

Costas Tsouris

List of Publications by Year in descending order

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218
papers

9,681
citations

50170

46
h-index

45213

90
g-index

240
all docs

240
docs citations

240
times ranked

8739
citing authors

#	ARTICLE	IF	CITATIONS
1	Separation of CO ₂ from Flue Gas: A Review. Separation Science and Technology, 2005, 40, 321-348.	1.3	1,315
2	Breakage and coalescence models for drops in turbulent dispersions. AIChE Journal, 1994, 40, 395-406.	1.8	474
3	Recovery of Uranium from Seawater: A Review of Current Status and Future Research Needs. Separation Science and Technology, 2013, 48, 367-387.	1.3	400
4	Mesoporous Carbon for Capacitive Deionization of Saline Water. Environmental Science & Technology, 2011, 45, 10243-10249.	4.6	351
5	Electrosorption of Ions from Aqueous Solutions by Carbon Aerogel: An Electrical Double-Layer Model. Langmuir, 2001, 17, 1961-1969.	1.6	280
6	Electrosorption of Ions from Aqueous Solutions by Nanostructured Carbon Aerogel. Journal of Colloid and Interface Science, 2002, 250, 18-27.	5.0	237
7	Seawater Uranium Sorbents: Preparation from a Mesoporous Copolymer Initiator by Atom-Transfer Radical Polymerization. Angewandte Chemie - International Edition, 2013, 52, 13458-13462.	7.2	222
8	Uptake of Uranium from Seawater by Amidoxime-Based Polymeric Adsorbent: Field Experiments, Modeling, and Updated Economic Assessment. Industrial & Engineering Chemistry Research, 2014, 53, 6076-6083.	1.8	185
9	Hierarchical ordered mesoporous carbon from phloroglucinol-glyoxal and its application in capacitive deionization of brackish water. Journal of Materials Chemistry, 2010, 20, 8674.	6.7	169
10	Microbubble generation for environmental and industrial separations. Separation and Purification Technology, 1997, 11, 221-232.	3.9	166
11	Electrosorption capacitance of nanostructured carbon-based materials. Journal of Colloid and Interface Science, 2006, 302, 54-61.	5.0	149
12	Uranium recovery from seawater: development of fiber adsorbents prepared via atom-transfer radical polymerization. Journal of Materials Chemistry A, 2014, 2, 14674-14681.	5.2	138
13	Understanding Long-Term Changes in Microbial Fuel Cell Performance Using Electrochemical Impedance Spectroscopy. Environmental Science & Technology, 2010, 44, 2740-2745.	4.6	134
14	Novel poly(imide dioxime) sorbents: Development and testing for enhanced extraction of uranium from natural seawater. Chemical Engineering Journal, 2016, 298, 125-135.	6.6	130
15	Uranium Adsorbent Fibers Prepared by Atom-Transfer Radical Polymerization (ATRP) from Poly(vinyl Tj ETQq1 1 0.784314 rgBT /Overbo Engineering Chemistry Research, 2016, 55, 4139-4148.	1.8	128
16	Preparation of activated mesoporous carbons for electrosorption of ions from aqueous solutions. Journal of Materials Chemistry, 2010, 20, 4602.	6.7	121
17	Electrosorption capacitance of nanostructured carbon aerogel obtained by cyclic voltammetry. Journal of Electroanalytical Chemistry, 2003, 540, 159-167.	1.9	119
18	Gas Production from Hydrate-Bearing Sediments: The Role of Fine Particles. Energy & Fuels, 2012, 26, 480-487.	2.5	111

