

# Abraham Marmur

## List of Publications by Year in descending order

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149  
papers

11,470  
citations

31976

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28297

105  
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150  
all docs

150  
docs citations

150  
times ranked

10653  
citing authors

#	ARTICLE	IF	CITATIONS
1	Equations of state: Demonstration of a mathematical development methodology. Chemical Engineering Research and Design, 2022, 178, 164-167.	5.6	1
2	The Contact Angle Hysteresis Puzzle. Colloids and Interfaces, 2022, 6, 39.	2.1	7
3	Surface tension of an ideal solid: What does it mean?. Current Opinion in Colloid and Interface Science, 2021, 51, 101388.	7.4	4
4	Contact angles: history of over 200 years of open questions. Surface Innovations, 2020, 8, 3-27.	2.3	168
5	Fabrication of superhydrophobic 3D objects by Digital Light Processing. Additive Manufacturing, 2020, 36, 101669.	3.0	13
6	Negative Pressure within a Liquidâ€œFluid Interface Determines Its Thickness. Langmuir, 2020, 36, 7943-7947.	3.5	6
7	Super-hydrophobic surfaces: Methodological considerations for physical design. Journal of Colloid and Interface Science, 2020, 568, 148-154.	9.4	25
8	Profiling Single Cancer Cells with Volatolomics Approach. IScience, 2019, 11, 178-188.	4.1	45
9	Contact angles and wettability: towards common and accurate terminology. Surface Innovations, 2017, 5, 3-8.	2.3	328
10	A biophysical vascular bubble model for devising decompression procedures. Physiological Reports, 2017, 5, e13191.	1.7	17
11	Capillary Condensation with a Grain of Salt. Langmuir, 2017, 33, 13444-13450.	3.5	5
12	Multi-scale roughness and the Lotus effect: Discontinuous liquid-air interfaces. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2017, 521, 78-85.	4.7	7
13	Interfaces at equilibrium: A guide to fundamentals. Advances in Colloid and Interface Science, 2017, 244, 164-173.	14.7	15
14	Meaningful Contact Angles in Flotation Systems: Critical Analysis and Recommendations. Surface Innovations, 2017, , 1-45.	2.3	7
15	Contact angle measurement on rough surfaces: the missing link. Surface Innovations, 2017, 5, 190-193.	2.3	16
16	Expansion of bubbles under a pulsatile flow regime in decompressed ovine blood vessels. Respiratory Physiology and Neurobiology, 2016, 222, 1-5.	1.6	8
17	Bubble the wave or waive the bubble: Why seawater waves foam and freshwater waves do not?. Colloids and Interface Science Communications, 2015, 6, 9-12.	4.1	9
18	Bubble size on detachment from the luminal aspect of ovine large blood vessels after decompression: The effect of mechanical disturbance. Respiratory Physiology and Neurobiology, 2015, 216, 1-8.	1.6	13

