Kathryn A Mumford

List of Publications by Year
in descending order

97	2,632	236925 25	214800 47
papers	citations	h-index	g-index

99	99	99	2444
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Drop sizes and population balance model for a Karr column. AICHE Journal, 2022, 68, e17413.	3.6	3
2	Encapsulation of highly viscous CO2 capture solvents for enhanced capture kinetics: Modeling investigation of mass transfer mechanisms. Chemical Engineering Journal, 2022, 428, 131603.	12.7	9
3	Modification of naturally abundant resources for remediation of potentially toxic elements: A review. Journal of Hazardous Materials, 2022, 421, 126755.	12.4	32
4	A solvent loss study for the application of solvent extraction processes in the pharmaceutical industry. Chemical Engineering Science, 2022, 250, 117400.	3.8	9
5	Engineered assembly of water-dispersible nanocatalysts enables low-cost and green CO2 capture. Nature Communications, 2022, 13, 1249.	12.8	42
6	Assembly of Metalâ€“Phenolic Networks on Waterâ€Soluble Substrates in Nonaqueous Media. Advanced Functional Materials, 2022, 32, .	14.9	10
7	Investigation of green solvents for the extraction of phenol and natural alkaloids: Solvent and extractant selection. Chemical Engineering Journal, 2022, 442, 136054.	12.7	14
8	Comparative assessment of the characteristics and Cr(VI) removal activity of the bimetallic Fe/Cu nanoparticles pre- and post-coated with carboxymethyl cellulose. Chemical Engineering Journal, 2022, 444, 136343.	12.7	22
9	Porous media transport of iron nanoparticles for site remediation application: A review of lab scale column study, transport modelling and field-scale application. Journal of Hazardous Materials, 2021, 403, 123443.	12.4	48
10	Assessment of the electro-Fenton pathway for the removal of naphthalene from contaminated waters in remote regions. Science of the Total Environment, 2021, 762, 143155.	8.0	11
11	Single drop breakage in a reciprocating plate column. Chemical Engineering Journal, 2021, 415, 129049.	12.7	4
12	The electro-Fenton regeneration of Granular Activated Carbons: Degradation of organic contaminants and the relationship to the carbon surface. Journal of Hazardous Materials, 2021, 416, 125792.	12.4	41
13	Water-Dispersible Nanocatalysts with Engineered Structures: The New Generation of Nanomaterials for Energy-Efficient CO₂ Capture. ACS Applied Materials & Interfaces, 2021, 13, 57294-57305.	8.0	9
14	Intensified solvent extraction and separation of cobalt from Ni-rich leaching solution in impinging stream-rotating packed bed contactor. Geosystem Engineering, 2020, 23, 251-264.	1.4	4
15	Electrochemical removal of naphthalene from contaminated waters using carbon electrodes, and viability for environmental deployment. Journal of Hazardous Materials, 2020, 383, 121244.	12.4	16
16	Nucleation kinetics of glycine promoted concentrated potassium carbonate solvents for carbon dioxide absorption. Chemical Engineering Journal, 2020, 381, 122712.	12.7	16
17	Hydrocarbon adsorption performance and regeneration stability of diphenyldichlorosilane coated zeolite and its application in permeable reactive barriers: Column studies. Microporous and Mesoporous Materials, 2020, 294, 109843.	4.4	9
18	Precipitation study of CO2-loaded glycinate solution with the introduction of ethanol as an antisolvent. Frontiers of Chemical Science and Engineering, 2020, 14, 415-424.	4.4	3