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19	CO ₂ Hydrate Composite for Ocean Carbon Sequestration. <i>Environmental Science & Technology</i> , 2003, 37, 3701-3708.	4.6	109
20	The Uranium from Seawater Program at the Pacific Northwest National Laboratory: Overview of Marine Testing, Adsorbent Characterization, Adsorbent Durability, Adsorbent Toxicity, and Deployment Studies. <i>Industrial & Engineering Chemistry Research</i> , 2016, 55, 4264-4277.	1.8	107
21	Room-Temperature Ionic Liquids in Liquid-Liquid Extraction: Effects of Solubility in Aqueous Solutions on Surface Properties. <i>Solvent Extraction and Ion Exchange</i> , 2006, 24, 33-56.	0.8	102
22	A microbial fuel cell operating at low pH using the acidophile <i>Acidiphilium cryptum</i> . <i>Biotechnology Letters</i> , 2008, 30, 1367-1372.	1.1	95
23	Drag coefficient and settling velocity for particles of cylindrical shape. <i>Powder Technology</i> , 2008, 183, 314-322.	2.1	91
24	Seawater desalination by over-potential membrane capacitive deionization: Opportunities and hurdles. <i>Chemical Engineering Journal</i> , 2019, 357, 103-111.	6.6	90
25	Modular Chemical Process Intensification: A Review. <i>Annual Review of Chemical and Biomolecular Engineering</i> , 2017, 8, 359-380.	3.3	89
26	Flocculation of Paramagnetic Particles in a Magnetic Field. <i>Journal of Colloid and Interface Science</i> , 1995, 171, 319-330.	5.0	85
27	Removal of Carbon Dioxide from Flue Gas by Ammonia Carbonation in the Gas Phase. <i>Energy & Fuels</i> , 2003, 17, 69-74.	2.5	84
28	Enhanced Water Desalination by Increasing the Electroconductivity of Carbon Powders for High-Performance Flow-Electrode Capacitive Deionization. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 1085-1094.	3.2	82
29	Uranium extraction: Fuel from seawater. <i>Nature Energy</i> , 2017, 2, .	19.8	74
30	Characterization of Uranium Uptake Kinetics from Seawater in Batch and Flow-Through Experiments. <i>Industrial & Engineering Chemistry Research</i> , 2013, 52, 9433-9440.	1.8	72
31	Modeling aggregation of colloidal particles. <i>Current Opinion in Colloid and Interface Science</i> , 2005, 10, 123-132.	3.4	64
32	High-gradient magnetically seeded filtration. <i>Chemical Engineering Science</i> , 2000, 55, 1101-1113.	1.9	60
33	Electrosorption selectivity of ions from mixtures of electrolytes inside nanopores. <i>Journal of Chemical Physics</i> , 2008, 129, 224703.	1.2	60
34	A Poly(acrylonitrile)-Functionalized Porous Aromatic Framework Synthesized by Atom-Transfer Radical Polymerization for the Extraction of Uranium from Seawater. <i>Industrial & Engineering Chemistry Research</i> , 2016, 55, 4125-4129.	1.8	58
35	Enhancing Uranium Uptake by Amidoxime Adsorbent in Seawater: An Investigation for Optimum Alkaline Conditioning Parameters. <i>Industrial & Engineering Chemistry Research</i> , 2016, 55, 4294-4302.	1.8	58
36	Assessment of the Effects of Flow Rate and Ionic Strength on the Performance of an Air-Cathode Microbial Fuel Cell Using Electrochemical Impedance Spectroscopy. <i>Energies</i> , 2010, 3, 592-606.	1.6	57

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37	Transport of Ions in Mesoporous Carbon Electrodes during Capacitive Deionization of High-Salinity Solutions. <i>Langmuir</i> , 2015, 31, 1038-1047.	1.6	56
38	Electrocoagulation for magnetic seeding of colloidal particles. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2001, 177, 223-233.	2.3	55
39	Alternative Alkaline Conditioning of Amidoxime Based Adsorbent for Uranium Extraction from Seawater. <i>Industrial & Engineering Chemistry Research</i> , 2016, 55, 4303-4312.	1.8	55
40	Flooding, holdup, and drop size measurements in a multistage column extractor. <i>AIChE Journal</i> , 1988, 34, 283-292.	1.8	54
41	Monte Carlo simulations of electrical double-layer formation in nanopores. <i>Journal of Chemical Physics</i> , 2002, 117, 8499-8507.	1.2	53
42	First-Principles Integrated Adsorption Modeling for Selective Capture of Uranium from Seawater by Polyamidoxime Sorbent Materials. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 12580-12593.	4.0	53
43	Surface Charge Heterogeneities Measured by Atomic Force Microscopy. <i>Environmental Science & Technology</i> , 2005, 39, 6352-6360.	4.6	51
44	Ozonation using microbubbles formed by electric fields. <i>Separation and Purification Technology</i> , 1999, 15, 271-282.	3.9	49
45	Mechanism of Particle Flocculation by Magnetic Seeding. <i>Journal of Colloid and Interface Science</i> , 1996, 184, 477-488.	5.0	46
46	Shear-Induced Flocculation of Colloidal Particles in Stirred Tanks. <i>Journal of Colloid and Interface Science</i> , 1998, 206, 532-545.	5.0	46
47	Phase inversion studies in liquid-liquid dispersions. <i>Canadian Journal of Chemical Engineering</i> , 1998, 76, 486-494.	0.9	46
48	Brownian motion in confinement. <i>Physical Review E</i> , 2003, 68, 021401.	0.8	46
49	Uranium Adsorbent Fibers Prepared by Atom-Transfer Radical Polymerization from Chlorinated Polypropylene and Polyethylene Trunk Fibers. <i>Industrial & Engineering Chemistry Research</i> , 2016, 55, 4130-4138.	1.8	46
50	A Pulseless Corona-Discharge Process for the Oxidation of Organic Compounds in Water. <i>Industrial & Engineering Chemistry Research</i> , 2000, 39, 4408-4414.	1.8	45
51	Drop size distribution and holdup profiles in a multistage extraction column. <i>AIChE Journal</i> , 1994, 40, 407-418.	1.8	44
52	Polymer-coated nanoporous carbons for trace seawater uranium adsorption. <i>Science China Chemistry</i> , 2013, 56, 1510-1515.	4.2	44
53	Isotherms for Water Adsorption on Molecular Sieve 3A: Influence of Cation Composition. <i>Industrial & Engineering Chemistry Research</i> , 2015, 54, 10442-10448.	1.8	43
54	Sustainable development and energy geotechnology – Potential roles for geotechnical engineering. <i>KSCE Journal of Civil Engineering</i> , 2011, 15, 611-621.	0.9	41

