Dalton Harvie

List of Publications by Year
in descending order

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55 papers	1,637 citations	257450 24 h-index	289244 40 g-index
56 all docs	56 docs citations	56 times ranked	1436 citing authors

#	Article	IF	Citations
1	A New Volume of Fluid Advection Algorithm: The Stream Scheme. Journal of Computational Physics, 2000, 162, 1-32.	3.8	150
2	An analysis of parasitic current generation in Volume of Fluid simulations. Applied Mathematical Modelling, 2006, 30, 1056-1066.	4.2	146
3	What is important in the simulation of spray dryer performance and how do current CFD models perform?. Applied Mathematical Modelling, 2006, 30, 1281-1292.	4.2	102
4	A new volume of fluid advection algorithm: the defined donating region scheme. International Journal for Numerical Methods in Fluids, 2001, 35, 151-172.	1.6	90
5	A hydrodynamic and thermodynamic simulation of droplet impacts on hot surfaces, Part I: theoretical model. International Journal of Heat and Mass Transfer, 2001, 44, 2633-2642.	4.8	70
6	Mechanisms of flux decline in skim milk ultrafiltration: A review. Journal of Membrane Science, 2017, 523, 144-162.	8.2	64
7	A hydrodynamic and thermodynamic simulation of droplet impacts on hot surfaces, Part II: validation and applications. International Journal of Heat and Mass Transfer, 2001, 44, 2643-2659.	4.8	61
8	Electroviscous effects in steady fully developed flow of a power-law liquid through a cylindrical microchannel. International Journal of Heat and Fluid Flow, 2009, 30, 804-811.	2.4	54
9	A Computational Fluid Dynamics Study of a Tall-Form Spray Dryer. Food and Bioproducts Processing, 2002, 80, 163-175.	3.6	43
10	Deformation of a viscoelastic droplet passing through a microfluidic contraction. Journal of Non-Newtonian Fluid Mechanics, 2008, 155, 67-79.	2.4	43
11	A parametric study of droplet deformation through a microfluidic contraction: Low viscosity Newtonian droplets. Chemical Engineering Science, 2006, 61, 5149-5158.	3.8	41
12	Extraction kinetics of Fe(III) by di-(2-ethylhexyl) phosphoric acid using a Yâ€"Y shaped microfluidic device. Chemical Engineering Research and Design, 2014, 92, 571-580.	5.6	40
13	A Computational Fluid Dynamic Model of Fire Burning Rate and Extinction by Water Sprinkler. Combustion Science and Technology, 1997, 123, 227-245.	2.3	38
14	Contact angle effects on microdroplet deformation using CFD. Applied Mathematical Modelling, 2006, 30, 1033-1042.	4.2	38
15	Electrokinetics of the silica and aqueous electrolyte solution interface: Viscoelectric effects. Advances in Colloid and Interface Science, 2016, 234, 108-131.	14.7	38
16	Electrokinetics of isolated electrified drops. Soft Matter, 2016, 12, 3310-3325.	2.7	37
17	Electroviscous effects in low Reynolds number liquid flow through a slit-like microfluidic contraction. Chemical Engineering Science, 2007, 62, 4229-4240.	3.8	36
18	Numerical Simulations of Gas Flow Patterns Within a Tall-Form Spray Dryer. Chemical Engineering Research and Design, 2001, 79, 235-248.	5.6	34

