Volodymyr I Kovalchuk

List of Publications by Year
in descending order

99 papers	2,222 citations	201575 27 h-index	254106 43 g-index
102 all docs	102 docs citations	102 times ranked	1392 citing authors

#	Article	IF	Citations
1	Salt effects on the dilational viscoelasticity of surfactant adsorption layers. Current Opinion in Colloid and Interface Science, 2022, 57, 101538.	3.4	26
2	A Multistate Adsorption Model for the Characterization of C₁₃DMPO Adsorption Layers at the Aqueous Solution/Air Interface. Langmuir, 2022, 38, 4913-4920.	1.6	0
3	Thermodynamics, Kinetics and Dilational Visco-Elasticity of Adsorbed CnEOm Layers at the Aqueous Solution/Air Interface. Colloids and Interfaces, 2021, 5, 16.	0.9	3
4	Î²-Lactoglobulin Adsorption Layers at the Water/Air Surface: 5. Adsorption Isotherm and Equation of State Revisited, Impact of pH. Colloids and Interfaces, 2021, 5, 14.	0.9	5
5	A Multistate Adsorption Model for the Adsorption of C14EO4 and C14EO8 at the Solution/Air Interface. Colloids and Interfaces, 2021, 5, 39.	0.9	7
6	Methods and models to investigate the physicochemical functionality of pulmonary surfactant. Current Opinion in Colloid and Interface Science, 2021, 55, 101467.	3.4	23
7	Effect of Temperature on the Dynamic Properties of Mixed Surfactant Adsorbed Layers at the Water/Hexane Interface under Low-Gravity Conditions. Colloids and Interfaces, 2020, 4, 27.	0.9	6
8	Drop Size Dependence of the Apparent Surface Tension of Aqueous Solutions in Hexane Vapor as Studied by Drop Profile Analysis Tensiometry. Colloids and Interfaces, 2020, 4, 29.	0.9	1
9	Interfacial Properties of Tridecyl Dimethyl Phosphine Oxide Adsorbed at the Surface of a Solution Drop in Hexane Saturated Air. Colloids and Interfaces, 2020, 4, 19.	0.9	5
10	New view of the adsorption of surfactants at water/alkane interfaces â€“ Competitive and cooperative effects of surfactant and alkane molecules. Advances in Colloid and Interface Science, 2020, 279, 102143.	7.0	37
11	Interfacial Dilational Viscoelasticity of Adsorption Layers at the Hydrocarbon/Water Interface: The Fractional Maxwell Model. Colloids and Interfaces, 2019, 3, 66.	0.9	1
12	Dilational interfacial rheology of tridecyl dimethyl phosphine oxide adsorption layers at the water/hexane interface. Journal of Colloid and Interface Science, 2019, 539, 30-37.	5.0	16
13	Dilational surface visco-elasticity of CnEOm solutions under dynamic conditions. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2018, 557, 131-136.	2.3	4
14	Effect of Amplitude on the Surface Dilational Visco-Elasticity of Protein Solutions. Colloids and Interfaces, 2018, 2, 57.	0.9	8
15	Dynamic Properties of Mixed Cationic/Nonionic Adsorbed Layers at the N-Hexane/Water Interface: Capillary Pressure Experiments Under Low Gravity Conditions. Colloids and Interfaces, 2018, 2, 53.	0.9	4
16	Direct Determination of the Distribution Coefficient of Tridecyl Dimethyl Phosphine Oxide between Water and Hexane. Colloids and Interfaces, 2018, 2, 28.	0.9	11
17	Dilational Viscoelasticity of Proteins Solutions in Dynamic Conditions. Langmuir, 2018, 34, 6678-6686.	1.6	19
18	Dynamic properties of Span-80 adsorbed layers at paraffin-oil/water interface: Capillary pressure experiments under low gravity conditions. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2017, 532, 228-243.	2.3	6

