

# Roumen Tsekov

## List of Publications by Year in descending order

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89  
papers

1,038  
citations

471509

17  
h-index

552781

26  
g-index

99  
all docs

99  
docs citations

99  
times ranked

746  
citing authors

#	ARTICLE	IF	CITATIONS
1	A Nonlinear Master Equation for Open Quantum Systems. Fluctuation and Noise Letters, 2021, 20, 2130004.	1.5	0
2	How Schrödinger's Equation Emerges from Force Carriers. Fluctuation and Noise Letters, 2021, 20, 2150009.	1.5	1
3	Dependence of Plasmon Spectra of Small Gold Nanoparticles from Their Size: an Atomic Force Microscopy Experimental Approach. Plasmonics, 2020, 15, 371-377.	3.4	7
4	Nonuniform Slip Effect in Wetting Films. Coatings, 2020, 10, 597.	2.6	1
5	Brownian Motion and Quantum Mechanics. Fluctuation and Noise Letters, 2020, 19, 2050017.	1.5	2
6	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
7	Relating quantum mechanics with hydrodynamic turbulence. Europhysics Letters, 2018, 122, 40002.	2.0	8
8	Bubble rubbing on hydrophobic solid surfaces. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2018, 555, 638-645.	4.7	0
9	On the Stochastic Origin of Quantum Mechanics. Reports in Advances of Physical Sciences, 2017, 01, 1750008.	0.2	3
10	Derivation of the Local-Mean Stochastic Quantum Force. Fluctuation and Noise Letters, 2017, 16, 1750028.	1.5	6
11	Quantum mechanics emerging from stochastic dynamics of virtual particles. Journal of Physics: Conference Series, 2016, 701, 012034.	0.4	4
12	On Entropy Production in the Madelung Fluid and the Role of Bohm's Potential in Classical Diffusion. Foundations of Physics, 2016, 46, 815-824.	1.3	16
13	Adsorption of Ions at Uncharged Insoluble Monolayers. Langmuir, 2016, 32, 8858-8871.	3.5	9
14	Brownian Emitters. Fluctuation and Noise Letters, 2016, 15, 1650022.	1.5	5
15	Golden Ratio Autocorrelation Function and the Exponential Decay. Fluctuation and Noise Letters, 2015, 14, 1550013.	1.5	2
16	Tribology of thin wetting films between bubble and moving solid surface. Advances in Colloid and Interface Science, 2014, 210, 39-46.	14.7	5
17	Effect of the adsorption component of the disjoining pressure on foam film drainage. Colloid Journal, 2013, 75, 176-180.	1.3	3
18	Bubble rubbing on solid surface: Experimental study. Journal of Colloid and Interface Science, 2013, 412, 89-94.	9.4	7

#	ARTICLE	IF	CITATIONS
19	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
20	Brownian Motion and the Temperament of Living Cells. <i>Chinese Physics Letters</i> , 2013, 30, 070501.	3.3	11
21	Brownian Markets. <i>Chinese Physics Letters</i> , 2013, 30, 088901.	3.3	6
22	Electrostatic interaction of neutral semi-permeable membranes. <i>Journal of Chemical Physics</i> , 2012, 136, 034902.	3.0	11
23	Quantum Friction. <i>Chinese Physics Letters</i> , 2012, 29, 120504.	3.3	3
24	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
25	Capillary pressure of van der Waals liquid nanodrops. <i>Colloid Journal</i> , 2012, 74, 266-268.	1.3	4
26	Electro-Marangoni Effect in Thin Liquid Films. <i>Langmuir</i> , 2011, 27, 2265-2270.	3.5	14
27	Quantum diffusion. <i>Physica Scripta</i> , 2011, 83, 035004.	2.5	13
28	Wetting films on chemically patterned surfaces. <i>Journal of Colloid and Interface Science</i> , 2011, 363, 663-667.	9.4	12
29	Rheology of silver nanocluster solutions under confinement. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2011, 384, 570-573.	4.7	1
30	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
31	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
32	Comparative validation of the analytical models for the Marangoni effect on foam film drainage. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2010, 365, 122-136.	4.7	38
33	Elasticity of foam bubbles measured by profile analysis tensiometry. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2010, 369, 136-140.	4.7	17
34	Quantum hydrodynamics of electron gases. <i>Journal of Chemical Physics</i> , 2010, 132, 084505.	3.0	8
35	Streaming Potential Effect on the Drainage of Thin Liquid Films Stabilized by Ionic Surfactants. <i>Langmuir</i> , 2010, 26, 4703-4708.	3.5	13
36	Nonlinear Theory of Quantum Brownian Motion. <i>International Journal of Theoretical Physics</i> , 2009, 48, 85-94.	1.2	11

