Stephen Garoff

List of Publications by Year
in descending order

119 papers	8,627 citations	81743 39 h-index	42291 92 g-index
123 all docs	123 docs citations	123 times ranked	5638 citing authors

#	Article	IF	Citations
1	Surfactant spreading on a deep subphase: Coupling of Marangoni flow and capillary waves. Journal of Colloid and Interface Science, 2022, 614, 511-521.	5.0	7
2	Tuning chemotactic and diffusiophoretic spreading <i>via</i> hydrodynamic flows. Soft Matter, 2022, 18, 1896-1910.	1.2	8
3	Marangoni Spreading Time Evolution and Synergism in Binary Surfactant Mixtures. Journal of Colloid and Interface Science, 2022, , .	5.0	3
4	Interfacial dilatational rheology as a bridge to connect amphiphilic heterografted bottlebrush copolymer architecture to emulsifying efficiency. Journal of Colloid and Interface Science, 2021, 581, 135-147.	5.0	18
5	Surfactant Driven Marangoni Spreading in the Presence of Predeposited Insoluble Surfactant Monolayers. Langmuir, 2021, 37, 3309-3320.	1.6	11
6	Macrotransport theory for diffusiophoretic colloids and chemotactic microorganisms. Journal of Fluid Mechanics, 2021, 917, .	1.4	14
7	pH-Dependent Interfacial Tension and Dilatational Modulus Synergism of Oil-Soluble Fatty Acid and Water-Soluble Cationic Surfactants at the Oil/Water Interface. Langmuir, 2021, 37, 11573-11581.	1.6	12
8	Effect of a Surfactant Additive on Drug Transport and Distribution Uniformity After Aerosol Delivery to Ex Vivo Lungs. Journal of Aerosol Medicine and Pulmonary Drug Delivery, 2021, , .	0.7	0
9	Dispersion in steady and timeâ€oscillatory flows through an eccentric annulus. AIChE Journal, 2020, 66, e16831.	1.8	11
10	Advective-diffusive spreading of diffusiophoretic colloids under transient solute gradients. Soft Matter, 2020, 16, 238-246.	1.2	16
11	Flow regime transitions and effects on solute transport in surfactant-driven Marangoni flows. Journal of Colloid and Interface Science, 2019, 553, 136-147.	5.0	14
12	Dispersion in steady and time-oscillatory two-dimensional flows through a parallel-plate channel. Physics of Fluids, 2019, 31, 022007.	1.6	23
13	Evolution and disappearance of solvent drops on miscible polymer subphases. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2018, 546, 266-275.	2.3	4
14	Surfactant-induced Marangoni transport of lipids and therapeutics within the lung. Current Opinion in Colloid and Interface Science, 2018, 36, 58-69.	3.4	33
15	Aerosolizing Lipid Dispersions Enables Antibiotic Transport Across Mimics of the Lung Airway Surface Even in the Presence of Pre-existing Lipid Monolayers. Journal of Aerosol Medicine and Pulmonary Drug Delivery, 2018, 31, 212-220.	0.7	11
16	Spontaneous rise in open rectangular channels under gravity. Journal of Colloid and Interface Science, 2018, 527, 151-158.	5.0	23
17	Transport of a partially wetted particle at the liquid/vapor interface under the influence of an externally imposed surfactant generated Marangoni stress. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2017, 521, 49-60.	2.3	14
18	Enabling Marangoni flow at air-liquid interfaces through deposition of aerosolized lipid dispersions. Journal of Colloid and Interface Science, 2016, 484, 270-278.	5.0	19

