Subir Bhattacharjee

List of Publications by Year
in descending order

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93 papers	5,538 citations	101535 36 h-index	91872 69 g-index
98 all docs	98 docs citations	98 times ranked	4873 citing authors

#	Article	IF	Citations
1	Colloidal Fouling of Nanofiltration Membranes: Development of a Standard Operating Procedure. Membranes, 2017, 7, 4.	3.0	18
2	Thermo-Electrohydrodynamic Patterning in Nanofilms. Langmuir, 2016, 32, 5776-5786.	3.5	19
3	Thermally resistant and electrically conductive PES/ITO nanocomposite membrane. Journal of Membrane Science, 2016, 500, 151-160.	8.2	48
4	Compact micro/nano electrohydrodynamic patterning: using a thin conductive film and a patterned template. Soft Matter, 2016, 12, 1074-1084.	2.7	17
5	Treatment of anin situoil sands produced water by polymeric membranes. Desalination and Water Treatment, 2016, 57, 14869-14887.	1.0	51
6	Targeted Removal of Dissolved Organic Matter in Boiler-Blowdown Wastewater: Integrated Membrane Filtration for Produced Water Reuse. Industrial & Engineering Chemistry Research, 2015, 54, 9431-9439.	3.7	13
7	Nanofiltration of oil sands boiler feed water: Effect of pH on water flux and organic and dissolved solid rejection. Separation and Purification Technology, 2015, 141, 339-353.	7.9	57
8	Electrohydrodynamic patterning of ultra-thin ionic liquid films. Soft Matter, 2015, 11, 2193-2202.	2.7	19
9	A dimension map for molecular aggregates. Journal of Molecular Graphics and Modelling, 2015, 58, 10-15.	2.4	12
10	Study of the Aggregation Behavior of Silica and Dissolved Organic Matter in Oil Sands Produced Water Using Taguchi Experimental Design. Energy & Fuels, 2015, 29, 7465-7473.	5.1	10
11	Colloidal fouling of nanofiltration membranes: A novel transient electrokinetic model and experimental study. Chemical Engineering Science, 2015, 138, 153-163.	3.8	22
12	Peptide arrays for detecting naphthenic acids in oil sands process affected water. RSC Advances, 2014, 4, 60694-60701.	3.6	1
13	Electrical Perturbations of Ultrathin Bilayers: Role of Ionic Conductive Layer. Langmuir, 2014, 30, 14734-14744.	3.5	13
14	Molecular Dynamics Investigation on the Aggregation of Violanthrone78-Based Model Asphaltenes in Toluene. Energy & Fuels, 2014, 28, 3604-3613.	5.1	79
15	Electrokinetic Energy Conversion by Microchannel Array: Electrical Analogy, Experiments, and Electrode Polarization. Journal of Physical Chemistry C, 2014, 118, 24310-24324.	3.1	9
16	Evaluation of the Constant Wavenumber Cutoff Parameter for Modeling van der Waals Energy. Journal of Physical Chemistry C, 2014, 118, 3539-3544.	3.1	1
17	Initial Partition and Aggregation of Uncharged Polyaromatic Molecules at the Oilâ€“Water Interface: A Molecular Dynamics Simulation Study. Journal of Physical Chemistry B, 2014, 118, 1040-1051.	2.6	76
18	Nonmonotonous variation of <scp>DNA</scp> angular separation during asymmetric pulsed field electrophoresis. Electrophoresis, 2013, 34, 2453-2463.	2.4	3

