

Peng Bai

List of Publications by Year in descending order

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76
papers

3,242
citations

212478

28
h-index

175968

55
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76
all docs

76
docs citations

76
times ranked

5245
citing authors

#	ARTICLE	IF	CITATIONS
1	Fabrication of b-oriented silicalite-1 membrane by confined space dissolution and recrystallization. <i>Journal of Porous Materials</i> , 2022, 29, 423-431.	1.3	2
2	Innovations Toward the Valorization of Plastics Waste. <i>Annual Review of Materials Research</i> , 2022, 52, 249-280.	4.3	21
3	Mechanistic study on boron adsorption and isotopic separation with magnetic magnetite nanoparticles. <i>Journal of Materials Science</i> , 2021, 56, 4624-4640.	1.7	13
4	Fine-tuning the pore structure of metal-organic frameworks by linker substitution for enhanced hydrogen storage and gas separation. <i>CrystEngComm</i> , 2021, 23, 3026-3032.	1.3	15
5	Direct synthesis of hierarchical zeolites through mesoporous 3D wormhole framework using single-head quaternary ammonium salt as structure-directing agent. <i>Journal of Materials Science</i> , 2021, 56, 6110-6123.	1.7	0
6	First-Principles Grand-Canonical Simulations of Water Adsorption in Proton-Exchanged Zeolites. <i>Journal of Physical Chemistry C</i> , 2021, 125, 6090-6098.	1.5	11
7	Novel Fluorine-Pillared Metal-Organic Framework for Highly Effective Lithium Enrichment from Brine. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 47793-47799.	4.0	15
8	Nitrogen-Doped Lithium Lanthanum Titanate Nanofiber-Polymer Composite Electrolytes for All-Solid-State Lithium Batteries. <i>Journal of the Electrochemical Society</i> , 2021, 168, 110507.	1.3	8
9	A comprehensive economic optimization methodology of divided wall columns for biopolyol separation. <i>Royal Society Open Science</i> , 2020, 7, 191748.	1.1	1
10	Fabrication of a sandwiched silicalite-1 membrane in a 2D confined space for enhanced alcohol/water separation. <i>Chemical Communications</i> , 2020, 56, 12586-12588.	2.2	12
11	Role of Silica Support in Phosphoric Acid Catalyzed Production of <i>p</i> -Xylene from 2,5-Dimethylfuran and Ethylene. <i>Industrial & Engineering Chemistry Research</i> , 2020, 59, 22049-22056.	1.8	14
12	Understanding solvent effects on adsorption and protonation in porous catalysts. <i>Nature Communications</i> , 2020, 11, 1060.	5.8	71
13	Phase Transitions in Metal-Organic Frameworks Directly Monitored through In Situ Variable Temperature Liquid-Cell Transmission Electron Microscopy and In Situ X-ray Diffraction. <i>Journal of the American Chemical Society</i> , 2020, 142, 4609-4615.	6.6	69
14	Novel Isopropoxy Group-Functionalized UiO-66 with a High Hydrogen Chloride Adsorption Capacity. <i>Journal of Chemical & Engineering Data</i> , 2019, 64, 3576-3584.	1.0	2
15	Modular Synthesis of Highly Porous Zr-MOFs Assembled from Simple Building Blocks for Oxygen Storage. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 42179-42185.	4.0	17
16	Adsorptive Nature of Surface Barriers in MFI Nanocrystals. <i>Langmuir</i> , 2019, 35, 12407-12417.	1.6	12
17	Topology and porosity control of metal-organic frameworks through linker functionalization. <i>Chemical Science</i> , 2019, 10, 1186-1192.	3.7	129
18	Tuning Adsorption Capacity by Alkoxy Groups: A Study on Acetic Acid Adsorption on UiO-66 Analogues from Aqueous Solution. <i>Industrial & Engineering Chemistry Research</i> , 2019, 58, 12272-12279.	1.8	5

