Athanasios G Papathanasiou

List of Publications by Year
in descending order

50	1,209	361045 20	377514 34
papers	citations	h-index	g-index

50	50	50	1141
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Spatiotemporal Addressing of Surface Activity. Science, 2001, 294, 134-137.	6.0	147
2	On the Connection between Dielectric Breakdown Strength, Trapping of Charge, and Contact Angle Saturation in Electrowetting. Langmuir, 2009, 25, 147-152.	1.6	99
3	Manifestation of the connection between dielectric breakdown strength and contact angle saturation in electrowetting. Applied Physics Letters, 2005, 86, 164102.	1.5	72
4	Illuminating the connection between contact angle saturation and dielectric breakdown in electrowetting through leakage current measurements. Journal of Applied Physics, 2008, 103, .	1.1	63
5	Hierarchical, Plasma Nanotextured, Robust Superamphiphobic Polymeric Surfaces Structurally Stabilized Through a Wettingâ€“drying Cycle. Plasma Processes and Polymers, 2012, 9, 304-315.	1.6	63
6	Droplet spreading on rough surfaces: Tackling the contact line boundary condition. Physics of Fluids, 2016, 28, .	1.6	44
7	Nanomechanical and nanotribological properties of hydrophobic fluorocarbon dielectric coating on tetraethoxysilane for electrowetting applications. Surface and Coatings Technology, 2012, 206, 3823-3831.	2.2	39
8	Thermocapillary Droplet Actuation: Effect of Solid Structure and Wettability. Langmuir, 2017, 33, 10838-10850.	1.6	38
9	Enabling efficient energy barrier computations of wetting transitions on geometrically patterned surfaces. Soft Matter, 2013, 9, 9624.	1.2	37
10	Efficient modelling of droplet dynamics on complex surfaces. Journal of Physics Condensed Matter, 2016, 28, 085101.	0.7	32
11	Progress toward reversible electrowetting on geometrically patterned superhydrophobic surfaces. Current Opinion in Colloid and Interface Science, 2018, 36, 70-77.	3.4	31
12	How to Achieve Reversible Electrowetting on Superhydrophobic Surfaces. Langmuir, 2018, 34, 4173-4179.	1.6	31
13	Initial spreading dynamics of a liquid droplet: The effects of wettability, liquid properties, and substrate topography. Physics of Fluids, 2021, 33, .	1.6	31
14	Mechanisms of wetting transitions on patterned surfaces: continuum and mesoscopic analysis. Soft Matter, 2012, 8, 7928.	1.2	30
15	Gentle Dragging of Reaction Waves. Physical Review Letters, 2003, 90, 018302.	2.9	29
16	Connection of Intrinsic Wettability and Surface Topography with the Apparent Wetting Behavior and Adhesion Properties. Journal of Physical Chemistry C, 2015, 119, 15056-15066.	1.5	28
17	Superior performance of multilayered fluoropolymer films in low voltage electrowetting. Journal of Colloid and Interface Science, 2012, 368, 592-598.	5.0	23
18	Neither Lippmann nor Young: Enabling Electrowetting Modeling on Structured Dielectric Surfaces. Langmuir, 2014, 30, 4662-4670.	1.6	23

