# Daniel K Schwartz

List of Publications by Year
in descending order



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|---|---|---|---|
| 252 papers | 11,317 citations | 28274 55 h-index | 40979 93 g-index |
| 259 all docs | 259 docs citations | 259 times ranked | 9420 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | MECHANISMS ANDKINETICS OFSELF-ASSEMBLEDMONOLAYERFORMATION. Annual Review of Physical Chemistry, 2001, 52, 107-137. | 10.8 | 625 |
| 2 | Controlled selectivity for palladium catalysts using self-assembled monolayers. Nature Materials, 2010, 9, 853-858. | 27.5 | 358 |
| 3 | DNA Hybridization-Induced Reorientation of Liquid Crystal Anchoring at the Nematic Liquid Crystal/Aqueous Interface. Journal of the American Chemical Society, 2008, 130, 8188-8194. | 13.7 | 272 |
| 4 | Langmuir-Blodgett film structure. Surface Science Reports, 1997, 27, 245-334. | 7.2 | 265 |
| 5 | Controlling the Surface Environment of Heterogeneous Catalysts Using Self-Assembled Monolayers. Accounts of Chemical Research, 2014, 47, 1438-1445. | 15.6 | 262 |
| 6 | Dynamic scaling of the submonolayer island size distribution during self-assembled monolayer growth. Physical Review B, 1999, 60, 14-17. | 3.2 | 258 |
| 7 | Control of Metal Catalyst Selectivity through Specific Noncovalent Molecular Interactions. Journal of the American Chemical Society, 2014, 136, 520-526. | 13.7 | 246 |
| 8 | Growth of a self-assembled monolayer by fractal aggregation. Physical Review Letters, 1992, 69, 3354-3357. | 7.8 | 234 |
| 9 | Surface Order and Stability of Langmuir-Blodgett Films. Science, 1992, 257, 508-511. | 12.6 | 207 |
| 10 | Stable Ordering in Langmuir-Blodgett Films. Science, 2001, 293, 1292-1295. | 12.6 | 200 |
| 11 | Self-Assembled Monolayer Growth of Octadecylphosphonic Acid on Mica. Langmuir, 1996, 12, 3626-3629. | 3.5 | 199 |
| 12 | Thermal diffuse x-ray-scattering studies of the water-vapor interface. Physical Review A, 1990, 41, 5687-5690. | 2.5 | 183 |
| 13 | Directing reaction pathways by catalyst active-site selection using self-assembled monolayers. Nature Communications, 2013, 4, 2448. | 12.8 | 180 |
| 14 | Spontaneous chiral symmetry breaking by achiral molecules in a Langmuirâ€"Blodgett film. Nature, 1994, 368, 440-443. | 27.8 | 170 |
| 15 | Intermittent Molecular Hopping at the Solid-Liquid Interface. Physical Review Letters, 2013, 110, 256101. | 7.8 | 144 |
| 16 | Protein Aggregation and Particle Formation in Prefilled Glass Syringes. Journal of Pharmaceutical Sciences, 2014, 103, 1601-1612. | 3.3 | 142 |
| 17 | Textures and phase transitions in Langmuir monolayers of fatty acids. A comparative Brewster angle microscope and polarized fluorescence microscope study. Journal of Chemical Physics, 1994, 101, 10045-10051. | 3.0 | 130 |
| 18 | Contact Angles on Surfaces with Mesoscopic Chemical Heterogeneity. Langmuir, 2000, 16, 2957-2961. | 3.5 | 120 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | Microstructure Determination of AOT + Phenol Organogels Utilizing Small-Angle X-ray Scattering and Atomic Force Microscopy. Journal of the American Chemical Society, 2001, 123, 2414-2421. | 13.7 | 110 |
| 20 | Domain boundaries and buckling superstructures in Langmuirâ€“Blodgett films. Nature, 1992, 357, 54-57. | 27.8 | 106 |
| 21 | Effects of Thiol Modifiers on the Kinetics of Furfural Hydrogenation over Pd Catalysts. ACS Catalysis, 2014, 4, 3123-3131. | 11.2 | 106 |
| 22 | Surface Shear Rheology of Î²-Casein Layers at the Air/Solution Interface:Â Formation of a Two-Dimensional Physical Gel. Langmuir, 2003, 19, 2673-2682. | 3.5 | 100 |
| 23 | Single-Molecule Tracking of Polymer Surface Diffusion. Journal of the American Chemical Society, 2014, 136, 1327-1332. | 13.7 | 95 |
| 24 | Relaxation and the reentrant appearance of phases in a molecular monolayer. Physical Review Letters, 1991, 66, 1599-1602. | 7.8 | 94 |
| 25 | Production of particles of therapeutic proteins at the airâ€“water interface during compression/dilation cycles. Soft Matter, 2012, 8, 10329. | 2.7 | 93 |
| 26 | Submonolayer Island Nucleation and Growth Kinetics during Self-Assembled Monolayer Formation. Physical Review Letters, 1998, 81, 4927-4930. | 7.8 | 92 |
| 27 | Influence of cations, alkane chain length, and substrate on molecular order of Langmuir-Blodgett films. Journal of the American Chemical Society, 1993, 115, 7374-7380. | 13.7 | 88 |
