Peter Atanassov Kralchevsky

List of Publications by Year
in descending order

138	6,464	61857 43	71532 76
papers	citations	h-index	g-index

145	145	145	5002
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Capillary interactions between particles bound to interfaces, liquid films and biomembranes. Advances in Colloid and Interface Science, 2000, 85, 145-192.	7.0	623
2	Capillary forces between colloidal particles. Langmuir, 1994, 10, 23-36.	1.6	548
3	Capillary forces and structuring in layers of colloid particles. Current Opinion in Colloid and Interface Science, 2001, 6, 383-401.	3.4	503
4	On the Thermodynamics of Particle-Stabilized Emulsions:Â Curvature Effects and Catastrophic Phase Inversion. Langmuir, 2005, 21, 50-63.	1.6	225
5	Stability of emulsions under equilibrium and dynamic conditions. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 1997, 128, 155-175.	2.3	193
6	Interactions between particles with an undulated contact line at a fluid interface: Capillary multipoles of arbitrary order. Journal of Colloid and Interface Science, 2005, 287, 121-134.	5.0	173
7	Flocculation and coalescence of micron-size emulsion droplets. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 1999, 152, 161-182.	2.3	133
8	Capillary forces between particles at a liquid interface: General theoretical approach and interactions between capillary multipoles. Advances in Colloid and Interface Science, 2010, 154, 91-103.	7.0	128
9	Particles with an Undulated Contact Line at a Fluid Interface:Â Interaction between Capillary Quadrupoles and Rheology of Particulate Monolayers. Langmuir, 2001, 17, 7694-7705.	1.6	126
10	Determination of the aggregation number and charge of ionic surfactant micelles from the stepwise thinning of foam films. Advances in Colloid and Interface Science, 2012, 183-184, 55-67.	7.0	105
11	Film and line tension effects on the attachment of particles to an interface. Journal of Colloid and Interface Science, 1986, 112, 97-107.	5.0	102
12	Analytical expression for the oscillatory structural surface force. Chemical Physics Letters, 1995, 240, 385-392.	1.2	102
13	Electrodipping Force Acting on Solid Particles at a Fluid Interface. Langmuir, 2004, 20, 6139-6151.	1.6	98
14	Direct measurement of lateral capillary forces. Langmuir, 1993, 9, 3702-3709.	1.6	97
15	Formation of two-dimensional structures from colloidal particles on fluorinated oil substrate. Journal of the Chemical Society, Faraday Transactions, 1994, 90, 2077.	1.7	84
16	Micelleâ€"monomer equilibria in solutions of ionic surfactants and in ionicâ€"nonionic mixtures: A generalized phase separation model. Advances in Colloid and Interface Science, 2014, 206, 17-45.	7.0	79
17	Unique Properties of Bubbles and Foam Films Stabilized by HFBII Hydrophobin. Langmuir, 2011, 27, 2382-2392.	1.6	78
18	Interfacial layers from the protein HFBII hydrophobin: Dynamic surface tension, dilatational elasticity and relaxation times. Journal of Colloid and Interface Science, 2012, 376, 296-306.	5.0	72

#	ARTICLE	IF	CITATIONS
19	Growth of wormlike micelles in nonionic surfactant solutions: Quantitative theory vs. experiment. Advances in Colloid and Interface Science, 2018, 256, 1-22.	7.0	72
20	The colloid structural forces as a tool for particle characterization and control of dispersion stability. Physical Chemistry Chemical Physics, 2007, 9, 5183.	1.3	71
21	Spontaneous detachment of oil drops from solid substrates: governing factors. Journal of Colloid and Interface Science, 2003, 257, 357-363.	5.0	70
22	Flocculation of Deformable Emulsion Droplets. Journal of Colloid and Interface Science, 1995, 176, 201-213.	5.0	69
23	Maximum Bubble Pressure Method:Â Universal Surface Age and Transport Mechanisms in Surfactant Solutions. Langmuir, 2006, 22, 7528-7542.	1.6	69