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55	Separation of Switchgrass Bio-Oil by Water/Organic Solvent Addition and pH Adjustment. <i>Energy & Fuels</i> , 2016, 30, 2164-2173.	2.5	39
56	Amidoxime Polymers for Uranium Adsorption: Influence of Comonomers and Temperature. <i>Materials</i> , 2017, 10, 1268.	1.3	39
57	Behavior of mixtures of symmetric and asymmetric electrolytes near discretely charged planar surfaces: A Monte Carlo study. <i>Journal of Chemical Physics</i> , 2005, 123, 054703.	1.2	38
58	Pumping, spraying, and mixing of fluids by electric fields. <i>Canadian Journal of Chemical Engineering</i> , 1998, 76, 589-599.	0.9	37
59	Hydrate Composite Particles for Ocean Carbon Sequestration: A Field Verification. <i>Environmental Science & Technology</i> , 2004, 38, 2470-2475.	4.6	35
60	Monte Carlo simulation of electrical double-layer formation from mixtures of electrolytes inside nanopores. <i>Journal of Chemical Physics</i> , 2008, 128, 044705.	1.2	35
61	Copper uptake by inorganic particles – equilibrium, kinetics, and particle interactions: experimental. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2001, 177, 133-146.	2.3	34
62	Experiments and Modeling of Uranium Uptake by Amidoxime-Based Adsorbent in the Presence of Other Ions in Simulated Seawater. <i>Industrial & Engineering Chemistry Research</i> , 2016, 55, 4241-4248.	1.8	34
63	Experiments on Electrostatic Dispersion of Air in Water. <i>Industrial & Engineering Chemistry Research</i> , 1997, 36, 3647-3655.	1.8	33
64	Electrohydrodynamic mixing in microchannels. <i>AIChE Journal</i> , 2003, 49, 2181-2186.	1.8	33
65	Characterization of hydrodynamic parameters in a multistage column contactor. <i>Canadian Journal of Chemical Engineering</i> , 1990, 68, 913-923.	0.9	32
66	Contribution of acidic components to the total acid number (TAN) of bio-oil. <i>Fuel</i> , 2017, 200, 171-181.	3.4	32
67	Temperature Dependence of Uranium and Vanadium Adsorption on Amidoxime-Based Adsorbents in Natural Seawater. <i>ChemistrySelect</i> , 2018, 3, 843-848.	0.7	32
68	Carbon polyaniline capacitive deionization electrodes with stable cycle life. <i>Desalination</i> , 2019, 464, 25-32.	4.0	32
69	Optimal conditions for efficient flow-electrode capacitive deionization. <i>Separation and Purification Technology</i> , 2020, 240, 116626.	3.9	32
70	Additively manufactured packed bed device for process intensification of CO ₂ absorption and other chemical processes. <i>Chemical Engineering Journal</i> , 2020, 388, 124092.	6.6	31
71	Canonical Monte Carlo simulations of the fluctuating-charge molecular water between charged surfaces. <i>Journal of Chemical Physics</i> , 2002, 117, 337-345.	1.2	30
72	Synthesis and characterization of anodized titanium-oxide nanotube arrays. <i>Journal of Materials Science</i> , 2009, 44, 2820-2827.	1.7	30

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73	KINETICS OF HETEROGENEOUS MAGNETIC FLOCCULATION USING A BIVARIATE POPULATION-BALANCE EQUATION. <i>Chemical Engineering Communications</i> , 1995, 137, 147-159.	1.5	29
74	Probing DLVO Forces Using Interparticle Magnetic Forces: A Transition from Secondary-Minimum to Primary-Minimum Aggregation. <i>Langmuir</i> , 2001, 17, 6065-6071.	1.6	29
75	Ozonation of Soluble Organics in Aqueous Solutions Using Microbubbles. <i>Ozone: Science and Engineering</i> , 2001, 23, 77-87.	1.4	29
76	An Electrochemical Method for the Formation of Magnetite Particles*. <i>Journal of Dispersion Science and Technology</i> , 2002, 23, 569-576.	1.3	29
77	Surfactant effects on the mechanism of particle capture in high-gradient magnetic filtration. <i>Separation and Purification Technology</i> , 2006, 51, 201-209.	3.9	29
78	The Role of the Electrostatic Force in Spore Adhesion. <i>Environmental Science & Technology</i> , 2010, 44, 6209-6214.	4.6	29
79	3D printed structures for optimized carbon capture technology in packed bed columns. <i>Separation Science and Technology</i> , 2019, 54, 2047-2058.	1.3	29
80	Negatively buoyant CO ₂ -hydrate composite for ocean carbon sequestration. <i>AIChE Journal</i> , 2003, 49, 283-285.	1.8	28
81	Molecular-Sieving Capabilities of Mesoporous Carbon Membranes. <i>Journal of Physical Chemistry B</i> , 2008, 112, 8563-8570.	1.2	28
82	Reaction Kinetics of CO ₂ Carbonation with Mg-Rich Minerals. <i>Journal of Physical Chemistry A</i> , 2011, 115, 7638-7644.	1.1	28
83	Uranium Resource Recovery from Desalination Plant Feed and Reject Water Using Amidoxime Functionalized Adsorbent. <i>Industrial & Engineering Chemistry Research</i> , 2018, 57, 17237-17244.	1.8	28
84	Development of an electro-spray bioreactor for crude oil processing. <i>Fuel Processing Technology</i> , 1997, 52, 127-144.	3.7	27
85	Scaled-Up Ocean Injection of CO ₂ -Hydrate Composite Particles. <i>Energy & Fuels</i> , 2007, 21, 3300-3309.	2.5	27
86	A pilot-scale continuous-jet hydrate reactor. <i>Chemical Engineering Journal</i> , 2008, 135, 71-77.	6.6	27
87	Influence of hydrophilic groups and metal-ion adsorption on polymer-chain conformation of amidoxime-based uranium adsorbents. <i>Journal of Colloid and Interface Science</i> , 2018, 524, 399-408.	5.0	27
88	Influence of Current Velocity on Uranium Adsorption from Seawater Using an Amidoxime-Based Polymer Fiber Adsorbent. <i>Industrial & Engineering Chemistry Research</i> , 2017, 56, 2205-2211.	1.8	26
89	Electrostatic spraying of nonconductive fluids into conductive fluids. <i>AIChE Journal</i> , 1994, 40, 1920-1923.	1.8	25
90	Experimental Investigation of Electrostatic Dispersion of Nonconductive Fluids into Conductive Fluids. <i>Industrial & Engineering Chemistry Research</i> , 1995, 34, 1394-1403.	1.8	25