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19	Adsorption of alkane vapor at water drop surfaces. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2017, 532, 541-547.	2.3	12
20	Adsorption of C₁₄EO₈ at the interface between its aqueous solution drop and air saturated by different alkanes vapor. Physical Chemistry Chemical Physics, 2017, 19, 2193-2200.	1.3	8
21	Mixed Protein/Hexane Adsorption Layers Formed at the Surface of Protein Solution Drops Surrounded by Hexane Vapor. Advanced Materials Interfaces, 2017, 4, 1600031.	1.9	5
22	Multilayer Adsorption of Heptane Vapor at Water Drop Surfaces. Colloids and Interfaces, 2017, 1, 8.	0.9	2
23	Hydrodynamic dispersion in long microchannels under conditions of electroosmotic circulation: II. Electrolytes. Microfluidics and Nanofluidics, 2016, 20, 1.	1.0	3
24	Dilational Viscoelasticity of Adsorption Layers Measured by Drop and Bubble Profile Analysis: Reason for Different Results. Langmuir, 2016, 32, 5500-5509.	1.6	16
25	Surface tension of water and C 10 EO 8 solutions at the interface to hexane vapor saturated air. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2016, 505, 118-123.	2.3	11
26	Dynamics of rear stagnant cap formation at the surface of rising bubbles in surfactant solutions at large Reynolds and Marangoni numbers and for slow sorption kinetics. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2016, 492, 127-137.	2.3	25
27	Mechano-chemical effects in weakly charged porous media. Advances in Colloid and Interface Science, 2015, 222, 779-801.	7.0	2
28	Hydrodynamic dispersion in long microchannels under conditions of electroosmotic circulation. I. Non-electrolytes. Microfluidics and Nanofluidics, 2015, 18, 1139-1154.	1.0	4
29	Dynamics of Rear Stagnant Cap formation at the surface of spherical bubbles rising in surfactant solutions at large Reynolds numbers under conditions of small Marangoni number and slow sorption kinetics. Advances in Colloid and Interface Science, 2015, 222, 260-274.	7.0	53
30	Influence of Î²-lactoglobulin and its surfactant mixtures on velocity of the rising bubbles. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2014, 460, 361-368.	2.3	32
31	Electrophoresis and stability of nano-colloids: History, theory and experimental examples. Advances in Colloid and Interface Science, 2014, 211, 77-92.	7.0	35
32	Dynamics of liquid interfaces under various types of external perturbations. Current Opinion in Colloid and Interface Science, 2014, 19, 309-319.	3.4	12
33	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
34	Wettability of Solid-Supported Lipid Layers. , 2014, , 150-177.		0
35	One Hundred Years of Micelles: Evolution of the Theory of Micellization. , 2014, , 32-81.		0
36	Characterization methods for liquid interfacial layers. European Physical Journal: Special Topics, 2013, 222, 7-29.	1.2	45

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37	Interfacial Dynamics Methods. , 2013, , 637-676.		2
38	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
39	Drop profile analysis tensiometry under highly dynamic conditions. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2012, 413, 292-297.	2.3	33
40	Spherical cap-shaped emulsion films: thickness evaluation at the nanoscale level by the optical evanescent wave effect. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2012, 413, 101-107.	2.3	5
41	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
42	Study of the co-adsorption of hexane from the gas phase at the surface of aqueous C10EO8 drops. Soft Matter, 2011, 7, 7860.	1.2	26
43	Ions Redistribution and Meniscus Relaxation during Langmuir Wetting Process. Journal of Physical Chemistry B, 2011, 115, 1999-2005.	1.2	1
44	Concentration polarization effect at the deposition of charged Langmuir monolayers. Advances in Colloid and Interface Science, 2011, 168, 114-123.	7.0	6
45	Capillary pressure studies under low gravity conditions. Advances in Colloid and Interface Science, 2010, 161, 102-114.	7.0	12
46	Interfacial dilational rheology by oscillating bubble/drop methods. Current Opinion in Colloid and Interface Science, 2010, 15, 217-228.	3.4	178
47	Transient processes at the deposition of charged Langmuir monolayers. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2010, 354, 226-233.	2.3	3
48	Short time dynamic interfacial tension as studied by the growing drop capillary pressure technique. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2010, 365, 62-69.	2.3	28
49	Electrokinetic Effects during the Langmuirâ€"Blodgett Deposition Process. , 2010, , 165-192.		0
50	Thermodynamics, adsorption kinetics and rheology of mixed proteinâ€"surfactant interfacial layers. Advances in Colloid and Interface Science, 2009, 150, 41-54.	7.0	186
51	Dilation and Shear Rheology of Mixed Î²-Casein/Surfactant Adsorption Layers. Journal of Physical Chemistry B, 2009, 113, 103-113.	1.2	45
52	Surfactant accumulation within the top foam layer due to rupture of external foam films. Advances in Colloid and Interface Science, 2008, 137, 45-56.	7.0	9
53	Influence of Ion Transfer Kinetics on the Composition of Langmuirâˆ'Blodgett Films. Journal of Physical Chemistry B, 2008, 112, 11333-11340.	1.2	6
54	Concentration Polarization at Langmuir Monolayer Deposition:Â The Role of Indifferent Electrolytes. Journal of Physical Chemistry B, 2007, 111, 1684-1692.	1.2	8