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19	Modelling of interfacial mass transfer in microfluidic solvent extraction: part I. Heterogenous transport. Microfluidics and Nanofluidics, 2013, 14, 197-212.	2.2	31
20	Modelling of interfacial mass transfer in microfluidic solvent extraction: part II. Heterogeneous transport with chemical reaction. Microfluidics and Nanofluidics, 2013, 14, 213-224.	2.2	31
21	Concentration gradient focusing and separation in a silica nanofluidic channel with a non-uniform electroosmotic flow. Lab on A Chip, 2014, 14, 3539-3549.	6.0	30
22	Viscoelectric Effects in Nanochannel Electrokinetics. Journal of Physical Chemistry C, 2017, 121, 20517-20523.	3.1	28
23	Ultrapermeable Composite Membranes Enhanced Via Doping with Amorphous MOF Nanosheets. ACS Central Science, 2021, 7, 671-680.	11.3	27
24	Steady flow of ionic liquid through a cylindrical microfluidic contractionâ€“expansion pipe: Electroviscous effects and pressure drop. Chemical Engineering Science, 2008, 63, 3593-3604.	3.8	26
25	A parametric study of droplet deformation through a microfluidic contraction: Shear thinning liquids. International Journal of Multiphase Flow, 2007, 33, 545-556.	3.4	25
26	Estimation of anisotropic permeability in trabecular bone based on microCT imaging and pore-scale fluid dynamics simulations. Bone Reports, 2017, 6, 129-139.	0.4	25
27	A Simple Kinetic Theory Treatment of Volatile Liquid-Gas Interfaces. Journal of Heat Transfer, 2001, 123, 486-491.	2.1	24
28	Electroviscous effects in a Carreau liquid flowing through a cylindrical microfluidic contraction. Chemical Engineering Science, 2010, 65, 6259-6269.	3.8	24
29	A multiphase electrokinetic flow model for electrolytes with liquid/liquid interfaces. Journal of Computational Physics, 2013, 251, 209-222.	3.8	24
30	A Simple, Scalable Process for the Production of Porous Polymer Microspheres by Inkâ€Jetting Combined with Thermally Induced Phase Separation. Particle and Particle Systems Characterization, 2014, 31, 685-698.	2.3	22
31	Stationary Chemical Gradients for Concentration Gradient-Based Separation and Focusing in Nanofluidic Channels. Langmuir, 2014, 30, 5337-5348.	3.5	22
32	Electrolytic drops in an electric field: A numerical study of drop deformation and breakup. Physical Review E, 2015, 92, 013007.	2.1	21
33	Electrophoretically mediated partial coalescence of a charged microdrop. Chemical Engineering Science, 2017, 169, 273-283.	3.8	17
34	Microfluidic circuit analysis I: Ion current relationships for thin slits and pipes. Journal of Colloid and Interface Science, 2012, 365, 1-15.	9.4	16
35	Effect of surfactants on single bubble sonoluminescence behavior and bubble surface stability. Physical Review E, 2014, 89, 043007.	2.1	15
36	Isoelectric Focusing in a Silica Nanofluidic Channel: Effects of Electromigration and Electroosmosis. Analytical Chemistry, 2014, 86, 8711-8718.	6.5	15

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37	Lift and drag forces acting on a particle moving with zero slip in a linear shear flow near a wall. Journal of Fluid Mechanics, 2020, 904, .	3.4	14
38	Microfluidic circuit analysis II: Implications of ion conservation for microchannels connected in series. Journal of Colloid and Interface Science, 2012, 365, 16-27.	9.4	10
39	Lift and drag forces acting on a particle moving in the presence of slip and shear near a wall. Journal of Fluid Mechanics, 2021, 915, .	3.4	10
40	Effect of wall permittivity on electroviscous flow through a contraction. Biomicrofluidics, 2011, 5, 044102.	2.4	8
41	Electrokinetic flow in parallel channels: Circuit modelling for microfluidics and membranes. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2014, 440, 63-73.	4.7	8
42	Numerical calculation of permeability of periodic porous materials: Application to periodic arrays of spheres and 3D scaffold microstructures. International Journal for Numerical Methods in Engineering, 2019, 118, 783-803.	2.8	8
43	Electrokinetic flow in connected channels: a comparison of two circuit models. Microfluidics and Nanofluidics, 2012, 13, 481-490.	2.2	7
44	Simulating the ultrafiltration of whey proteins isolate using a mixture model. Journal of Membrane Science, 2020, 613, 118388.	8.2	7
45	Numerical simulation of two-fluid flow of electrolyte solution with charged deforming interfaces. Applied Mathematical Modelling, 2016, 40, 1989-2001.	4.2	4
46	Electrokinetic development length of electroviscous flow through a contraction. ANZIAM Journal, 0, 52, 837.	0.0	4
47	Parasitic current generation in Combined Level Set and Volume of Fluid immiscible fluid simulations. ANZIAM Journal, 0, 48, 868.	0.0	3
48	Electroviscous flow through nanofluidic junctions. Applied Mathematical Modelling, 2014, 38, 4215-4225.	4.2	2
49	Numerical simulation of the deformation of charged drops of electrolyte. WIT Transactions on Engineering Sciences, 2014, , .	0.0	2
50	Shear Induced Interactions Cause Polymer Compression. Scientific Reports, 2020, 10, 5531.	3.3	1
51	Simulations of viscoelastic droplet deformation through a microfluidic contraction. WIT Transactions on Engineering Sciences, 2006, , .	0.0	1
52	Fully Developed Flow of Power-Law Fluid Through a Cylindrical Microfluidic Pipe: Pressure Drop and Electroviscous Effects. , 2008, , .		0
53	Electroviscous resistance of nanofluidic bends. Physical Review E, 2014, 90, 043008.	2.1	0
54	Porous Microspheres: A Simple, Scalable Process for the Production of Porous Polymer Microspheres by Ink-Jetting Combined with Thermally Induced Phase Separation (Part. Part. Syst. Charact. 6/2014). Particle and Particle Systems Characterization, 2014, 31, 614-614.	2.3	0

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55	Modeling Thrombin Generation in Plasma under Diffusion and Flow. Biophysical Journal, 2020, 119, 162-181.	0.5	0