24	Solubility limits and phase diagrams for fatty acids in anionic (SLES) and zwitterionic (CAPB) micellar surfactant solutions. Journal of Colloid and Interface Science, 2012, 369, 274-286.	5.0	57
25	The standard free energy of surfactant adsorption at air/water and oil/water interfaces: Theoretical vs. empirical approaches. Colloid Journal, 2012, 74, 172-185.	0.5	57
26	Capillary Image Forces. Journal of Colloid and Interface Science, 1994, 167, 47-65.	5.0	56
27	Stresses in lipid membranes and interactions between inclusions. Journal of the Chemical Society, Faraday Transactions, 1995, 91, 3415.	1.7	55
28	Torsion Balance for Measurement of Capillary Immersion Forces. Langmuir, 1996, 12, 641-651.	1.6	54
29	Effect of the Precipitation of Neutral-Soap, Acid-Soap, and Alkanoic Acid Crystallites on the Bulk pH and Surface Tension of Soap Solutions. Langmuir, 2007, 23, 3538-3553.	1.6	54
30	Oscillatory Structural Forces Due to Nonionic Surfactant Micelles: Data by Colloidalâˆ'Probe AFM vs Theory. Langmuir, 2010, 26, 915-923.	1.6	54
31	Capillary Forces between Colloidal Particles Confined in a Liquid Film:â€‰ The Finite-Meniscus Problem. Langmuir, 2001, 17, 6599-6609.	1.6	51
32	Detachment of Oil Drops from Solid Surfaces in Surfactant Solutions:Â Molecular Mechanisms at a Moving Contact Lineâ€. Industrial & Engineering Chemistry Research, 2005, 44, 1309-1321.	1.8	50
33	Film and line tension effects on the attachment of particles to an interface. Journal of Colloid and Interface Science, 1986, 112, 132-143.	5.0	49
34	Electric forces induced by a charged colloid particle attached to the waterâ€"nonpolar fluid interface. Journal of Colloid and Interface Science, 2006, 298, 213-231.	5.0	49
35	The metastable states of foam films containing electrically charged micelles or particles: Experiment and quantitative interpretation. Advances in Colloid and Interface Science, 2011, 168, 50-70.	7.0	49
36	Viscosity Peak due to Shape Transition from Wormlike to Disklike Micelles: Effect of Dodecanoic Acid. Langmuir, 2018, 34, 4897-4907.	1.6	48

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37	On the mechanism of stomatocyteâ€“echinocyte transformations of red blood cells: experiment and theoretical model. Colloids and Surfaces B: Biointerfaces, 2004, 34, 123-140.	2.5	47
38	Self-Assembled Bilayers from the Protein HFBII Hydrophobin: Nature of the Adhesion Energy. Langmuir, 2011, 27, 4481-4488.	1.6	47
39	Synergistic Growth of Giant Wormlike Micelles in Ternary Mixed Surfactant Solutions: Effect of Octanoic Acid. Langmuir, 2016, 32, 12885-12893.	1.6	47
40	Effect of electric-field-induced capillary attraction on the motion of particles at an oilâ€“water interface. Physical Chemistry Chemical Physics, 2007, 9, 6371.	1.3	46
41	Particle detachment from fluid interfaces: theory vs. experiments. Soft Matter, 2016, 12, 7632-7643.	1.2	45
42	Micromechanical description of curved interfaces, thin films, and membranes. Journal of Colloid and Interface Science, 1990, 137, 217-233.	5.0	44
43	Capillary Image Forces. Journal of Colloid and Interface Science, 1994, 167, 66-73.	5.0	43
44	Attraction between Particles at a Liquid Interface Due to the Interplay of Gravity- and Electric-Field-Induced Interfacial Deformations. Langmuir, 2009, 25, 9129-9139.	1.6	42
45	Minimization of the Free Energy of Arbitrarily Curved Interfaces. Journal of Colloid and Interface Science, 1997, 191, 424-441.	5.0	40
46	Mass transport in micellar surfactant solutions: 1. Relaxation of micelle concentration, aggregation number and polydispersity. Advances in Colloid and Interface Science, 2006, 119, 1-16.	7.0	40
47	Monolayers of charged particles in a Langmuir trough: Could particle aggregation increase the surface pressure?. Journal of Colloid and Interface Science, 2016, 462, 223-234.	5.0	39