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37	Thermo-Quantum Diffusion. International Journal of Theoretical Physics, 2009, 48, 630-636.	1.2	10
38	Towards Nonlinear Quantum Fokker-Planck Equations. International Journal of Theoretical Physics, 2009, 48, 1431-1435.	1.2	3
39	Dissipative Time Dependent Density Functional Theory. International Journal of Theoretical Physics, 2009, 48, 2660-2664.	1.2	6
40	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
41	Osmotic pressure acting on a semipermeable shell immersed in a solution of polyions. Journal of Chemical Physics, 2008, 129, 244707.	3.0	13
42	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
43	Ripples in a wetting film formed by a moving meniscus. Physical Review E, 2008, 78, 031602.	2.1	7
44	The wimple: A rippled deformation of a wetting film during its drainage. Physics of Fluids, 2007, 19, 061702.	4.0	11
45	Ferroelectric phase transitions near ionic liquid/vacuum interfaces. Journal of Chemical Physics, 2007, 126, 191110.	3.0	2
46	Comment on "Semiclassical Klein-Kramers and Smoluchowski equations for the Brownian motion of a particle in an external potential". Journal of Physics A: Mathematical and Theoretical, 2007, 40, 10945-10947.	2.1	15
47	Electro-osmotic equilibria for a semipermeable shell filled with a solution of polyions. Journal of Chemical Physics, 2007, 126, 094901.	3.0	14
48	Charged Semi-Permeable Shell with Encapsulated Polyions: Concentration Profile, Surface Potential, and Electrostatic Pressure. Macromolecular Symposia, 2007, 252, 149-154.	0.7	1
49	Dynamics and stability of dispersions of polyelectrolyte-filled multilayer microcapsules. Journal of Chemical Physics, 2007, 126, 244901.	3.0	13
50	Pulsed Electrodeposition of Two-Dimensional Ag Nanostructures on Au(111). Journal of Physical Chemistry B, 2006, 110, 15905-15911.	2.6	5
51	Resonant diffusion on modulated surfaces. Advances in Colloid and Interface Science, 2005, 114-115, 159-164.	14.7	5
52	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
53	A Qualitative Theory of Wimples in Wetting Films. Langmuir, 2005, 21, 12090-12092.	3.5	7
54	Oscillatory wetting instability induced by liquid-liquid decomposition in a Ga-Pb alloy. Journal of Chemical Physics, 2004, 120, 11171-11182.	3.0	16

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55	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
56	Model calculations of surface phase transitions in Ga-Bi alloys: adsorption, wetting, surface freezing and melting. Journal of Physics Condensed Matter, 2003, 15, 6155-6165.	1.8	6
57	Effect of Ionic Surfactants on the Dimple Relaxation in Wetting Films. Langmuir, 2002, 18, 5799-5803.	3.5	8
58	Adsorption of Alkali Dodecyl Sulfates on Air/Water Surface. Langmuir, 2001, 17, 5403-5405.	3.5	24
59	A Quantum Theory of Thermodynamic Relaxation. International Journal of Molecular Sciences, 2001, 2, 66-71.	4.1	9
60	Effects of Dissipation on Contact Angle Measurements Using a Dynamic Method. Journal of Colloid and Interface Science, 2001, 233, 136-141.	9.4	5
61	Optimal radiation field in one-dimensional continuous flow heterogeneous photocatalytic reactors. Chemical Engineering Science, 2001, 56, 4837-4847.	3.8	4
62	Size Dependence of Protein-Induced Flocculation of Phosphatidylcholine Liposomes. Journal of Colloid and Interface Science, 2000, 226, 44-50.	9.4	19
63	Dimple Relaxation in Wetting Films. Langmuir, 2000, 16, 8206-8209.	3.5	6
64	Disjoining Pressure and Surface Tension of a Small Drop. Langmuir, 2000, 16, 3502-3505.	3.5	26
65	Surface forces and dynamic effects in thin liquid films on solid interfaces. International Journal of Mineral Processing, 1999, 56, 61-74.	2.6	6
66	Attachment of Oil Droplets and Cells on Dropping Mercury Electrode. Langmuir, 1999, 15, 5649-5653.	3.5	19
67	Drainage of Foam Films. , 1999, , 83-90.		0
68	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
69	Theoretical Models for the Rate of NO Decomposition over Copper-Exchanged Zeolites. Journal of Physical Chemistry B, 1998, 102, 9525-9531.	2.6	5
70	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
71	Hydrophobic Forces in Thin Liquid Films: Adsorption Contribution. Langmuir, 1997, 13, 5674-5677.	3.5	15
72	Stochastic equations for thermodynamics. Journal of the Chemical Society, Faraday Transactions, 1997, 93, 1751-1753.	1.7	4

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73	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
74	Radiation field in continuous annular photocatalytic reactors: role of the lamp finite size. Chemical Engineering Science, 1997, 52, 1667-1671.	3.8	16
75	Resonant Diffusion on Solid Surfaces. NATO ASI Series Series B: Physics, 1997, , 419-425.	0.2	2
76	Two-dimensional Brownian motion of atoms and dimers on solid surfaces. Surface Science, 1995, 344, 175-181.	1.9	10
77	Diffusion of atoms and dimers on metal surfaces. Journal of Chemical Physics, 1994, 100, 7696-7699.	3.0	11
78	Resonant diffusion of molecules in solids. Journal of Chemical Physics, 1994, 100, 3808-3812.	3.0	19
79	Brownian dynamics in amorphous solids. Journal of Chemical Physics, 1994, 101, 7844-7849.	3.0	10
80	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
81	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
82	Effect of thermal fluctuations on the stability of draining thin films. Langmuir, 1993, 9, 3264-3269.	3.5	19
83	Rupture of thinning liquid films. Influence of the surface wave's spatial correlations. Journal of the Chemical Society, Faraday Transactions, 1992, 88, 251.	1.7	8
84	Temperature dependence of the rate constant for dissociation of absorbed molecules. Chemical Physics Letters, 1992, 188, 497-500.	2.6	5
85	Quantum Brownian motion and classical diffusion. Chemical Physics Letters, 1992, 195, 423-426.	2.6	7
86	Life time of nonthinning liquid films - influence of the surface waves spatial correlations. Advances in Colloid and Interface Science, 1992, 38, 353-369.	14.7	5
87	Energy transfer in adsorbed molecule-solid surface vibration interactions. Surface Science, 1991, 255, 355-360.	1.9	8
88	Resistance of glass fiber reinforced polyamide 6.6 materials to automotive cooling fluids: An analytical method for lifetime prediction. Polymer International, 0, , .	3.1	6
89	Quantum Entanglement of Free Particles. Fluctuation and Noise Letters, 0, , .	1.5	0