| 28 | Reâ€entrant appearance of phases in a relaxed Langmuir monolayer of tetracosanoic acid as determined by xâ€ray scattering. Journal of Chemical Physics, 1992, 96, 2356-2370. | 3.0 | 86 |
| 29 | Hindered Nanoparticle Diffusion and Void Accessibility in a Three-Dimensional Porous Medium. ACS Nano, 2015, 9, 2148-2156. | 14.6 | 80 |
| 30 | Reduced Enzyme Dynamics upon Multipoint Covalent Immobilization Leads to Stability-Activity Trade-off. Journal of the American Chemical Society, 2020, 142, 3463-3471. | 13.7 | 76 |
| 31 | The Effects of Excipients on Protein Aggregation During Agitation: An Interfacial Shear Rheology Study. Journal of Pharmaceutical Sciences, 2013, 102, 2460-2470. | 3.3 | 74 |
| 32 | Direct Observation of Langmuir Monolayer Flow through a Channel. Physical Review Letters, 1994, 73, 2841-2844. | 7.8 | 73 |
| 33 | In Situ Observation of Self-Assembled Monolayer Growth. Journal of the American Chemical Society, 1996, 118, 7861-7862. | 13.7 | 73 |
| 34 | Fatty-Acid Monolayers at the Nematic/Water Interface:Â Phases and Liquid-Crystal Alignment. Journal of Physical Chemistry B, 2007, 111, 1007-1015. | 2.6 | 70 |
| 35 | Liquid Crystal Reorientation Induced by Aptamer Conformational Changes. Journal of the American Chemical Society, 2013, 135, 5183-5189. | 13.7 | 70 |
| 36 | Nanoscale Topography Influences Polymer Surface Diffusion. ACS Nano, 2015, 9, 1656-1664. | 14.6 | 70 |

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|---|---|---|---|
| 37 | Direct observations of transitions between condensed Langmuir monolayer phases by polarized fluorescence microscopy. The Journal of Physical Chemistry, 1993, 97, 8849-8851. | 2.9 | 68 |
| 38 | Linactants: Surfactant Analogues in Two Dimensions. Physical Review Letters, 2008, 100, 037802. | 7.8 | 68 |
| 39 | Reorganization and crystallite formation in Langmuir-Blodgett films. The Journal of Physical Chemistry, 1992, 96, 10444-10447. | 2.9 | 67 |
| 40 | Single-Molecule Resolution of Interfacial Fibrinogen Behavior: Effects of Oligomer Populations and Surface Chemistry. Journal of the American Chemical Society, 2011, 133, 4975-4983. | 13.7 | 65 |
| 41 | Surfactantâ€“DNA interactions at the liquid crystalâ€“aqueous interface. Soft Matter, 2012, 8, 4335. | 2.7 | 65 |
| 42 | Quantitative lattice measurement of thin Langmuir-Blodgett films by atomic-force microscopy. Physical Review E, 1993, 47, 452-460. | 2.1 | 64 |
| 43 | Electrostatic Interactions Influence Protein Adsorption (but Not Desorption) at the Silicaâ€“Aqueous Interface. Journal of Physical Chemistry Letters, 2015, 6, 2583-2587. | 4.6 | 64 |
| 44 | Dense Poly(ethylene glycol) Brushes Reduce Adsorption and Stabilize the Unfolded Conformation of Fibronectin. Biomacromolecules, 2016, 17, 1017-1025. | 5.4 | 64 |
| 45 | Single Molecule Observations of Desorption-Mediated Diffusion at the Solid-Liquid Interface. Physical Review Letters, 2011, 107, 156102. | 7.8 | 63 |
| 46 | Effect of Surface Hydrophobicity of Pd/Al<sub>2</sub>O<sub>3</sub> on Vanillin Hydrodeoxygenation in a Water/Oil System. ACS Catalysis, 2018, 8, 11165-11173. | 11.2 | 63 |
| 47 | Single-Molecule Observations of Surfactant Diffusion at the Solutionâ^'Solid Interface. Langmuir, 2008, 24, 6562-6566. | 3.5 | 61 |
| 48 | Strained-layer van der Waals epitaxy in a Langmuir-Blodgett film. Science, 1993, 261, 449-452. | 12.6 | 60 |
| 49 | Kinetics of Self-Assembled Monolayer Growth Explored via Submonolayer Coverage of Incomplete Films. Journal of Physical Chemistry B, 1997, 101, 7535-7541. | 2.6 | 60 |
| 50 | Magnetic Needle Viscometer for Langmuir Monolayers. Langmuir, 2002, 18, 2800-2806. | 3.5 | 59 |
| 51 | Three-Dimensional Tracking of Interfacial Hopping Diffusion. Physical Review Letters, 2017, 119, 268001. | 7.8 | 59 |
| 52 | Anchoring of a Nematic Liquid Crystal on a Wettability Gradient. Langmuir, 2006, 22, 9753-9759. | 3.5 | 58 |
| 53 | Selective Hydrogenation of Polyunsaturated Fatty Acids Using Alkanethiol Self-Assembled Monolayer-Coated Pd/Al<sub>2</sub>O<sub>3</sub> Catalysts. ACS Catalysis, 2013, 3, 2041-2044. | 11.2 | 58 |
| 54 | Controlling surface crowding on a Pd catalyst with thiolate self-assembled monolayers. Journal of Catalysis, 2013, 303, 92-99. | 6.2 | 58 |

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|---|---|---|---|
| 55 | Morphology of Microphase Separation in Arachidic Acid/Cadmium Arachidate Langmuir-Blodgett Multilayers. The Journal of Physical Chemistry, 1996, 100, 11113-11119. | 2.9 | 57 |