48	Adsorption Relaxation for Nonionic Surfactants under Mixed Barrier-Diffusion and Micellization-Diffusion Control. Journal of Colloid and Interface Science, 2002, 251, 18-25.	5.0	38
49	Capillary meniscus dynamometry â€“ Method for determining the surface tension of drops and bubbles with isotropic and anisotropic surface stress distributions. Journal of Colloid and Interface Science, 2015, 440, 168-178.	5.0	37
50	Shape of the Capillary Meniscus around an Electrically Charged Particle at a Fluid Interface:Â Comparison of Theory and Experiment. Langmuir, 2006, 22, 2653-2667.	1.6	36
51	Film and line tension effects on the attachment of particles to an interface. Journal of Colloid and Interface Science, 1986, 112, 122-131.	5.0	35
52	Sulfonated methyl esters of fatty acids in aqueous solutions: Interfacial and micellar properties. Journal of Colloid and Interface Science, 2015, 457, 307-318.	5.0	35
53	Film and line tension effects on the attachment of particles to an interface. Journal of Colloid and Interface Science, 1986, 112, 108-121.	5.0	34
54	Elastic Langmuir Layers and Membranes Subjected to Unidirectional Compression: Wrinkling and Collapse. Langmuir, 2010, 26, 143-155.	1.6	34

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55	Micromechanical description of curved interfaces, thin films, and membranes. Journal of Colloid and Interface Science, 1990, 137, 234-252.	5.0	33
56	The Drop Size in Membrane Emulsification Determined from the Balance of Capillary and Hydrodynamic Forces. Langmuir, 2008, 24, 1397-1410.	1.6	33
57	Mass transport in micellar surfactant solutions: 2. Theoretical modeling of adsorption at a quiescent interface. Advances in Colloid and Interface Science, 2006, 119, 17-33.	7.0	32
58	Surface Pressure and Elasticity of Hydrophobin HFBII Layers on the Airâ€"Water Interface: Rheology Versus Structure Detected by AFM Imaging. Langmuir, 2013, 29, 6053-6067.	1.6	32
59	Soft electrostatic repulsion in particle monolayers at liquid interfaces: surface pressure and effect of aggregation. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2016, 374, 20150130.	1.6	32
60	Interaction between like-charged particles at a liquid interface: Electrostatic repulsion vs. electrocapillary attraction. Journal of Colloid and Interface Science, 2010, 345, 505-514.	5.0	31
61	Surface Pressure Isotherm for a Monolayer of Charged Colloidal Particles at a Water/Nonpolar-Fluid Interface: Experiment and Theoretical Model. Langmuir, 2014, 30, 2768-2778.	1.6	30
62	Analytical modeling of micelle growth. 1. Chain-conformation free energy of binary mixed spherical, wormlike and lamellar micelles. Journal of Colloid and Interface Science, 2019, 547, 245-255.	5.0	30
63	Hydration force due to the reduced screening of the electrostatic repulsion in few-nanometer-thick films. Current Opinion in Colloid and Interface Science, 2011, 16, 517-524.	3.4	29
64	Depletion forces in thin liquid films due to nonionic and ionic surfactant micelles. Current Opinion in Colloid and Interface Science, 2015, 20, 11-18.	3.4	29
65	The transition region between a thin film and the capillary meniscus. Chemical Physics Letters, 1985, 121, 116-120.	1.2	28
66	Surface shear rheology of hydrophobin adsorption layers: laws of viscoelastic behaviour with applications to long-term foam stability. Faraday Discussions, 2012, 158, 195.	1.6	28
67	Surface Shear Rheology of Adsorption Layers from the Protein HFBII Hydrophobin: Effect of Added Î²-Casein. Langmuir, 2012, 28, 4168-4177.	1.6	27
68	Hardening of particle/oil/water suspensions due to capillary bridges: Experimental yield stress and theoretical interpretation. Advances in Colloid and Interface Science, 2018, 251, 80-96.	7.0	27
69	Disclike vs. cylindrical micelles: Generalized model of micelle growth and data interpretation. Journal of Colloid and Interface Science, 2014, 416, 258-273.	5.0	25