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19	Effect of polyelectrolyteâ€"surfactant complexation on Marangoni transport at a liquidâ€"liquid interface. Journal of Colloid and Interface Science, 2016, 467, 105-114.	5.0	15
20	Stability of a compound sessile drop at the axisymmetric configuration. Journal of Colloid and Interface Science, 2016, 462, 88-99.	5.0	15
21	Transient Marangoni transport of colloidal particles at the liquid/liquid interface caused by surfactant convective-diffusion under radial flow. Journal of Colloid and Interface Science, 2016, 462, 75-87.	5.0	10
22	Surfactant Driven Post-Deposition Spreading of Aerosols on Complex Aqueous Subphases. 2: Low Deposition Flux Representative of Aerosol Delivery to Small Airways. Journal of Aerosol Medicine and Pulmonary Drug Delivery, 2015, 28, 394-405.	0.7	10
23	Surfactant Driven Post-Deposition Spreading of Aerosols on Complex Aqueous Subphases. 1: High Deposition Flux Representative of Aerosol Delivery to Large Airways. Journal of Aerosol Medicine and Pulmonary Drug Delivery, 2015, 28, 382-393.	0.7	16
24	Deposition of drops containing surfactants on liquid pools: Movement of the contact line, Marangoni ridge, capillary waves and interfacial particles. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2015, 486, 53-59.	2.3	19
25	Gravity driven current during the coalescence of two sessile drops. Physics of Fluids, 2015, 27, .	1.6	12
26	Quasi-Immiscible Spreading of Aqueous Surfactant Solutions on Entangled Aqueous Polymer Solution Subphases. ACS Applied Materials & Interfaces, 2013, 5, 5542-5549.	4.0	23
27	Imaging the Postdeposition Dispersion of an Inhaled Surfactant Aerosol. Journal of Aerosol Medicine and Pulmonary Drug Delivery, 2012, 25, 290-296.	0.7	14
28	Autophobing on Liquid Subphases Driven by the Interfacial Transport of Amphiphilic Molecules. Langmuir, 2012, 28, 15212-15221.	1.6	18
29	Local heating at convection fronts and moving contact lines on hygroscopic fluids. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2012, 393, 42-45.	2.3	1
30	Surface Tension Gradient Driven Spreading on Aqueous Mucin Solutions: A Possible Route to Enhanced Pulmonary Drug Delivery. Molecular Pharmaceutics, 2011, 8, 387-394.	2.3	44
31	Measurement of the Airway Surface Liquid Volume with Simple Light Refraction Microscopy. American Journal of Respiratory Cell and Molecular Biology, 2011, 45, 592-599.	1.4	44
32	Impact of Polymer Graft Characteristics and Evaporation Rate on the Formation of 2-D Nanoparticle Assemblies. Langmuir, 2010, 26, 13210-13215.	1.6	30
33	Impact of fluid memory on wetting approaching the air entrainment limit. Journal of Colloid and Interface Science, 2009, 337, 619-621.	5.0	3
34	Dynamic wetting with viscous Newtonian and non-Newtonian fluids. Journal of Physics Condensed Matter, 2009, 21, 464126.	0.7	23
35	Influence of Fluid Flow on the Deposition of Soluble Surfactants Through Receding Contact Lines of Volatile Solvents. Langmuir, 2008, 24, 6705-6711.	1.6	7
36	Postdeposition Dispersion of Aerosol Medications Using Surfactant Carriers. Journal of Aerosol Medicine and Pulmonary Drug Delivery, 2008, 21, 361-370.	0.7	22

