

D Bhattacharyya

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/10834428/publications.pdf>

Version: 2024-02-01

86
papers

3,949
citations

94269

37
h-index

123241

61
g-index

104
all docs

104
docs citations

104
times ranked

3734
citing authors

#	ARTICLE	IF	CITATIONS
1	Pervaporation of alcohol-water and dimethylformamide-water mixtures using hydrophilic zeolite NaA membranes: mechanisms and experimental results. <i>Journal of Membrane Science</i> , 2000, 179, 185-205.	4.1	302
2	Green synthesis of Fe and Fe/Pd bimetallic nanoparticles in membranes for reductive degradation of chlorinated organics. <i>Journal of Membrane Science</i> , 2011, 379, 131-137.	4.1	297
3	Performance of solvent-resistant membranes for non-aqueous systems: solvent permeation results and modeling. <i>Journal of Membrane Science</i> , 2001, 189, 1-21.	4.1	245
4	Reactive nanostructured membranes for water purification. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011, 108, 8577-8582.	3.3	160
5	Novel poly-glutamic acid functionalized microfiltration membranes for sorption of heavy metals at high capacity. <i>Journal of Membrane Science</i> , 1998, 141, 121-135.	4.1	136
6	Solute transport in solvent-resistant nanofiltration membranes for non-aqueous systems: experimental results and the role of solute-solvent coupling. <i>Journal of Membrane Science</i> , 2002, 208, 343-359.	4.1	129
7	Polycysteine and Other Polyamino Acid Functionalized Microfiltration Membranes for Heavy Metal Capture. <i>Environmental Science & Technology</i> , 2001, 35, 3252-3258.	4.6	120
8	Separation of Organic Pollutants by Reverse Osmosis and Nanofiltration Membranes: A Mathematical Models and Experimental Verification. <i>Industrial & Engineering Chemistry Research</i> , 1999, 38, 3683-3695.	1.8	112
9	Surface Modification of Silica- and Cellulose-Based Microfiltration Membranes with Functional Polyamino Acids for Heavy Metal Sorption. <i>Langmuir</i> , 1999, 15, 6346-6357.	1.6	101
10	Reductive Dehalogenation of Trichloroethylene with Zero-Valent Iron: Surface Profiling Microscopy and Rate Enhancement Studies. <i>Langmuir</i> , 1999, 15, 8412-8420.	1.6	98
11	Aqueous-phase synthesis of PAA in PVDF membrane pores for nanoparticle synthesis and dichlorobiphenyl degradation. <i>Journal of Membrane Science</i> , 2010, 346, 310-317.	4.1	96
12	Reductive dehalogenation of trichloroethylene using zero-valent iron. <i>Environmental Progress</i> , 1997, 16, 137-143.	0.8	95
13	Separation of Toxic Heavy Metals by Sulfide Precipitation. <i>Separation Science and Technology</i> , 1979, 14, 441-452.	1.3	94
14	Membrane-based hybrid processes for high water recovery and selective inorganic pollutant separation. <i>Journal of Hazardous Materials</i> , 2002, 92, 21-32.	6.5	89
15	Pore Assembled Multilayers of Charged Polypeptides in Microporous Membranes for Ion Separation. <i>Langmuir</i> , 2004, 20, 5418-5424.	1.6	85
16	Improving the Activity of Immobilized Subtilisin by Site-Specific Attachment to Surfaces. <i>Analytical Chemistry</i> , 1997, 69, 4601-4607.	3.2	75
17	A two-dimensional steady state model including the effect of liquid water for a PEM fuel cell cathode. <i>Journal of Power Sources</i> , 2007, 173, 375-393.	4.0	73
18	Layer-by-Layer-Assembled Microfiltration Membranes for Biomolecule Immobilization and Enzymatic Catalysis. <i>Langmuir</i> , 2006, 22, 10118-10124.	1.6	65

