

Roumen Tsekov

List of Publications by Year in descending order

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89
papers

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citations

471509

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552781

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99
docs citations

99
times ranked

746
citing authors

#	ARTICLE	IF	CITATIONS
1	EFFECT OF THICKNESS NON-HOMOGENEITY ON THE KINETIC BEHAVIOUR OF MICROSCOPIC FOAM FILM. Journal of Dispersion Science and Technology, 1997, 18, 769-788.	2.4	87
2	Peculiarity of the liquid/vapour interface of an ionic liquid: study of surface tension and viscoelasticity of liquid BMImPF6 at various temperatures. Physical Chemistry Chemical Physics, 2005, 7, 2038.	2.8	68
3	Anomalous Ion Effects on Rupture and Lifetime of Aqueous Foam Films Formed from Monovalent Salt Solutions up to Saturation Concentration. Langmuir, 2008, 24, 11587-11591.	3.5	47
4	Stochastic dynamics of a subsystem interacting with a solid body with application to diffusive processes in solids. Journal of Chemical Physics, 1994, 100, 1450-1455.	3.0	40
5	Comparative validation of the analytical models for the Marangoni effect on foam film drainage. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2010, 365, 122-136.	4.7	38
6	The R4/5-problem in the drainage of dimpled thin liquid films. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 1998, 141, 161-164.	4.7	28
7	Disjoining Pressure and Surface Tension of a Small Drop. Langmuir, 2000, 16, 3502-3505.	3.5	26
8	Experimental Proof for Resonant Diffusion of Normal Alkanes in LTL and ZSM-12 Zeolites. Journal of Physical Chemistry B, 2003, 107, 13593-13596.	2.6	26
9	Adsorption of Alkali Dodecyl Sulfates on Air/Water Surface. Langmuir, 2001, 17, 5403-5405.	3.5	24
10	Dimple formation and its effect on the rate of drainage in thin liquid films. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 1994, 82, 255-261.	4.7	21
11	Resonant Diffusion of Normal Alkanes in Zeolites: Effect of the Zeolite Structure and Alkane Molecule Vibrations. Journal of Physical Chemistry B, 1998, 102, 9385-9391.	2.6	20
12	Effect of thermal fluctuations on the stability of draining thin films. Langmuir, 1993, 9, 3264-3269.	3.5	19
13	Resonant diffusion of molecules in solids. Journal of Chemical Physics, 1994, 100, 3808-3812.	3.0	19
14	Attachment of Oil Droplets and Cells on Dropping Mercury Electrode. Langmuir, 1999, 15, 5649-5653.	3.5	19
15	Size Dependence of Protein-Induced Flocculation of Phosphatidylcholine Liposomes. Journal of Colloid and Interface Science, 2000, 226, 44-50.	9.4	19
16	Effect of ionic surfactants on drainage and equilibrium thickness of emulsion films. Journal of Colloid and Interface Science, 2008, 318, 358-364.	9.4	18
17	Elasticity of foam bubbles measured by profile analysis tensiometry. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2010, 369, 136-140.	4.7	17
18	Radiation field in continuous annular photocatalytic reactors: role of the lamp finite size. Chemical Engineering Science, 1997, 52, 1667-1671.	3.8	16

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19	Oscillatory wetting instability induced by liquid-liquid decomposition in a Ga-Pb alloy. <i>Journal of Chemical Physics</i> , 2004, 120, 11171-11182.	3.0	16
20	On Entropy Production in the Madelung Fluid and the Role of Bohm's Potential in Classical Diffusion. <i>Foundations of Physics</i> , 2016, 46, 815-824.	1.3	16
21	Hydrophobic Forces in Thin Liquid Films: Adsorption Contribution. <i>Langmuir</i> , 1997, 13, 5674-5677.	3.5	15
22	Comment on "Semiclassical Klein-Kramers and Smoluchowski equations for the Brownian motion of a particle in an external potential". <i>Journal of Physics A: Mathematical and Theoretical</i> , 2007, 40, 10945-10947.	2.1	15
23	Electro-osmotic equilibria for a semipermeable shell filled with a solution of polyions. <i>Journal of Chemical Physics</i> , 2007, 126, 094901.	3.0	14
24	Electro-Marangoni Effect in Thin Liquid Films. <i>Langmuir</i> , 2011, 27, 2265-2270.	3.5	14
25	Dynamics and stability of dispersions of polyelectrolyte-filled multilayer microcapsules. <i>Journal of Chemical Physics</i> , 2007, 126, 244901.	3.0	13
26	Osmotic pressure acting on a semipermeable shell immersed in a solution of polyions. <i>Journal of Chemical Physics</i> , 2008, 129, 244707.	3.0	13
27	Streaming Potential Effect on the Drainage of Thin Liquid Films Stabilized by Ionic Surfactants. <i>Langmuir</i> , 2010, 26, 4703-4708.	3.5	13
28	Quantum diffusion. <i>Physica Scripta</i> , 2011, 83, 035004.	2.5	13
29	Wetting films on chemically patterned surfaces. <i>Journal of Colloid and Interface Science</i> , 2011, 363, 663-667.	9.4	12
30	Diffusion of atoms and dimers on metal surfaces. <i>Journal of Chemical Physics</i> , 1994, 100, 7696-7699.	3.0	11
31	The wimple: A rippled deformation of a wetting film during its drainage. <i>Physics of Fluids</i> , 2007, 19, 061702.	4.0	11
32	Nonlinear Theory of Quantum Brownian Motion. <i>International Journal of Theoretical Physics</i> , 2009, 48, 85-94.	1.2	11
33	Dynamic effects in thin liquid films containing ionic surfactants. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2010, 356, 40-45.	4.7	11
34	Electrostatic interaction of neutral semi-permeable membranes. <i>Journal of Chemical Physics</i> , 2012, 136, 034902.	3.0	11
35	Brownian Motion and the Temperament of Living Cells. <i>Chinese Physics Letters</i> , 2013, 30, 070501.	3.3	11
36	Brownian dynamics in amorphous solids. <i>Journal of Chemical Physics</i> , 1994, 101, 7844-7849.	3.0	10