| 56 | Two-Stage Growth of Octadecyltrimethylammonium Bromide Monolayers at Mica from Aqueous Solution below the Krafft Point. Langmuir, 1998, 14, 5913-5917. | 3.5 | 57 |
| 57 | Self-assembled monolayers for liquid crystal alignment: simple preparation on glass using alkyltrialkoxysilanes. Liquid Crystals, 2004, 31, 481-489. | 2.2 | 56 |
| 58 | A bottom-up approach to understanding protein layer formation at solidâ€“liquid interfaces. Advances in Colloid and Interface Science, 2014, 207, 240-252. | 14.7 | 56 |
| 59 | Langmuir and self-assembled monolayers. Current Opinion in Colloid and Interface Science, 1999, 4, 46-51. | 7.4 | 55 |
| 60 | Dynamics of spheroid self-assembly in liquid-overlay culture of DU 145 human prostate cancer cells. Biotechnology and Bioengineering, 2001, 72, 579-591. | 3.3 | 55 |
| 61 | Impact of surface interactions on protein conformation. Current Opinion in Colloid and Interface Science, 2018, 38, 45-55. | 7.4 | 55 |
| 62 | Two-Dimensional Melting of an Anisotropic Crystal Observed at the Molecular Level. Science, 1997, 278, 1604-1607. | 12.6 | 54 |
| 63 | Surface-Mediated Protein Unfolding as a Search Process for Denaturing Sites. ACS Nano, 2016, 10, 730-738. | 14.6 | 54 |
| 64 | Domain morphology in a twoâ€dimensional anisotropic mesophase: Cusps and boojum textures in a Langmuir monolayer. Journal of Chemical Physics, 1994, 101, 8258-8261. | 3.0 | 53 |
| 65 | Liquid to hexatic to crystalline order in Langmuir-Blodgett films. Science, 1995, 269, 51-54. | 12.6 | 53 |
| 66 | Channel flow in a Langmuir monolayer: Unusual velocity profiles in a liquid-crystalline mesophase. Physical Review E, 1997, 56, 3378-3384. | 2.1 | 53 |
| 67 | Mechanisms of Surface-Mediated DNA Hybridization. ACS Nano, 2014, 8, 4488-4499. | 14.6 | 53 |
| 68 | Atomic force microscopy imaging of substrate and pH effects on Langmuir-Blodgett monolayers. Langmuir, 1992, 8, 1603-1607. | 3.5 | 52 |
| 69 | Observation of a Change from Splay to Bend Orientation at a Phase Transition in a Langmuir Monolayer. The Journal of Physical Chemistry, 1994, 98, 7430-7435. | 2.9 | 51 |
| 70 | Spatial Compartmentalization of Nanoparticles into Strands of a Self-Assembled Organogel. Nano Letters, 2002, 2, 1037-1042. | 9.1 | 50 |
| 71 | Excipient Effects on Humanized Monoclonal Antibody Interactions with Silicone oil Emulsions. Journal of Pharmaceutical Sciences, 2012, 101, 4419-4432. | 3.3 | 50 |
| 72 | Shear-induced molecular precession in a hexatic Langmuir monolayer. Nature, 2001, 410, 348-351. | 27.8 | 49 |

| # | Article | IF | Citations |
| --- | --- | --- | --- |
| 73 | High throughput single molecule tracking for analysis of rare populations and events. Analyst, The, 2012, 137, 2987. | 3.5 | 49 |
| 74 | Challenges in Predicting Protein-Protein Interactions from Measurements of Molecular Diffusivity. Biophysical Journal, 2016, 111, 1831-1842. | 0.5 | 49 |
| 75 | Octadecanoic Acid Self-Assembled Monolayer Growth at Sapphire Surfaces. Langmuir, 2003, 19, 2665-2672. | 3.5 | 48 |
| 76 | Mixed Alkylsilane Functionalized Surfaces for Simultaneous Wetting and Homeotropic Anchoring of Liquid Crystals. ACS Applied Materials & Interfaces, 2011, 3, 4374-4380. | 8.0 | 48 |
| 77 | Identifying Mechanisms of Interfacial Dynamics Using Single-Molecule Tracking. Langmuir, 2012, 28, 12443-12456. | 3.5 | 48 |
| 78 | Commensurate defect superstructures in a Langmuir-Blodgett film. Physical Review Letters, 1993, 70, 1267-1270. | 7.8 | 46 |
| 79 | A Temperature-Dependent Two-Dimensional Condensation Transition during Langmuirâ˘Blodgett Deposition. Langmuir, 1997, 13, 4704-4709. | 3.5 | 45 |
| 80 | Concentration Dependence of Self-Assembled Monolayer Island Nucleation and Growth. Journal of the American Chemical Society, 2001, 123, 6867-6872. | 13.7 | 45 |
| 81 | Pattern Formation in a Substrate-Induced Phase Transition during Langmuirâ˘Blodgett Transfer. The Journal of Physical Chemistry, 1996, 100, 9093-9097. | 2.9 | 44 |
| 82 | Calcium-Induced Changes to the Molecular Conformation and Aggregate Structure of Î2-Casein at the Airâ˘Water Interface. Biomacromolecules, 2005, 6, 3334-3344. | 5.4 | 43 |
| 83 | Direct Evidence for an Ion-by-Ion Deposition Mechanism in Solution Growth of CdS Thin Films. Chemistry of Materials, 1998, 10, 710-717. | 6.7 | 42 |
