Gene Whyman

List of Publications by Year
in descending order

48	3,246	218677 26	223800 46
papers	citations	h-index	g-index

51	51	51	3130
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	The rigorous derivation of Young, Cassieâ€"Baxter and Wenzel equations and the analysis of the contact angle hysteresis phenomenon. Chemical Physics Letters, 2008, 450, 355-359.	2.6	466
2	Cassieâ^'Wenzel Wetting Transition in Vibrating Drops Deposited on Rough Surfaces:â€‰ Is the Dynamic Cassieâ^'Wenzel Wetting Transition a 2D or 1D Affair?. Langmuir, 2007, 23, 6501-6503.	3.5	258
3	Wetting Properties of the Multiscaled Nanostructured Polymer and Metallic Superhydrophobic Surfaces. Langmuir, 2006, 22, 9982-9985.	3.5	219
4	How to Make the Cassie Wetting State Stable?. Langmuir, 2011, 27, 8171-8176.	3.5	210
5	Why do pigeon feathers repel water? Hydrophobicity of pennae, Cassieâ€"Baxter wetting hypothesis and Cassieâ€"Wenzel capillarity-induced wetting transition. Journal of Colloid and Interface Science, 2007, 311, 212-216.	9.4	196
6	Vibration-induced Cassie-Wenzel wetting transition on rough surfaces. Applied Physics Letters, 2007, 90, 201917.	3.3	148
7	Interaction of cold radiofrequency plasma with seeds of beans (Phaseolus vulgaris). Journal of Experimental Botany, 2015, 66, 4013-4021.	4.8	130
8	Self-Propulsion of Liquid Marbles: Leidenfrost-like Levitation Driven by Marangoni Flow. Journal of Physical Chemistry C, 2015, 119, 9910-9915.	3.1	127
9	Characterization of rough surfaces with vibrated drops. Physical Chemistry Chemical Physics, 2008, 10, 4056.	2.8	120
10	Resonance Cassieâ^'Wenzel Wetting Transition for Horizontally Vibrated Drops Deposited on a Rough Surface. Langmuir, 2007, 23, 12217-12221.	3.5	115
11	Surface tension of liquid marbles. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2009, 351, 78-82.	4.7	114
12	Contact Angle Hysteresis on Polymer Substrates Established with Various Experimental Techniques, Its Interpretation, and Quantitative Characterization. Langmuir, 2008, 24, 4020-4025.	3.5	101
13	Shape, Vibrations, and Effective Surface Tension of Water Marbles. Langmuir, 2009, 25, 1893-1896.	3.5	100
14	Controlling drop bouncing using surfaces with gradient features. Applied Physics Letters, 2015, 107, .	3.3	93
15	Interfacial and conductive properties of liquid marbles coated with carbon black. Powder Technology, 2010, 203, 529-533.	4.2	82
16	Micrometrically scaled textured metallic hydrophobic interfaces validate the Cassieâ€"Baxter wetting hypothesis. Journal of Colloid and Interface Science, 2006, 302, 308-311.	9.4	74
17	Environmental Scanning Electron Microscopy Study of the Fine Structure of the Triple Line and Cassieâ^'Wenzel Wetting Transition for Sessile Drops Deposited on Rough Polymer Substrates. Langmuir, 2007, 23, 4378-4382.	3.5	70
18	Revisiting the surface tension of liquid marbles: Measurement of the effective surface tension of liquid marbles with the pendant marble method. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2013, 425, 15-23.	4.7	62