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19	Condensation Enhancement by Surface Porosity: Three-Stage Mechanism. Langmuir, 2015, 31, 8852-8855.	3.5	14
20	Vapor-liquid nucleation: the solid touch. Advances in Colloid and Interface Science, 2015, 222, 743-754.	14.7	21
21	Stabilization of Boiling Nuclei by Insoluble Gas: Can a Nanobubble Cloud Exist?. Langmuir, 2015, 31, 7792-7798.	3.5	17
22	Surface Tension and Adsorption without a Dividing Surface. Langmuir, 2015, 31, 12653-12657.	3.5	13
23	Rate of Bubble Coalescence Following Dynamic Approach: Collectivity-Induced Specificity of Ionic Effect. Langmuir, 2014, 30, 13823-13830.	3.5	25
24	A review on the wettability of dental implant surfaces I: Theoretical and experimental aspects. Acta Biomaterialia, 2014, 10, 2894-2906.	8.3	356
25	Physics and applications of superhydrophobic and superhydrophilic surfaces and coatings. Surface Innovations, 2014, 2, 211-227.	2.3	130
26	Rate of Bubble Coalescence following Quasi-Static Approach: Screening and Neutralization of the Electric Double Layer. Scientific Reports, 2014, 4, 4266.	3.3	22
27	Superhydrophobic and superhydrophobic surfaces: from understanding non-wettability to design considerations. Soft Matter, 2013, 9, 7900.	2.7	81
28	Detection of Alzheimer's and Parkinson's disease from exhaled breath using nanomaterial-based sensors. Nanomedicine, 2013, 8, 43-56.	3.3	172
29	The Role of Multiscale Roughness in the Lotus Effect: Is It Essential for Super-Hydrophobicity?. Langmuir, 2012, 28, 13933-13942.	3.5	123
30	Adhesion of Standard Explosive Particles to Model Surfaces. Journal of Physical Chemistry C, 2012, 116, 22815-22822.	3.1	26
31	Hydro- hygro- oleo- omni-phobic? Terminology of wettability classification. Soft Matter, 2012, 8, 6867.	2.7	174
32	Wettability and Surface Tension of Amphiphilic Polymer Films: Time-Dependent Measurements of the Most Stable Contact Angle. Macromolecular Chemistry and Physics, 2012, 213, 1448-1456.	2.2	30
33	Vapour-driven Marangoni propulsion: continuous, prolonged and tunable motion. Chemical Science, 2012, 3, 2526.	7.4	76
34	The porous nano-fibers raft: analysis of load-carrying mechanism and capacity. Soft Matter, 2011, 7, 7382.	2.7	15
35	Shape-Dependent Localization of Carbon Nanotubes and Carbon Black in an Immiscible Polymer Blend during Melt Mixing. Macromolecules, 2011, 44, 6094-6102.	4.8	263
36	Superhydrophobic and Superoleophobic Nanocellulose Aerogel Membranes as Bioinspired Cargo Carriers on Water and Oil. Langmuir, 2011, 27, 1930-1934.	3.5	286

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37	Superhydrophobic Tracks for Low-Friction, Guided Transport of Water Droplets. <i>Advanced Materials</i> , 2011, 23, 2911-2914.	21.0	201
38	Direct determination of contact angles of model soils in comparison with wettability characterization by capillary rise. <i>Journal of Hydrology</i> , 2010, 382, 10-19.	5.4	29
39	Correlating Interfacial Tensions with Surface Tensions: A Gibbsian Approach. <i>Langmuir</i> , 2010, 26, 5568-5575.	3.5	35
40	Comparing Contact Angle Measurements and Surface Tension Assessments of Solid Surfaces. <i>Langmuir</i> , 2010, 26, 15289-15294.	3.5	97
41	Chemical Nano-Heterogeneities Detection by Contact Angle Hysteresis: Theoretical Feasibility. <i>Langmuir</i> , 2010, 26, 15933-15937.	3.5	14
42	Optical Control of Thermocapillary Effects in Complex Nanofluids. <i>Physical Review Letters</i> , 2009, 103, 264503.	7.8	24
43	Equilibrium Wetting Fundamentals. , 2009, , 43-54.		0
44	Nature plays with dice “ terrorists do not: Allocating resources to counter strategic versus probabilistic risks. <i>European Journal of Operational Research</i> , 2009, 192, 198-208.	5.7	124
45	Filled Nanoporous Surfaces: Controlled Formation and Wettability. <i>Langmuir</i> , 2009, 25, 12374-12379.	3.5	10
46	Solid-Surface Characterization by Wetting. <i>Annual Review of Materials Research</i> , 2009, 39, 473-489.	9.3	197
47	Optimizing Super-Hydrophobic Surfaces: Criteria for Comparison of Surface Topographies. <i>Journal of Adhesion Science and Technology</i> , 2009, 23, 401-411.	2.6	41
48	When Wenzel and Cassie Are Right: Reconciling Local and Global Considerations. <i>Langmuir</i> , 2009, 25, 1277-1281.	3.5	252
49	From Hygrophilic to Superhydrophobic: Theoretical Conditions for Making High-Contact-Angle Surfaces from Low-Contact-Angle Materials. <i>Langmuir</i> , 2008, 24, 7573-7579.	3.5	313
50	Porous Media Characterization by the Two-Liquid Method: Effect of Dynamic Contact Angle and Inertia. <i>Langmuir</i> , 2008, 24, 1918-1923.	3.5	62
51	Biological and Synthetic Self-Cleaning Surfaces. <i>MRS Bulletin</i> , 2008, 33, 742-746.	3.5	144
52	Groovy Drops: Effect of Groove Curvature on Spontaneous Capillary Flow. <i>Langmuir</i> , 2007, 23, 8406-8410.	3.5	36
53	Material Properties: Measurement and Data. , 2007, , 85-177.		6
54	Bubble clicking: Oscillations induced by the lung surfactant. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2007, 304, 18-24.	4.7	0

