Arman Sadeghi

List of Publications by Year
in descending order

54 papers	1,198 citations	361413 20 h-index	414414 32 g-index
54 all docs	54 docs citations	54 times ranked	512 citing authors

#	Article	IF	Citations
1	Viscous dissipation effects on thermal transport characteristics of combined pressure and electroosmotically driven flow in microchannels. International Journal of Heat and Mass Transfer, 2010, 53, 3782-3791.	4.8	85
2	Shearâ€rateâ€dependent rheology effects on mass transport and surface reactions in biomicrofluidic devices. AIChE Journal, 2015, 61, 1912-1924.	3.6	72
3	Numerical modeling of surface reaction kinetics in electrokinetically actuated microfluidic devices. Analytica Chimica Acta, 2014, 838, 64-75.	5.4	70
4	Covering the conical nanochannels with dense polyelectrolyte layers significantly improves the ionic current rectification. Analytica Chimica Acta, 2020, 1122, 48-60.	5.4	55
5	Analytical solutions for thermo-fluidic transport in electroosmotic flow through rough microtubes. International Journal of Heat and Mass Transfer, 2016, 92, 244-251.	4.8	45
6	Augmentation of the reverse electrodialysis power generation in soft nanochannels via tailoring the soft layer properties. Electrochimica Acta, 2021, 395, 139221.	5.2	40
7	Combined influences of viscous dissipation, non-uniform Joule heating and variable thermophysical properties on convective heat transfer in microtubes. International Journal of Heat and Mass Transfer, 2012, 55, 762-772.	4.8	39
8	Effect of ion partitioning on the electrostatics of soft particles with a volumetrically charged core. Electrochemistry Communications, 2017, 84, 19-23.	4.7	39
9	Electrokinetic mixing at high zeta potentials: Ionic size effects on cross stream diffusion. Journal of Colloid and Interface Science, 2015, 442, 8-14.	9.4	35
10	Tripling the reverse electrodialysis power generation in conical nanochannels utilizing soft surfaces. Physical Chemistry Chemical Physics, 2021, 23, 2211-2221.	2.8	35
11	Mixed Electroosmotically and Pressure-Driven Flow with Temperature-Dependent Properties. Journal of Thermophysics and Heat Transfer, 2011, 25, 432-442.	1.6	33
12	Theoretical modeling of electroosmotic flow in soft microchannels: A variational approach applied to the rectangular geometry. Physics of Fluids, 2018, 30, .	4.0	30
13	Solute dispersion by electroosmotic flow through soft microchannels. Sensors and Actuators B: Chemical, 2018, 255, 3585-3600.	7.8	30
14	Electroosmotic flow in soft microchannels at high grafting densities. Physical Review Fluids, 2019, 4, .	2.5	30
15	Electrophoresis of spherical soft particles in electrolyte solutions: A review. Electrophoresis, 2020, 41, 81-103.	2.4	28
16	Drastic alteration of diffusioosmosis due to steric effects. Physical Chemistry Chemical Physics, 2015, 17, 29193-29200.	2.8	25
17	Electroosmotic Flow in Hydrophobic Microchannels of General Cross Section. Journal of Fluids Engineering, Transactions of the ASME, 2016, 138, .	1.5	25
18	Rheology effects on cross-stream diffusion in a Y-shaped micromixer. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2014, 456, 296-306.	4.7	24