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91	Secondary-Minimum Aggregation of Superparamagnetic Colloidal Particles. <i>Langmuir</i> , 2000, 16, 3641-3650.	1.6	25
92	Kinetics of soil ozonation: an experimental and numerical investigation. <i>Journal of Contaminant Hydrology</i> , 2004, 72, 227-243.	1.6	25
93	Field Studies on the Formation of Sinking CO ₂ Particles for Ocean Carbon Sequestration: Effects of Injector Geometry on Particle Density and Dissolution Rate and Model Simulation of Plume Behavior. <i>Environmental Science & Technology</i> , 2005, 39, 7287-7293.	4.6	25
94	Production of Biodiesel at the Kinetic Limit in a Centrifugal Reactor/Separator. <i>Industrial & Engineering Chemistry Research</i> , 2010, 49, 3160-3169.	1.8	25
95	Electrosorption of organic acids from aqueous bio-oil and conversion into hydrogen via microbial electrolysis cells. <i>Renewable Energy</i> , 2018, 125, 21-31.	4.3	25
96	Copper uptake by silica and iron oxide under high surface coverage conditions: surface charge and sorption equilibrium modeling. <i>Journal of Colloid and Interface Science</i> , 2003, 268, 12-22.	5.0	24
97	Is Carbon Capture and Storage Really Needed?. <i>Environmental Science & Technology</i> , 2010, 44, 4042-4045.	4.6	24
98	Influence of temperature on the electrosorption of ions from aqueous solutions using mesoporous carbon materials. <i>Separation and Purification Technology</i> , 2013, 116, 206-213.	3.9	24
99	Capture of Iodine from Nuclear-Fuel-Reprocessing Off-Gas: Influence of Aging on a Reduced Silver Mordenite Adsorbent after Exposure to NO/NO ₂ . <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 49680-49693.	4.0	24
100	The ocean's nuclear energy reserve. <i>Nature Sustainability</i> , 2022, 5, 13-14.	11.5	24
101	Particle Flocculation and Filtration by High-Gradient Magnetic Fields. <i>Separation Science and Technology</i> , 1997, 32, 599-616.	1.3	22
102	Electric-field effects on interfaces: electrospray and electrocoalescence. <i>Current Opinion in Colloid and Interface Science</i> , 2004, 9, 249-255.	3.4	22
103	Influence of Metal Ion Sorption on Colloidal Surface Forces Measured by Atomic Force Microscopy. <i>Environmental Science & Technology</i> , 2002, 36, 343-348.	4.6	21
104	Investigation of jet breakup and droplet size distribution of liquid CO ₂ and water systems implications for CO ₂ hydrate formation for ocean carbon sequestration. <i>American Mineralogist</i> , 2004, 89, 1240-1246.	0.9	20
105	Hydrogen transport in composite inorganic membranes. <i>Journal of Membrane Science</i> , 2008, 312, 132-142.	4.1	20
106	Adhesion of Spores of <i>Bacillus thuringiensis</i> on a Planar Surface. <i>Environmental Science & Technology</i> , 2010, 44, 290-296.	4.6	20
107	Scanning surface potential microscopy of spore adhesion on surfaces. <i>Colloids and Surfaces B: Biointerfaces</i> , 2012, 92, 271-276.	2.5	20
108	Mass-transfer effects on droplet phenomena and extraction column hydrodynamics revisited. <i>Chemical Engineering Science</i> , 1993, 48, 1503-1515.	1.9	19

