Ludmila B Boinovich

List of Publications by Citations

134	3,447	32	56
papers	citations	h-index	g-index
163	4,073	4.1	5.9
ext. papers	ext. citations	avg, IF	L-index

#	Paper	IF	Citations
134	Hydrophobic materials and coatings: principles of design, properties and applications. *Russian Chemical Reviews*, **2008**, 77, 583-600	6.8	217
133	Durable icephobic coating for stainless steel. *ACS Applied Materials & Interfaces*, **2013**, 5, 2549-54	9.5	191
132	Anti-icing Potential of Superhydrophobic Coatings. *Mendeleev Communications*, **2013**, 23, 3-10	1.9	157
131	Nanosecond laser micro- and nanotexturing for the design of a superhydrophobic coating robust against long-term contact with water, cavitation, and abrasion. *Applied Surface Science*, **2015**, 332, 513-517	6.7	141
130	Analysis of long-term durability of superhydrophobic properties under continuous contact with water. *ACS Applied Materials & Interfaces*, **2010**, 2, 1754-8	9.5	141
129	Synergistic Effect of Superhydrophobicity and Oxidized Layers on Corrosion Resistance of Aluminum Alloy Surface Textured by Nanosecond Laser Treatment. *ACS Applied Materials & Interfaces*, **2015**, 7, 19500-8	9.5	139
128	Effect of wettability on sessile drop freezing: when superhydrophobicity stimulates an extreme freezing delay. *Langmuir*, **2014**, 30, 1659-68	4	131
127	Origins of thermodynamically stable superhydrophobicity of boron nitride nanotubes coatings. *Langmuir*, **2012**, 28, 1206-16	4	129
126	Corrosion resistance of composite coatings on low-carbon steel containing hydrophobic and superhydrophobic layers in combination with oxide sublayers. *Corrosion Science*, **2012**, 55, 238-245	6.8	125
125	Combination of Functional Nanoengineering and Nanosecond Laser Texturing for Design of Superhydrophobic Aluminum Alloy with Exceptional Mechanical and Chemical Properties. *ACS Nano* , **2017**, 11, 10113-10123	16.7	119
124	Reinforced Superhydrophobic Coating on Silicone Rubber for Longstanding Anti-Icing Performance in Severe Conditions. *ACS Applied Materials & Interfaces*, **2017**, 9, 24210-24219	9.5	101
123	A wetting experiment as a tool to study the physicochemical processes accompanying the contact of hydrophobic and superhydrophobic materials with aqueous media. *Advances in Colloid and Interface Science*, **2012**, 179-182, 133-41	14.3	90
122	Contact angles: history of over 200 years of open questions. *Surface Innovations*, **2020**, 8, 3-27	1.9	89
121	Modus Operandi of Protective and Anti-icing Mechanisms Underlying the Design of Longstanding Outdoor Icephobic Coatings. *ACS Nano*, **2019**, 13, 4335-4346	16.7	80
120	Wetting and surface forces. *Advances in Colloid and Interface Science*, **2011**, 165, 60-9	14.3	69
119	The behaviour of fluoro- and hydrocarbon surfactants used for fabrication of superhydrophobic coatings at solid/water interface. *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, **2015**, 481, 167-175	5.1	66
118	Principles of design of superhydrophobic coatings by deposition from dispersions. *Langmuir*, **2009**, 25, 2907-12	4	62

117	Formation and electrochemical properties of the superhydrophobic nanocomposite coating on PEO pretreated MgMnCe magnesium alloy. *Surface and Coatings Technology*, **2013**, 232, 240-246	4.4	58
116	Not simply repel water: the diversified nature of corrosion protection by superhydrophobic coatings. *Mendeleev Communications*, **2017**, 27, 254-256	1.9	54
115	Comment on Nanosecond laser textured superhydrophobic metallic surfaces and their chemical sensing applications by Duong V. Ta, Andrew Dunn, Thomas J. Wasley, Robert W. Kay, Jonathan Stringer, Patrick J. Smith, Colm Connaughton, Jonathan D. Shephard (Appl. Surf. Sci. 357 (2015) 248254). *Applied Surface Science*, **2016**, 379, 111-113	6.7	51