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37	Dynamic wetting of shear thinning fluids. Physics of Fluids, 2007, 19, 012103.	1.6	41
38	Dynamic wetting of Boger fluids. Journal of Colloid and Interface Science, 2007, 313, 274-280.	5.0	23
39	Factors Affecting the Coverage Dependence of the Diffusivity of One Metal over the Surface of Another. International Journal of Thermophysics, 2007, 28, 646-660.	1.0	3
40	Probing the Physics of Slipâ€"Stick Friction using a Bowed String. Journal of Adhesion, 2005, 81, 723-750.	1.8	10
41	Wetting by simple room-temperature polymer melts: deviations from Newtonian behavior. Journal of Colloid and Interface Science, 2005, 284, 265-270.	5.0	11
42	Control of the receding meniscus in immersion lithography. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2005, 23, 2611.	1.6	16
43	Unsteady Motion of Receding Contact Lines of Surfactant Solutions:â€‰ The Role of Surfactant Re-Self-Assembly. Langmuir, 2005, 21, 9932-9937.	1.6	14
44	Ionic Conduction and Electrode Polarization in a Doped Nonpolar Liquid. Langmuir, 2005, 21, 8620-8629.	1.6	29
45	Movement of Colloidal Particles in Two-Dimensional Electric Fields. Langmuir, 2005, 21, 10941-10947.	1.6	28
46	Reply to Comment on Pseudopartial Wetting and Precursor Film Growth in Immiscible Metal Systems. Langmuir, 2005, 21, 3724-3724.	1.6	0
47	Characterizing the microscopic physics near moving contact lines using dynamic contact angle data. Physical Review E, 2004, 70, 031608.	0.8	35
48	The effects of thin and ultrathin liquid films on dynamic wetting. Physics of Fluids, 2004, 16, 287-297.	1.6	14
49	Diffusion kinetics of Bi and Pbâ€"Bi monolayer precursing films on Cu(1 1 1). Surface Science, 2004, 559, 149-157.	0.8	11
50	Geometry-Driven Wetting Transition. Langmuir, 2004, 20, 9223-9226.	1.6	7
51	Experimental Observations on the Scaling of Adsorption Isotherms for Nonionic Surfactants at a Hydrophobic Solidâˆ'Water Interface. Langmuir, 2004, 20, 4446-4451.	1.6	17
52	Pseudopartial Wetting and Precursor Film Growth in Immiscible Metal Systems. Langmuir, 2004, 20, 402-408.	1.6	34
53	Analysis of Pseudopartial and Partial Wetting of Various Substrates by Lead. Langmuir, 2004, 20, 2726-2729.	1.6	8
54	Surfactant Self-Assembly ahead of the Contact Line on a Hydrophobic Surface and Its Implications for Wetting. Langmuir, 2003, 19, 5366-5373.	1.6	44

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55	Surfactant Self-Assemblies Controlling Spontaneous Dewetting. Langmuir, 2002, 18, 1649-1654.	1.6	36
56	Effects of Zeta Potential and Electrolyte on Particle Interactions on an Electrode under ac Polarization. Langmuir, 2002, 18, 5387-5391.	1.6	31
57	Dip-coated films of volatile liquids. Physics of Fluids, 2002, 14, 1154-1165.	1.6	49
58	Simulation of spreading of precursing Ag films on Ni(). Computational Materials Science, 2002, 25, 503-509.	1.4	27
59	Two-particle dynamics on an electrode in ac electric fields. Advances in Colloid and Interface Science, 2002, 96, 131-142.	7.0	30
60	The Microscale Experiment - Microscale hydrodynamics near moving contact lines. , 2001, , .		0
61	Effects of concentration dependent diffusivity on the growth of precursing films of Pb on Cu(111). Surface Science, 2001, 488, 73-82.	0.8	31
62	Hydrodynamics and Contact Angle Relaxation during Unsteady Spreading. Langmuir, 2001, 17, 6988-6994.	1.6	9
63	Interfacial Structure and Rearrangement of Nonionic Surfactants near a Moving Contact Line. Langmuir, 2001, 17, 5917-5923.	1.6	18
64	Using x-ray reflectivity to determine the structure of surfactant monolayers. Physical Review E, 2000, 62, 2405-2415.	0.8	28
65	Reconstruction of bowing point friction force in a bowed string. Journal of the Acoustical Society of America, 2000, 108, 357-368.	0.5	23
66	Measuring Colloidal Forces Using Differential Electrophoresis. Langmuir, 2000, 16, 3372-3384.	1.6	20
67	Tangential Forces between Nontouching Colloidal Particles. Physical Review Letters, 1999, 83, 1243-1246.	2.9	21
68	Physics of contact angle measurement. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 1999, 156, 177-189.	2.3	186
69	Effects of inertia on the hydrodynamics near moving contact lines. Physics of Fluids, 1999, 11, 3209-3216.	1.6	39
70	Elongation of confined ferrofluid droplets under applied fields. Physical Review E, 1999, 60, 4272-4279.	0.8	25
71	The effects of thin films on the hydrodynamics near moving contact lines. Physics of Fluids, 1998, 10, 1793-1803.	1.6	23
72	The velocity field near moving contact lines. Journal of Fluid Mechanics, 1997, 337, 49-66.	1.4	52