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109	Effects of Proton-Exchange Membrane Fuel-Cell Operating Conditions On Charge Transfer Resistances Measured by Electrochemical Impedance Spectroscopy. Separation Science and Technology, 2008, 43, 2307-2320.	1.3	19
110	The role of electrostatic charge in the adhesion of spherical particles onto planar surfaces in atmospheric systems. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2015, 481, 583-590.	2.3	19
111	Volume Averaging Study of the Capacitive Deionization Process in Homogeneous Porous Media. Transport in Porous Media, 2015, 109, 61-80.	1.2	19
112	Extraction Chromatographic Materials for Clean Hydrometallurgical Separation of Rare-Earth Elements Using Diglycolamide Extractants. Industrial & Engineering Chemistry Research, 2019, 58, 20081-20089.	1.8	19
113	Energy-Efficient CO ₂ Capture from Flue Gas by Absorption with Amino Acids and Crystallization with a Bis-Iminoguanidine. Industrial & Engineering Chemistry Research, 2019, 58, 10510-10515.	1.8	19
114	Application of the ultrasonic technique for real-time holdup monitoring for the control of extraction columns. Chemical Engineering Science, 1990, 45, 3055-3062.	1.9	18
115	Volume fraction measurements of water in oil by an ultrasonic technique. Industrial & Engineering Chemistry Research, 1993, 32, 998-1002.	1.8	18
116	A Pulse-Echo Ultrasonic Probe for Local Volume Fraction Measurements in Liquid-Liquid Dispersions. Industrial & Engineering Chemistry Research, 1995, 34, 3154-3158.	1.8	18
117	Agglomeration of magnetic particles and breakup of magnetic chains in surfactant solutions. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2002, 204, 63-72.	2.3	18
118	Process intensification of CO ₂ capture by low-aqueous solvent. Chemical Engineering Journal, 2021, 426, 131240.	6.6	18
119	EHD micromixing reactor for particle synthesis. Powder Technology, 2003, 135-136, 302-309.	2.1	17
120	Dissolution mechanisms of CO ₂ hydrate droplets in deep seawaters. Energy Conversion and Management, 2006, 47, 494-508.	4.4	17
121	Scale-up of a continuous-jet hydrate reactor for CO ₂ ocean sequestration. AIChE Journal, 2007, 53, 1017-1027.	1.8	17
122	Neutron imaging of ion transport in mesoporous carbon materials. Physical Chemistry Chemical Physics, 2013, 15, 11740.	1.3	17
123	Generalized gas-solid adsorption modeling: Single-component equilibria. Fluid Phase Equilibria, 2015, 388, 169-181.	1.4	17
124	2022 roadmap on 3D printing for energy. JPhys Energy, 2022, 4, 011501.	2.3	17
125	Investigating microbial fuel cell bioanode performance under different cathode conditions. Biotechnology Progress, 2009, 25, 1630-1636.	1.3	16
126	Influence of Radioactivity on Surface Charging and Aggregation Kinetics of Particles in the Atmosphere. Environmental Science & Technology, 2014, 48, 182-189.	4.6	16

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127	Potential limits of capacitive deionization and membrane capacitive deionization for water electrolysis. <i>Separation Science and Technology</i> , 2019, 54, 2112-2125.	1.3	16
128	Process intensification of CO ₂ absorption using a 3D printed intensified packing device. <i>AIChE Journal</i> , 2020, 66, e16285.	1.8	16
129	Carbon dioxide capture with aqueous amino acids: Mechanistic study of amino acid regeneration by guanidine crystallization and process intensification. <i>Separation and Purification Technology</i> , 2021, 271, 118839.	3.9	16
130	Control of dispersed-phase volume fraction in multistage extraction columns. <i>Chemical Engineering Science</i> , 1991, 46, 2857-2865.	1.9	15
131	Hydrodynamics of bioreactor systems for liquid-liquid contacting. <i>Applied Biochemistry and Biotechnology</i> , 1996, 57-58, 581-592.	1.4	15
132	Electrostatic surface interactions in mixtures of symmetric and asymmetric electrolytes: A Monte Carlo study. <i>Journal of Chemical Physics</i> , 2006, 125, 054716.	1.2	15
133	Carbon dioxide hydrate particles for ocean carbon sequestration. <i>Energy Procedia</i> , 2009, 1, 4937-4944.	1.8	15
134	Friction and Adhesion Forces of <i>Bacillus thuringiensis</i> Spores on Planar Surfaces in Atmospheric Systems. <i>Langmuir</i> , 2011, 27, 14975-14981.	1.6	15
135	Influence of radioactivity on surface interaction forces. <i>Journal of Colloid and Interface Science</i> , 2010, 350, 595-598.	5.0	14
136	Surface charge accumulation of particles containing radionuclides in open air. <i>Journal of Environmental Radioactivity</i> , 2015, 143, 91-99.	0.9	14
137	Analysis and simulation of a blue energy cycle. <i>Renewable Energy</i> , 2016, 91, 249-260.	4.3	14
138	Adsorption Equilibrium and Modeling of Water Vapor on Reduced and Unreduced Silver-Exchanged Mordenite. <i>Industrial & Engineering Chemistry Research</i> , 2017, 56, 8095-8102.	1.8	14
139	Para- and Dia-Magnetic Particle Flocculation in a Magnetic Field. <i>Separation Science and Technology</i> , 1995, 30, 1407-1419.	1.3	13
140	COMPARISON OF LIQUID-LIQUID DISPERSIONS FORMED BY A STIRRED TANK AND ELECTROSTATIC SPRAYING*. <i>Chemical Engineering Communications</i> , 1997, 160, 175-197.	1.5	13
141	Phase Inversion of Liquid-Liquid Dispersions Under Applied Electric Fields. <i>Journal of Dispersion Science and Technology</i> , 2001, 22, 57-69.	1.3	13
142	Fractal Dimension of Particle Aggregates in Magnetic Fields. <i>Separation Science and Technology</i> , 2004, 39, 2839-2862.	1.3	13
143	Electrohydrodynamic Velocity and Pumping Measurements in Water and Alcohols. <i>Journal of Colloid and Interface Science</i> , 2000, 229, 335-345.	5.0	12
144	Formation of Liquid Columns on Liquid-Liquid Interfaces under Applied Electric Fields. <i>Journal of Colloid and Interface Science</i> , 2001, 242, 327-336.	5.0	12