114	Long-range surface forces and their role in the progress. *Russian Chemical Reviews*, **2007**, 76, 471-488	6.8	49
113	Femtosecond laser treatment for the design of electro-insulating superhydrophobic coatings with enhanced wear resistance on glass. *ACS Applied Materials & Interfaces*, **2014**, 6, 2080-5	9.5	48
112	Wetting and electrochemical properties of hydrophobic and superhydrophobic coatings on titanium. *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, **2011**, 383, 61-66	5.1	44
111	Corrosion behavior of superhydrophobic aluminum alloy in concentrated potassium halide solutions: When the specific anion effect is manifested. *Corrosion Science*, **2016**, 112, 517-527	6.8	44
110	Laser Tailoring the Surface Chemistry and Morphology for Wear, Scale and Corrosion Resistant Superhydrophobic Coatings. *Langmuir*, **2018**, 34, 7059-7066	4	43
109	Anti-icing properties of a superhydrophobic surface in a salt environment: an unexpected increase in freezing delay times for weak brine droplets. *Physical Chemistry Chemical Physics*, **2016**, 18, 3131-6	3.6	42
108	The prediction of wettability of curved surfaces on the basis of the isotherms of the disjoining pressure. *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, **2011**, 383, 10-16	5.1	41
107	The Use of Digital Processing of Video Images for Determining Parameters of Sessile and Pendant Droplets. *Colloid Journal*, **2001**, 63, 159-172	1.1	38
106	The role of discretization in video image processing of sessile and pendant drop profiles. *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, **2001**, 189, 197-202	5.1	37
105	DLVO forces in thin liquid films beyond the conventional DLVO theory. *Current Opinion in Colloid and Interface Science*, **2010**, 15, 297-302	7.6	36
104	Mg alloy treatment for superhydrophobic anticorrosion coating formation. *Surface Innovations*, **2013**, 1, 162-172	1.9	34
103	Application of Dynamic Thresholding of Video Images for Measuring the Interfacial Tension of Liquids and Contact Angles. *Instruments and Experimental Techniques*, **2002**, 45, 44-49	0.5	33
102	Effective Antibacterial Nanotextured Surfaces Based on Extreme Wettability and Bacteriophage Seeding. *ACS Applied Nano Materials*, **2018**, 1, 1348-1359	5.6	32
101	Electrochemical properties of the superhydrophobic coatings on metals and alloys. *Journal of the Taiwan Institute of Chemical Engineers*, **2014**, 45, 3075-3080	5.3	28
100	Laser-assisted processing of aluminum alloy for the fabrication of superhydrophobic coatings withstanding multiple degradation factors. *Surface and Coatings Technology*, **2020**, 397, 125993	4.4	27

99	Role of water vapor desublimation in the adhesion of an iced droplet to a superhydrophobic surface. *Langmuir*, **2014**, 30, 12596-601	4	25
98	Bactericidal Activity of Superhydrophobic and Superhydrophilic Copper in Bacterial Dispersions. *Langmuir*, **2019**, 35, 2832-2841	4	24
97	Water and Ice Adhesion to Solid Surfaces: Common and Specific, the Impact of Temperature and Surface Wettability. *Coatings*, **2020**, 10, 648	2.9	24
96	Superhydrophobic copper in biological liquids: Antibacterial activity and microbiologically induced or inhibited corrosion. *Colloids and Surfaces B: Biointerfaces*, **2020**, 185, 110622	6	24
95	Analysis of wetting as an efficient method for studying the characteristics of coatings and surfaces and the processes that occur on them: A review. *Inorganic Materials*, **2011**, 47, 1667-1675	0.9	23
94	Contact angle and wetting hysteresis measurements by digital image processing of the drop on a vertical filament. *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, **2004**, 239, 25-31	5.1	23