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73	Contact Angle Hysteresis: The Need for New Theoretical and Experimental Models. Journal of Adhesion, 1997, 63, 159-185.	1.8	21
74	Contact Line Structure and Dynamics on Surfaces with Contact Angle Hysteresis. Langmuir, 1997, 13, 6321-6332.	1.6	123
75	Using Vibrational Noise To Probe Energy Barriers Producing Contact Angle Hysteresis. Langmuir, 1996, 12, 2100-2110.	1.6	125
76	Determining the Forces between Polystyrene Latex Spheres Using Differential Electrophoresis. Langmuir, 1996, 12, 4103-4110.	1.6	43
77	Probing the Structure of Colloidal Doublets by Electrophoretic Rotation. Langmuir, 1996, 12, 675-685.	1.6	34
78	Microscopic and Macroscopic Dynamic Interface Shapes and the Interpretation of Dynamic Contact Angles. Journal of Colloid and Interface Science, 1996, 177, 234-244.	5.0	59
79	Experimental studies on the parametrization of liquid spreading and dynamic contact angles. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 1996, 116, 115-124.	2.3	18
80	Surfactant self-assembly near contact lines: control of advancing surfactant solutions. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 1996, 116, 31-42.	2.3	45
81	The breakdown of asymptotic hydrodynamic models of liquid spreading at increasing capillary number. Physics of Fluids, 1995, 7, 2631-2639.	1.6	41
82	Origins of the Complex Motion of Advancing Surfactant Solutions. Langmuir, 1995, 11, 87-93.	1.6	74
83	Temporal and Spatial Development of Surfactant Self-Assemblies Controlling Spreading of Surfactant Solutions. Langmuir, 1995, 11, 4333-4340.	1.6	49
84	Structure of Precursing Thin Films of an Anionic Surfactant on a Silicon Oxide/Silicon Surface. Langmuir, 1995, 11, 48-56.	1.6	23
85	The molecular structure of autophobed monolayers and precursing films of a cationic surfactant on the silicon oxide/silicon surface. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 1994, 89, 145-155.	2.3	27
86	Effect of chain termination chemistry and molecular weight on dynamic wetting of polymer liquids. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 1994, 89, 263-268.	2.3	6
87	Reproducibility of Contact Line Motion on Surfaces Exhibiting Contact Angle Hysteresis. Langmuir, 1994, 10, 1618-1623.	1.6	37
88	Dynamic contact angles and hydrodynamics near a moving contact line. Physical Review Letters, 1993, 70, 2778-2781.	2.9	100
89	An Investigation of Microscopic Aspects of Contact Angle Hysteresis: Pinning of the Contact Line on a Single Defect. Europhysics Letters, 1992, 20, 523-528.	0.7	121
90	On identifying the appropriate boundary conditions at a moving contact line: an experimental investigation. Journal of Fluid Mechanics, 1991, 230, 97-116.	1.4	177