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37	Two-dimensional Brownian motion of atoms and dimers on solid surfaces. <i>Surface Science</i> , 1995, 344, 175-181.	1.9	10
38	Thermo-Quantum Diffusion. <i>International Journal of Theoretical Physics</i> , 2009, 48, 630-636.	1.2	10
39	A Quantum Theory of Thermodynamic Relaxation. <i>International Journal of Molecular Sciences</i> , 2001, 2, 66-71.	4.1	9
40	Adsorption of Ions at Uncharged Insoluble Monolayers. <i>Langmuir</i> , 2016, 32, 8858-8871.	3.5	9
41	Energy transfer in adsorbed molecule-solid surface vibration interactions. <i>Surface Science</i> , 1991, 255, 355-360.	1.9	8
42	Rupture of thinning liquid films. Influence of the surface wave's spatial correlations. <i>Journal of the Chemical Society, Faraday Transactions</i> , 1992, 88, 251.	1.7	8
43	Effect of Ionic Surfactants on the Dimple Relaxation in Wetting Films. <i>Langmuir</i> , 2002, 18, 5799-5803.	3.5	8
44	Quantum hydrodynamics of electron gases. <i>Journal of Chemical Physics</i> , 2010, 132, 084505.	3.0	8
45	Relating quantum mechanics with hydrodynamic turbulence. <i>Europhysics Letters</i> , 2018, 122, 40002.	2.0	8
46	Quantum Brownian motion and classical diffusion. <i>Chemical Physics Letters</i> , 1992, 195, 423-426.	2.6	7
47	A Qualitative Theory of Wipples in Wetting Films. <i>Langmuir</i> , 2005, 21, 12090-12092.	3.5	7
48	Ripples in a wetting film formed by a moving meniscus. <i>Physical Review E</i> , 2008, 78, 031602.	2.1	7
49	Bubble rubbing on solid surface: Experimental study. <i>Journal of Colloid and Interface Science</i> , 2013, 412, 89-94.	9.4	7
50	Dependence of Plasmon Spectra of Small Gold Nanoparticles from Their Size: an Atomic Force Microscopy Experimental Approach. <i>Plasmonics</i> , 2020, 15, 371-377.	3.4	7
51	Surface forces and dynamic effects in thin liquid films on solid interfaces. <i>International Journal of Mineral Processing</i> , 1999, 56, 61-74.	2.6	6
52	Dimple Relaxation in Wetting Films. <i>Langmuir</i> , 2000, 16, 8206-8209.	3.5	6
53	Model calculations of surface phase transitions in Ga-Bi alloys: adsorption, wetting, surface freezing and melting. <i>Journal of Physics Condensed Matter</i> , 2003, 15, 6155-6165.	1.8	6
54	Dissipative Time Dependent Density Functional Theory. <i>International Journal of Theoretical Physics</i> , 2009, 48, 2660-2664.	1.2	6