93	Forces due to dynamic structure in thin liquid films. *Advances in Colloid and Interface Science*, **2002**, 96, 37-58	14.3	20
92	Pulsed Laser Induced Triple Layer Copper Oxide Structure for Durable Polyfunctionality of Superhydrophobic Coatings. *Advanced Materials Interfaces*, **2018**, 5, 1801099	4.6	18
91	Superhydrophobic coatings as a new class of polyfunctional materials. *Herald of the Russian Academy of Sciences*, **2013**, 83, 8-18	0.7	16
90	Hydrophobic properties of composite fluoropolymer coatings on titanium. *Protection of Metals and Physical Chemistry of Surfaces*, **2011**, 47, 93-101	0.9	16
89	The development of coatings that give superhydrophobic properties to the surface of silicone rubber. *Nanotechnologies in Russia*, **2008**, 3, 587-592	0.6	16
88	Superhydrophobic corrosion resistant coatings for copper via IR nanosecond laser processing. *Materials Research Express*, **2018**, 5, 115001	1.7	16
87	Features of the occurrence of electrochemical processes in contact of sodium chloride solutions with the surface of superhydrophobic coatings on titanium. *Russian Journal of Electrochemistry*, **2012**, 48, 336-345	1.2	15
86	Wetting behaviour and wetting transitions of alkanes on aqueous surfaces. *Advances in Colloid and Interface Science*, **2009**, 147-148, 44-55	14.3	15
85	The image-charge forces in thin films of solutions with non-polar solvent. *Advances in Colloid and Interface Science*, **2003**, 104, 93-121	14.3	15
84	Effect of Decanol Vapors on the Delay in Water Droplet Crystallization on Superhydrophobic Substrates. *Journal of Physical Chemistry C*, **2015**, 119, 8718-8724	3.8	14
83	Interaction between hydrophobic and superhydrophobic materials with aqueous media. *Protection of Metals and Physical Chemistry of Surfaces*, **2010**, 46, 734-739	0.9	14
82	On the effect of discrete charges adsorbed at the interface on nonionic liquid film stability: charges in the film. *Journal of Physics Condensed Matter*, **2008**, 20, 494227	1.8	13

81	Antiicing performance of superhydrophobic coatings on aluminum and stainless steel. *Russian Chemical Bulletin*, **2013**, 62, 380-387	1.7	11
80	Comment on "Hydrophobic forces in the foam films stabilized by sodium dodecyl sulfate: effect of electrolyte" and subsequent criticism. *Langmuir*, **2007**, 23, 12457-60	4	11
79	Alkane films on water: stability and wetting transitions. *Russian Chemical Bulletin*, **2008**, 57, 263-273	1.7	11
78	Superhydrophobic versus SLIPS: Temperature dependence and the stability of ice adhesion strength. *Journal of Colloid and Interface Science*, **2022**, 606, 556-566	9.3	11
77	Adhesive strength of the contact of ice with a superhydrophobic coating. *Doklady Chemistry*, **2013**, 448, 71-75	0.8	10
76	Interactions of silicone rubbers designed for electrical engineering applications with aqueous media. *Protection of Metals and Physical Chemistry of Surfaces*, **2009**, 45, 89-94	0.9	10
75	Wetting behavior of pentane on water. The analysis of temperature dependence. *Journal of Physical Chemistry B*, **2007**, 111, 10217-23	3.4	10
74	Superhydrophobic coatings based on boron nitride nanotubes: The mechanism of superhydrophobicity and self-regeneration of highly hydrophobic properties. *Nanotechnologies in Russia*, **2011**, 6, 723-732	0.6	9
73	Thermally Induced Gradient of Properties on a Superhydrophobic Magnesium Alloy Surface. *Metals*, **2021**, 11, 41	2.3	9
72	Van der Waals forces in free and wetting liquid films. *Advances in Colloid and Interface Science*, **2019** , 269, 357-369	14.3	8
71	Corrosion Behavior of Superhydrophobic Coatings on Aluminum-Magnesium Alloy in Potassium Iodide Solutions. *Journal of the Electrochemical Society*, **2016**, 163, C659-C665	3.9	8
