Olga I Vinogradova

List of Publications by Year
in descending order

121 papers	5,900 citations	53660 45 h-index	79541 73 g-index
124 all docs	124 docs citations	124 times ranked	3461 citing authors

#	Article	IF	Citations
1	Self-diffusiophoresis of Janus particles that release ions. Physics of Fluids, 2022, 34, .	1.6	9
2	Accurate Solutions to Non-Linear PDEs Underlying a Propulsion of Catalytic Microswimmers. Mathematics, 2022, 10, 1503.	1.1	2
3	Surface and zeta potentials of charged permeable nanocoatings. Journal of Chemical Physics, 2021, 154, 164701.	1.2	8
4	Light-induced manipulation of passive and active microparticles. European Physical Journal E, 2021, 44, 50.	0.7	13
5	Instability of particle inertial migration in shear flow. Physics of Fluids, 2021, 33, .	1.6	3
6	Enhanced transport of ions by tuning surface properties of the nanochannel. Physical Review E, 2021, 104, 035107.	0.8	7
7	Ionic equilibria and swelling of soft permeable particles in electrolyte solutions. Soft Matter, 2020, 16, 929-938.	1.2	6
8	Inertial migration of oblate spheroids in a plane channel. Physics of Fluids, 2020, 32, .	1.6	18
9	Flow-driven collapse of lubricant-infused surfaces. Journal of Fluid Mechanics, 2020, 901, .	1.4	15
10	Achieving large zeta-potentials with charged porous surfaces. Physics of Fluids, 2020, 32, .	1.6	17
11	Extremely Long-Range Light-Driven Repulsion of Porous Microparticles. Langmuir, 2020, 36, 6994-7004.	1.6	17
12	Inertial migration of neutrally buoyant particles in superhydrophobic channels. Physical Review Fluids, 2020, 5, .	1.0	18
13	Electro-osmotic properties of porous permeable films. Physical Review Fluids, 2020, 5, .	1.0	8
14	Electro-osmotic flow in hydrophobic nanochannels. Physical Chemistry Chemical Physics, 2019, 21, 23036-23043.	1.3	32
15	Inertial focusing of finite-size particles in microchannels. Journal of Fluid Mechanics, 2018, 840, 613-630.	1.4	59
16	Star polymers as unit cells for coarse-graining cross-linked networks. Physical Review E, 2018, 97, 032504.	0.8	4
17	Enhanced slip properties of lubricant-infused grooves. Physical Review E, 2018, 98, .	0.8	30
18	Boundary conditions at the gas sectors of superhydrophobic grooves. Physical Review Fluids, 2018, 3, .	1.0	13

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19	Continuous electroosmotic sorting of particles in grooved microchannels. Soft Matter, 2017, 13, 7498-7504.	1.2	10
20	Advective superdiffusion in superhydrophobic microchannels. Physical Review E, 2017, 96, 033109.	0.8	8
21	Electrostatic interactions and electro-osmotic properties of semipermeable surfaces. Journal of Chemical Physics, 2016, 145, 164703.	1.2	11
22	Electrophoresis of Janus particles: A molecular dynamics simulation study. Journal of Chemical Physics, 2016, 145, 244704.	1.2	18
23	Probing effective slippage on superhydrophobic stripes by atomic force microscopy. Soft Matter, 2016, 12, 6910-6917.	1.2	14
24	Manipulation of small particles at solid liquid interface: light driven diffusioosmosis. Scientific Reports, 2016, 6, 36443.	1.6	67
25	Regimes of wetting transitions on superhydrophobic textures conditioned by energy of receding contact lines. Applied Physics Letters, 2015, 106, 241601.	1.5	21
26	Flows and mixing in channels with misaligned superhydrophobic walls. Physical Review E, 2015, 91, 033020.	0.8	21
27	Principles of transverse flow fractionation of microparticles in superhydrophobic channels. Lab on A Chip, 2015, 15, 2835-2841.	3.1	29
28	Electrohydrodynamics Near Hydrophobic Surfaces. Physical Review Letters, 2015, 114, 118301.	2.9	82
29	Lattice-Boltzmann simulations of the drag force on a sphere approaching a superhydrophobic striped plane. Journal of Chemical Physics, 2014, 140, 034707.	1.2	12
30	Contact angle hysteresis on superhydrophobic stripes. Journal of Chemical Physics, 2014, 141, 074710.	1.2	38
31	Gas cushion model and hydrodynamic boundary conditions for superhydrophobic textures. Physical Review E, 2014, 90, 043017.	0.8	44
32	Disjoining pressure of an electrolyte film confined between semipermeable membranes. Journal of Chemical Physics, 2014, 141, 074902.	1.2	9
33	Effective slippage on superhydrophobic trapezoidal grooves. Journal of Chemical Physics, 2013, 139, 174708.	1.2	12
34	Flow in channels with superhydrophobic trapezoidal textures. Soft Matter, 2013, 9, 11671.	1.2	18
35	Effective slip-length tensor for a flow over weakly slipping stripes. Physical Review E, 2013, 88, 023004.	0.8	28
36	Electrostatic interaction of heterogeneously charged surfaces with semipermeable membranes. Faraday Discussions, 2013, 166, 317.	1.6	14