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19	Catalytic Solvent Regeneration for Energy-Efficient CO₂ Capture. ACS Sustainable Chemistry and Engineering, 2020, 8, 18755-18788.	6.7	68
20	Preparation of Nanoporous Carbonaceous Promoters for Enhanced CO2 Absorption in Tertiary Amines. Engineering, 2020, 6, 1381-1394.	6.7	20
21	Temporal control of RAFT polymerization via magnetic catalysis. Polymer Chemistry, 2020, 11, 2838-2846.	3.9	8
22	Effect of Leifsonia sp. on retardation of uranium in natural soil and its potential mechanisms. Journal of Environmental Radioactivity, 2020, 217, 106202.	1.7	12
23	Desilication of concentrated alkali solution by novel desilication reagent calcium hydroferrocarbonate: Part III. Standard thermodynamics investigation of desilication reaction using hydroferrite desilication reagents. Hydrometallurgy, 2019, 187, 212-220.	4.3	1
24	Data in brief on CO2 absorption-desorption of aqueous-based amino acid solvents with phase change behaviour. Data in Brief, 2019, 27, 104741.	1.0	2
25	Development of aqueous-based phase change amino acid solvents for energy-efficient CO2 capture: The role of antisolvent. Applied Energy, 2019, 256, 113911.	10.1	42
26	Comparison of mass transfer performance of pulsed columns with Tenova kinetics internals and standard disc and doughnut internals. Hydrometallurgy, 2019, 186, 132-142.	4.3	5
27	Solvent Impregnated Polymers for Carbon Capture. Industrial & Engineering Chemistry Research, 2019, 58, 6626-6634.	3.7	11
28	Liquid marble formation and solvent vapor treatment of the biodegradable polymers polylactic acid and polycaprolactone. Journal of Colloid and Interface Science, 2018, 514, 349-356.	9.4	11
29	The electrochemical regeneration of granular activated carbons: A review. Journal of Hazardous Materials, 2018, 355, 34-49.	12.4	101
30	The performance of diphenyldichlorosilane coated ammonium exchange zeolite and its application in the combination of adsorption and biodegradation of hydrocarbon contaminated ground water. Chemical Engineering Journal, 2018, 347, 415-423.	12.7	9
31	The effect of temperature on hydrocarbon adsorption by diphenyldichlorosilane coated zeolite and its application in permeable reactive barriers in cold regions. Cold Regions Science and Technology, 2018, 145, 169-176.	3.5	7
32	Enhancement in specific absorption rate by solvent microencapsulation. AICHE Journal, 2018, 64, 4066-4079.	3.6	10
33	Prediction of holdup and drop size distribution in a disc-doughnut pulsed column with tenova kinetics internals for the water-Alamine 336 system. Hydrometallurgy, 2018, 181, 82-90.	4.3	13
34	Effects of phosphorus-rich sawdust biochar sorption on heavy metals. Separation Science and Technology, 2018, 53, 2704-2716.	2.5	8
35	Modelling of a post-combustion carbon dioxide capture absorber using potassium carbonate solvent in Aspen Custom Modeller. Chinese Journal of Chemical Engineering, 2018, 26, 2327-2336.	3.5	18
36	Uranium adsorption and subsequent re-oxidation under aerobic conditions by Leifsonia sp. - Coated biochar as green trapping agent. Environmental Pollution, 2018, 242, 778-787.	7.5	53

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37	Comparison of the Axial Dispersion Performance of Pulsed Solvent Extraction Columns with Tenova Pulsed Columnâ€“Kinetics Internals and Standard Disc and Doughnut Internals. Solvent Extraction and Ion Exchange, 2018, 36, 387-400.	2.0	6
38	Carbon dioxide capture by solvent absorption using amino acids: A review. Chinese Journal of Chemical Engineering, 2018, 26, 2229-2237.	3.5	67
39	Permeable bio-reactive barriers to address petroleum hydrocarbon contamination at subantarctic Macquarie Island. Chemosphere, 2017, 174, 408-420.	8.2	17
40	Mass transfer in a pulsed and non-pulsed disc and doughnut (PDD) solvent extraction column. Chemical Engineering Science, 2017, 165, 48-54.	3.8	20
41	From urban municipalities to polar bioremediation: the characterisation and contribution of biogenic minerals for water treatment. Journal of Water and Health, 2017, 15, 385-401.	2.6	1
42	Precipitating Characteristics of Potassium Bicarbonate Using Concentrated Potassium Carbonate Solvent for Carbon Dioxide Capture. Part 1. Nucleation. Industrial & Engineering Chemistry Research, 2017, 56, 6764-6774.	3.7	14
43	Axial Dispersion in a Pulsed and Nonpulsed Disc and Doughnut Solvent Extraction Column. Industrial & Engineering Chemistry Research, 2017, 56, 4052-4059.	3.7	9
44	Phase Change Solvents for CO2 Capture Applications. Green Energy and Technology, 2017, , 99-116.	0.6	2
45	Kinetics of CO2 Absorption in an Ethylethanolamine Based Solution. Industrial & Engineering Chemistry Research, 2017, 56, 12305-12315.	3.7	9
46	Biofilm communities and biodegradation within permeable reactive barriers at fuel spill sites in Antarctica. International Biodeterioration and Biodegradation, 2017, 125, 45-53.	3.9	2
47	Learnings from CO2CRC Capture Pilot Plant Testing â€“ Assessing Technology Development. Energy Procedia, 2017, 114, 5855-5868.	1.8	4
48	Improved Eutectic Based Solvents for Capturing Carbon Dioxide (CO2). Energy Procedia, 2017, 114, 827-833.	1.8	18
49	Review: Room Temperature Ionic Liquids and System Designs for CO2 Capture. Energy Procedia, 2017, 114, 2671-2674.	1.8	9
50	Precipitating Characteristics of Potassium Bicarbonate Using Concentrated Potassium Carbonate Solvent for Carbon Dioxide Capture. Part 2: Crystal Growth. Industrial & Engineering Chemistry Research, 2017, 56, 15131-15142.	3.7	5
51	Effect of Plate Wettability on Dispersed-Phase Holdup in a Pulsed Disc-and-Doughnut Solvent Extraction Column. Solvent Extraction and Ion Exchange, 2017, 35, 573-585.	2.0	7
52	Comparison of the Hydrodynamic Performance of Pulsed Solvent Extraction Columns with Tenova Pulsed Column Kinetics Internals and Standard Disc and Doughnut Internals for Copper Extraction Using the LIX 84 System. Solvent Extraction and Ion Exchange, 2017, 35, 303-320.	2.0	16
53	Outcomes from pilot plant trials of precipitating potassium carbonate solvent absorption for CO 2 capture from a brown coal fired power station in Australia. Fuel Processing Technology, 2017, 155, 252-260.	7.2	19
54	A bio-reactive barrier sequence for petroleum hydrocarbon capture and degradation in low nutrient environments. International Biodeterioration and Biodegradation, 2017, 116, 26-37.	3.9	13