| 84 | Removing drift from scanning probe microscope images of periodic samples. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1998, 16, 51. | 1.6 | 42 |
| 85 | Probing Hydrophobic Interactions Using Trajectories of Amphiphilic Molecules at a Hydrophobic/Water Interface. Journal of the American Chemical Society, 2009, 131, 5973-5979. | 13.7 | 42 |
| 86 | Single-Molecule Insights into Retention at a Reversed-Phase Chromatographic Interface. Analytical Chemistry, 2014, 86, 9451-9458. | 6.5 | 42 |
| 87 | Surfactant Effects on Particle Generation in Antibody Formulations in Pre-filled Syringes. Journal of Pharmaceutical Sciences, 2015, 104, 4056-4064. | 3.3 | 41 |
| 88 | Aggregation kinetics of well and poorly differentiated human prostate cancer cells. Biotechnology and Bioengineering, 2002, 80, 580-588. | 3.3 | 40 |
| 89 | Apparent Activation Energies Associated with Protein Dynamics on Hydrophobic and Hydrophilic Surfaces. Biophysical Journal, 2012, 102, 2625-2633. | 0.5 | 40 |
| 90 | Effects of Molecular Size and Surface Hydrophobicity on Oligonucleotide Interfacial Dynamics. Biomacromolecules, 2012, 13, 4002-4011. | 5.4 | 39 |

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|---|---|---|---|
| 91 | Single-molecule resolution of protein structure and interfacial dynamics on biomaterial surfaces. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 19396-19401. | 7.1 | 39 |
| 92 | Polar and Azimuthal Alignment of a Nematic Liquid Crystal by Alkylsilane Self-Assembled Monolayers: Effects of Chain-Length and Mechanical Rubbing. Langmuir, 2008, 24, 9790-9794. | 3.5 | 38 |
| 93 | Grafting Density Impacts Local Nanoscale Hydrophobicity in Poly(ethylene glycol) Brushes. ACS Macro Letters, 2018, 7, 498-503. | 4.8 | 38 |
| 94 | Correlating Structural and Functional Heterogeneity of Immobilized Enzymes. ACS Nano, 2018, 12, 8091-8103. | 14.6 | 38 |
| 95 | Tracking Nanoparticle Diffusion in Porous Filtration Media. Industrial & Engineering Chemistry Research, 2015, 54, 4414-4419. | 3.7 | 37 |
| 96 | Dynamics of protein aggregation at the oilâ€“water interface characterized by single molecule TIRF microscopy. Soft Matter, 2011, 7, 7616. | 2.7 | 36 |
| 97 | Dramatic Increase in Catalytic Performance of Immobilized Lipases by Their Stabilization on Polymer Brush Supports. ACS Catalysis, 2019, 9, 4992-5001. | 11.2 | 36 |
| 98 | Coexisting lattice structures in a Langmuir-Blodgett film identified by atomic force microscopy. Langmuir, 1993, 9, 1384-1391. | 3.5 | 35 |
| 99 | Single Molecule Observations of Multiple Protein Populations at the Oilâ^'Water Interface. Langmuir, 2010, 26, 13364-13367. | 3.5 | 35 |
| 100 | DNA Hairpin Stabilization on a Hydrophobic Surface. Small, 2013, 9, 933-941. | 10.0 | 34 |
| 101 | Scaling of Polymer Dynamics at an Oilâ€“Water Interface in Regimes Dominated by Viscous Drag and Desorption-Mediated Flights. Journal of the American Chemical Society, 2015, 137, 12312-12320. | 13.7 | 34 |
| 102 | Phosphonic acid promotion of supported Pd catalysts for low temperature vanillin hydrodeoxygenation in ethanol. Applied Catalysis A: General, 2018, 561, 1-6. | 4.3 | 34 |
| 103 | Growth Mechanisms of Octadecylphosphonic Acid Self-Assembled Monolayers on Sapphire (Corundum):Â Evidence for a Quasi-equilibrium Triple Point. Langmuir, 2001, 17, 462-467. | 3.5 | 33 |
| 104 | Toeholdâ€Mediated Displacement of an Adenosineâ€Binding Aptamer from a DNA Duplex by its Ligand. Angewandte Chemie - International Edition, 2016, 55, 13710-13713. | 13.8 | 33 |
| 105 | Cadherin clusters stabilized by a combination of specific and nonspecific cis-interactions. ELife, 2020, 9, . | 6.0 | 33 |
| 106 | DNA Hybridizationâ€Mediated Liposome Fusion at the Aqueous Liquid Crystal Interface. Advanced Functional Materials, 2014, 24, 3206-3212. | 14.9 | 32 |
| 107 | Phospholipid Diffusion at the Oilâ^'Water Interface. Journal of Physical Chemistry B, 2010, 114, 11484-11488. | 2.6 | 30 |
| 108 | Super-resolution surface mapping using the trajectories of molecular probes. Nature Communications, 2011, 2, 515. | 12.8 | 30 |

| # | Article | IF | Citations |
|---|---|---|---|
| 109 | Controlling the Surface Reactivity of Titania via Electronic Tuning of Self-Assembled Monolayers. ACS Catalysis, 2017, 7, 8351-8357. | 11.2 | 30 |
| 110 | Stabilization of Immobilized Enzymes via the Chaperone-Like Activity of Mixed Lipid Bilayers. ACS Applied Materials & Interfaces, 2018, 10, 19504-19513. | 8.0 | 30 |