70	Protective Properties of the Nanocomposite Coatings on Mg Alloy. *Solid State Phenomena*, **2014**, 213, 176-179	0.4	8
69	The Analysis of the Parameters of Three-phase Coexistence in the Course of Long-term Contact between a Superhydrophobic Surface and an Aqueous Medium. *Chemistry Letters*, **2012**, 41, 1241-1243	1.7	8
68	The forces determining the stability of thin wetting films of solutions with nonpolar solvent. *Advances in Colloid and Interface Science*, **1992**, 37, 177-193	14.3	8
67	Spreading of biologically relevant liquids over the laser textured surfaces. *Journal of Colloid and Interface Science*, **2020**, 567, 224-234	9.3	7
66	Delay in the Freezing of Supercooled Water Drops on Superhydrophobic Surfaces of Silicone Rubber at Negative Temperatures. *Russian Journal of Physical Chemistry A*, **2018**, 92, 178-184	0.7	7
65	Cation capture and overcharging of a hydrophobized quartz surface in concentrated potassium chloride solutions. *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, **2018**, 537, 76-84	5.1	7
64	Shift of triple point in confined systems with curved interfaces. *Molecular Physics*, **2009**, 107, 1745-1753	1.7	7

63	On the Theory of the Phonon Component of Disjoining Pressure of Thin Liquid Films. *Zeitschrift Fur Physikalische Chemie*, **1992**, 178, 229-241	3.1	7
62	Investigation of the isotherms of the disjoining pressure of wetting films of binary nonionic solutions by the ellipsometric method. *Colloids and Surfaces*, **1988**, 34, 43-54		7
61	Spreading and contraction of a benzene lens on water: A description on the basis of the disjoining pressure. *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, **2017**, 522, 601-607	5.1	6
60	Experimental determination of the surface energy of polycrystalline ice. *Doklady Physical Chemistry* , **2014**, 459, 198-202	0.8	6
59	To the problem of first order phase transition at the fluid–fluid interface. *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, **2007**, 300, 321-326	5.1	6
58	On the Theory of the Stability of Dipole Molecule Solution Interlayers in Apolar Solvents: 2. Diffuse Adsorption Layers. *Colloid Journal*, **2003**, 65, 678-683	1.1	6
57	Spectroscopic cell for investigations of thin liquid films. *Surface and Interface Analysis*, **1991**, 17, 764-766	1.5	6
56	On the mechanism of solvation forces **1999**, 64-67		6
55	Deep Undercooling of Aqueous Droplets on a Superhydrophobic Surface: The Specific Role of Cation Hydration. *Journal of Physical Chemistry Letters*, **2020**, 11, 3058-3062	6.4	5
54	The mechanisms of anti-icing properties degradation for slippery liquid-infused porous surfaces under shear stresses.. *Journal of Colloid and Interface Science*, **2022**, 609, 260-268	9.3	5
53	Image Charge Effects in the Wetting Behavior of Alkanes on Water with Accounting for Water Solubility. *Materials*, **2016**, 9,	3.5	5
52	Application of laser micro- and nanotexturing for the fabrication of superhydrophobic corrosion-resistant coatings on aluminum. *Russian Chemical Bulletin*, **2016**, 65, 2607-2611	1.7	5
51	Antibacterial Properties of Superhydrophilic Textured Copper in Contact with Bacterial Suspensions. *Bulletin of Experimental Biology and Medicine*, **2020**, 168, 488-491	0.8	4
50	Image-charge forces in thin interlayers due to surface charges in electrolyte. *Physical Review E*, **2015**, 91, 032402	2.4	4
49	Calculation of van der Waals Interaction Energy in Free Liquid Films Accounting for Many-body Contributions. *Chemistry Letters*, **2012**, 41, 1253-1255	1.7	4
48	The effects of halide anions on the dielectric response of potassium halide solutions in visible, UV and far UV region. *Journal of Chemical Physics*, **2013**, 138, 214502	3.9	4