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37	Effective hydrodynamic boundary conditions for microtextured surfaces. Physical Review E, 2013, 87, 011002.	0.8	22
38	Flow past superhydrophobic surfaces with cosine variation in local slip length. Physical Review E, 2013, 87, 023005.	0.8	27
39	Electrostatic interaction of neutral semi-permeable membranes. Journal of Chemical Physics, 2012, 136, 034902.	1.2	11
40	Effective slip boundary conditions for arbitrary one-dimensional surfaces. Journal of Fluid Mechanics, 2012, 706, 108-117.	1.4	52
41	Interactions of neutral semipermeable shells in asymmetric electrolyte solutions. Soft Matter, 2012, 8, 9428.	1.2	9
42	Superhydrophobic Textures for Microfluidics. Mendeleev Communications, 2012, 22, 229-236.	0.6	103
43	Tensorial slip of superhydrophobic channels. Physical Review E, 2012, 85, 016324.	0.8	51
44	Anisotropic flow in striped superhydrophobic channels. Journal of Chemical Physics, 2012, 136, 194706.	1.2	34
45	Thermal softening of superswollen polyelectrolyte microcapsules. Soft Matter, 2011, 7, 2705.	1.2	8
46	Wetting, roughness and flow boundary conditions. Journal of Physics Condensed Matter, 2011, 23, 184104.	0.7	122
47	Drag force on a sphere moving toward an anisotropic superhydrophobic plane. Physical Review E, 2011, 84, 026330.	0.8	32
48	Electro-osmosis on Anisotropic Superhydrophobic Surfaces. Physical Review Letters, 2011, 107, 098301.	2.9	76
49	THF-induced stiffening of polyelectrolyte/phosphorus dendrimer multilayer microcapsules. Polymer, 2010, 51, 4525-4529.	1.8	13
50	Anisotropic electro-osmotic flow over super-hydrophobic surfaces. Journal of Fluid Mechanics, 2010, 644, 245-255.	1.4	100
51	Random-Roughness Hydrodynamic Boundary Conditions. Physical Review Letters, 2010, 105, 016001.	2.9	55
52	Transverse flow in thin superhydrophobic channels. Physical Review E, 2010, 82, 055301.	0.8	39
53	Effective slip in pressure-driven flow past super-hydrophobic stripes. Journal of Fluid Mechanics, 2010, 652, 489-499.	1.4	142
54	Hydrodynamic interaction with super-hydrophobic surfaces. Soft Matter, 2010, 6, 4563.	1.2	27

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55	Direct Measurements of Hydrophobic Slippage Using Double-Focus Fluorescence Cross-Correlation. Physical Review Letters, 2009, 102, 118302.	2.9	112
56	Effective Slip over Superhydrophobic Surfaces in Thin Channels. Physical Review Letters, 2009, 102, 026001.	2.9	139
57	Methods for analysis of the AFM images of thin films of block copolymers. Protection of Metals and Physical Chemistry of Surfaces, 2009, 45, 105-108.	0.3	3
58	Studying intermolecular processes in thin surface layers with microcantilever transducers. Formation of protein fibrils on a solid support. Protection of Metals, 2008, 44, 535-541.	0.2	6
59	Osmotic pressure acting on a semipermeable shell immersed in a solution of polyions. Journal of Chemical Physics, 2008, 129, 244707.	1.2	13
60	Ripples in a wetting film formed by a moving meniscus. Physical Review E, 2008, 78, 031602.	0.8	7
61	Tensorial hydrodynamic slip. Journal of Fluid Mechanics, 2008, 613, 125-134.	1.4	172
62	The wimple: A rippled deformation of a wetting film during its drainage. Physics of Fluids, 2007, 19, 061702.	1.6	11
63	Electro-osmotic equilibria for a semipermeable shell filled with a solution of polyions. Journal of Chemical Physics, 2007, 126, 094901.	1.2	14
64	Charged Semi-Permeable Shell with Encapsulated Polyions: Concentration Profile, Surface Potential, and Electrostatic Pressure. Macromolecular Symposia, 2007, 252, 149-154.	0.4	1
65	Dynamics and stability of dispersions of polyelectrolyte-filled multilayer microcapsules. Journal of Chemical Physics, 2007, 126, 244901.	1.2	13
66	Dendrimer-encapsulated gold nanoparticles as building blocks for multilayer microshells. Polymer, 2007, 48, 5024-5029.	1.8	20
67	MECHANICAL BEHAVIOR AND CHARACTERIZATION OF MICROCAPSULES. Annual Review of Materials Research, 2006, 36, 143-178.	4.3	72
68	Stability of toroid and rodlike globular structures of a single stiff-chain macromolecule for different bending potentials. Physical Review E, 2006, 73, 051804.	0.8	10
69	Surface roughness and hydrodynamic boundary conditions. Physical Review E, 2006, 73, 045302.	0.8	118
70	Effect of Dendrimer Generation on the Assembly and Mechanical Properties of DNA/Phosphorus Dendrimer Multilayer Microcapsules. Macromolecules, 2006, 39, 5479-5483.	2.2	31
71	Electrostatic Stretching of a Charged Vesicle. Langmuir, 2006, 22, 9418-9426.	1.6	4
72	Self-Assembled Monolayers on Mercury Probed in a Modified Surface Force Apparatus. Journal of Physical Chemistry B, 2006, 110, 25931-25940.	1.2	4