| 111 | Single Molecule Observations of Fatty Acid Adsorption at the Silica/Water Interface: Activation Energy of Attachment. Journal of Physical Chemistry C, 2009, 113, 2078-2081. | 3.1 | 29 |
| 112 | Temporally Anticorrelated Motion of Nanoparticles at a Liquid Interface. Journal of Physical Chemistry Letters, 2015, 6, 54-59. | 4.6 | 29 |
| 113 | Diffusive Escape of a Nanoparticle from a Porous Cavity. Physical Review Letters, 2019, 123, 118002. | 7.8 | 29 |
| 114 | Adsorption of Oxygenates on Alkanethiol-Functionalized Pd(111) Surfaces: Mechanistic Insights into the Role of Self-Assembled Monolayers on Catalysis. Langmuir, 2011, 27, 6731-6737. | 3.5 | 28 |
| 115 | Single-molecule diffusion in a periodic potential at a solidâ€"liquid interface. Soft Matter, 2014, 10, 753-759. | 2.7 | 28 |
| 116 | Single-Molecule Resolution of Protein Dynamics on Polymeric Membrane Surfaces: The Roles of Spatial and Population Heterogeneity. ACS Applied Materials & Interfaces, 2015, 7, 3607-3617. | 8.0 | 28 |
| 117 | Controlling Catalyst-Phase Selectivity in Complex Mixtures with Amphiphilic Janus Particles. ACS Applied Materials & Interfaces, 2020, 12, 2338-2345. | 8.0 | 28 |
| 118 | Applications of atomic force microscopy to structural characterization of organic thin films. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 1994, 93, 305-333. | 4.7 | 27 |
| 119 | Tilt stripe textures in Langmuir monolayers of fatty acids. Physica A: Statistical Mechanics and Its Applications, 1994, 204, 606-615. | 2.6 | 27 |
| 120 | Nanoparticle Tracking to Probe Transport in Porous Media. Accounts of Chemical Research, 2020, 53, 2130-2139. | 15.6 | 27 |
| 121 | Mechanisms of Self-Assembled Monolayer Desorption Determined Using in Situ Atomic Force Microscopy. Langmuir, 2000, 16, 9381-9384. | 3.5 | 26 |
| 122 | Macroscopic Liquid Crystal Response to Isolated DNA Helices. Langmuir, 2011, 27, 11767-11772. | 3.5 | 26 |
| 123 | Line tension between coexisting phases in monolayers and bilayers of amphiphilic molecules. Surface Science Reports, 2012, 67, 143-159. | 7.2 | 26 |
| 124 | Non-Brownian Interfacial Diffusion: Flying, Hopping, and Crawling. Journal of Physical Chemistry C, 2020, 124, 19880-19891. | 3.1 | 26 |
| 125 | Singleâ€Molecule Tracking of Fibrinogen Dynamics on Nanostructured Poly(ethylene) Films. Advanced Functional Materials, 2012, 22, 2617-2623. | 14.9 | 25 |
| 126 | Specific Ion (Hofmeister) Effects on Adsorption, Desorption, and Diffusion at the Solidâ€"Aqueous Interface. Journal of Physical Chemistry Letters, 2013, 4, 4064-4068. | 4.6 | 25 |

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| 127 | Molecular Orientation in Langmuir Monolayers under Shear. Langmuir, 2001, 17, 3017-3029. | 3.5 | 24 |
| 128 | Kinetics of Octadecyltrimethylammonium Bromide Self-Assembled Monolayer Growth at Mica from an Aqueous Solution. Langmuir, 2004, 20, 2341-2348. | 3.5 | 24 |
| 129 | Directed Nanoparticle Motion on an Interfacial Free Energy Gradient. Langmuir, 2010, 26, 1501-1503. | 3.5 | 24 |
| 130 | Cadherin cis and trans interactions are mutually cooperative. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, . | 7.1 | 24 |
| 131 | Alignment of Hexatic Langmuir Monolayers under Shear. Physical Review Letters, 2000, 85, 1476-1479. | 7.8 | 23 |
| 132 | Connecting Rare DNA Conformations and Surface Dynamics Using Single-Molecule Resonance Energy Transfer. ACS Nano, 2011, 5, 9861-9869. | 14.6 | 23 |
| 133 | Contact Line Pinning Is Not Required for Nanobubble Stability on Copolymer Brushes. Journal of Physical Chemistry Letters, 2018, 9, 4239-4244. | 4.6 | 23 |
| 134 | Cadherin Extracellular Domain Clustering in the Absence of <i>Trans</i>-Interactions. Journal of Physical Chemistry Letters, 2019, 10, 4528-4534. | 4.6 | 23 |
| 135 | Complex Salt Dependence of Polymer Diffusion in Polyelectrolyte Multilayers. Journal of Physical Chemistry Letters, 2019, 10, 987-992. | 4.6 | 23 |
| 136 | Headâ€"tail competition and modulated structures in planar surfactant (Langmuirâ€"Blodgett) films. Journal of Chemical Physics, 1994, 101, 7161-7168. | 3.0 | 22 |
| 137 | Structure and Phase Behavior of Mixed Monolayers of Saturated and Unsaturated Fatty Acids. Langmuir, 2002, 18, 9810-9815. | 3.5 | 22 |
| 138 | Correlating Linactant Efficiency and Self-Assembly: Structural Basis of Line Activity in Molecular Monolayers. Langmuir, 2009, 25, 8056-8061. | 3.5 | 22 |