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19	Exploring the Role of Hexanuclear Clusters as Lewis Acidic Sites in Isostructural Metal-Organic Frameworks. <i>Chemistry of Materials</i> , 2019, 31, 4166-4172.	3.2	80
20	Electrochemically Driven, Ni-Catalyzed Aryl Amination: Scope, Mechanism, and Applications. <i>Journal of the American Chemical Society</i> , 2019, 141, 6392-6402.	6.6	251
21	Effects of chloride ions in acid-catalyzed biomass dehydration reactions in polar aprotic solvents. <i>Nature Communications</i> , 2019, 10, 1132.	5.8	117
22	Synthesis, Characterization, Adsorption, and Isotopic Separation Studies of Pyrocatechol-Modified MCM-41 for Efficient Boron Removal. <i>Industrial & Engineering Chemistry Research</i> , 2019, 58, 3282-3292.	1.8	27
23	Alkoxy-Group-Functionalized UiO-66 as Highly Efficient Adsorbents for Hydrogen Chloride Removal from Aqueous Solution. <i>Journal of Chemical & Engineering Data</i> , 2019, 64, 286-295.	1.0	4
24	A modular engineering strategy for high-level production of protopanaxadiol from ethanol by <i>Saccharomyces cerevisiae</i> . <i>AIChE Journal</i> , 2019, 65, 866-874.	1.8	31
25	Solvent-enabled control of reactivity for liquid-phase reactions of biomass-derived compounds. <i>Nature Catalysis</i> , 2018, 1, 199-207.	16.1	211
26	Cathodic Corrosion at the Bismuth-Ionic Liquid Electrolyte Interface under Conditions for CO ₂ Reduction. <i>Chemistry of Materials</i> , 2018, 30, 2362-2373.	3.2	38
27	Theoretical study on complexes and reactions of boron isotopic exchange separation with fluorinated anisoles as novel donors. <i>Journal of Radioanalytical and Nuclear Chemistry</i> , 2018, 316, 587-594.	0.7	3
28	Hierarchical Hexagonal Zeolites: Intrinsic Transformation Directed by Precise Control of Synthetic Conditions. <i>Industrial & Engineering Chemistry Research</i> , 2018, 57, 5282-5290.	1.8	2
29	Isobaric Vapor-Liquid Equilibrium for Binary and Ternary Systems of 2-Methoxyethanol, Ethylbenzene, and Dimethyl Sulfoxide at 100.00 kPa. <i>Journal of Chemical & Engineering Data</i> , 2018, 63, 3345-3352.	1.0	2
30	Nanosheet-based magadiite: a controllable two-dimensional trap for selective capture of heavy metals. <i>Journal of Materials Chemistry A</i> , 2018, 6, 13624-13632.	5.2	21
31	Assessment and Optimization of Configurational-Bias Monte Carlo Particle Swap Strategies for Simulations of Water in the Gibbs Ensemble. <i>Journal of Chemical Theory and Computation</i> , 2017, 13, 431-440.	2.3	23
32	Isobaric Vapor-Liquid Equilibrium Data for the Binary System of Water + 2-Methylpyridine at 101.3, 60.0, and 20.0 kPa. <i>Journal of Chemical & Engineering Data</i> , 2017, 62, 684-690.	1.0	7
33	Metal-Organic Framework UiO-66 as an Efficient Adsorbent for Boron Removal from Aqueous Solution. <i>Industrial & Engineering Chemistry Research</i> , 2017, 56, 2565-2572.	1.8	55
34	Sub-Micrometer Zeolite Films on Gold-Coated Silicon Wafers with Single-Crystal-Like Dielectric Constant and Elastic Modulus. <i>Advanced Functional Materials</i> , 2017, 27, 1700864.	7.8	11
35	Ultra-selective high-flux membranes from directly synthesized zeolite nanosheets. <i>Nature</i> , 2017, 543, 690-694.	13.7	446
36	Metal-organic frameworks (MOFs) as highly efficient agents for boron removal and boron isotope separation. <i>RSC Advances</i> , 2017, 7, 16022-16026.	1.7	16