#	ARTICLE	IF	CITATIONS
19	Polythiol-functionalized alumina membranes for mercury capture. <i>Journal of Membrane Science</i> , 2005, 251, 169-178.	4.1	64
20	Charged membrane ultrafiltration of inorganic ions in single and multi-salt systems. <i>AIChE Journal</i> , 1974, 20, 1206-1212.	1.8	58
21	Thiol-functionalized silica-mixed matrix membranes for silver capture from aqueous solutions: Experimental results and modeling. <i>Journal of Membrane Science</i> , 2009, 326, 460-471.	4.1	57
22	Degradation of chlorinated organics by membrane-immobilized nanosized metals. <i>Environmental Progress</i> , 2004, 23, 232-242.	0.8	56
23	Ultrafiltration Characteristics of Oil-Detergent-Water Systems: Membrane Fouling Mechanisms. <i>Separation Science and Technology</i> , 1979, 14, 529-549.	1.3	55
24	Novel perfluorinated polymer-based pervaporation membranes for the separation of solvent/water mixtures. <i>Journal of Membrane Science</i> , 2010, 352, 41-49.	4.1	53
25	Prediction of concentration polarization and flux behavior in reverse osmosis by numerical analysis. <i>Journal of Membrane Science</i> , 1990, 48, 231-262.	4.1	51
26	Two-phase ozonation of hazardous organics in single and multicomponent systems. <i>Water Research</i> , 1996, 30, 1949-1958.	5.3	49
27	Permeability and Separation Characteristics of Polypeptide-Functionalized Polycarbonate Track-Etched Membranes. <i>Chemistry of Materials</i> , 2004, 16, 2762-2771.	3.2	48
28	Thermal degradation/hydrogenation of commodity plastics and characterization of their liquefaction products. <i>Fuel Processing Technology</i> , 1996, 49, 75-90.	3.7	47
29	Performance analysis of a PEM fuel cell cathode with multiple catalyst layers. <i>International Journal of Hydrogen Energy</i> , 2010, 35, 6356-6365.	3.8	43
30	Poly(amino acid)-Functionalized Cellulosic Membranes: Metal Sorption Mechanisms and Results. <i>Industrial & Engineering Chemistry Research</i> , 2001, 40, 2668-2678.	1.8	42
31	Functionalized Membranes by Layer-By-Layer Assembly of Polyelectrolytes and In Situ Polymerization of Acrylic Acid for Applications in Enzymatic Catalysis. <i>Industrial & Engineering Chemistry Research</i> , 2008, 47, 4586-4597.	1.8	42
32	Modeling of heterogeneous systems in a plasma jet reactor. <i>AIChE Journal</i> , 1975, 21, 879-885.	1.8	41
33	Activated carbon adsorption of heavy metal chelates from single and multicomponent systems. <i>Environmental Progress</i> , 1987, 6, 110-118.	0.8	41
34	Site-directed and random enzyme immobilization on functionalized membranes: kinetic studies and models. <i>Journal of Membrane Science</i> , 1995, 108, 1-13.	4.1	40
35	Site-directed and random immobilization of subtilisin on functionalized membranes: Activity determination in aqueous and organic media. , 1998, 60, 608-616.		40
36	Cellulose-graphene quantum dot composite membranes using ionic liquid. <i>Journal of Membrane Science</i> , 2018, 556, 293-302.	4.1	40