| 139 | Stability of self-assembled monolayer coated Pt/Al2O3 catalysts for liquid phase hydrogenation. Journal of Molecular Catalysis A, 2015, 396, 188-195. | 4.8 | 22 |
| 140 | Enhancing Cooperativity in Bifunctional Acidâ€"Pd Catalysts with Carboxylic Acid-Functionalized Organic Monolayers. Journal of Physical Chemistry C, 2018, 122, 6637-6647. | 3.1 | 22 |
| 141 | Three Regimes of Polymer Surface Dynamics under Crowded Conditions. Macromolecules, 2018, 51, 1207-1214. | 4.8 | 22 |
| 142 | Faster Surface Ligation Reactions Improve Immobilized Enzyme Structure and Activity. Journal of the American Chemical Society, 2021, 143, 7154-7163. | 13.7 | 22 |
| 143 | Understanding Design Rules for Optimizing the Interface between Immobilized Enzymes and Random Copolymer Brushes. ACS Applied Materials & Interfaces, 2021, 13, 26694-26703. | 8.0 | 22 |
| 144 | Langmuir-blodgett films. Endeavour, 1983, 7, 65-69. | 0.4 | 21 |

| # | Article | IF | Citations |
|---|---|---|---|
| 145 | Atomic force microscope imaging of molecular aggregation during self-assembled monolayer growth. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2000, 174, 233-243. | 4.7 | 21 |
| 146 | Structure of Î²-Casein Layers at the Air/Solution Interface:Â Atomic Force Microscopy Studies of Transferred Layers. Langmuir, 2004, 20, 11692-11697. | 3.5 | 21 |
| 147 | Polymer Surface Transport Is a Combination of in-Plane Diffusion and Desorption-Mediated Flights. ACS Macro Letters, 2016, 5, 509-514. | 4.8 | 21 |
| 148 | Interfacial Molecular Searching Using Forager Dynamics. Physical Review Letters, 2016, 116, 098303. | 7.8 | 21 |
| 149 | Temperature and Flow Rate Dependence of the Velocity Profile during Channel Flow of a Langmuir Monolayer. Langmuir, 1999, 15, 4622-4624. | 3.5 | 20 |
| 150 | Proteinâ€"protein interactions controlling interfacial aggregation of rhILâ€1ra are not described by simple colloid models. Protein Science, 2018, 27, 1191-1204. | 7.6 | 20 |
| 151 | X-ray reflectivity studies of a microemulsion surface. Physical Review A, 1988, 38, 5817-5824. | 2.5 | 19 |
| 152 | Liquid- and vapor-phase hydrogenation of 1-epoxy-3-butene using self-assembled monolayer coated palladium and platinum catalysts. Applied Catalysis A: General, 2012, 445-446, 102-106. | 4.3 | 19 |
| 153 | Interfacial Proteinâ€"Protein Associations. Biomacromolecules, 2014, 15, 66-74. | 5.4 | 19 |
| 154 | Film Balance and Fluorescence Microscopic Investigation of the Effects of Ca2+ on Mixed DMPC/DMPG Monolayers. Langmuir, 1999, 15, 202-206. | 3.5 | 18 |
| 155 | Molecular Trajectories Provide Signatures of Protein Clustering and Crowding at the Oil/Water Interface. Langmuir, 2015, 31, 5882-5890. | 3.5 | 18 |
| 156 | Influence of Protein Surface Coverage on Anomalously Strong Adsorption Sites. ACS Applied Materials & Interfaces, 2016, 8, 511-520. | 8.0 | 18 |
| 157 | Surface-Mediated DNA Hybridization: Effects of DNA Conformation, Surface Chemistry, and Electrostatics. Langmuir, 2017, 33, 12651-12659. | 3.5 | 18 |
| 158 | X-ray reflectivity of a polymer monolayer at the water/vapor interface. The Journal of Physical Chemistry, 1991, 95, 6628-6632. | 2.9 | 17 |
| 159 | Self-Assembled Monolayers Derived from a Double-Chained Monothiol Having Chemically Dissimilar Chains. Langmuir, 2008, 24, 10204-10208. | 3.5 | 17 |
| 160 | Solvent Dependence of the Activation Energy of Attachment Determined by Single Molecule Observations of Surfactant Adsorption. Langmuir, 2009, 25, 7389-7392. | 3.5 | 17 |
| 161 | Stokesâ€"Einstein and desorption-mediated diffusion of protein molecules at the oilâ€"water interface. Soft Matter, 2012, 8, 6000. | 2.7 | 17 |
| 162 | Thermal Melting in Langmuir Films of Discotic Liquid-Crystalline Compounds. Langmuir, 1998, 14, 2910-2915. | 3.5 | 16 |

| # | Article | IF | Citations |
|---|---|---|---|
| 163 | A Conformational Phase Transition in a Langmuir Film of an Amphiphilic Azacrown. Journal of Physical Chemistry B, 1998, 102, 6688-6691. | 2.6 | 16 |
| 164 | Semi-fluorinated phosphonic acids form stable nanoscale clusters in Langmuirâ€“Blodgett and self-assembled monolayers. Soft Matter, 2009, 5, 750. | 2.7 | 16 |
| 165 | Hydrogenation of Cinnamaldehyde over Pd/Al2O3 Catalysts Modified with Thiol Monolayers. Topics in Catalysis, 2014, 57, 1505-1511. | 2.8 | 16 |
| 166 | Cadherin Diffusion in Supported Lipid Bilayers Exhibits Calcium-Dependent Dynamic Heterogeneity. Biophysical Journal, 2016, 111, 2658-2665. | 0.5 | 16 |