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19	Dissolved Organic Matter in Steam Assisted Gravity Drainage Boiler Blow-Down Water. Energy & Fuels, 2013, 27, 3883-3890.	5.1	23
20	Probing the Effect of Side-Chain Length on the Aggregation of a Model Asphaltene Using Molecular Dynamics Simulations. Energy & Fuels, 2013, 27, 2057-2067.	5.1	118
21	Rational design of phase inversion membranes by tailoring thermodynamics and kinetics of casting solution using polymer additives. Journal of Membrane Science, 2013, 441, 31-44.	8.2	249
22	Characterization of Oil Sands Process-Affected Waters by Liquid Chromatography Orbitrap Mass Spectrometry. Environmental Science & Technology, 2013, 47, 5504-5513.	10.0	105
23	A Milli-Fluidic Device for Electrical Impedance Spectroscopy of Complex Liquids. , 2013, , .		0
24	Study on the use of dielectrophoresis and electrothermal forces to produce on-chip micromixers and microconcentrators. Biomicrofluidics, 2012, 6, 034118.	2.4	26
25	High-power electrokinetic energy conversion in a glass microchannel array. Lab on A Chip, 2012, 12, 4033.	6.0	46
26	Probing Structureâ€“Nanoaggregation Relations of Polyaromatic Surfactants: A Molecular Dynamics Simulation and Dynamic Light Scattering Study. Journal of Physical Chemistry B, 2012, 116, 5907-5918.	2.6	97
27	A systematic evaluation of the role of crystalline order in nanoporous materials on DNA separation. Lab on A Chip, 2012, 12, 146-152.	6.0	17
28	Characterization of Boiler Blowdown Water from Steam-Assisted Gravity Drainage and Silicaâ€“Organic Coprecipitation during Acidification and Ultrafiltration. Energy & Fuels, 2012, 26, 5604-5612.	5.1	37
29	Sherwood number in flow through parallel porous plates (Microchannel) due to pressure and electroosmotic flow. AICHE Journal, 2012, 58, 1693-1703.	3.6	33
30	Particle transport in patterned cylindrical microchannels. Microfluidics and Nanofluidics, 2012, 12, 41-51.	2.2	9
31	Particle Deposition onto Janus and Patchy Spherical Collectors. Langmuir, 2011, 27, 8787-8797.	3.5	20
32	Influence of Electrostatic and Chemical Heterogeneity on the Electric-Field-Induced Destabilization of Thin Liquid Films. Langmuir, 2011, 27, 12472-12485.	3.5	31
33	Structureâ”Activity Relationships of an Antimicrobial Peptide Plantaricin S from Two-Peptide Class IIb Bacteriocins. Journal of Medicinal Chemistry, 2011, 54, 2399-2408.	6.4	32
34	Sherwood number in porous microtube due to combined pressure and electroosmotically driven flow. Chemical Engineering Science, 2011, 66, 6515-6524.	3.8	32
35	Flux decline during cross flow membrane filtration of electrolytic solution in presence of charged nano-colloids: A simple electrokinetic model. Journal of Colloid and Interface Science, 2011, 353, 530-536.	9.4	11
36	Integration of rotational algorithms into dissipative particle dynamics: modeling polyaromatic hydrocarbons on the meso-scale. Molecular Physics, 2011, 109, 1873-1888.	1.7	12

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37	DNA Dynamics in Nanoscale Confinement under Asymmetric Pulsed Field Electrophoresis. Angewandte Chemie - International Edition, 2010, 49, 3326-3329.	13.8	23
38	Colloidal Interactions for Nanopatterned Surfaces Based on Surface Element Integration (SEI) Approach. , 2010, , .		2
39	Is Surface Roughness a â€œScapegoatâ€•or a Primary Factor When Defining Particleâ^'Substrate Interactions?. Langmuir, 2010, 26, 2528-2537.	3.5	100
40	Adsorption of an Antimicrobial Peptide on Self-Assembled Monolayers by Molecular Dynamics Simulation. Journal of Physical Chemistry B, 2010, 114, 11292-11302.	2.6	26
41	Particle Deposition onto Charge-Heterogeneous Substrates. Langmuir, 2009, 25, 4907-4918.	3.5	20
42	Interaction of an Antimicrobial Peptide with a Model Lipid Bilayer Using Molecular Dynamics Simulation. Langmuir, 2009, 25, 6591-6595.	3.5	28
43	Particle Tracking Model for Colloid Transport near Planar Surfaces Covered with Spherical Asperities. Langmuir, 2009, 25, 6887-6897.	3.5	24
44	Aggregation and Partitioning of Model Asphaltenes at Tolueneâ^'Water Interfaces: Molecular Dynamics Simulations. Energy & Fuels, 2009, 23, 5027-5035.	5.1	111
45	Analysis of Force Interactions between AFM Tips and Hydrophobic Bacteria Using DLVO Theory. Langmuir, 2009, 25, 6968-6976.	3.5	96
46	Motion of a spherical particle in a cylindrical channel using arbitrary Lagrangianâ€“Eulerian method. Journal of Colloid and Interface Science, 2008, 317, 620-630.	9.4	46
47	A microfluidic electrochemical detection technique for assessing stability of thin films and emulsions. Journal of Colloid and Interface Science, 2008, 317, 593-603.	9.4	27
48	Deformation of a droplet in an electric field: Nonlinear transient response in perfect and leaky dielectric media. Journal of Colloid and Interface Science, 2008, 318, 463-476.	9.4	70
49	Characteristic Times for Pressure and Electrostatic Force Driven Thin Film Drainage. Journal of Computational and Theoretical Nanoscience, 2008, 5, 2060-2066.	0.4	1
50	Molecular Dynamics Study of Model Molecules Resembling Asphaltene-Like Structures in Aqueous Organic Solvent Systems. Energy & Fuels, 2008, 22, 2379-2389.	5.1	157
51	Streaming Current Measurements in a Glass Microchannel Array. Journal of Physical Chemistry C, 2008, 112, 16192-16195.	3.1	14
52	Tunable Filtration Media Employing Alternating Current Electrokinetics. Langmuir, 2008, 24, 5659-5662.	3.5	5
53	Probing Surface Charge Potentials of Clay Basal Planes and Edges by Direct Force Measurements. Langmuir, 2008, 24, 12899-12910.	3.5	92
54	Atomic Force Microscopy Measurement of Heterogeneity in Bacterial Surface Hydrophobicity. Langmuir, 2008, 24, 4944-4951.	3.5	77