#	ARTICLE	IF	CITATIONS
37	Two-phase ozonation of chlorinated organics. <i>Journal of Hazardous Materials</i> , 1995, 41, 73-93.	6.5	39
38	Controlled Permeability and Ion Exclusion in Microporous Membranes Functionalized with Poly(L-glutamic acid). <i>Langmuir</i> , 2002, 18, 5946-5952.	1.6	38
39	Advances in Solvent-Resistant Nanofiltration Membranes. <i>Annals of the New York Academy of Sciences</i> , 2003, 984, 159-177.	1.8	38
40	Impact of Membrane Immobilization on Particle Formation and Trichloroethylene Dechlorination for Bimetallic Fe/Ni Nanoparticles in Cellulose Acetate Membranes. <i>Journal of Physical Chemistry B</i> , 2007, 111, 7142-7154.	1.2	35
41	Orientation Specific Immobilization of Organophosphorus Hydrolase on Magnetic Particles through Gene Fusion. <i>Biomacromolecules</i> , 2001, 2, 700-705.	2.6	34
42	Ozonolysis of organic compounds in a two-phase fluorocarbon-water system. <i>Environmental Progress</i> , 1987, 6, 224-229.	0.8	33
43	Pervaporation of pharmaceutical waste streams and synthetic mixtures using water selective membranes. <i>Environmental Progress</i> , 1999, 18, 21-29.	0.8	30
44	Modified fenton reaction for trichlorophenol dechlorination by enzymatically generated H ₂ O ₂ and gluconic acid chelate. <i>Chemosphere</i> , 2007, 66, 2193-2200.	4.2	28
45	SEPARATION OF HEAVY METAL CHELATES BY ACTIVATED CARBON: EFFECT OF SURFACE AND SPECIES CHARGE. <i>Chemical Engineering Communications</i> , 1983, 23, 191-213.	1.5	26
46	Influence of metallic additives on thermal degradation and liquefaction of high density polyethylene (HDPE). <i>Polymer Degradation and Stability</i> , 1998, 61, 421-430.	2.7	26
47	PREDICTION OF MEMBRANE SEPARATION CHARACTERISTICS BY PORE DISTRIBUTION MEASUREMENTS AND SURFACE FORCE-PORE FLOW MODEL. <i>Chemical Engineering Communications</i> , 1986, 42, 111-128.	1.5	25
48	Separation of hazardous organics by reverse osmosis membranes. <i>Environmental Progress</i> , 1990, 9, 118-125.	0.8	25
49	Activity Studies of Immobilized Subtilisin on Functionalized Pure Cellulose-Based Membranes. <i>Biotechnology Progress</i> , 2001, 17, 866-871.	1.3	22
50	Improving the activity of immobilized subtilisin by site-directed attachment through a genetically engineered affinity tag. <i>Fresenius' Journal of Analytical Chemistry</i> , 2001, 369, 280-285.	1.5	21
51	Separation of dilute electrolytes in poly(amino acid) functionalized microporous membranes: model evaluation and experimental results. <i>Journal of Membrane Science</i> , 2004, 239, 65-79.	4.1	21
52	Multivariable optimization studies of cathode catalyst layer of a polymer electrolyte membrane fuel cell. <i>Chemical Engineering Research and Design</i> , 2011, 89, 10-22.	2.7	20
53	Reverse-osmosis membrane for treating coal-liquefaction wastewater. <i>Environmental Progress</i> , 1984, 3, 95-102.	0.8	19
54	Vapor Phase Mercury Sorption by Organic Sulfide Modified Bimetallic Iron-Copper Nanoparticle Aggregates. <i>Industrial & Engineering Chemistry Research</i> , 2007, 46, 1305-1315.	1.8	19