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55	Underwater Superhydrophobicity: A Theoretical Feasibility. Langmuir, 2006, 22, 1400-1402.	3.5	155
56	Soft contact: measurement and interpretation of contact angles. Soft Matter, 2006, 2, 12-17.	2.7	440
57	Super-hydrophobicity fundamentals: implications to biofouling prevention. Biofouling, 2006, 22, 107-115.	2.2	199
58	The capillary race: Optimal surface tensions for fastest penetration. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2006, 282-283, 263-271.	4.7	14
59	Generic approach to homeland security technologies. , 2005, , .		0
60	Particle Adhesion to Drops. Journal of Adhesion, 2005, 81, 869-880.	3.0	36
61	Drops Down the Hill: A Theoretical Study of Limiting Contact Angles and the Hysteresis Range on a Tilted Plate. Langmuir, 2005, 21, 3881-3885.	3.5	221
62	Contact angle measurement on rough surfaces. Journal of Colloid and Interface Science, 2004, 274, 637-644.	9.4	318
63	The exponential power law: partial wetting kinetics and dynamic contact angles. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2004, 250, 409-414.	4.7	67
64	Adhesion and Wetting in an Aqueous Environment: A Theoretical Assessment of Sensitivity to the Solid Surface Energy. Langmuir, 2004, 20, 1317-1320.	3.5	24
65	The Lotus Effect: A Superhydrophobicity and Metastability. Langmuir, 2004, 20, 3517-3519.	3.5	973
66	Wetting on Hydrophobic Rough Surfaces: A To Be Heterogeneous or Not To Be?. Langmuir, 2003, 19, 8343-8348.	3.5	1,249
67	Validity and accuracy in evaluating surface tension of solids by additive approaches. Journal of Colloid and Interface Science, 2003, 262, 489-499.	9.4	73
68	Partial wetting of chemically patterned surfaces: The effect of drop size. Journal of Colloid and Interface Science, 2003, 263, 237-243.	9.4	173
69	The use of hemolysis kinetics to evaluate erythrocyte-bound surfactant. Colloids and Surfaces B: Biointerfaces, 2003, 27, 215-222.	5.0	9
70	Modeling surfactant-induced hemolysis by Weibull survival analysis. Colloids and Surfaces B: Biointerfaces, 2003, 27, 223-229.	5.0	7
71	Kinetics of Penetration into Uniform Porous Media: A Testing the Equivalent-Capillary Concept. Langmuir, 2003, 19, 5956-5959.	3.5	79
72	Line Tension on Curved Surfaces: A Liquid Drops on Solid Micro- and Nanospheres. Langmuir, 2002, 18, 8919-8923.	3.5	65