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73	Spatial distribution of polyelectrolyte and counterions in nanocapsules: A computer simulation study. Physical Review E, 2006, 73, 021801.	0.8	20
74	Salt softening of polyelectrolyte multilayer microcapsules. Journal of Colloid and Interface Science, 2005, 284, 455-462.	5.0	57
75	Hydrodynamic resistance of close-approached slip surfaces with a nanoasperity or an entrapped nanobubble. Physical Review E, 2005, 72, 066306.	0.8	17
76	Superswollen Ultrasoft Polyelectrolyte Microcapsules. Macromolecules, 2005, 38, 8066-8070.	2.2	22
77	Assembly and Mechanical Properties of Phosphorus Dendrimer/Polyelectrolyte Multilayer Microcapsules. Langmuir, 2005, 21, 7200-7206.	1.6	55
78	Effect of Organic Solvent on the Permeability and Stiffness of Polyelectrolyte Multilayer Microcapsules. Macromolecules, 2005, 38, 5214-5222.	2.2	55
79	A Qualitative Theory of Wimples in Wetting Films. Langmuir, 2005, 21, 12090-12092.	1.6	7
80	The â€œWimpleâ€Â Rippled Deformation of a Fluid Drop Caused by Hydrodynamic and Surface Forces during Thin Film Drainage. Langmuir, 2005, 21, 8243-8249.	1.6	41
81	Multilayer DNA/Poly(allylamine hydrochloride) Microcapsules:Â Assembly and Mechanical Properties. Biomacromolecules, 2005, 6, 1495-1502.	2.6	74
82	Interaction and Adhesion Properties of Polyelectrolyte Multilayers. Langmuir, 2005, 21, 7545-7550.	1.6	56
83	Capillary bridging and long-range attractive forces in a mean-field approach. Journal of Chemical Physics, 2004, 121, 4414-4423.	1.2	57
84	Elasticity of polyelectrolyte multilayer microcapsules. Journal of Chemical Physics, 2004, 120, 3822-3826.	1.2	117
85	Mechanical properties of polyelectrolyte multilayer microcapsules. Journal of Physics Condensed Matter, 2004, 16, R1105-R1134.	0.7	83
86	Comparative Analysis of Hollow and Filled Polyelectrolyte Microcapsules Templated on Melamine Formaldehyde and Carbonate Cores. Macromolecular Chemistry and Physics, 2004, 205, 530-535.	1.1	50
87	Mechanical Properties of Polyelectrolyte-Filled Multilayer Microcapsules Studied by Atomic Force and Confocal Microscopy. Langmuir, 2004, 20, 10685-10690.	1.6	35
88	Investigation of Molecular Weight and Aging Effects on the Stiffness of Polyelectrolyte Multilayer Microcapsules. Macromolecules, 2004, 37, 7736-7741.	2.2	35
89	Young's Modulus of Polyelectrolyte Multilayers from Microcapsule Swelling. Macromolecules, 2004, 37, 1113-1117.	2.2	94
90	Effect of pH and Salt on the Stiffness of Polyelectrolyte Multilayer Microcapsules. Langmuir, 2004, 20, 2874-2878.	1.6	83