#	Article	IF	Citations
19	Diffusioosmotic flow in rectangular microchannels. Electrophoresis, 2016, 37, 809-817.	2.4	23
20	Effect of ion partitioning on electrostatics of soft particles with volumetrically charged inner core coated with pH-regulated polyelectrolyte layer. Colloids and Surfaces B: Biointerfaces, 2018, 170, 129-135.	5.0	22
21	Graetz problem for combined pressure-driven and electroosmotic flow in microchannels with distributed wall heat flux. International Journal of Heat and Mass Transfer, 2019, 128, 150-160.	4.8	22
22	Joule Heating Effects In Electrokinetically Driven Flow Through Rectangular Microchannels: An Analytical Approach. Nanoscale and Microscale Thermophysical Engineering, 2013, 17, 173-193.	2.6	21
23	Unsteady solute dispersion by electrokinetic flow in a polyelectrolyte layer-grafted rectangular microchannel with wall absorption. Journal of Fluid Mechanics, 2020, 887, .	3.4	21
24	Graetz Problem Extended to Mixed Electroosmotically and Pressure Driven Flow. Journal of Thermophysics and Heat Transfer, 2012, 26, 123-133.	1.6	20
25	Variational formulation on Joule heating in combined electroosmotic and pressure driven microflows. International Journal of Heat and Mass Transfer, 2013, 61, 254-265.	4.8	20
26	Mass transport characteristics of diffusioosmosis: Potential applications for liquid phase transportation and separation. Physics of Fluids, 2017, 29, .	4.0	20
27	Effect of ion partitioning on electrophoresis of soft particles. Colloid and Polymer Science, 2019, 297, 191-200.	2.1	20
28	Electroosmotic flow and heat transfer in a heterogeneous circular microchannel. Applied Mathematical Modelling, 2020, 87, 640-654.	4.2	20
29	Electroosmotic flow and ionic conductance in a pH-regulated rectangular nanochannel. Physics of Fluids, 2017, 29, .	4.0	19
30	Hydrodynamic dispersion by electroosmotic flow in soft microchannels: Consideration of different properties for electrolyte and polyelectrolyte layer. Chemical Engineering Science, 2021, 229, 116058.	3.8	18
31	Second Law Analysis of Slip Flow Forced Convection Through a Parallel Plate Microchannel. Nanoscale and Microscale Thermophysical Engineering, 2010, 14, 209-228.	2.6	15
32	Geometry effect on electrokinetic flow and ionic conductance in pH-regulated nanochannels. Physics of Fluids, 2017, 29, .	4.0	14
33	A depthwise averaging solution for cross-stream diffusion in a Y-micromixer by considering thick electrical double layers and nonlinear rheology. Microfluidics and Nanofluidics, 2015, 19, 1297-1308.	2.2	13
34	Analytical solutions for species transport in a Tâ€sensor at low peclet numbers. AIChE Journal, 2016, 62, 4119-4130.	3.6	13
35	Hydrodynamic dispersion by electroosmotic flow of viscoelastic fluids within a slit microchannel. Microfluidics and Nanofluidics, 2018, 22, 1.	2.2	13
36	Significant alteration in DNA electrophoretic translocation velocity through soft nanopores by ion partitioning. Analytica Chimica Acta, 2019, 1080, 66-74.	5.4	13

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37	Pressure effects on electroosmotic flow of power-law fluids in rectangular microchannels. Theoretical and Computational Fluid Dynamics, 2014, 28, 409-426.	2.2	12
38	H2 forced convection in rectangular microchannels under a mixed electroosmotic and pressure-driven flow. International Journal of Thermal Sciences, 2017, 122, 162-171.	4.9	12
39	Hydrodynamic and Thermal Characteristics of Combined Electroosmotic and Pressure Driven Flow in a Microannulus. Journal of Heat Transfer, 2012, 134, .	2.1	11
40	Analytical solutions for mass transport in hydrodynamic focusing by considering different diffusivities for sample and sheath flows. Journal of Fluid Mechanics, 2019, 862, 517-551.	3.4	11
41	Gaseous Slip Flow Mixed Convection in Vertical Microducts of Constant but Arbitrary Geometry. Journal of Thermophysics and Heat Transfer, 2014, 28, 771-784.	1.6	10
42	Gaseous slip flow forced convection through ordered microcylinders. Microfluidics and Nanofluidics, 2013, 15, 73-85.	2.2	9
43	Gaseous Slip Flow Forced Convection in Microducts of Arbitrary but Constant Cross Section. Nanoscale and Microscale Thermophysical Engineering, 2014, 18, 354-372.	2.6	9
44	Depletion of crossâ€stream diffusion in the presence of viscoelasticity. AICHE Journal, 2015, 61, 4533-4541.	3.6	9
45	Continuous size-based focusing and bifurcating microparticle streams using a negative dielectrophoretic system. Microfluidics and Nanofluidics, 2013, 14, 265-276.	2.2	8
46	Gaseous Slip Flow Mixed Convection in Vertical Microducts With Constant Axial Energy Input. Journal of Heat Transfer, 2014, 136, .	2.1	8
47	Enhancement of surface adsorption-desorption rates in microarrays invoking surface charge heterogeneity. Sensors and Actuators B: Chemical, 2017, 242, 956-964.	7.8	8
48	Buoyancy effects on gaseous slip flow in a vertical rectangular microchannel. Microfluidics and Nanofluidics, 2014, 16, 207-224.	2.2	6
49	Bounded amplification of diffusioosmosis utilizing hydrophobicity. RSC Advances, 2016, 6, 49517-49526.	3.6	6
50	Liquid Flow Forced Convection in Rectangular Microchannels With Nonuniform Heating: Toward Analytical Modeling of Hotspots. Journal of Heat Transfer, 2020, 142, .	2.1	4
51	Gaseous Slip-Flow Mixed Convection Through Ordered Microcylinders. Journal of Thermophysics and Heat Transfer, 2014, 28, 105-117.	1.6	3
52	A new method for analytical modeling of microfluidic extraction. Microfluidics and Nanofluidics, 2021, 25, 1.	2.2	3
53	Reduction of production rate in Y-shaped microreactors in the presence of viscoelasticity. Analytica Chimica Acta, 2017, 990, 121-134.	5.4	2
54	Electrophoretic velocity of spherical particles in Quemada fluids. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2013, 436, 225-230.	4.7	0