170, 355-364	4.4	35
40	Mass-Transfer Performance for CO2 Absorption by 2-(2-Aminoethylamino)ethanol Solution in a Rotating Packed Bed. *Energy & Fuels*, **2017**, 31, 14053-14059	4.1	18
39	High water content silk protein-based hydrogels with tunable elasticity fabricated via a Ru(II) mediated photochemical cross-linking method. *Fibers and Polymers*, **2017**, 18, 1831-1840	2	11
38	Gas Flow Characteristics in a Rotating Packed Bed by Particle Image Velocimetry Measurement. *Industrial & Engineering Chemistry Research*, **2017**, 56, 14350-14361	3.9	16
37	Investigation of effective interfacial area in a rotating packed bed with structured stainless steel wire mesh packing. *Chemical Engineering Science*, **2017**, 170, 347-354	4.4	47
36	Liquid flow pattern transition, droplet diameter and size distribution in the cavity zone of a rotating packed bed: A visual study. *Chemical Engineering Science*, **2017**, 158, 429-438	4.4	77
35	Absorption of Nitrogen Oxides into Sodium Hydroxide Solution in a Rotating Packed Bed with Preoxidation by Ozone. *Energy & Fuels*, **2017**, 31, 11019-11025	4.1	31
34	Polytetrafluoroethylene Wire Mesh Packing in a Rotating Packed Bed: Mass-Transfer Studies. *Industrial & Engineering Chemistry Research*, **2016**, 55, 11606-11613	3.9	38
33	Synthesis of heavy alkyl benzene sulfonate in a rotating packed bed combined with a stirred tank reactor. *Chemical Engineering and Processing: Process Intensification*, **2016**, 110, 123-127	3.7	10
32	Treatment of wastewater containing o-phenylenediamine by ozone in a rotor-stator reactor. *Water Science and Technology*, **2016**, 73, 1357-63	2.2	14
31	CFD modeling of gas□quid mass transfer process in a rotating packed bed. *Chemical Engineering Journal*, **2016**, 294, 111-121	14.7	52
30	Mass transfer intensification in a rotating packed bed with surface-modified nickel foam packing. *Chemical Engineering Journal*, **2016**, 285, 236-242	14.7	53
29	Mass-Transfer Characteristics of the CO2 Absorption Process in a Rotating Packed Bed. *Energy & Fuels*, **2016**, 30, 4215-4220	4.1	30
28	Numerical simulation for mass transfer characteristics of CO2 capture in a rotating packed bed. *Chemical Engineering and Processing: Process Intensification*, **2016**, 109, 68-79	3.7	8
27	Study on the hydrodynamic characteristics of a rotor-stator reactor by electrical conductance and response time technique. *Chemical Engineering and Processing: Process Intensification*, **2016**, 109, 158-163	3.7	10
26	Mass-Transfer Performance of CO2 Absorption with Aqueous Diethylenetriamine-Based Solutions in a Packed Column with Dixon Rings. *Industrial & Engineering Chemistry Research*, **2016**, 55, 10788-10793	3.9	9
25	Preparation of basic magnesium carbonate by simultaneous absorption of NH3 and CO2 into MgCl2 solution in an RPB. *Powder Technology*, **2015**, 284, 57-62	5.2	17

24	Visual study of liquid flow in a rotor-stator reactor. *Chemical Engineering Science*, **2015**, 134, 521-530	4.4	34
23	A noninvasive X-ray technique for determination of liquid holdup in a rotating packed bed. *Chemical Engineering Science*, **2015**, 138, 244-255	4.4	68
22	SO2 Removal in a Pilot Scale Rotating Packed Bed. *Environmental Engineering Science*, **2015**, 32, 806-815	2	14
21	Absorption of ammonia into water-in-oil microemulsion in a rotor-stator reactor. *Chemical Engineering and Processing: Process Intensification*, **2015**, 87, 68-74	3.7	12