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73	An Upper Bound on the Theoretical Activity Coefficient of Non-Electrolytes. ChemPhysChem, 2002, 3, 952-956.	2.1	3
74	The Mechanism of Hemolysis by Surfactants: Effect of Solution Composition. Journal of Colloid and Interface Science, 2002, 252, 66-76.	9.4	62
75	Monitoring Surfactant-Induced Hemolysis by Surface Tension Measurement. Journal of Colloid and Interface Science, 2002, 255, 265-269.	9.4	15
76	Adsorption Isotherms for Concentrated Aqueous-Organic Solutions (CAOS). Journal of Colloid and Interface Science, 2000, 230, 107-113.	9.4	25
77	Dissolution and Self-Assembly: The Solvophobic/Hydrophobic Effect. Journal of the American Chemical Society, 2000, 122, 2120-2121.	13.7	53
78	Cadmium removal from aqueous solutions by an emulsion liquid membrane. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 1999, 151, 77-83.	4.7	26
79	Spreading of liquids on rough surfaces. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 1999, 146, 273-279.	4.7	45
80	Apparent contact angles on rough surfaces: the Wenzel equation revisited. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 1999, 156, 381-388.	4.7	313
81	Line tension effect on contact angles: Axisymmetric and cylindrical systems with rough or heterogeneous solid surfaces. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 1998, 136, 81-88.	4.7	55
82	Contact-angle hysteresis on heterogeneous smooth surfaces: theoretical comparison of the captive bubble and drop methods. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 1998, 136, 209-215.	4.7	68
83	The Actual Contact Angle on a Heterogeneous Rough Surface in Three Dimensions. Langmuir, 1998, 14, 5292-5297.	3.5	136
84	The sedimentation coefficient of red blood cell suspensions as a measure of deformability: continuous monitoring of centrifugal sedimentation. Chemical Engineering Science, 1997, 52, 1059-1064.	3.8	2
85	Line Tension and the Intrinsic Contact Angle in Solid-Liquid-Fluid Systems. Journal of Colloid and Interface Science, 1997, 186, 462-466.	9.4	169
86	Characterization of Porous Media by the Kinetics of Liquid Penetration: The Vertical Capillaries Model. Journal of Colloid and Interface Science, 1997, 189, 299-304.	9.4	137
87	Simulated Contact Angle Hysteresis of a Three-Dimensional Drop on a Chemically Heterogeneous Surface: A Numerical Example. Journal of Colloid and Interface Science, 1997, 191, 110-116.	9.4	49
88	Contact Angles in Constrained Wetting. Langmuir, 1996, 12, 5704-5708.	3.5	31
89	Simulation of Contact Angle Hysteresis on Chemically Heterogeneous Surfaces. Journal of Colloid and Interface Science, 1996, 183, 351-355.	9.4	68
90	Equilibrium contact angles: theory and measurement. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 1996, 116, 55-61.	4.7	140