| 167 | Enhanced information content for three-dimensional localization and tracking using the double-helix point spread function with variable-angle illumination epifluorescence microscopy. Applied Physics Letters, 2017, 110, . | 3.3 | 16 |
| 168 | Polyelectrolyte Multilayers Enhance the Dry Storage and pH Stability of Physically Entrapped Enzymes. ACS Applied Materials & Interfaces, 2020, 12, 22640-22649. | 8.0 | 16 |
| 169 | Dewetting Modes of Surfactant Solution as a Function of the Spreading Coefficient. Langmuir, 1997, 13, 6873-6876. | 3.5 | 15 |
| 170 | Transient Behavior of the Velocity Profile in Channel Flow of a Langmuir Monolayer. Langmuir, 2000, 16, 9433-9438. | 3.5 | 15 |
| 171 | Selective acetylene detection through surface modification of metalâ€“insulatorâ€“semiconductor sensors with alkanethiolate monolayers. Sensors and Actuators B: Chemical, 2009, 136, 315-319. | 7.8 | 15 |
| 172 | Hydrophobic Interaction Microscopy: Mapping the Solid/ Liquid Interface Using Amphiphilic Probe Molecules. Langmuir, 2009, 25, 4339-4342. | 3.5 | 15 |
| 173 | Liquid crystal anchoring transformations induced by phase transitions of a photoisomerizable surfactant at the nematic/aqueous interface. Soft Matter, 2009, 5, 2252. | 2.7 | 15 |
| 174 | Mapping the Functional Tortuosity and Spatiotemporal Heterogeneity of Porous Polymer Membranes with Super-Resolution Nanoparticle Tracking. ACS Applied Materials & Interfaces, 2017, 9, 43258-43266. | 8.0 | 15 |
| 175 | Effects of metal oxide surface doping with phosphonic acid monolayers on alcohol dehydration activity and selectivity. Applied Catalysis A: General, 2019, 571, 102-106. | 4.3 | 15 |
| 176 | Mechanisms of transport enhancement for self-propelled nanoswimmers in a porous matrix. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, . | 7.1 | 15 |
| 177 | Instant patterns in thin films. Nature, 1993, 362, 593-594. | 27.8 | 14 |
| 178 | Microrheology of a Sheared Langmuir Monolayer:Â Elastic Recovery and Interdomain Slippage. Langmuir, 2001, 17, 3406-3411. | 3.5 | 14 |
| 179 | Surface Chemistry Influences Interfacial Fibrinogen Self-Association. Biomacromolecules, 2015, 16, 3201-3208. | 5.4 | 14 |
| 180 | Connecting Protein Conformation and Dynamics with Ligandâ€“Receptor Binding Using Three-Color FÃ¶rster Resonance Energy Transfer Tracking. Journal of the American Chemical Society, 2017, 139, 9937-9948. | 13.7 | 14 |

| # | Article | IF | Citations |
|---|---|---|---|
| 181 | Stabilization of Fibronectin by Random Copolymer Brushes Inhibits Macrophage Activation. ACS Applied Bio Materials, 2019, 2, 4698-4702. | 4.6 | 14 |
| 182 | Steric Repulsion Forces Contributed by PEGylation of Interleukin-1 Receptor Antagonist Reduce Gelation and Aggregation at the Silicone Oil-Water Interface. Journal of Pharmaceutical Sciences, 2019, 108, 162-172. | 3.3 | 14 |
| 183 | Single Molecule Dynamics on Hydrophobic Self-Assembled Monolayers. Langmuir, 2012, 28, 12108-12113. | 3.5 | 13 |
| 184 | Identifying Multiple Populations from Singleâ€Molecule Lifetime Distributions. ChemPhysChem, 2013, 14, 374-380. | 2.1 | 13 |
| 185 | Dynamic Molecular Behavior on Thermoresponsive Polymer Brushes. Macromolecules, 2015, 48, 4562-4571. | 4.8 | 13 |
| 186 | Application of thiolate self-assembled monolayers in selective alcohol oxidation for suppression of Pd catalyst deactivation. Journal of Catalysis, 2016, 344, 722-728. | 6.2 | 13 |
| 187 | Single-nanoparticle tracking reveals mechanisms of membrane fouling. Journal of Membrane Science, 2018, 563, 888-895. | 8.2 | 13 |
| 188 | Single-Molecule Resolution of Antimicrobial Peptide Interactions with Supported Lipid A Bilayers. Biophysical Journal, 2018, 114, 2606-2616. | 0.5 | 13 |
| 189 | Connecting Hindered Transport in Porous Media across Length Scales: From Single-Pore to Macroscopic. Journal of Physical Chemistry Letters, 2020, 11, 8825-8831. | 4.6 | 13 |
| 190 | Chemically Triggered Changes in Mechanical Properties of Responsive Liquid Crystal Polymer Networks with Immobilized Urease. Journal of the American Chemical Society, 2021, 143, 16740-16749. | 13.7 | 13 |
| 191 | X-ray studies of the surface and bulk structure of the isotropic and nematic phase of a lyotropic liquid crystal. Physical Review A, 1991, 43, 6815-6825. | 2.5 | 12 |
| 192 | Self-Assembly of Linactants: Micelles and Lyotropic Liquid Crystals in Two Dimensions. Journal of Physical Chemistry B, 2010, 114, 8616-8620. | 2.6 | 12 |