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55	An experimental test of the fractal model for drainage of foam films. <i>Journal of Colloid and Interface Science</i> , 2011, 353, 206-209.	9.4	6
56	Wetting dynamics on lyophilic solid surfaces patterned by lyophobic islands. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2013, 423, 77-80.	4.7	6
57	Brownian Markets. <i>Chinese Physics Letters</i> , 2013, 30, 088901.	3.3	6
58	Derivation of the Local-Mean Stochastic Quantum Force. <i>Fluctuation and Noise Letters</i> , 2017, 16, 1750028.	1.5	6
59	Resistance of glass fiber reinforced polyamide 6.6 materials to automotive cooling fluids: An analytical method for lifetime prediction. <i>Polymer International</i> , 0, , .	3.1	6
60	Temperature dependence of the rate constant for dissociation of absorbed molecules. <i>Chemical Physics Letters</i> , 1992, 188, 497-500.	2.6	5
61	Life time of nonthinning liquid films - influence of the surface waves spatial correlations. <i>Advances in Colloid and Interface Science</i> , 1992, 38, 353-369.	14.7	5
62	Theoretical Models for the Rate of NO Decomposition over Copper-Exchanged Zeolites. <i>Journal of Physical Chemistry B</i> , 1998, 102, 9525-9531.	2.6	5
63	Effects of Dissipation on Contact Angle Measurements Using a Dynamic Method. <i>Journal of Colloid and Interface Science</i> , 2001, 233, 136-141.	9.4	5
64	Resonant diffusion on modulated surfaces. <i>Advances in Colloid and Interface Science</i> , 2005, 114-115, 159-164.	14.7	5
65	Pulsed Electrodeposition of Two-Dimensional Ag Nanostructures on Au(111). <i>Journal of Physical Chemistry B</i> , 2006, 110, 15905-15911.	2.6	5
66	Tribology of thin wetting films between bubble and moving solid surface. <i>Advances in Colloid and Interface Science</i> , 2014, 210, 39-46.	14.7	5
67	Brownian Emitters. <i>Fluctuation and Noise Letters</i> , 2016, 15, 1650022.	1.5	5
68	Stochastic equations for thermodynamics. <i>Journal of the Chemical Society, Faraday Transactions</i> , 1997, 93, 1751-1753.	1.7	4
69	Optimal radiation field in one-dimensional continuous flow heterogeneous photocatalytic reactors. <i>Chemical Engineering Science</i> , 2001, 56, 4837-4847.	3.8	4
70	Delta-Comb Potential in Modeling Three-Phase Contact Line (TPCL) on Periodically Patterned Surfaces. <i>Journal of Physical Chemistry B</i> , 2012, 116, 13248-13253.	2.6	4
71	Capillary pressure of van der Waals liquid nanodrops. <i>Colloid Journal</i> , 2012, 74, 266-268.	1.3	4
72	Quantum mechanics emerging from stochastic dynamics of virtual particles. <i>Journal of Physics: Conference Series</i> , 2016, 701, 012034.	0.4	4

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73	Towards Nonlinear Quantum Fokker-Planck Equations. International Journal of Theoretical Physics, 2009, 48, 1431-1435.	1.2	3
74	Quantum Friction. Chinese Physics Letters, 2012, 29, 120504.	3.3	3
75	Effect of the adsorption component of the disjoining pressure on foam film drainage. Colloid Journal, 2013, 75, 176-180.	1.3	3
76	On the Stochastic Origin of Quantum Mechanics. Reports in Advances of Physical Sciences, 2017, 01, 1750008.	0.2	3
77	Brownian motion of a classical particle in quantum environment. Physics Letters, Section A: General, Atomic and Solid State Physics, 2018, 382, 2230-2232.	2.1	3
78	Ferroelectric phase transitions near ionic liquid/vacuum interfaces. Journal of Chemical Physics, 2007, 126, 191110.	3.0	2
79	Golden Ratio Autocorrelation Function and the Exponential Decay. Fluctuation and Noise Letters, 2015, 14, 1550013.	1.5	2
80	Brownian Motion and Quantum Mechanics. Fluctuation and Noise Letters, 2020, 19, 2050017.	1.5	2
81	Resonant Diffusion on Solid Surfaces. NATO ASI Series Series B: Physics, 1997, , 419-425.	0.2	2
82	Charged Semi-Permeable Shell with Encapsulated Polyions: Concentration Profile, Surface Potential, and Electrostatic Pressure. Macromolecular Symposia, 2007, 252, 149-154.	0.7	1
83	Rheology of silver nanocluster solutions under confinement. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2011, 384, 570-573.	4.7	1
84	Nonuniform Slip Effect in Wetting Films. Coatings, 2020, 10, 597.	2.6	1
85	How Schrödinger's Equation Emerges from Force Carriers. Fluctuation and Noise Letters, 2021, 20, 2150009.	1.5	1
86	Bubble rubbing on hydrophobic solid surfaces. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2018, 555, 638-645.	4.7	0
87	A Nonlinear Master Equation for Open Quantum Systems. Fluctuation and Noise Letters, 2021, 20, 2130004.	1.5	0
88	Drainage of Foam Films. , 1999, , 83-90.		0
89	Quantum Entanglement of Free Particles. Fluctuation and Noise Letters, 0, , .	1.5	0