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55	Electric field mediated breakdown of thin liquid films separating microscopic emulsion droplets. Applied Physics Letters, 2007, 90, 184102.	3.3	26
56	Dielectrophoretic Levitation in the Presence of Shear Flow:â€‰ Implications for Colloidal Fouling of Filtration Membranes. Langmuir, 2007, 23, 10618-10627.	3.5	24
57	Transient Electrokinetic Transport in a Finite Length Microchannel:â€‰ Currents, Capacitance, and an Electrical Analogy. Journal of Physical Chemistry B, 2007, 111, 12834-12843.	2.6	20
58	Molecular dynamics simulation study of interaction between a class IIa bacteriocin and its immunity protein. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2007, 1774, 1002-1013.	2.3	8
59	Electrokinetic Phenomena in concentrated disperse systems: General problem formulation and Spherical Cell Approach. Advances in Colloid and Interface Science, 2007, 134-135, 279-321.	14.7	78
60	Initial Deposition of Colloidal Particles onÂaÂRough Nanofiltration Membrane. Canadian Journal of Chemical Engineering, 2007, 85, 570-579.	1.7	9
61	Particle Deposition onto Charge Heterogeneous Surfaces:Â Convectionâ"Diffusionâ"Migration Model. Langmuir, 2006, 22, 9879-9893.	3.5	25
62	Particle deposition onto micropatterned charge heterogeneous substrates: Trajectory analysis. Journal of Colloid and Interface Science, 2006, 293, 1-15.	9.4	24
63	The Effects of Surface Waviness and Length on Electrokinetic Transport in Wavy Capillary. Canadian Journal of Chemical Engineering, 2006, 84, 10-16.	1.7	1
64	Influence of Entrance and Exit Conditions on the Transient Evolution of Streaming Potential in a Finite Length Microchannel. , 2005, , 541.		4
65	Electrostatic Double Layer Force between a Sphere and a Planar Substrate in the Presence of Previously Deposited Spherical Particles. Langmuir, 2005, 21, 4755-4764.	3.5	25
66	Prevention of colloidal membrane fouling employing dielectrophoretic forces on a parallel electrode array. Journal of Membrane Science, 2005, 255, 187-199.	8.2	38
67	Simulations of a dielectrophoretic membrane filtration process for removal of water droplets from water-in-oil emulsions. Journal of Colloid and Interface Science, 2005, 287, 338-350.	9.4	41
68	Transient streaming potential in a finite length microchannel. Journal of Colloid and Interface Science, 2005, 292, 567-580.	9.4	51
69	Finite element estimation of electrostatic double layer interaction between colloidal particles inside a rough cylindrical capillary: effect of charging behavior. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2005, 256, 91-103.	4.7	8
70	Interactions between a Solid Spherical Particle and a Chemically Heterogeneous Planar Substrate. Langmuir, 2005, 21, 11710-11721.	3.5	36
71	Electrostatic double-layer interaction between spherical particles inside a rough capillary. Journal of Colloid and Interface Science, 2004, 273, 278-290.	9.4	15
72	Deformation of a Droplet in an Electrical Field: Transient Response in Dielectric Media. Journal of Computational and Theoretical Nanoscience, 2004, 1, 429-437.	0.4	6