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37	Growth of two-dimensional silicalite-1 on graphene oxide with controllable electrical conductivity. RSC Advances, 2017, 7, 17629-17632.	1.7	9
38	Enhancing <i>Saccharomyces cerevisiae</i> reactive oxygen species and ethanol stress tolerance for high-level production of protopanoxadiol. Bioresource Technology, 2017, 227, 308-316.	4.8	48
39	Deconstructing the Confinement Effect upon the Organization and Dynamics of Water in Hydrophobic Nanoporous Materials: Lessons Learned from Zeolites. Journal of Physical Chemistry C, 2017, 121, 22015-22024.	1.5	27
40	Conversion of n-hexane and n-dodecane over H-ZSM-5, H-Y and Al-MCM-41 at supercritical conditions. Applied Catalysis A: General, 2017, 546, 149-158.	2.2	27
41	Separation of Xylene Isomers: A Review of Recent Advances in Materials. Industrial & Engineering Chemistry Research, 2017, 56, 14725-14753.	1.8	174
42	Bioethanol enrichment using zeolite membranes: Molecular modeling, conceptual process design and techno-economic analysis. Journal of Membrane Science, 2017, 540, 464-476.	4.1	18
43	Computational Screening of Nanoporous Materials for Hexane and Heptane Isomer Separation. Chemistry of Materials, 2017, 29, 6315-6328.	3.2	65
44	Optimization of a cytochrome P450 oxidation system for enhancing protopanoxadiol production in <i>Saccharomyces cerevisiae</i> . Biotechnology and Bioengineering, 2016, 113, 1787-1795.	1.7	81
45	Adsorption of acetic acid from dilute solution on zeolite 13X: Isotherm, kinetic and thermodynamic studies. , 2016, , .		0
46	A mathematical model for zeolite membrane module performance and its use for techno-economic evaluation of improved energy efficiency hybrid membrane-distillation processes for butane isomer separations. Journal of Membrane Science, 2016, 520, 434-449.	4.1	30
47	Dynamic-accumulative operation policy of continuous distillation for the purification of anisole. Polish Journal of Chemical Technology, 2016, 18, 33-39.	0.3	2
48	Understanding Diffusion in Hierarchical Zeolites with House-of-Cards Nanosheets. ACS Nano, 2016, 10, 7612-7618.	7.3	56
49	Adsorptive Separation of 1-Butanol from Aqueous Solutions Using MFI- and FER-Type Zeolite Frameworks: A Monte Carlo Study. Langmuir, 2016, 32, 2093-2101.	1.6	28
50	Adsorptive Separation of Acetic Acid from Dilute Aqueous Solutions: Adsorption Kinetic, Isotherms, and Thermodynamic Studies. Journal of Chemical & Engineering Data, 2016, 61, 213-219.	1.0	27
51	Accurate and precise determination of critical properties from Gibbs ensemble Monte Carlo simulations. Journal of Chemical Physics, 2015, 143, 114113.	1.2	50
52	A review on the methods of preparation of elemental boron. Asia-Pacific Journal of Chemical Engineering, 2015, 10, 325-338.	0.8	16
53	Morphology and structure of nano MgO prepared by a novel nitrogen-protective pressurization method. RSC Advances, 2015, 5, 44778-44782.	1.7	2
54	Discovery of optimal zeolites for challenging separations and chemical transformations using predictive materials modeling. Nature Communications, 2015, 6, 5912.	5.8	94