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55	Prediction of drop size in a pulsed and non-pulsed disc and doughnut solvent extraction column. Chemical Engineering Research and Design, 2016, 109, 667-674.	5.6	27
56	Performance of an Industrial Pulsed Disc-and-Doughnut Extraction Column. Solvent Extraction and Ion Exchange, 2016, 34, 161-171.	2.0	20
57	The performance of ammonium exchanged zeolite for the biodegradation of petroleum hydrocarbons migrating in soil water. Journal of Hazardous Materials, 2016, 313, 272-282.	12.4	18
58	Carbon dioxide absorption into promoted potassium carbonate solutions: A review. International Journal of Greenhouse Gas Control, 2016, 53, 28-40.	4.6	123
59	Effects of Freezeâ€“Thaw Phenomena on Controlled Nutrient Release: Application to Bioremediation. Clean - Soil, Air, Water, 2016, 44, 1739-1749.	1.1	4
60	Understanding the vapourâ€“liquid equilibrium of CO 2 in mixed solutions of potassium carbonate and potassium glycinate. International Journal of Greenhouse Gas Control, 2016, 47, 303-309.	4.6	19
61	Dispersed-Phase Holdup and Characteristic Velocity in a Pulsed and Nonpulsed Disk-and-Doughnut Solvent Extraction Column. Industrial & Engineering Chemistry Research, 2016, 55, 714-721.	3.7	37
62	Solution Structure of Isoactivity Equations for Liquidâ€“Liquid Equilibrium Calculations Using the Nonrandom Two-Liquid Model. Industrial & Engineering Chemistry Research, 2016, 55, 2852-2859.	3.7	8
63	A permeable reactive barrier (PRB) media sequence for the remediation of heavy metal and hydrocarbon contaminated water: A field assessment at Casey Station, Antarctica. Chemosphere, 2016, 147, 368-375.	8.2	50
64	Application of controlled nutrient release to permeable reactive barriers. Journal of Environmental Management, 2016, 169, 145-154.	7.8	8
65	Prediction of dispersed phase holdup in pulsed disc and doughnut solvent extraction columns under different mass transfer conditions. Chinese Journal of Chemical Engineering, 2016, 24, 226-231.	3.5	17
66	Removal of Copper and Zinc from Ground Water by Granular Zero-Valent Iron: A Study of Kinetics. Separation Science and Technology, 2015, 50, 1748-1756.	2.5	9
67	A study of the vapourâ€“liquid equilibrium of CO2 in mixed solutions of potassium carbonate and potassium glycinate. International Journal of Greenhouse Gas Control, 2015, 36, 27-33.	4.6	22
68	Reply to â€œComments on â€˜Analysis of the Nonrandom Two-Liquid Model for Prediction of Liquidâ€“Liquid Equilibriaâ€™â€• Journal of Chemical & Engineering Data, 2015, 60, 1530-1531.	1.9	1
69	Review of solvent based carbon-dioxide capture technologies. Frontiers of Chemical Science and Engineering, 2015, 9, 125-141.	4.4	238
70	Regression of NRTL parameters from ternary liquidâ€“liquid equilibria using particle swarm optimization and discussions. Fluid Phase Equilibria, 2015, 398, 36-45.	2.5	11
71	Evaluation of a permeable reactive barrier to capture and degrade hydrocarbon contaminants. Environmental Science and Pollution Research, 2015, 22, 12298-12308.	5.3	23
72	The specific reactive surface area of granular zero-valent iron in metal contaminant removal: Column experiments and modelling. Water Research, 2015, 77, 24-34.	11.3	20