#	ARTICLE	IF	CITATIONS
55	Kinetics and Active Fraction Determination of a Protease Enzyme Immobilized on Functionalized Membranes: Mathematical Modeling and Experimental Results. <i>Biotechnology Progress</i> , 1998, 14, 865-873.	1.3	16
56	Aqueous and vapor phase mercury sorption by inorganic oxide materials functionalized with thiols and poly-thiols. <i>Clean Technologies and Environmental Policy</i> , 2005, 7, 87-96.	2.1	16
57	A study of groundwater matrix effects for the destruction of trichloroethylene using Fe/Pd nanoaggregates. <i>Environmental Progress and Sustainable Energy</i> , 2009, 28, 507-518.	1.3	14
58	Foam Separation of Anions: Hydration, Entropy, and Selectivity. <i>Analytical Letters</i> , 1971, 4, 603-612.	1.0	13
59	Charged Membrane Ultrafiltration of Toxic Metal Oxyanions and Cations from Single- and Multisalt Aqueous Solutions. <i>Separation Science and Technology</i> , 1978, 13, 449-463.	1.3	11
60	Parametric study of the cathode and the role of liquid saturation on the performance of a polymer electrolyte membrane fuel cell—A numerical approach. <i>Journal of Power Sources</i> , 2010, 195, 6782-6794.	4.0	11
61	Coal gasification process wastewater reusability: Separation of organics by membranes. <i>Environmental Progress</i> , 1983, 2, 38-47.	0.8	10
62	Ethoxylated Nonionic Surfactants in Hydrophobic Solvent: Interaction with Aqueous and Membrane-Immobilized Poly(acrylic acid). <i>Langmuir</i> , 2006, 22, 615-621.	1.6	10
63	Charged Membrane Ultrafiltration of Multisalt Systems: Application to Acid Mine Waters. <i>Separation Science and Technology</i> , 1979, 14, 193-208.	1.3	9
64	Recognition based separation of HIV-Tat protein using avidin-biotin interaction in modified microfiltration membranes. <i>Journal of Membrane Science</i> , 2006, 280, 298-310.	4.1	9
65	Mercury removal by thiol-functionalized metal oxide-carbon black sorbent and mixed matrix membranes. <i>Environmental Progress and Sustainable Energy</i> , 2013, 32, 705-714.	1.3	9
66	Effect of Pre-Filtration on Selective Isolation of Tat Protein by Affinity Membrane Separation: Analysis of Flux, Separation Efficiency, and Processing Time. <i>Separation Science and Technology</i> , 2007, 42, 2451-2471.	1.3	8
67	Oxidation of Hazardous Organics in a Two-Phase Fluorocarbon-Water System. <i>Hazardous Waste and Hazardous Materials</i> , 1986, 3, 405-427.	0.4	7
68	Functionalized membranes and environmental applications. <i>Clean Technologies and Environmental Policy</i> , 2007, 9, 81-83.	2.1	6
69	Multiple-pass water reuse. Low-pressure membranes have definite advantages for the treatment of metal-processing wastewaters and acid mine water. <i>Environmental Progress</i> , 1982, 1, 65-72.	0.8	5
70	Application of magnetic pinch force to arc plasma processes. <i>Journal of Applied Physics</i> , 1976, 47, 4863-4866.	1.1	4
71	Biotreated coal liquefaction wastewater: Identification of organics by composite RO membrane concentration, HPLC, and GC/MS. <i>Environmental Progress</i> , 1986, 5, 130-134.	0.8	4
72	Functionalised membranes remove and recover dissolved heavy metals. <i>Membrane Technology</i> , 1999, 1999, 8-11.	0.5	4

#	ARTICLE	IF	CITATIONS
73	Selectivity Coefficients for Divalent Oxyanions from the Continuous Foam Fractionation of a Quaternary Ammonium Surfactant. <i>Separation Science</i> , 1976, 11, 241-253.	0.7	3
74	Novel applications of scrap tire for organic sorption/separations. <i>Clean Technologies and Environmental Policy</i> , 1999, 1, 199-209.	2.1	3
75	Functionalized membranes for tunable separations and toxic metal capture. <i>Membrane Science and Technology</i> , 2003, , 329-352.	0.5	3
76	Functionalized Membranes for Sorption, Separation, and Reaction: An Overview. , 2010, , 13-27.		3
77	The separation of clays and major minerals in coal residues from coal and petroleum derived solvents. <i>Canadian Journal of Chemical Engineering</i> , 1978, 56, 406-411.	0.9	2
78	The Effect of Oil Types and Additives on the Separation by Flotation of Unconverted Coal and Mineral Matter from Liquefaction Products. <i>Separation Science and Technology</i> , 1980, 15, 185-200.	1.3	1
79	Biofunctional membranes: site-specifically immobilized enzyme arrays. <i>Membrane Science and Technology</i> , 2003, 8, 233-240.	0.5	1
80	Nanotechnology for TCE and PCB Dechlorination from Water: Nanoparticle Synthesis and Reactivity. , 2010, , .		1
81	Separation of selected organic and inorganic solutes by low pressure reverse osmosis membranes. <i>Progress in Clinical and Biological Research</i> , 1989, 292, 153-67.	0.2	1
82	Coal gasification condensate water: Thermodynamic modeling of gas quench effluent. <i>Canadian Journal of Chemical Engineering</i> , 1985, 63, 131-137.	0.9	0
83	MICROBIALY FORMED CATALYSTS FOR ENHANCEMENT OF DIRECT COAL LIQUEFACTION. <i>Chemical Engineering Communications</i> , 1995, 131, 173-187.	1.5	0
84	Oriented assembly of protein on surfaces. , 0, , .		0
85	Coloured Plates. , 2012, , 406-433.		0
86	Greener and Other Approaches To Synthesize Fe and Pd Nanoparticles in Functionalized Membranes and Hydrogel. <i>ACS Symposium Series</i> , 2013, , 41-58.	0.5	0