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91	pH-Controlled Swelling of Polyelectrolyte Multilayer Microcapsules. Journal of Physical Chemistry B, 2004, 108, 8161-8165.	1.2	55
92	Interaction of elastic bodies via surface forces. Journal of Colloid and Interface Science, 2003, 268, 464-475.	5.0	4
93	Mechanical Properties of Polyelectrolyte Microcapsules Filled with a Neutral Polymer. Macromolecules, 2003, 36, 2832-2837.	2.2	69
94	Dynamic Effects on Force Measurements. 2. Lubrication and the Atomic Force Microscope. Langmuir, 2003, 19, 1227-1234.	1.6	171
95	Deformation Properties of Nonadhesive Polyelectrolyte Microcapsules Studied with the Atomic Force Microscope. Journal of Physical Chemistry B, 2003, 107, 2735-2740.	1.2	103
96	Boundary slip as a result of a prewetting transition. Journal of Chemical Physics, 2003, 119, 13106-13112.	1.2	65
97	Flow profile near a wall measured by double-focus fluorescence cross-correlation. Physical Review E, 2003, 67, 056313.	0.8	83
98	Interaction of Elastic Bodies via Surface Forces. 1. Power-Law Attraction. Langmuir, 2002, 18, 5126-5132.	1.6	7
99	Attractive Forces between Surfaces:â€‰ What Can and Cannot Be Learned from a Jump-In Study with the Surface Forces Apparatus?. Langmuir, 2001, 17, 1604-1607.	1.6	18
100	A Study of the Linear Tension Effect on the Polystyrene Microsphere Wettability with Water. Colloid Journal, 2001, 63, 518-525.	0.5	15
101	Dynamic effects on force measurements. I. Viscous drag on the atomic force microscope cantilever. Review of Scientific Instruments, 2001, 72, 2330-2339.	0.6	88
102	Forces between polystyrene surfaces in waterâ€“electrolyte solutions: Long-range attraction of two types?. Journal of Chemical Physics, 2001, 114, 8124-8131.	1.2	68
103	Elastohydrodynamic Collision of Two Spheres Allowing Slip on Their Surfaces. Journal of Colloid and Interface Science, 2000, 221, 1-12.	5.0	21
104	Contact angles on hydrophobic microparticles at waterâ€“air and waterâ€“hexadecane interfaces. Journal of Adhesion Science and Technology, 2000, 14, 1783-1799.	1.4	54
105	Analysis of plastic deformation in atomic force microscopy: Application to ice. Journal of Chemical Physics, 2000, 113, 1194-1203.	1.2	40
106	Hydrodynamic slippage inferred from thin film drainage measurements in a solution of nonadsorbing polymer. Journal of Chemical Physics, 2000, 112, 6424-6433.	1.2	106
107	Interaction Forces between Hydrophobic Surfaces. Attractive Jump as an Indication of Formation of â€œStableâ€•Submicrocavities. Journal of Physical Chemistry B, 2000, 104, 3407-3410.	1.2	118
108	Slippage of water over hydrophobic surfaces. International Journal of Mineral Processing, 1999, 56, 31-60.	2.6	391

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109	Implications of Hydrophobic Slippage for the Dynamic Measurements of Hydrophobic Forces. Langmuir, 1998, 14, 2827-2837.	1.6	47
110	Effect of Salts and Dissolved Gas on Optical Cavitation near Hydrophobic and Hydrophilic Surfaces. Langmuir, 1997, 13, 3024-3028.	1.6	95
111	Hydrophobicity, specific ion adsorption and reactivity. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 1997, 123-124, 7-12.	2.3	57
112	Hydrodynamic Interaction of Curved Bodies Allowing Slip on Their Surfaces. Langmuir, 1996, 12, 5963-5968.	1.6	42
113	Existence of charged submicrobubble clusters in polar liquids as revealed by correlation between optical cavitation and electrical conductivity. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 1996, 110, 207-212.	2.3	57
114	Flow of a liquid in a nonuniformly hydrophobized capillary. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 1996, 108, 173-179.	2.3	20
115	Possible implications of hydrophobic slippage on the dynamic measurements of hydrophobic forces. Journal of Physics Condensed Matter, 1996, 8, 9491-9495.	0.7	9
116	Coagulation of Hydrophobic and Hydrophilic Solids under Dynamic Conditions. Journal of Colloid and Interface Science, 1995, 169, 306-312.	5.0	31
117	Submicrocavity Structure of Water between Hydrophobic and Hydrophilic Walls as Revealed by Optical Cavitation. Journal of Colloid and Interface Science, 1995, 173, 443-447.	5.0	127
118	Drainage of a Thin Liquid Film Confined between Hydrophobic Surfaces. Langmuir, 1995, 11, 2213-2220.	1.6	527
119	Boris Vladimirovich Derjaguin (1902-1994). Journal of Colloid and Interface Science, 1994, 168, 273.	5.0	3
120	On the attachment of hydrophobic particles to a bubble on their collision. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 1994, 82, 247-254.	2.3	11
121	Obituary. Boris Vladimirovich Derjaguin. Langmuir, 1994, 10, 4735-4736.	1.6	0