47	On the Theory of the Stability of Dipole Molecule Solution Interlayers in Apolar Solvents: 1. Thermodynamics of Solution Film. *Colloid Journal*, **2003**, 65, 672-677	1.1	4
46	Structural Rearrangement in the Symmetric Interlayers of a Nematic 4-Pentyl-4-Cyanobiphenyl in the Field of Surface Forces. *Colloid Journal*, **2001**, 63, 402-414	1.1	4

45	Equilibrium wetting in SOS model. The role of long-range surface forces. *Advances in Colloid and Interface Science*, **1995**, 62, 161-188	14.3	4
44	Boundary layers and surface forces in pure nonaqueous liquids. *Current Opinion in Colloid and Interface Science*, **2019**, 44, 85-93	7.6	4
43	Disjoining pressure analysis of the lubricant nanofilm stability of liquid-infused surface upon lubricant depletion.. *Journal of Colloid and Interface Science*, **2022**, 618, 121-128	9.3	4
42	Creation and modification of superhydrophobic materials based on fibrous polytetrafluoroethylene. *Doklady Chemistry*, **2015**, 462, 156-159	0.8	3
41	Ultra-porous alumina for microwave planar antennas. *International Journal of Higher Education Management*, **2015**, 1, 93-99	1	3
40	On the Theory of the Stability of Dipole Molecule Solution Interlayers in Apolar Solvents: 3. A Formation of Adsorption Monolayers with Dipole Orientation Normal to the Surface. *Colloid Journal*, **2004**, 66, 11-17	1.1	3
39	On the Theory of the Stability of Dipole Molecule Solution Interlayers in Apolar Solvents: 4. A Localized Adsorption at the Dipole Orientation Parallel to the Interface. *Colloid Journal*, **2004**, 66, 18-24	1.1	3
38	Equilibrium wetting in the SOS model. *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, **1995**, 101, 245-249	5.1	3
37	Ellipsometry of multilayer free-lying films. *Surface Science*, **1990**, 225, 206-216	1.8	3
36	The Mechanisms of Antibacterial Activity of Magnesium Alloys with Extreme Wettability. *Materials*, **2021**, 14,	3.5	3
35	Development of a Bacteriophage Complex with Superhydrophilic and Superhydrophobic Nanotextured Surfaces of Metals Preventing Healthcare-Associated Infections (HAI). *Bulletin of Experimental Biology and Medicine*, **2019**, 167, 500-503	0.8	2
34	Parameters of Supercooled Droplets of Water and Aqueous Solutions of Chlorides of Alkali Metals in the Temperature Range of +25 to 19*Russian Journal of Physical Chemistry A*, **2020**, 94, 564-569	0.7	2
33	Characterizing the Physicochemical Processes at the Interface through Evolution of the Axisymmetric Droplet Shape Parameters **2018**, 99-129		2
32	Superhydrophobization of low-carbon steel with conversion coatings. *Protection of Metals and Physical Chemistry of Surfaces*, **2014**, 50, 898-902	0.9	2
31	Surface-induced shift of melting/freezing temperatures at interfaces between two semi-infinite media. *Russian Chemical Bulletin*, **2007**, 56, 14-19	1.7	2
30	Orientational ordering in thin interlayers of nematic liquid crystal 4,4'-penthyl-cyanobiphenyl. *European Physical Journal E*, **2001**, 6, 359-364	1.5	2
29	Contribution of image forces to the adsorption component of disjoining pressure in thin films of solutions with a polar solute. *Chemical Physics Letters*, **1991**, 182, 463-465	2.5	2
28	The Potential of the Superhydrophobic State to Protect Magnesium Alloy against Corrosion. *Coatings*, **2022**, 12, 74	2.9	2

27	Antimicrobial Activity and Degradation of Superhydrophobic Magnesium Substrates in Bacterial Media. *Metals*, **2021**, 11, 1100	2.3	2
26	Investigations of variations in surface state of polymer films under structural rearrangements in air and during contact with water. *Inorganic Materials: Applied Research*, **2017**, 8, 60-66	0.6	1