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145	Efficient Conversion of Aqueous-Waste-Carbon Compounds Into Electrons, Hydrogen, and Chemicals via Separations and Microbial Electrocatalysis. <i>Frontiers in Energy Research</i> , 2018, 6, .	1.2	12
146	Comments on "Model for hold-up measurements in liquid dispersion using an ultrasonic technique". <i>Industrial & Engineering Chemistry Research</i> , 1990, 29, 2170-2172.	1.8	11
147	Formation and behavior of composite CO ₂ hydrate particles in a high-pressure water tunnel facility. <i>Chemical Engineering Science</i> , 2008, 63, 3235-3248.	1.9	11
148	Influence of Surface Potential on the Adhesive Force of Radioactive Gold Surfaces. <i>Langmuir</i> , 2013, 29, 11876-11883.	1.6	11
149	Charging and coagulation of radioactive and nonradioactive particles in the atmosphere. <i>Atmospheric Chemistry and Physics</i> , 2016, 16, 3449-3462.	1.9	11
150	The Economic Accessibility of CO ₂ Sequestration through Bioenergy with Carbon Capture and Storage (BECCS) in the US. <i>Land</i> , 2020, 9, 299.	1.2	11
151	Silver-functionalized silica aerogel for iodine capture: Adsorbent aging by NO ₂ in spent nuclear fuel reprocessing off-gas. <i>Microporous and Mesoporous Materials</i> , 2022, 336, 111898.	2.2	11
152	Diffusional coagulation of superparamagnetic particles in the presence of an external magnetic field. <i>Physica A: Statistical Mechanics and Its Applications</i> , 1999, 270, 427-443.	1.2	10
153	An Electrically Driven Gas-Liquid-Liquid Contactor for Bioreactor and Other Applications. <i>Industrial & Engineering Chemistry Research</i> , 1999, 38, 1877-1883.	1.8	10
154	Enhancement of Distillation Efficiency by Application of an Electric Field. <i>Industrial & Engineering Chemistry Research</i> , 2001, 40, 3843-3847.	1.8	10
155	Proton Adsorption and Electrical Double-Layer Formation Inside Charged Platinum Nanochannels. <i>Nano Letters</i> , 2002, 2, 1433-1437.	4.5	10
156	Multiphase, Microdispersion Reactor for the Continuous Production of Methane Gas Hydrate. <i>Industrial & Engineering Chemistry Research</i> , 2009, 48, 6448-6452.	1.8	10
157	Enhancement of electrosorption rates using low-amplitude, high-frequency, pulsed electrical potential. <i>Separation and Purification Technology</i> , 2014, 129, 18-24.	3.9	10
158	Magnetic adsorbents for selective removal of selenite from contaminated water. <i>Separation Science and Technology</i> , 2019, 54, 2138-2146.	1.3	10
159	Continuous-Flow Centrifugal Solid/Liquid Separation for the Recovery of Rare-Earth Elements Containing Particles from Phosphoric Acid Sludge. <i>Industrial & Engineering Chemistry Research</i> , 2020, 59, 21901-21913.	1.8	10
160	Dispersed-phase residence times and axial drop velocities in a multistage column contactor. <i>Chemical Engineering Science</i> , 1990, 45, 785-793.	1.9	9
161	Incorporating radioactive decay into charging and coagulation of multicomponent radioactive aerosols. <i>Journal of Aerosol Science</i> , 2017, 114, 283-300.	1.8	9
162	Adsorbents and adsorption models for capture of Kr and Xe gas mixtures in fixed-bed columns. <i>Chemical Engineering Journal</i> , 2019, 375, 122073.	6.6	9