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55	Ab Initio Derived Force Fields for Predicting CO ₂ Adsorption and Accessibility of Metal Sites in the Metal-Organic Frameworks M-MOF-74 (M = Mn, Co, Ni, Cu). <i>Journal of Physical Chemistry C</i> , 2015, 119, 16058-16071.	1.5	84
56	Renewable Chemicals: Production or Purification by Adsorption Process. <i>Journal of Dispersion Science and Technology</i> , 2015, 36, 1297-1308.	1.3	1
57	Advances in separation methods for large-scale production of silicon isotopes. <i>Journal of Radioanalytical and Nuclear Chemistry</i> , 2015, 304, 989-999.	0.7	5
58	Concentration effects on the selective extraction of ethanol from aqueous solution using silicalite-1 and decanol isomers. <i>Fluid Phase Equilibria</i> , 2014, 362, 118-124.	1.4	7
59	Optimal operation policy of multivessel batch distillation with constant total reflux operation for separation of a binary mixture. <i>Asia-Pacific Journal of Chemical Engineering</i> , 2014, 9, 239-247.	0.8	6
60	Isolation and characterization of phosphate-solubilizing bacteria from betel nut (<i>Areca catechu</i>) and their effects on plant growth and phosphorus mobilization in tropical soils. <i>Biology and Fertility of Soils</i> , 2014, 50, 927-937.	2.3	84
61	Understanding the Unusual Adsorption Behavior in Hierarchical Zeolite Nanosheets. <i>ChemPhysChem</i> , 2014, 15, 2225-2229.	1.0	22
62	Water 26-mers Drawn from Bulk Simulations: Benchmark Binding Energies for Unprecedentedly Large Water Clusters and Assessment of the Electrostatically Embedded Three-Body and Pairwise Additive Approximations. <i>Journal of Physical Chemistry Letters</i> , 2014, 5, 666-670.	2.1	49
63	Isobaric vapor-liquid equilibrium data for methylcyclohexane+2-methoxyethanol and methylcyclohexane+2-ethoxyethanol at 50.00 and 101.33kPa. <i>Fluid Phase Equilibria</i> , 2014, 380, 140-146.	1.4	7
64	2,4-Difluoro anisole: a promising complexing agent for boron isotopes separation by chemical exchange reaction and distillation. <i>Journal of Radioanalytical and Nuclear Chemistry</i> , 2014, 300, 897-902.	0.7	11
65	A computational study of the adsorption of n-perfluorohexane in zeolite BCR-704. <i>Fluid Phase Equilibria</i> , 2014, 366, 146-151.	1.4	14
66	Deconstructing Hydrogen-Bond Networks in Confined Nanoporous Materials: Implications for Alcohol-Water Separation. <i>Journal of Physical Chemistry C</i> , 2014, 118, 19723-19732.	1.5	50
67	Selective adsorption from dilute solutions: Gibbs ensemble Monte Carlo simulations. <i>Fluid Phase Equilibria</i> , 2013, 351, 1-6.	1.4	10
68	TraPPE-zeo: Transferable Potentials for Phase Equilibria Force Field for All-Silica Zeolites. <i>Journal of Physical Chemistry C</i> , 2013, 117, 24375-24387.	1.5	124
69	Adsorption of glucose into zeolite beta from aqueous solution. <i>AIChE Journal</i> , 2013, 59, 3523-3529.	1.8	52
70	Isobaric Vapor-Liquid Equilibrium of Binary and Ternary Systems with 2-Ethoxyethanol + Ethylbenzene + Dimethyl Sulfoxide. <i>Journal of Chemical & Engineering Data</i> , 2013, 58, 3216-3221.	1.0	12
71	Multicomponent Adsorption of Alcohols onto Silicalite-1 from Aqueous Solution: Isotherms, Structural Analysis, and Assessment of Ideal Adsorbed Solution Theory. <i>Langmuir</i> , 2012, 28, 15566-15576.	1.6	71
72	New Operation Strategy for Separation of Ethanol-Water by Extractive Distillation. <i>Industrial & Engineering Chemistry Research</i> , 2012, 51, 2723-2729.	1.8	85

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73	Gibbs ensemble Monte Carlo simulations for the liquid-liquid phase equilibria of dipropylene glycol dimethyl ether and water: A preliminary report. Fluid Phase Equilibria, 2011, 310, 11-18.	1.4	17
74	Advances in boron-10 isotope separation by chemical exchange distillation. Annals of Nuclear Energy, 2010, 37, 1-4.	0.9	10
75	Proton transfer in 1,4-dioxane/ammonia hydrogen bond clusters. Physical Chemistry Chemical Physics, 2004, 6, 2281.	1.3	5
76	DESIGN AND OPERATION OF A BATCH EXTRACTIVE RECTIFICATION COLUMN WITH A BOTTOM EQUILIBRIUM DISTILLATION STILL. , 2004, , .		0