25	Synthesis of wear-resistant superhydrophobic coatings via laser micro- and nanotexturing. *Nanotechnologies in Russia*, **2015**, 10, 585-592	0.6	1
24	Progress in the Science of Surface Forces: From the Concept of Disjoining Pressure to Modern Nanotechnologies. *Russian Journal of Physical Chemistry A*, **2020**, 94, 496-504	0.7	1
23	Experimental Application of Organic-Inorganic Hybrid Coatings with Adsorbed Bacteriophages for Reducing the Risk of STEC Infections. *Bulletin of Experimental Biology and Medicine*, **2018**, 165, 478-481	0.8	1
22	Electrochemical properties of functional hybrid coatings on titanium. *Physics Procedia*, **2012**, 23, 106-109		1
21	Manifestation of ion specificity in the behavior of the dynamic dielectric permittivity of aqueous solutions of alkali metal halides. *Doklady Physical Chemistry*, **2013**, 449, 98-102	0.8	1
20	Manifestation of ion specificity in the behavior of the dynamic dielectric permittivity of aqueous solutions of alkali metal halides. *Journal of Structural Chemistry*, **2013**, 54, 345-354	0.9	1
19	Thermal stability of superhydrophobic coatings. *Doklady Physical Chemistry*, **2011**, 436, 19-22	0.8	1
18	The influence of the surface on conformational equilibrium in thin layers of nematic liquid crystal. *Russian Chemical Bulletin*, **2001**, 50, 319-321	1.7	1
17	Laser Treatment of Aluminum Alloys for Fabrication of Weather-Resistant Superhydrophobic Coatings. *Nanotechnologies in Russia*, **2020**, 15, 141-145	0.6	1
16	Antimicrobial activity and degradation of superhydrophobic magnesium substrates in bacterial media		1
15	Using Laplace Fit Parameters for the Elimination of Wetting Measurement Inaccuracy Caused by Vapor Undersaturation. *Surface Innovations*,1-4	1.9	1
14	Extreme-Wettability Textured Materials for Water Collection from Aerosols. *Doklady Physical Chemistry*, **2019**, 489, 169-172	0.8	1
13	Structural Acrylic Adhesives: A Critical Review **2021**, 651-708		1
12	Triple point in spatially limited systems: Small particles and pores. *Protection of Metals and Physical Chemistry of Surfaces*, **2010**, 46, 403-410	0.9	0
11	The Threshold Effect in Ozone-Induced Degradation of Superhydrophobic Coatings. *Technical Physics*, **2021**, 66, 1100	0.5	0
10	Nanoand microstructuring of materials surfaces using femtosecond laser pulses. *Bulletin of the Russian Academy of Sciences: Physics*, **2016**, 80, 358-361	0.4	0

9	The durability of superhydrophobic and slippery liquid infused porous surface coatings under corona discharge characteristic of the operation of high voltage power transmission lines. *Energy Reports*, **2022**, 8, 6837-6844	4.6	0
8	Long-Range Surface Forces in Molecular Liquids: Trends in the Theory **2014**, 133-159		
7	Long-Range Surface Forces in Molecular Liquids: Trends in the Theory **2011**, 133-159		
6	A collection of papers presented at XIVth International Conference on Surface Forces, Moscow - St. Petersburg, Russia, June 21-27 2010. Foreword. *Advances in Colloid and Interface Science*, **2011**, 165, 59	14.3	
5	Melting/Freezing Phase Transitions in Confined Systems155-177		
4	Investigation of the isotherms of the disjoining pressure of wetting films of binary nonionic solutions by the ellipsometric method. *Progress in Surface Science*, **1992**, 40, 260-271	6.6	
3	Contact angles and the transition zone between a sessile drop and a wetting film studied by Monte Carlo simulation **1999**, 168-171		
2	Efficiency and Mechanisms of Bactericidal Effect of Superhydrophilic Magnesium Alloy Surface against Escherichia coli. *Microbiology*, **2021**, 90, 643-646	1.4	
1	Elimination of wetting study flaws in unsaturated vapors based on Laplace fit parameters. *Surface Innovations*,1-4	1.9	