70	Sulfonated methyl esters, linear alkylbenzene sulfonates and their mixed solutions: Micellization and effect of Ca2+ ions. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2017, 519, 87-97.	2.3	24
71	Rheology of mixed solutions of sulfonated methyl esters and betaine in relation to the growth of giant micelles and shampoo applications. Advances in Colloid and Interface Science, 2020, 275, 102062.	7.0	24
72	On the mechanical equilibrium between a film of finite thickness and the external meniscus. Chemical Physics Letters, 1985, 121, 111-115.	1.2	23

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73	Analytical modeling of micelle growth. 2. Molecular thermodynamics of mixed aggregates and scission energy in wormlike micelles. Journal of Colloid and Interface Science, 2019, 551, 227-241.	5.0	23
74	Effect of droplet deformation on the interactions in microemulsions. Journal of Colloid and Interface Science, 1991, 143, 157-173.	5.0	22
75	Adsorption from Surfactant Solutions under Diffusion Control. Journal of Colloid and Interface Science, 1993, 161, 361-365.	5.0	22
76	Accuracy of the Differential-interferometric Measurements of Curvature. Optica Acta, 1986, 33, 1359-1368.	0.7	21
77	Contribution of ionic correlations to excess free energy and disjoining pressure of thin liquid films 1. Electric double layer inside the film. Colloids and Surfaces, 1992, 64, 245-264.	0.9	21
78	Analytical modeling of micelle growth. 4. Molecular thermodynamics of wormlike micelles from ionic surfactants: Theory vs. experiment. Journal of Colloid and Interface Science, 2021, 584, 561-581.	5.0	21
79	Hydrodynamic instability and coalescence in trains of emulsion drops or gas bubbles moving through a narrow capillary. Journal of Colloid and Interface Science, 2003, 267, 243-258.	5.0	20
80	Shear rheology of mixed protein adsorption layers vs their structure studied by surface force measurements. Advances in Colloid and Interface Science, 2015, 222, 148-161.	7.0	20
81	Limited coalescence and Ostwald ripening in emulsions stabilized by hydrophobin HFBII and milk proteins. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2016, 509, 521-538.	2.3	19
82	The interfacial bending moment: Thermodynamics and contributions of the electrostatic interactions. Colloids and Surfaces, 1991, 56, 149-176.	0.9	18
83	Energy of Adhesion of Human T Cells to Adsorption Layers of Monoclonal Antibodies Measured by a Film Trapping Technique. Biophysical Journal, 1998, 75, 545-556.	0.2	18
84	Solubility limits and phase diagrams for fatty alcohols in anionic (SLES) and zwitterionic (CAPB) micellar surfactant solutions. Journal of Colloid and Interface Science, 2015, 449, 46-61.	5.0	18
85	Adhesion of bubbles and drops to solid surfaces, and anisotropic surface tensions studied by capillary meniscus dynamometry. Advances in Colloid and Interface Science, 2016, 233, 223-239.	7.0	18
86	The van der Waals component of interfacial bending moment 2. Model development and numerical results. Colloids and Surfaces, 1991, 56, 119-148.	0.9	17
87	Conditions for Stable Attachment of Fluid Particles to Solid Surfaces. Langmuir, 1996, 12, 5951-5955.	1.6	17
88	Chemical Physics of Colloid Systems and Interfaces. , 2008, , 197-377.		16
89	Forces acting on dielectric colloidal spheres at a water/nonpolar fluid interface in an external electric field. 2. Charged particles. Journal of Colloid and Interface Science, 2013, 405, 269-277.	5.0	16
90	Competitive adsorption of the protein hydrophobin and an ionic surfactant: Parallel vs sequential adsorption and dilatational rheology. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2014, 457, 307-317.	2.3	16