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73	Colloid transport in a geochemically heterogeneous porous medium: aquifer tank experiment and modeling. Journal of Contaminant Hydrology, 2003, 65, 161-182.	3.3	46
74	Electrostatic Double Layer Force between Two Spherical Particles in a Straight Cylindrical Capillary:Â Finite Element Analysis. Langmuir, 2003, 19, 4162-4172.	3.5	26
75	Effect of Membrane Surface Roughness on Colloidâ˜Membrane DLVO Interactions. Langmuir, 2003, 19, 4836-4847.	3.5	419
76	A Model of Membrane Fouling by Salt Precipitation from Multicomponent Ionic Mixtures in Crossflow Nanofiltration. Environmental Engineering Science, 2002, 19, 399-412.	1.6	33
77	A Novel Asymmetric Clamping Cell for Measuring Streaming Potential of Flat Surfaces. Langmuir, 2002, 18, 2193-2198.	3.5	167
78	Virus transport in physically and geochemically heterogeneous subsurface porous media. Journal of Contaminant Hydrology, 2002, 57, 161-187.	3.3	89
79	Shear-Induced Reorganization of Deformable Molecular Assemblages:Â Monte Carlo Studies. Langmuir, 2001, 17, 552-561.	3.5	7
80	Role of spatial distribution of porous medium surface charge heterogeneity in colloid transport. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2001, 191, 3-15.	4.7	89
81	Coupled model of concentration polarization and pore transport in crossflow nanofiltration. AICHE Journal, 2001, 47, 2733-2745.	3.6	108
82	Coupled Influence of Colloidal and Hydrodynamic Interactions on the RSA Dynamic Blocking Function for Particle Deposition onto Packed Spherical Collectors. Journal of Colloid and Interface Science, 2000, 229, 554-567.	9.4	49
83	Transport of Iron Oxide Colloids in Packed Quartz Sand Media: Monolayer and Multilayer Deposition. Journal of Colloid and Interface Science, 2000, 231, 32-41.	9.4	115
84	DLVO interaction energy between spheroidal particles and a flat surface. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2000, 165, 143-156.	4.7	93
85	Concentration Polarization of Interacting Solute Particles in Cross-Flow Membrane Filtration. Journal of Colloid and Interface Science, 1999, 212, 81-99.	9.4	100
86	A novel approach for modeling concentration polarization in crossflow membrane filtration based on the equivalence of osmotic pressure model and filtration theory. Journal of Membrane Science, 1998, 145, 223-241.	8.2	131
87	DLVO Interaction between Rough Surfaces. Langmuir, 1998, 14, 3365-3375.	3.5	331
88	Apolar, Polar, and Electrostatic Interactions of Spherical Particles in Cylindrical Pores. Journal of Colloid and Interface Science, 1997, 187, 83-95.	9.4	30
89	Surface Element Integration: A Novel Technique for Evaluation of DLVO Interaction between a Particle and a Flat Plate. Journal of Colloid and Interface Science, 1997, 193, 273-285.	9.4	316
90	Interaction Energy of Particles in Porous Media:â€‰ New Deryaguin Type Approximation. Langmuir, 1996, 12, 5498-5500.	3.5	9

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91	Estimation and Influence of Long Range Solute. Membrane Interactions in Ultrafiltration. Industrial & Engineering Chemistry Research, 1996, 35, 3108-3121.	3.7	54
92	A molecular theory of frequency and waveâ€vectorâ€dependent dynamic response functions of electrolyte solutions. Journal of Chemical Physics, 1996, 104, 8662-8670.	3.0	14
93	Role of Patterned Surface Charge Heterogeneity on Particle Deposition. , 0, , .		0