#	ARTICLE	IF	CITATIONS
163	Uranium Recovery from Seawater Using Amidoxime-Based Braided Polymers Synthesized from Acrylic Fibers. <i>Industrial & Engineering Chemistry Research</i> , 2020, 59, 13988-13996.	1.8	9
164	Control of holdup and solute concentration in an Oldshue-Rushton extraction column. <i>Chemical Engineering Science</i> , 1993, 48, 4097-4104.	1.9	8
165	Effects of electric fields on phase inversion of liquid-liquid dispersions. <i>Chemical Engineering Science</i> , 2000, 55, 3571-3574.	1.9	8
166	Effects of Applied Electric Fields on Drop-Interface and Drop-Drop Coalescence*. <i>Journal of Dispersion Science and Technology</i> , 2002, 23, 155-166.	1.3	8
167	Ocean Disposal of CO ₂ : Conditions for Producing Sinking CO ₂ Hydrate. <i>Journal of Dispersion Science and Technology</i> , 2005, 25, 703-712.	1.3	8
168	Raman spectroscopy of a hydrated CO ₂ /water composite. <i>Journal of Petroleum Science and Engineering</i> , 2007, 56, 65-74.	2.1	8
169	Quantifying the water content in the cathode of enzyme fuel cells via neutron imaging. <i>Journal of Power Sources</i> , 2011, 196, 1769-1775.	4.0	8
170	Modeling the Capacitive Deionization Process in Dual-Porosity Electrodes. <i>Transport in Porous Media</i> , 2016, 113, 173-205.	1.2	8
171	A mechanistic modeling framework for gas-phase adsorption kinetics and fixed-bed transport. <i>AIChE Journal</i> , 2017, 63, 5029-5043.	1.8	8
172	A Process Intensification Approach for CO ₂ Absorption Using Amino Acid Solutions and a Guanidine Compound. <i>Energies</i> , 2021, 14, 5821.	1.6	8
173	Electroprecipitation Mechanism Enabling Silica and Hardness Removal through Aluminum-Based Electrocoagulation. <i>ACS ES&T Engineering</i> , 2022, 2, 1200-1210.	3.7	8
174	Laser photometric probe for concentration measurements in liquid dispersions. <i>AIChE Journal</i> , 1989, 35, 507-510.	1.8	7
175	DISTILLATION UNDER ELECTRIC FIELDS*. <i>Separation Science and Technology</i> , 1999, 34, 1393-1409.	1.3	7
176	Effects of operating conditions on internal resistances in enzyme fuel cells studied via electrochemical impedance spectroscopy. <i>Journal of Power Sources</i> , 2012, 201, 59-65.	4.0	7
177	pH Neutralization of Aqueous Bio-Oil from Switchgrass Intermediate Pyrolysis Using Process Intensification Devices. <i>Energy & Fuels</i> , 2017, 31, 9455-9464.	2.5	7
178	Modeling Sulfur Poisoning of Palladium Membranes Used for Hydrogen Separation. <i>International Journal of Chemical Engineering</i> , 2019, 2019, 1-12.	1.4	7
179	Modification of Surface Forces by Metal Ion Adsorption. <i>Journal of Dispersion Science and Technology</i> , 2003, 24, 517-525.	1.3	6
180	Comparison between Effective Electrode/Electrolyte Interface Potential and Applied Potential for Gold Electrodes. <i>Industrial & Engineering Chemistry Research</i> , 2008, 47, 3525-3531.	1.8	6