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91	Encapsulation of oils and fragrances by core-in-shell structures from silica particles, polymers and surfactants: The brick-and-mortar concept. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2018, 559, 351-364.	2.3	16
92	Tracing the Connection between Different Expressions for the Laplace Pressure of a General Curved Interface. Journal of Colloid and Interface Science, 1993, 161, 133-137.	5.0	15
93	Analytical modeling of micelle growth. 3. Electrostatic free energy of ionic wormlike micelles â€“ Effects of activity coefficients and spatially confined electric double layers. Journal of Colloid and Interface Science, 2021, 581, 262-275.	5.0	15
94	Lateral forces acting between particles in liquid films or lipid membranes. Advances in Biophysics, 1997, 34, 25-39.	0.6	14
95	Method for analysis of the composition of acid soaps by electrolytic conductivity measurements. Journal of Colloid and Interface Science, 2008, 327, 169-179.	5.0	14
96	Extension of the ladder model of self-assembly from cylindrical to disclike surfactant micelles. Current Opinion in Colloid and Interface Science, 2013, 18, 524-531.	3.4	14
97	Reply to Comment on Electrodipping Force Acting on Solid Particles at a Fluid Interface. Langmuir, 2006, 22, 848-849.	1.6	13
98	Coexistence of micelles and crystallites in solutions of potassium myristate: Soft matter vs. solid matter. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2010, 354, 172-187.	2.3	13
99	Production and characterization of stable foams with fine bubbles from solutions of hydrophobin HFBII and its mixtures with other proteins. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2017, 521, 92-104.	2.3	13
100	Capillary Bridges and Capillary-Bridge Forces. Studies in Interface Science, 2001, , 469-502.	0.0	12
101	Hydrodynamic forces acting on a microscopic emulsion drop growing at a capillary tip in relation to the process of membrane emulsification. Journal of Colloid and Interface Science, 2007, 316, 844-857.	5.0	12
102	Effect of Ionic Correlations on the Surface Forces in Thin Liquid Films: Influence of Multivalent Coions and Extended Theory. Materials, 2016, 9, 145.	1.3	12
103	Equilibrium and Dynamics of Surfactant Adsorption Monolayers and Thin Liquid Films. Surfactant Science, 1999, , 303-418.	0.0	12
104	Influence of electrolytes on the dynamic surface tension of ionic surfactant solutions: Expanding and immobile interfaces. Journal of Colloid and Interface Science, 2006, 303, 56-68.	5.0	11
105	Shear rheology of hydrophobin adsorption layers at oil/water interfaces and data interpretation in terms of a viscoelastic thixotropic model. Soft Matter, 2014, 10, 5777.	1.2	11
106	Oil drop deposition on solid surfaces in mixed polymer-surfactant solutions in relation to hair- and skin-care applications. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2019, 577, 53-61.	2.3	11
107	Properties of the micelles of sulfonated methyl esters determined from the stepwise thinning of foam films and by rheological measurements. Journal of Colloid and Interface Science, 2019, 538, 660-670.	5.0	11
108	Rheology of particle/water/oil three-phase dispersions: Electrostatic vs. capillary bridge forces. Journal of Colloid and Interface Science, 2018, 513, 515-526.	5.0	11

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109	Forces acting on dielectric colloidal spheres at a water/nonpolar-fluid interface in an external electric field. 1. Uncharged particles. Journal of Colloid and Interface Science, 2013, 405, 278-290.	5.0	9
110	Encapsulation of fragrances and oils by core-shell structures from silica nanoparticles, surfactant and polymer: Effect of particle size. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2020, 606, 125558.	2.3	9