#	Article	IF	Citations
19	How asymmetric surfaces induce directional droplet motion. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2016, 511, 180-189.	2.3	23
20	Mesoscopic model for microscale hydrodynamics and interfacial phenomena: Slip, films, and contact-angle hysteresis. Physical Review E, 2013, 87, 013302.	0.8	22
21	Some twists and turns in the path of improving surface activity. Chemical Physics Letters, 2002, 358, 407-412.	1.2	20
22	Wave Initiation through Spatiotemporally Controllable Perturbations. Physical Review Letters, 2003, 90, 148301.	2.9	20
23	Local manipulation of catalytic surface reactivity. Journal of Catalysis, 2003, 216, 246-256.	3.1	19
24	Engineering the geometry of stripe-patterned surfaces toward efficient wettability switching. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2013, 436, 309-317.	2.3	19
25	Sticking of droplets on slippery superhydrophobic surfaces by laser induced forward transfer. Applied Physics Letters, 2013, 103, 024104.	1.5	18
26	Wetting transitions on patterned surfaces with diffuse interaction potentials embedded in a Young-Laplace formulation. Journal of Chemical Physics, 2016, 144, 034105.	1.2	18
27	Front initiation on microdesigned composite catalysts. Chaos, 2002, 12, 190-203.	1.0	17
28	Progress in Modeling Wetting Phenomena on Structured Substrates. Archives of Computational Methods in Engineering, 2021, 28, 1647-1666.	6.0	17
29	Dielectrophoretic liquid actuation on nano-textured super hydrophobic surfaces. Sensors and Actuators B: Chemical, 2013, 182, 351-361.	4.0	16
30	Jumping velocity of an electrowetting-actuated droplet: A theoretical and numerical study. Physical Review Fluids, 2021, 6, .	1.0	14
31	Three-dimensional instabilities of ferromagnetic liquid bridges. Computational Mechanics, 1998, 21, 403-408.	2.2	13
32	Effect of substrate topography, material wettability and dielectric thickness on reversible electrowetting. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2018, 555, 595-604.	2.3	13
33	A precise goniometer/tensiometer using a low cost single-board computer. Measurement Science and Technology, 2017, 28, 125302.	1.4	11
34	Impact of substrate elasticity on contact angle saturation in electrowetting. Soft Matter, 2021, 17, 4335-4341.	1.2	10
35	Evaluating the Robustness of Top Coatings Comprising Plasma-Deposited Fluorocarbons in Electrowetting Systems. Journal of Adhesion Science and Technology, 2012, 26, 2001-2015.	1.4	9
36	Performance of multilayered fluoropolymer surface coating for DEP surface microfluidic devices. Microfluidics and Nanofluidics, 2012, 13, 309-318.	1.0	8

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37	Mechanisms of equilibrium shape transitions of liquid droplets in electrowetting. Journal of Colloid and Interface Science, 2008, 326, 451-459.	5.0	7
38	The normal field instability under side-wall effects: comparison of experiments and computations. New Journal of Physics, 2009, 11, 053016.	1.2	7
39	A simple optical device for measuring free surface deformations of nontransparent liquids. Journal of Colloid and Interface Science, 2005, 288, 508-512.	5.0	6
40	Time-resolved imaging and immobilization study of biomaterials on hydrophobic and superhydrophobic surfaces by means of laser-induced forward transfer. Laser Physics Letters, 2014, 11, 105603.	0.6	6
41	Modelling of Electrowetting-Induced Droplet Detachment and Jumping over Topographically Micro-Structured Surfaces. Micromachines, 2021, 12, 592.	1.4	6
42	Three-dimensional magnetohydrostatic instabilities of rotating ferrofluid drops. Journal of Magnetism and Magnetic Materials, 1999, 201, 290-292.	1.0	5
43	Wetting effects on magneto-hydrostatics of rotating ferrofluid drops: experimental and computational analysis. Journal of Magnetism and Magnetic Materials, 2002, 252, 262-264.	1.0	5
44	Manipulating equilibrium shape transitions of microdroplets in electrowetting â€“ A computational analysis. Microelectronic Engineering, 2009, 86, 1365-1367.	1.1	5
45	Optimization of Patterned Surfaces for Improved Superhydrophobicity through Cost-Effective Large-Scale Computations. Langmuir, 2019, 35, 6793-6802.	1.6	5
46	The 2-3-4 spike competition in the Rosensweig instability. Journal of Fluid Mechanics, 2019, 870, 389-404.	1.4	5
47	Highlighting the Role of Dielectric Thickness and Surface Topography on Electrospreading Dynamics. Micromachines, 2019, 10, 93.	1.4	4
48	Three-lobe-shaped equilibrium states in magnetic liquid bridges. Physical Review E, 2002, 65, 035302.	0.8	1
49	Equilibrium and stability of interfaces between polarizable fluids: theory and computations. Computational Mechanics, 2001, 27, 253-257.	2.2	0
50	10.1063/1.4941577.1. , 2016, , .		0