20	A study on the absorption of ammonia into water in a rotor-stator reactor. *Canadian Journal of Chemical Engineering*, **2015**, 93, 116-120	2.3	14
19	Micromixing Efficiency Enhancement in a Rotating Packed Bed Reactor with Surface-Modified Nickel Foam Packing. *Industrial & Engineering Chemistry Research*, **2015**, 54, 1697-1702	3.9	43
18	Synthesis of nano-Ce0.5Zr0.5O2 by absorption of ammonia into water-in-oil microemulsion in a rotor□stator reactor. *Journal of Nanoparticle Research*, **2015**, 17, 1	2.3	9
17	Absorption of SO2 with Ammonia-Based Solution in a Cocurrent Rotating Packed Bed. *Industrial & Engineering Chemistry Research*, **2014**, 53, 15731-15737	3.9	36
16	Oxidation of ammonium sulfite by oxygen in a microporous tube-in-tube microchannel reactor. *Chemical Engineering Journal*, **2014**, 253, 258-263	14.7	12
15	Ozonation of Acid Red 14 in the Presence of Inorganic Salts in a Microporous Tube-in-Tube Microchannel Reactor. *Industrial & Engineering Chemistry Research*, **2014**, 53, 19071-19076	3.9	13
14	Degradation of phenol by ozone in the presence of Fenton reagent in a rotating packed bed. *Chemical Engineering Journal*, **2013**, 229, 404-411	14.7	98
13	Study on the synthesis of organized mesoporous alumina in a rotating packed bed. *Materials Research Bulletin*, **2013**, 48, 290-294	5.1	2
12	Distillation studies in a two-stage counter-current rotating packed bed. *Separation and Purification Technology*, **2013**, 102, 62-66	8.3	45
11	The Advanced Oxidation Process of Phenol Solution by O3/H2O2 in a Rotating Packed Bed. *Ozone: Science and Engineering*, **2013**, 35, 101-108	2.4	18
10	Gas□liquid Effective Interfacial Area in a Rotating Packed Bed. *Industrial & Engineering Chemistry Research*, **2012**, 51, 16320-16325	3.9	84
9	Ozonation of Phenol with O3/Fe(II) in Acidic Environment in a Rotating Packed Bed. *Industrial & Engineering Chemistry Research*, **2012**, 51, 10509-10516	3.9	41
8	Determination of Mass-Transfer Coefficient of CO2 in NH3 and CO2 Absorption by Materials Balance in a Rotating Packed Bed. *Industrial & Engineering Chemistry Research*, **2012**, 51, 10949-10954	3.9	14
7	Mass Transfer Studies in a Rotating Packed Bed with Novel Rotors: Chemisorption of CO2. *Industrial & Engineering Chemistry Research*, **2012**, 51, 9164-9172	3.9	67

6	Characteristics of a two-stage counter-current rotating packed bed for continuous distillation. *Chemical Engineering and Processing: Process Intensification*, **2012**, 52, 55-62	3.7	66
5	Ozonation of azo dye Acid Red 14 in a microporous tube-in-tube microchannel reactor: decolorization and mechanism. *Chemosphere*, **2012**, 89, 190-7	8.4	51
4	Synthesis of nano-CaCO3 by simultaneous absorption of CO2 and NH3 into CaCl2 solution in a rotating packed bed. *Chemical Engineering Journal*, **2011**, 168, 731-736	14.7	65
3	Determination of the effective interfacial area in rotating packed bed. *Chemical Engineering Journal* , **2011**, 168, 1377-1382	14.7	84
2	Simultaneous Absorption of CO2 and NH3 into Water in a Rotating Packed Bed. *Industrial & Engineering Chemistry Research*, **2009**, 48, 11175-11180	3.9	41
1	Highly dispersed and confined Ni/MMO catalyst synthesized in a rotating packed bed for hydrogenation of maleic anhydride. *AICHE Journal*,e17509	3.6	