#	Article	IF	Citations
19	Superhydrophobicity of Lotus Leaves versus Birds Wings: Different Physical Mechanisms Leading to Similar Phenomena. Langmuir, 2012, 28, 14992-14997.	3.5	58
20	Physical mechanisms of interaction of cold plasma with polymer surfaces. Journal of Colloid and Interface Science, 2015, 448, 175-179.	9.4	52
21	Oblate spheroid model for calculation of the shape and contact angles of heavy droplets. Journal of Colloid and Interface Science, 2009, 331, 174-177.	9.4	51
22	Mesoscopic Patterning in Evaporated Polymer Solutions: Poly(ethylene glycol) and Roomâ€Temperatureâ€Vulcanized Polyorganosilanes/â€siloxanes Promote Formation of Honeycomb Structures. Macromolecular Chemistry and Physics, 2008, 209, 567-576.	2.2	40
23	Electrically Deformable Liquid Marbles. Journal of Adhesion Science and Technology, 2011, 25, 1371-1377.	2.6	38
24	Superhydrophobic Metallic Surfaces and Their Wetting Properties. Journal of Adhesion Science and Technology, 2008, 22, 379-385.	2.6	35
25	On the Role of the Line Tension in the Stability of Cassie Wetting. Langmuir, 2013, 29, 5515-5519.	3.5	32
26	Superoleophobic Surfaces Obtained via Hierarchical Metallic Meshes. Langmuir, 2016, 32, 4134-4140.	3.5	31
27	Plasma treatment switches the regime of wetting and floating of pepper seeds. Colloids and Surfaces B: Biointerfaces, 2017, 157, 417-423.	5.0	24
28	Variational approach to wetting problems: Calculation of a shape of sessile liquid drop deposited on a solid substrate in external field. Chemical Physics Letters, 2008, 463, 103-105.	2.6	23
29	Interpretation of elasticity of liquid marbles. Journal of Colloid and Interface Science, 2015, 457, 148-151.	9.4	20
30	A reliable method of manufacturing metallic hierarchical superhydrophobic surfaces. Applied Physics Letters, 2009, 94, .	3.3	19
31	Self-propelling rotator driven by soluto-capillary marangoni flows. Applied Physics Letters, 2017, 110, 131604.	3.3	19
32	Electrostatically driven droplets deposited on superhydrophobic surfaces. Applied Physics Letters, 2009, 95, .	3.3	16
33	Comment on Water Wetting Transition Parameters of Perfluorinated Substrates with Periodically Distributed Flat-Top Microscale Obstacles. Langmuir, 2009, 25, 13694-13695.	3.5	13
34	Relaxation spectra of polymers and phenomena of electrical and hydrophobic recovery: Interplay between bulk and surface properties of polymers. Journal of Polymer Science, Part B: Polymer Physics, 2017, 55, 198-205.	2.1	13
35	Elastic Properties of Liquid Surfaces Coated with Colloidal Particles. Advances in Condensed Matter Physics, 2015, 2015, 1-6.	1.1	12
36	Stabilization of cubic phase in scandiumâ€doped zirconia nanocrystals synthesized with solâ€gel method. Journal of the American Ceramic Society, 2019, 102, 3236-3243.	3.8	10

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37	Template-assisted crystallization and colloidal self-assembly with use of the polymer micrometrically scaled honeycomb template. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2006, 290, 273-279.	4.7	9
38	Template-assisted growth of chemical gardens: Formation of dendrite structures. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2006, 289, 245-249.	4.7	9
39	Jetting liquid marbles: study of the Taylor instability in immersed marbles. Colloid and Polymer Science, 2013, 291, 1535-1539.	2.1	8
40	On universality of scaling law describing roughness of triple line. European Physical Journal E, 2015, 38, 2.	1.6	8
41	Wetting Transitions on Post-Built and Porous Reliefs. Journal of Adhesion Science and Technology, 2012, 26, 1169-1180.	2.6	7
42	Robust method of manufacturing rubber wasteâ€based water repellent surfaces. Polymers for Advanced Technologies, 2009, 20, 650-653.	3.2	6
43	Under-Liquid Self-Assembly of Submerged Buoyant Polymer Particles. Langmuir, 2016, 32, 5714-5720.	3.5	3
44	Dielectric properties of UV-irradiated ultrathin polysulfone films revealed by surface plasmon resonance method. International Journal of Polymer Analysis and Characterization, 2018, 23, 396-402.	1.9	2
45	Simultaneous determination of thickness and refractive index using Cauchy or Sellmeier formulas by the example of surface plasmon resonance study on ultrathin polysulfone film. International Journal of Polymer Analysis and Characterization, 2021, 26, 661-667.	1.9	2
46	Towards Understanding Wetting Transitions on Biomimetic Surfaces: Scaling Arguments and Physical Mechanisms. Green Energy and Technology, 2012, , 127-147.	0.6	0
47	Impact of Conditions of Water Supply on the Germination of Tomato and Pepper Seeds. , 0, , .		0
48	Influence of UV irradiation in nitrogen and air environment on dielectric properties of ultrathin polysulfone films revealed using surface plasmon resonance method. International Journal of Polymer Analysis and Characterization, 2018, 23, 669-674.	1.9	0