Nina M Kovalchuk

List of Publications by Year
in descending order

82 papers	2,321 citations	201385 27 h-index	243296 44 g-index
83 all docs	83 docs citations	83 times ranked	2104 citing authors

#	Article	IF	Citations
1	Effect of surfactant addition and viscosity of the continuous phase on flow fields and kinetics of drop formation in a flow-focusing microfluidic device. Chemical Engineering Science, 2022, 248, 117183.	1.9	13
2	Computational modelling and microfluidics as emerging approaches to synthesis of silver nanoparticles â€“ A review. Chemical Engineering Journal, 2022, 436, 135178.	6.6	25
3	Surfactant-mediated wetting and spreading: Recent advances and applications. Current Opinion in Colloid and Interface Science, 2021, 51, 101375.	3.4	36
4	Effect of Surfactant Dynamics on Flow Patterns Inside Drops Moving in Rectangular Microfluidic Channels. Colloids and Interfaces, 2021, 5, 40.	0.9	5
5	Superspreading performance of branched ionic trimethylsilyl surfactant Mg(AOTSiC)2. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2020, 604, 125277.	2.3	6
6	Interfacial instabilities due to immiscible fluid displacement in circular and non-circular microchannels. Experimental Thermal and Fluid Science, 2020, 113, 110045.	1.5	3
7	Drop formation in microfluidic cross-junction: jetting to dripping to jetting transition. Microfluidics and Nanofluidics, 2019, 23, 1.	1.0	37
8	Superspreading on Hydrophobic Substrates: Effect of Glycerol Additive. Colloids and Interfaces, 2019, 3, 51.	0.9	9
9	Mass Transfer Accompanying Coalescence of Surfactant-Laden and Surfactant-Free Drop in a Microfluidic Channel. Langmuir, 2019, 35, 9184-9193.	1.6	16
10	Experimental studies on droplet formation in a flow-focusing microchannel in the presence of surfactants. Chemical Engineering Science, 2019, 195, 507-518.	1.9	42
11	Effect of soluble surfactants on pinch-off of moderately viscous drops and satellite size. Journal of Colloid and Interface Science, 2018, 516, 182-191.	5.0	27
12	Effect of soluble surfactant on regime transitions at drop formation. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2018, 545, 1-7.	2.3	10
13	Residual film thickness following immiscible fluid displacement in noncircular microchannels at large capillary number. AIChE Journal, 2018, 64, 3456-3466.	1.8	6
14	Study of drop coalescence and mixing in microchannel using Ghost Particle Velocimetry. Chemical Engineering Research and Design, 2018, 132, 881-889.	2.7	15
15	Effect of surfactant on emulsification in microchannels. Chemical Engineering Science, 2018, 176, 139-152.	1.9	63
16	Simulation of immiscible liquidâ€“liquid flows in complex microchannel geometries using a front-tracking scheme. Microfluidics and Nanofluidics, 2018, 22, 126.	1.0	11
17	Kinetics of Wetting and Spreading of Droplets over Various Substrates. Langmuir, 2017, 33, 4367-4385.	1.6	55
18	Bulk advection and interfacial flows in the binary coalescence of surfactant-laden and surfactant-free drops. Soft Matter, 2017, 13, 4616-4628.	1.2	25