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91	ASSESSMENT OF RED BLOOD CELL DEFORMABILITY BY CENTRIFUGAL SEDIMENTATION. Chemical Engineering Communications, 1996, 152-153, 5-15.	2.6	3
92	Radial Capillary Penetration into Paper: Limited and Unlimited Liquid Reservoirs. Journal of Colloid and Interface Science, 1994, 166, 245-250.	9.4	85
93	Contact Angle Hysteresis on Heterogeneous Smooth Surfaces. Journal of Colloid and Interface Science, 1994, 168, 40-46.	9.4	146
94	Thermodynamic aspects of contact angle hysteresis. Advances in Colloid and Interface Science, 1994, 50, 121-141.	14.7	143
95	Enhanced sedimentation of suspensions in porous media. Physics of Fluids, 1994, 6, 3180-3182.	4.0	0
96	Gibbs Elasticity of a Soap Bubble. Journal of Colloid and Interface Science, 1993, 158, 295-302.	9.4	19
97	Tip-surface capillary interactions. Langmuir, 1993, 9, 1922-1926.	3.5	81
98	Penetration and Displacement in Capillary Systems. , 1992, , 327-358.		14
99	Contact angle equilibrium: the intrinsic contact angle. Journal of Adhesion Science and Technology, 1992, 6, 689-701.	2.6	19
100	The dependence of the surface tension of surfactant solutions on drop size. Journal of Colloid and Interface Science, 1992, 151, 517-522.	9.4	18
101	Contact angle and thin-film equilibrium. Journal of Colloid and Interface Science, 1992, 148, 541-550.	9.4	21
102	Equilibrium of a liquid in a rotating groove. Chemical Engineering Science, 1992, 47, 4287-4294.	3.8	2
103	Penetration and displacement in capillary systems of limited size. Advances in Colloid and Interface Science, 1992, 39, 13-33.	14.7	73
104	Capillary penetration of liquids between periodically corrugated plates. Journal of Colloid and Interface Science, 1991, 146, 425-433.	9.4	6
105	Wetting autophobicity. Journal of Colloid and Interface Science, 1991, 145, 355-361.	9.4	31
106	Drop formation and detachment from rotating capillaries. Journal of Colloid and Interface Science, 1990, 140, 507-524.	9.4	7
107	Capillary rise and hysteresis in periodic porous media. Journal of Colloid and Interface Science, 1989, 129, 278-285.	9.4	28
108	Kinetics of displacement of a liquid from a capillary: the effect of limited reservoirs. Chemical Engineering Science, 1989, 44, 1511-1517.	3.8	10

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109	A mechanism for complete spontaneous displacement of a liquid from a capillary. Journal of Colloid and Interface Science, 1989, 130, 288-289.	9.4	7
110	Capillary rise in thin porous media. The Journal of Physical Chemistry, 1989, 93, 4873-4877.	2.9	6
111	The radial capillary. Journal of Colloid and Interface Science, 1988, 124, 301-308.	9.4	87
112	Drop penetration into a thin porous medium. Journal of Colloid and Interface Science, 1988, 123, 161-169.	9.4	26
113	Penetration of a small drop into a capillary. Journal of Colloid and Interface Science, 1988, 122, 209-219.	9.4	98
114	The role of thin films in wetting. Revue De Physique Appliquée, 1988, 23, 1039-1045.	0.4	10
115	HIGH-FREQUENCY SINGLE DROP FORMATION: PHENOMENOLOGY AND THE EFFECT OF SURFACTANTS. Chemical Engineering Communications, 1987, 55, 165-175.	2.6	2
116	Marangoni effects in the spreading of liquid mixtures on a solid. Langmuir, 1987, 3, 519-524.	3.5	109
117	The Effect of Contamination on Adhesive Strength: Wettability Characterization by the CSC Method. Journal of Adhesion, 1987, 24, 139-153.	3.0	3
118	Laser cleaning of glass surfaces: The effect of thermal diffusion. Journal of Colloid and Interface Science, 1987, 119, 362-370.	9.4	6
119	Comparison of methods of prediction of vapor-liquid equilibria and enthalpy in a distillation simulation program. Computers and Chemical Engineering, 1986, 10, 169-180.	3.8	1
120	Characterization of particle wettability by the measurement of floatability. Journal of Colloid and Interface Science, 1986, 113, 114-120.	9.4	31
121	A model of deposition and embolization of proteins and platelets on biomaterial surfaces. Annals of Biomedical Engineering, 1986, 14, 383-400.	2.5	12
122	Gravity and cell adhesion. Journal of Colloid and Interface Science, 1986, 114, 261-266.	9.4	19
123	Kinetics of particle deposition from a stagnant suspension: Application to blood platelets. Journal of Colloid and Interface Science, 1985, 106, 360-366.	9.4	6
124	Sedimentation and adhesion of blood platelets under a centrifugal force. Journal of Colloid and Interface Science, 1985, 104, 390-397.	9.4	3
125	Mathematical properties of equations of state. Chemical Engineering Science, 1985, 40, 1881-1884.	3.8	5
126	THERMODYNAMIC EQUILIBRIUM OF NONHOMOGENEOUS AND NONISOTROPIC CHEMICALLY REACTIVE SYSTEMS. Chemical Engineering Communications, 1985, 39, 381-388.	2.6	3