111	The van der Waals component of the interfacial bending moment 1. Contribution of the pressure tensor tails. Colloids and Surfaces, 1991, 56, 101-118.	0.9	8
112	Micellar surfactant solutions: Dynamics of adsorption at fluid interfaces subjected to stationary expansion. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2006, 282-283, 143-161.	2.3	8
113	Micellar solutions of ionic surfactants and their mixtures with nonionic surfactants: Theoretical modeling vs. Experiment. Colloid Journal, 2014, 76, 255-270.	0.5	8
114	Planar Fluid Interfaces. Studies in Interface Science, 2001, , 1-63.	0.0	7
115	Vortex in liquid films from concentrated surfactant solutions containing micelles and colloidal particles. Journal of Colloid and Interface Science, 2020, 576, 345-355.	5.0	6
116	MECHANICS AND THERMODYNAMICS OF INTERFACES, THIN LIQUID FILMS AND MEMBRANE. Journal of Dispersion Science and Technology, 1997, 18, 609-623.	1.3	5
117	Lateral Capillary Forces between Partially Immersed Bodies. Studies in Interface Science, 2001, 10, 287-350.	0.0	5
118	Reply to Comment on â€œHydrophobic Forces in the Foam Films Stabilized by Sodium Dodecyl Sulfate:â€‰ Effect of Electrolyteâ€•and Subsequent Criticism. Langmuir, 2008, 24, 2953-2953.	1.6	5
119	Phase separation of saturated micellar network and its potential applications for nanoemulsification. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2020, 607, 125487.	2.3	5
120	Cleaning Ability of Mixed Solutions of Sulfonated Fatty Acid Methyl Esters. Journal of Surfactants and Detergents, 2020, 23, 617-627.	1.0	5
121	Solubility of ionic surfactants below their Krafft point in mixed micellar solutions: Phase diagrams for methyl ester sulfonates and nonionic cosurfactants. Journal of Colloid and Interface Science, 2021, 601, 474-485.	5.0	5
122	Dynamic Processes in Surfactant-stabilized Emulsions. , 2001, , 621-659.		5
123	Contribution of ionic correlations to excess free energy and disjoining pressure of thin liquid films 2. Electric double layers outside the film. Colloids and Surfaces, 1992, 64, 265-274.	0.9	4
124	Universal Two-dimensional forces that Act on Particles at interfaces. Current Opinion in Colloid and Interface Science, 2022, 59, 101578.	3.4	4
125	Chemical Physics of Colloid Systems and Interfaces. , 2002, , .		3
126	Interactions between Particles at a Fluid Interface. Surfactant Science, 2010, , 397-435.	0.0	3

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127	Reply to the letter by Derjaguin and Churaev. Journal of Colloid and Interface Science, 1990, 134, 294-296.	5.0	2
128	Two-Dimensional Crystallization of Particulates and Proteins. Studies in Interface Science, 2001, , 517-590.	0.0	2
129	Capillary Forces Between Particles of Irregular Contact Line. Studies in Interface Science, 2001, 10, 503-516.	0.0	1
130	Effect of Oil Drops and Particulates on the Stability of Foams. Studies in Interface Science, 2001, , 591-632.	0.0	1
131	Surface Bending Moment and Curvature Elastic Moduli. Studies in Interface Science, 2001, , 105-136.	0.0	0
132	General Curved Interfaces and Biomembranes. Studies in Interface Science, 2001, 10, 137-182.	0.0	0
133	Liquid Films and Interactions between Particle and Surface. Studies in Interface Science, 2001, 10, 183-247.	0.0	0
134	Particles at Interfaces: Deformations and Hydrodynamic Interactions. Studies in Interface Science, 2001, 10, 248-286.	0.0	0
135	Lateral Capillary Forces Between Floating Particles. Studies in Interface Science, 2001, , 351-395.	0.0	0
136	Capillary Forces Between Particles Bound to a Spherical Interface. Studies in Interface Science, 2001, 10, 396-425.	0.0	0
137	Mechanics of Lipid Membranes and Interaction Between Inclusions. Studies in Interface Science, 2001, 10, 426-468.	0.0	0
138	Interfaces of Moderate Curvature: Theory of Capillarity. Studies in Interface Science, 2001, 10, 64-104.	0.0	0