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55	Surface Dilational Rheology of Mixed Surfactants Layers at Liquid Interfaces. Journal of Physical Chemistry C, 2007, 111, 14713-14719.	1.5	49
56	Surface-Pressure Isotherms of Monolayers Formed by Microsize and Nanosize Particles. Langmuir, 2006, 22, 1701-1705.	1.6	71
57	Distributions of Ionic Concentrations and Electric Field around the Three-Phase Contact at High Rates of Langmuirâ^'Blodgett Deposition. Journal of Physical Chemistry B, 2006, 110, 1843-1855.	1.2	8
58	Surface dilational rheology of mixed adsorption layers at liquid interfaces. Advances in Colloid and Interface Science, 2006, 122, 57-66.	7.0	80
59	Ionic transport across bipolar membrane and adjacent Nernst layers. Journal of Membrane Science, 2006, 284, 255-266.	4.1	19
60	Composite interfacial layers containing micro-size and nano-size particles. Advances in Colloid and Interface Science, 2006, 128-130, 17-26.	7.0	53
61	Project proposal for the investigation of particle-stabilised emulsions and foams by microgravity experiments. Microgravity Science and Technology, 2006, 18, 104-107.	0.7	18
62	Oscillatory Transient Flow Experiments and Analysis in Circular Microchannels. , 2006, , 3.		0
63	Theoretical analysis of surface pressure of monolayers formed by nano-particles. , 2006, , 79-90.		1
64	Film tension and dilational film rheology of a single foam bubble. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2005, 261, 115-121.	2.3	12
65	Dilational rheology of adsorbed surfactant layersâ€"role of the intrinsic two-dimensional compressibility. Advances in Colloid and Interface Science, 2005, 114-115, 303-312.	7.0	45
66	Ion redistribution and meniscus stability at Langmuir monolayer deposition. Advances in Colloid and Interface Science, 2005, 114-115, 267-279.	7.0	10
67	Analysis of amplitude- and phase-frequency characteristics of oscillating bubble system with closed measuring cell. Microgravity Science and Technology, 2005, 16, 186-190.	0.7	4
68	Rheological studies with spherically shaped thin liquid films. Microgravity Science and Technology, 2005, 16, 215-218.	0.7	2
69	Models of Two-Dimensional Solution Assuming the Internal Compressibility of Adsorbed Molecules:Â A Comparative Analysis. Journal of Physical Chemistry B, 2004, 108, 13700-13705.	1.2	84
70	Interpretation of surface dilational elasticity data based on an intrinsic two-dimensional interfacial compressibility model. Journal of Colloid and Interface Science, 2004, 270, 475-482.	5.0	42
71	Rheological surface properties of C12DMPO solution as obtained from amplitude- and phase-frequency characteristics of an oscillating bubble system. Journal of Colloid and Interface Science, 2004, 280, 498-505.	5.0	40
72	ION REDISTRIBUTION NEAR THE POLAR GROUPS IN THE LANGMUIR WETTING PROCESS. Journal of Adhesion, 2004, 80, 851-870.	1.8	6