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19	Kinetics of liquid bridges and formation of satellite droplets: Difference between micellar and bi-layer forming solutions. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2017, 521, 193-203.	2.3	22
20	Foams built up by non-Newtonian polymeric solutions: Free drainage. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2017, 521, 112-120.	2.3	19
21	Effect of Soluble Surfactants on the Kinetics of Thinning of Liquid Bridges during Drops Formation and on Size of Satellite Droplets. Langmuir, 2016, 32, 5069-5077.	1.6	33
22	Effect of surfactant concentration and viscosity of outer phase during the coalescence of a surfactant-laden drop with a surfactant-free drop. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2016, 505, 124-131.	2.3	46
23	Kinetics of spreading of synergetic surfactant mixtures in the case of partial wetting. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2016, 505, 23-28.	2.3	10
24	Surfactant-enhanced spreading: Experimental achievements and possible mechanisms. Advances in Colloid and Interface Science, 2016, 233, 155-160.	7.0	46
25	The effect of adsorption kinetics on the rate of surfactant-enhanced spreading. Soft Matter, 2016, 12, 1009-1013.	1.2	29
26	Wetting films of aqueous solutions of Silwet L-77 on a hydrophobic surface. Soft Matter, 2016, 12, 26-30.	1.2	15
27	Solutal Marangoni Convection: Challenges in Fluid Dynamics with Mass Transfer. Progress in Colloid and Interface Science, 2015, , 467-480.	0.0	0
28	Wetting properties of cosmetic polymeric solutions on hair tresses. Colloids and Interface Science Communications, 2015, 9, 12-15.	2.0	10
29	Spontaneous non-linear oscillations of interfacial tension at oil/water interface. Open Chemistry, 2015, 13, .	1.0	8
30	Foam drainage placed on a porous substrate. Soft Matter, 2015, 11, 3643-3652.	1.2	23
31	Interaction of foam with a porous medium: Theory and calculations. European Physical Journal: Special Topics, 2015, 224, 459-471.	1.2	16
32	Mixtures of catanionic surfactants can be superspreaders: Comparison with trisiloxane superspreader. Journal of Colloid and Interface Science, 2015, 459, 250-256.	5.0	29
33	Current applications of foams formed from mixed surfactantâ€“polymer solutions. Advances in Colloid and Interface Science, 2015, 222, 670-677.	7.0	152
34	Evaporation of sessile droplets. Current Opinion in Colloid and Interface Science, 2014, 19, 336-342.	3.4	75
35	Fluoro- vs hydrocarbon surfactants: Why do they differ in wetting performance?. Advances in Colloid and Interface Science, 2014, 210, 65-71.	7.0	147
36	Surfactant Enhanced Spreading: Catanionic Mixture. Colloids and Interface Science Communications, 2014, 1, 1-5.	2.0	13

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37	Simultaneous spreading and evaporation: Recent developments. Advances in Colloid and Interface Science, 2014, 206, 382-398.	7.0	90
38	Effects of additives on the foaming properties of Aculyn 22 and Aculyn 33 polymeric solutions. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2014, 460, 265-271.	2.3	19
39	Dynamic properties of CnTAB adsorption layers at the water/oil interface. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2014, 441, 825-830.	2.3	12
40	Marangoni instabilities for convective mobile interfaces during drop exchange: Experimental study and CFD simulation. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2014, 441, 846-854.	2.3	31
41	Evaporation of Droplets of Surfactant Solutions. Langmuir, 2013, 29, 10028-10036.	1.6	87
42	Characterization methods for liquid interfacial layers. European Physical Journal: Special Topics, 2013, 222, 7-29.	1.2	45
43	Bulk and surface rheology of Aculynâ„¢ 22 and Aculynâ„¢ 33 polymeric solutions and kinetics of foam drainage. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2013, 434, 268-275.	2.3	22
44	Adsorption layer properties of alkyltrimethylammonium bromides at interfaces between water and different alkanes. Journal of Colloid and Interface Science, 2013, 410, 181-187.	5.0	24
45	Aggregation in colloidal suspensions: Effect of colloidal forces and hydrodynamic interactions. Advances in Colloid and Interface Science, 2012, 179-182, 99-106.	7.0	75
46	Ionic Strength and pH as Control Parameters for Spontaneous Surface Oscillations. Langmuir, 2012, 28, 6893-6901.	1.6	14
47	Fast dynamic interfacial tension measurements and dilational rheology of interfacial layers by using the capillary pressure technique. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2012, 407, 159-168.	2.3	51
48	Drop profile analysis tensiometry under highly dynamic conditions. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2012, 413, 292-297.	2.3	33
49	Effect of water hardness on surface tension and dilational visco-elasticity of sodium dodecyl sulphate solutions. Journal of Colloid and Interface Science, 2012, 377, 1-6.	5.0	27
50	Spontaneous oscillations due to solutal Marangoni instability: air/water interface. Open Chemistry, 2012, 10, 1423-1441.	1.0	9
51	Dynamics of interfacial layersâ€"Experimental feasibilities of adsorption kinetics and dilational rheology. Advances in Colloid and Interface Science, 2011, 168, 167-178.	7.0	65
52	Complex Shapes and Dynamics of Dissolving Drops of Dichloromethane. Angewandte Chemie - International Edition, 2011, 50, 10728-10731.	7.2	78
53	Aggregation in colloidal suspensions and its influence on the suspension viscosity. Colloid Journal, 2010, 72, 379-388.	0.5	9
54	Effect of aggregation on viscosity of colloidal suslension. Colloid Journal, 2010, 72, 647-652.	0.5	9