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127	The effect of gravity on thin fluid films. Journal of Colloid and Interface Science, 1984, 100, 407-413.	9.4	3
128	Platelet adhesion determination in whole blood using a simple stagnation flow method. Annals of Biomedical Engineering, 1984, 12, 335-346.	2.5	1
129	On the definition of the stability ratio. Journal of Colloid and Interface Science, 1984, 97, 300.	9.4	1
130	Minimal surface area as an equilibrium condition. Journal of Colloid and Interface Science, 1984, 97, 587-590.	9.4	0
131	Thermal energy storage in columns packed with crosslinked polyethylene tubes. Polymer Engineering and Science, 1984, 24, 1227-1231.	3.1	6
132	Equilibrium and spreading of liquids on solid surfaces. Advances in Colloid and Interface Science, 1983, 19, 75-102.	14.7	189
133	Equilibrium criteria for thin fluid films. Implications to wetting, emulsions, and soap films. Journal of Colloid and Interface Science, 1983, 93, 18-24.	9.4	9
134	EQUATIONS OF STATE AS CONSERVATION EQUATIONS. Chemical Engineering Communications, 1983, 22, 299-302.	2.6	2
135	A model for the deposition and detachment of proteins and platelets on biomaterials. Journal of Colloid and Interface Science, 1982, 89, 458-465.	9.4	9
136	THE SPREADING OF AQUEOUS SURFACTANT SOLUTIONS ON GLASS. Chemical Engineering Communications, 1981, 13, 133-143.	2.6	86
137	Spreading kinetics of drops on glass. Journal of Colloid and Interface Science, 1981, 82, 518-525.	9.4	90
138	Characterization of treated polyolefin surfaces by a liquid mixture spreading technique. Journal of Applied Polymer Science, 1980, 25, 1253-1256.	2.6	4
139	The dependence of drop spreading on the size of the solid surface. Journal of Colloid and Interface Science, 1980, 78, 262-265.	9.4	33
140	A kinetic theory approach to primary and secondary minimum coagulations and their combination. Journal of Colloid and Interface Science, 1979, 72, 41-48.	9.4	95
141	On approximate solutions to the P-B equation for an asymmetric electrolyte. Journal of Colloid and Interface Science, 1979, 71, 610-612.	9.4	6
142	Viscous effect on stagnation depth of bubbles in a vertically oscillating liquid column. Canadian Journal of Chemical Engineering, 1976, 54, 509-514.	1.7	3
143	Viscous effect on stagnation depth of bubbles in a vertically oscillating liquid column. Canadian Journal of Chemical Engineering, 1976, 54, 509-514.	1.7	2
144	Coverage dependent rate of cell deposition. Journal of Theoretical Biology, 1976, 58, 439-454.	1.7	22

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145	A theoretical model for bubble formation at an orifice submerged in an inviscid liquid. Chemical Engineering Science, 1976, 31, 453-463.	3.8	100
146	The validity of the analytical approximations to the equation of bubble oscillations. Canadian Journal of Chemical Engineering, 1975, 53, 560-562.	1.7	2
147	Equilibrium shapes and quasi-static formation of bubbles at submerged orifice. Chemical Engineering Science, 1973, 28, 1455-1464.	3.8	33
148	Calculation of Permeability of Periodical Porous Beds. Industrial & Engineering Chemistry Fundamentals, 1972, 11, 497-502.	0.7	5
149	Internal Combustion Engine Response to Presence of Combustion Inhibitors in Ambient Air. SAE International Journal of Engines, 0, 6, 1138-1144.	0.4	2