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73	Concentration Polarization at the Langmuir Monolayer Deposition:Â Theoretical Considerations. Journal of Physical Chemistry B, 2004, 108, 13449-13455.	1.2	9
74	Mechanism of Meniscus Oscillations and Stripe Pattern Formation in Langmuirâˆ'Blodgett Films. Journal of Physical Chemistry B, 2003, 107, 3486-3495.	1.2	31
75	Influence of the Two-Dimensional Compressibility on the Surface Pressure Isotherm and Dilational Elasticity of Dodecyldimethylphosphine Oxide. Journal of Physical Chemistry B, 2003, 107, 6119-6121.	1.2	60
76	Influence of the Compressibility of Adsorbed Layers on the Surface Dilational Elasticity. Langmuir, 2002, 18, 7748-7752.	1.6	55
77	Frequency Characteristics of Amplitude and Phase of Oscillating Bubble Systems in a Closed Measuring Cell. Journal of Colloid and Interface Science, 2002, 252, 433-442.	5.0	45
78	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
79	Dissociation of Fatty Acid and Counterion Binding at the Langmuir Monolayer Deposition:â€‰ Theoretical Considerations. Journal of Physical Chemistry B, 2001, 105, 9254-9265.	1.2	17
80	Dynamic effects in maximum bubble pressure experiments. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2001, 192, 131-155.	2.3	17
81	Hydrodynamic processes in dynamic bubble pressure experiments. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2001, 192, 157-175.	2.3	19
82	Oscillating Bubble and Drop Techniques. Studies in Interface Science, 2001, , 485-516.	0.0	23
83	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
84	Resonance Behavior of Oscillating Bubbles. Journal of Colloid and Interface Science, 2000, 224, 47-55.	5.0	21
85	Bubble Oscillations in a Closed Cell. Journal of Colloid and Interface Science, 2000, 224, 245-254.	5.0	27
86	Dynamics of Rear Stagnant Cap Formation at Low Reynolds Numbers. Journal of Colloid and Interface Science, 2000, 226, 51-59.	5.0	26
87	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
88	Studies on the application of dynamic surface tensiometry of serum and cerebrospinal liquid for diagnostics and monitoring of treatment in patients who have rheumatic, neurological or oncological diseases. Advances in Colloid and Interface Science, 2000, 86, 1-38.	7.0	26
89	Direct numerical simulation of the dynamic behaviour of a system with a surfactant droplet under the free water surface: theoretical consideration of the auto-oscillation of surface tension. , 2000, , 329-333.		1
90	Auto-oscillation of surface tension. Physical Review E, 1999, 60, 2029-2036.	0.8	70

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91	Hydrodynamic processes in dynamic bubble pressure experiments. 4. Calculation of magnitude and time of liquid penetration into capillaries. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 1999, 151, 525-536.	2.3	14
92	Lifetime Calculations Relative to Maximum Bubble Pressure Measurements. Journal of Colloid and Interface Science, 1998, 197, 383-390.	5.0	10
93	Simultaneous Calculation of Lifetime and Deadtime in Maximum Bubble Pressure Measurements. Journal of Colloid and Interface Science, 1998, 198, 191-200.	5.0	15
94	The effect of capillary characteristics on the results of dynamic surface tension measurements using the maximum bubble pressure method. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 1998, 135, 27-40.	2.3	20
95	Hydrodynamic processes in dynamic bubble pressure experiments. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 1998, 141, 253-267.	2.3	17
96	Bubble formation in maximum bubble pressure measuring systems employing a gas reservoir of limited volume. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 1998, 143, 381-393.	2.3	10
97	The ac and dc Conductivities of a Disperse System of the â€œConductor-in-Conductorâ€•Type. Journal of Colloid and Interface Science, 1996, 184, 414-432.	5.0	1
98	Studies In Capillary Pressure Tensiometry And Interfacial Dilational Rheology. , 0, , 143-178.		1
99	Accumulation Of Surfactant In The Top Foam Layer Caused By Ruptured Foam Films. , 0, , 325-350.		0