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55	Transfer of oxyethylated alcohols through water/heptane interface: Transition from non-oscillatory to oscillatory behaviour. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2010, 354, 134-142.	2.3	15
56	Kinetic models of micelles formation. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2010, 354, 268-278.	2.3	16
57	Auto-Oscillation of Surface Tension: Effect of pH on Fatty Acid Systems. Langmuir, 2010, 26, 14624-14627.	1.6	9
58	Ultra flocculation of quartz suspensions: effects of shear rate, particle size distribution and solids content. Institutions of Mining and Metallurgy Transactions Section C: Mineral Processing and Extractive Metallurgy, 2009, 118, 175-181.	0.6	8
59	Formation of stable clusters in colloidal suspensions. Advances in Colloid and Interface Science, 2009, 147-148, 144-154.	7.0	34
60	Reversible coagulation of colloidal suspension in shallow potential wells: Direct numerical simulation. Colloid Journal, 2009, 71, 503-513.	0.5	8
61	Colloidal dynamics: Influence of diffusion, inertia and colloidal forces on cluster formation. Journal of Colloid and Interface Science, 2008, 325, 377-385.	5.0	10
62	Oscillation of Interfacial Tension Produced by Transfer of Nonionic Surfactant through the Liquid/Liquid Interface. Journal of Physical Chemistry C, 2008, 112, 9016-9022.	1.5	20
63	Recognition and Dissociation Kinetics in the Interfacial Molecular Recognition of Barbituric Acid by Amphiphilic Melamine-Type Monolayers. Journal of Physical Chemistry B, 2007, 111, 8283-8289.	1.2	16
64	Instability and spontaneous oscillations by surfactant transfer through a liquid membrane. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2007, 309, 231-239.	2.3	15
65	Surfactant Transfer through a Liquid Membrane:Â Origin of Spontaneous Oscillations at the Membrane/Acceptor Phase Interface. Journal of Physical Chemistry B, 2006, 110, 9774-9778.	1.2	16
66	Spontaneous nonlinear oscillation produced by alcohol transfer through water/alkane interface: An experimental study. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2006, 291, 101-109.	2.3	9
67	Marangoni instability and spontaneous non-linear oscillations produced at liquid interfaces by surfactant transfer. Advances in Colloid and Interface Science, 2006, 120, 1-31.	7.0	78
68	Application of Ultra-Flocculation for Improving Fine Coal Concentrate Dewatering. Coal Preparation, 2006, 26, 17-32.	0.5	5
69	Auto-oscillation of surface tension: heptanol in water and water/ethanol systems. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2005, 256, 61-68.	2.3	15
70	Nonlinear Spontaneous Oscillations at the Liquid/Liquid Interface Produced by Surfactant Dissolution in the Bulk Phase. Journal of Physical Chemistry B, 2005, 109, 22868-22875.	1.2	21
71	Effect of Buoyancy on Appearance and Characteristics of Surface Tension Repeated Auto-oscillations. Journal of Physical Chemistry B, 2005, 109, 15037-15047.	1.2	22
72	Nonlinear oscillations at liquid interfaces by surfactant transfer. , 2004, , 36-43.		0

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73	Spontaneous non-linear surface tension oscillations in the presence of a spread surfactant monolayer at the air/water interface. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2004, 250, 141-151.	2.3	18
74	Experimental studies on the geometrical characteristics determining the system behavior of surface tension autooscillations. Journal of Colloid and Interface Science, 2003, 261, 490-497.	5.0	20
75	Theoretical description of repeated surface-tension auto-oscillations. Physical Review E, 2002, 66, 026302.	0.8	26
76	Auto-oscillations of surface tension: experiments with octanol and hexanol and numerical simulation of the system dynamics. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2002, 198-200, 223-230.	2.3	8
77	Comparison of surface tension auto-oscillations in fatty acidâ€“water and aliphatic alcoholâ€“water systems. Materials Science and Engineering C, 2002, 22, 147-153.	3.8	17
78	A Numerical Study of Surface Tension Auto-Oscillations. Effect of Surfactant Properties. Journal of Physical Chemistry B, 2001, 105, 4709-4714.	1.2	17
79	Numerical study of the Marangoni instability resulting in surface tension auto-oscillations: General regularities of the system evolution. Physical Review E, 2001, 63, 031604.	0.8	18
80	Effect of the Nonstationary Viscous Flow in the Capillary on Oscillating Bubble and Oscillating Drop Measurements. Journal of Colloid and Interface Science, 2000, 232, 25-32.	5.0	13
81	Auto-oscillation of surface tension. Physical Review E, 1999, 60, 2029-2036.	0.8	70
82	Effect of the working medium and the particle size of the strengthening phase on tribological properties of a metalâ€”Ceramic composite. Powder Metallurgy and Metal Ceramics, 1998, 37, 535-539.	0.4	0