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91	The effects of substrate roughness on ultrathin water films. Journal of Chemical Physics, 1989, 90, 7505-7515.	1.2	81
92	X-ray and neutron scattering from rough surfaces. Physical Review B, 1988, 38, 2297-2311.	1.1	2,242
93	Macromolecular self-organized assemblies. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1988, 6, 333.	1.6	60
94	Molecular monolayers and films. A panel report for the Materials Sciences Division of the Department of Energy. Langmuir, 1987, 3, 932-950.	1.6	799
95	Thermal disordering of langmuir-blodgett films of cadmium stearate on sapphire. Chemical Physics Letters, 1987, 133, 67-72.	1.2	40
96	Molecular structure and interfacial properties of surfactant-coated surfaces. Thin Solid Films, 1987, 152, 49-66.	0.8	18
97	Bond-orientational order in Langmuir-Blodgett surfactant monolayers. Journal De Physique, 1986, 47, 701-709.	1.8	116
98	Tilt and splay of surfactants on surfaces. Physical Review A, 1986, 33, 2186-2189.	1.0	59
99	Contact angle hysteresis and the shape of the three-phase line. Journal of Colloid and Interface Science, 1985, 106, 422-437.	5.0	101
100	The passivation of electrically active sites on the surface of crystalline silicon by fluorination. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1985, 3, 887-891.	0.9	40
101	Contact angle hysteresis on heterogeneous surfaces. Langmuir, 1985, 1, 219-230.	1.6	237
102	Electrodynamics at rough metal surfaces: Photochemistry and luminescence of adsorbates near metalâ€island films. Journal of Chemical Physics, 1984, 81, 5189-5200.	1.2	33
103	Luminescent and photochemical properties of molecules near rough metal surfaces. Journal of Luminescence, 1984, 31-32, 930-932.	1.5	1
104	Surface-enhanced Raman study of the solid/liquid interface: Conformational changes in adsorbed molecules. Chemical Physics Letters, 1983, 96, 547-551.	1.2	64
105	A comparison of Raman scattering, resonance Raman scattering, and fluorescence from molecules adsorbed on silver island films. Journal of Electron Spectroscopy and Related Phenomena, 1983, 29, 363-370.	0.8	13
106	Surface-enhanced Raman scattering by molecules adsorbed on aqueous copper colloids. The Journal of Physical Chemistry, 1983, 87, 4793-4799.	2.9	81
107	The enhancement of Raman scattering, resonance Raman scattering, and fluorescence from molecules adsorbed on a rough silver surface. Journal of Chemical Physics, 1983, 78, 5324-5338.	1.2	465
108	Fluorescent lifetimes of molecules on silver-island films. Optics Letters, 1982, 7, 89.	1.7	124

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109	Excitation spectra of surface-enhanced Raman scattering on silver-island films. Optics Letters, 1982, 7, 168.	1.7	131
110	Photochemistry of molecules adsorbed on silver-island films: effects of the spatially inhomogeneous environment. Chemical Physics Letters, 1982, 93, 283-286.	1.2	23
111	Surface interactions of adsorbed molecules as probed by their optical properties. Optics Communications, 1982, 41, 257-262.	1.0	59
112	Optical absorption resonances of dye-coated silver-island films. Optics Letters, 1981, 6, 245.	1.7	88
113	Optical characterization of powders: the use of Mie theory and composite media models. Applied Optics, 1981, 20, 758.	2.1	7
114	Energy transfer and electronic interactions between dye molecules at an interface. Journal of Luminescence, 1981, 24-25, 773-776.	1.5	6
115	Flourescent lifetimes and yields of molecules adsorbed on silver-island films. Journal of Luminescence, 1981, 24-25, 83-86.	1.5	40
116	Electroclinic effect at theAâ˘’Cphase change in a chiral smectic liquid crystal. Physical Review A, 1979, 19, 338-347.	1.0	448
117	Kinematic and dynamic light scattering from the periodic structure of a chiral smectic C liquid crystal. Journal of the Optical Society of America, 1978, 68, 1217.	1.2	26
118	Reply to "Behavior of electric susceptibility and electroclinic coefficient near the chiral smecticAâ˘’C*transition". Physical Review A, 1978, 18, 2739-2740.	1.0	9
119	Electroclinic Effect at theAâ˘’CPhase Change in a Chiral Smectic Liquid Crystal. Physical Review Letters, 1977, 38, 848-851.	2.9	522