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73	Experiments and Thermodynamic Modeling of the Solubility of Carbon Dioxide in Three Different Deep Eutectic Solvents (DESs). Journal of Chemical & Engineering Data, 2015, 60, 3246-3252.	1.9	81
74	Removal of copper and zinc from ground water by granular zero-valent iron: A dynamic freezeâ€“thaw permeable reactive barrier laboratory experiment. Cold Regions Science and Technology, 2015, 110, 120-128.	3.5	19
75	Evaluation of the protic ionic liquid, N,N-dimethyl-aminoethylammonium formate for CO 2 capture. International Journal of Greenhouse Gas Control, 2015, 32, 129-134.	4.6	21
76	Membrane-based carbon capture from flue gas: a review. Journal of Cleaner Production, 2015, 103, 286-300.	9.3	288
77	Pilot plant results for a precipitating potassium carbonate solvent absorption process promoted with glycine for enhanced CO2 capture. Fuel Processing Technology, 2015, 135, 60-65.	7.2	49
78	Extraction of Phenol by Toluene in the Presence of Sodium Hydroxide. Separation Science and Technology, 2014, 49, 2913-2920.	2.5	17
79	Long-Term Acid-Generating and Metal Leaching Potential of a Sub-Arctic Oil Shale. Minerals (Basel,) Tj ETQq1 1 0.784314 rgBT /Overlo	2.0	3
80	Hydraulic performance of a permeable reactive barrier at Casey Station, Antarctica. Chemosphere, 2014, 117, 223-231.	8.2	28
81	Demonstration of a Concentrated Potassium Carbonate Process for CO₂ Capture. Energy & Fuels, 2014, 28, 299-306.	5.1	58
82	Analysis of the Nonrandom Two-Liquid Model for Prediction of Liquidâ€“liquid Equilibria. Journal of Chemical & Engineering Data, 2014, 59, 2485-2489.	1.9	13
83	Recent Developments in the UNO MK 3 Processâ€“A Low Cost, Environmentally Benign Precipitating Process for CO2 Capture. Energy Procedia, 2014, 63, 1773-1780.	1.8	16
84	Results from a Pilot Plant Using Un-promoted Potassium Carbonate for Carbon Capture. Energy Procedia, 2013, 37, 448-454.	1.8	7
85	Design, installation and preliminary testing of a permeable reactive barrier for diesel fuel remediation at Casey Station, Antarctica. Cold Regions Science and Technology, 2013, 96, 96-107.	3.5	46
86	Developments in the CO2CRC UNO MK 3 Process: A Multi-component Solvent Process for Large Scale CO2 Capture. Energy Procedia, 2013, 37, 225-232.	1.8	34
87	On-site and in situ remediation technologies applicable to metal-contaminated sites in Antarctica and the Arctic: a review. Polar Research, 2013, 33, .	1.6	5
88	A kinetic and process modeling study of CO2 capture with MEA-promoted potassium carbonate solutions. Chemical Engineering Journal, 2012, 210, 271-279.	12.7	82
89	Pre-combustion capture of CO2â€”Results from solvent absorption pilot plant trials using 30wt% potassium carbonate and boric acid promoted potassium carbonate solvent. International Journal of Greenhouse Gas Control, 2012, 10, 64-73.	4.6	62
90	Post-combustion Capture of CO₂: Results from the Solvent Absorption Capture Plant at Hazelwood Power Station Using Potassium Carbonate Solvent. Energy & Fuels, 2012, 26, 138-146.	5.1	83

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91	Novel post-combustion capture technologies on a lignite fired power plant - results of the CO2CRC/H3 capture project. Energy Procedia, 2011, 4, 1668-1675.	1.8	19
92	Surface modification of natural zeolite by chitosan and its use for nitrate removal in cold regions. Cold Regions Science and Technology, 2010, 62, 92-97.	3.5	69
93	Comparison of Amberlite IRC-748 Resin and Zeolite for Copper and Ammonium Ion Exchange. Journal of Chemical & Engineering Data, 2008, 53, 2012-2017.	1.9	8
94	Application of a Temperature-Dependent Semiempirical Thermodynamic Ion-Exchange Model to a Multicomponent Natural Zeolite System. Industrial & Engineering Chemistry Research, 2008, 47, 8347-8354.	3.7	13
95	Development of a Two Parameter Temperature-Dependent Semi-Empirical Thermodynamic Ion Exchange Model Using Binary Equilibria with Amberlite IRC 748 Resin. Industrial & Engineering Chemistry Research, 2007, 46, 3766-3773.	3.7	11
96	Use of a Two Parameter Temperature Dependant Semi-Empirical Thermodynamic Ion Exchange Model. Journal of Ion Exchange, 2007, 18, 570-573.	0.3	1
97	Removal of copper and zinc from ground water by granular zero-valent iron: a mechanistic study. Separation Science and Technology, 0, , 150623131830009.	2.5	1