#	ARTICLE	IF	CITATIONS
181	A generalized procedure for the prediction of multicomponent adsorption equilibria. <i>AIChE Journal</i> , 2015, 61, 2600-2610.	1.8	6
182	Carbon Dioxide Absorption Modeling for Off-Gas Treatment in the Nuclear Fuel Cycle. <i>International Journal of Chemical Engineering</i> , 2018, 2018, 1-11.	1.4	6
183	Rate-Based Absorption Modeling for Postcombustion CO ₂ Capture with Additively Manufactured Structured Packing. <i>Industrial & Engineering Chemistry Research</i> , 2021, 60, 14845-14855.	1.8	6
184	Surface transport processes in charged porous media. <i>Journal of Colloid and Interface Science</i> , 2017, 498, 91-104.	5.0	5
185	Algorithms and algebraic solutions of decay chain differential equations for stable and unstable nuclide fractionation. <i>Computer Physics Communications</i> , 2020, 246, 106907.	3.0	5
186	Magnetic Sorbent for the Removal of Selenium(IV) from Simulated Industrial Wastewaters: Determination of Column Kinetic Parameters. <i>Water (Switzerland)</i> , 2020, 12, 1234.	1.2	5
187	Corrosion Prevention of Additively Manufactured Aluminum Packing Devices Developed for Process Intensification of CO ₂ Capture by Aqueous Amines. <i>Industrial & Engineering Chemistry Research</i> , 2021, 60, 17036-17044.	1.8	5
188	Effect of electrode configurations on phase equilibria with applied electric fields1This research was supported by the Environmental Management Science Program, Office of Environmental Management, US Department of Energy, under contract DEAC05-96OR22464 with Lockheed Martin Energy Research Corporation.1. <i>Separation and Purification Technology</i> , 1999, 15, 283-294.	3.9	4
189	MAGNETIC-SEEDING FILTRATION*. <i>Separation Science and Technology</i> , 1999, 34, 1371-1392.	1.3	4
190	Removal of Micron-Size Droplets from an Air Stream by Means of Electric Fields. <i>Separation Science and Technology</i> , 2005, 40, 367-381.	1.3	4
191	CO ₂ absorption from simulated flue gas in a bubble column. <i>Separation Science and Technology</i> , 2019, 54, 2034-2046.	1.3	4
192	DISTILLATION UNDER ELECTRIC FIELDS1*. <i>Separation Science and Technology</i> , 1999, 34, 1393-1409.	1.3	4
193	Spraying fine fluid particles in insulating fluid systems by electrostatic polarization forces. <i>Journal of Applied Physics</i> , 1995, 78, 2860-2862.	1.1	3
194	Microcantilever sensors with chemically selective coatings of ionic liquids. <i>AIChE Journal</i> , 2007, 53, 2726-2731.	1.8	3
195	Interaction of Silica Nanoparticles with a Flat Silica Surface through Neutron Reflectometry. <i>Environmental Science & Technology</i> , 2012, 46, 4532-4538.	4.6	3
196	Interaction forces between spores and planar surfaces in aqueous solutions. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2014, 443, 80-87.	2.3	3
197	Simulation of carbon dioxide absorption by amino acids in two-phase batch and bubble column reactors. <i>Separation Science and Technology</i> , 2019, 54, 2013-2025.	1.3	3
198	Comparison of Long-Term Bioenergy with Carbon Capture and Storage to Reference Power Generation Technologies Using CO ₂ Avoidance Cost in the U.S.. <i>Energies</i> , 2021, 14, 7026.	1.6	3

#	ARTICLE	IF	CITATIONS
199	EFFECT OF COPPER AND CADMIUM BINDING ON FLOCCULATION OF FERRIC OXIDE PARTICLES. Separation Science and Technology, 1999, 34, 1301-1318.	1.3	2
200	One- and Two-Equation Models to Simulate Ion Transport in Charged Porous Electrodes. Colloids and Interfaces, 2018, 2, 4.	0.9	2
201	MAGNETIC-SEEDING FILTRATION1*. Separation Science and Technology, 1999, 34, 1371-1392.	1.3	2
202	Charging of radioactive and environmental airborne particles. Journal of Environmental Radioactivity, 2022, 248, 106887.	0.9	2
203	Response to Comments on Hold-Up (Volume Fraction) Measurements in Liquid/Liquid Dispersions Using an Ultrasonic Technique. Industrial & Engineering Chemistry Research, 1994, 33, 748-749.	1.8	1
204	Kinetics of soil ozonation: an experimental and numerical investigation*1. Journal of Contaminant Hydrology, 2004, 72, 227-227.	1.6	1
205	Scanning Surface Potential Microscopy of Spores on Planar Surfaces. Microscopy and Microanalysis, 2009, 15, 1132-1133.	0.2	1
206	Electrical Double-Layer Formation. , 2014, , 1246-1259.		1
207	Studying the impact of radioactive charging on the microphysical evolution and transport of radioactive aerosols with the TOMAS-RC v1 framework. Journal of Environmental Radioactivity, 2018, 192, 150-159.	0.9	1
208	Determination of reactive mass transfer coefficients for CO2 absorption predictions. Separation Science and Technology, 2019, 54, 2026-2033.	1.3	1
209	Solar-thermal membrane for dewatering aqueous organic-acid solutions. Separation and Purification Technology, 2021, 267, 118232.	3.9	1
210	Modelling and Control of Multistage Mixer Extractors. Fluid Mechanics and Its Applications, 1992, , 139-144.	0.1	1
211	Hydrodynamics of Bioreactor Systems for Liquid-Liquid Contacting. , 1996, , 581-592.		1
212	Comments on "Model for hold-up measurements in liquid dispersion using an ultrasonic technique" [Erratum to document cited in CA113(18):155011e]. Industrial & Engineering Chemistry Research, 1991, 30, 1674-1674.	1.8	0
213	Like-Charge Attraction: A Combined Electrostatic-Hydrodynamic Approach. Journal of Dispersion Science and Technology, 2005, 25, 585-592.	1.3	0
214	Nanostructures in Separation. , 2006, , 291-322.		0
215	Investigating the Role of the Electrostatic Force in Spore Adhesion by Microscopy. Microscopy and Microanalysis, 2011, 17, 232-233.	0.2	0
216	Forward of special issues on separations for energy applications. Separation Science and Technology, 2019, 54, 1879-1879.	1.3	0

#	ARTICLE	IF	CITATIONS
217	Simulation and Control of a Multistage Stirred Cell Column Extractor. Process Metallurgy, 1992, , 1247-1252.	0.1	0
218	EFFECT OF COPPER AND CADMIMUM BINDING ON FLOCCULATION OF FERRIC OXIDE PARTICLES. Separation Science and Technology, 1999, 34, 1301-1318.	1.3	0