| 193 | Tuning the Flight Length of Molecules Diffusing on a Hydrophobic Surface. Journal of Physical Chemistry Letters, 2015, 6, 2065-2069. | 4.6 | 12 |
| 194 | Influence of Oligonucleotide Grafting Density on Surface-Mediated DNA Transport and Hybridization. ACS Nano, 2019, 13, 7850-7859. | 14.6 | 12 |
| 195 | Electrostatic Barriers to Nanoparticle Accessibility of a Porous Matrix. Journal of the American Chemical Society, 2020, 142, 4696-4704. | 13.7 | 12 |
| 196 | Interplay of electrostatic repulsion and surface grafting density on surface-mediated DNA hybridization. Journal of Colloid and Interface Science, 2020, 566, 369-374. | 9.4 | 12 |
| 197 | Fouling of microfiltration membranes by bidisperse particle solutions. Journal of Membrane Science, 2022, 641, 119878. | 8.2 | 12 |
| 198 | On the use of focused horizontal arrays as mode separation and source location devices in ocean acoustics. Part II: Theoretical and numerical modeling results. Journal of the Acoustical Society of America, 1985, 78, 575-586. | 1.1 | 11 |

| # | Article | IF | Citations |
|---|---|---|---|
| 199 | Nano scale defects in langmuir-blodgett film observed by atomic force microscopy. Synthetic Metals, 1993, 57, 3795-3800. | 3.9 | 11 |
| 200 | Skeletonization as a Probe of Interlayer Correlations in Langmuirâˆ'Blodgett Films. Langmuir, 1996, 12, 4971-4975. | 3.5 | 11 |
| 201 | Distinguishing Positional Uncertainty from True Mobility in Single-Molecule Trajectories That Exhibit Multiple Diffusive Modes. Microscopy and Microanalysis, 2012, 18, 793-797. | 0.4 | 11 |
| 202 | Temporally Anticorrelated Subdiffusion in Water Nanofilms on Silica Suggests Near-Surface Viscoelasticity. ACS Nano, 2020, 14, 3041-3047. | 14.6 | 11 |
| 203 | Biocatalytic 3D Actuation in Liquid Crystal Elastomers via Enzyme Patterning. ACS Applied Materials & Interfaces, 2022, 14, 26480-26488. | 8.0 | 11 |
| 204 | Langmuir Monolayers of a Photoisomerizable Macrocycle Surfactant. Langmuir, 2007, 23, 7923-7927. | 3.5 | 10 |
| 205 | Engineering the Composition of Heterogeneous Lipid Bilayers to Stabilize Tethered Enzymes. Advanced Materials Interfaces, 2020, 7, 2000533. | 3.7 | 10 |
| 206 | Polyelectrolyte Surface Diffusion in a Nanoslit Geometry. Macromolecules, 2020, 53, 4110-4120. | 4.8 | 10 |
| 207 | Enhanced Diffusive Transport in Fluctuating Porous Media. ACS Nano, 2021, 15, 7392-7398. | 14.6 | 10 |
| 208 | Contact Angles of Submillimeter Particles:Â Connecting Wettability to Nanoscale Surface Topography. Langmuir, 2007, 23, 5255-5258. | 3.5 | 9 |
| 209 | Fibrillar Self-Organization of a Line-Active Partially Fluorinated Thiol within Binary Self-Assembled Monolayers. Langmuir, 2012, 28, 16834-16844. | 3.5 | 9 |
| 210 | Capturing Conformation-Dependent Moleculeâ€"Surface Interactions When Surface Chemistry Is Heterogeneous. ACS Nano, 2015, 9, 7237-7247. | 14.6 | 9 |
| 211 | Trimethylsilyl functionalization of alumina (Î³-Al<sub>2</sub>O<sub>3</sub>) increases activity for 1,2-propanediol dehydration. Catalysis Science and Technology, 2016, 6, 5721-5728. | 4.1 | 9 |
| 212 | Self-assembled monolayers in the context of epitaxial film growth. Applied Surface Science, 2001, 175-176, 17-26. | 6.1 | 8 |
| 213 | Supercritical Self-Assembled Monolayer Growth. Journal of the American Chemical Society, 2004, 126, 9369-9373. | 13.7 | 8 |
| 214 | Self-Organization of a Wedge-Shaped Surfactant in Monolayers and Multilayers. Langmuir, 2007, 23, 482-487. | 3.5 | 8 |
| 215 | Swelling of a cluster phase in Langmuir monolayers containing semi-fluorinated phosphonic acids. Soft Matter, 2007, 3, 1518. | 2.7 | 8 |
| 216 | Photoinduced Pinocytosis for Artificial Cell and Protocell Systems. Chemistry of Materials, 2018, 30, 8757-8763. | 6.7 | 8 |

| # | Article | IF | Citations |
|---|---|---|---|
| 217 | Surface-Templated Nanobubbles Protect Proteins from Surface-Mediated Denaturation. Journal of Physical Chemistry Letters, 2019, 10, 2641-2647. | 4.6 | 8 |
| 218 | Standalone interferometry-based calibration of convex lens-induced confinement microscopy with nanoscale accuracy. Analyst, The, 2019, 144, 2628-2634. | 3.5 | 8 |
| 219 | Nanoconfinement and Sansetsukon-like Nanocrawling Govern Fibrinogen Dynamics and Self-Assembly on Nanostructured Polymeric Surfaces. Langmuir, 2018, 34, 14309-14316. | 3.5 | 7 |
| 220 | Mixed Phospholipid Vesicles Catalytically Inhibit and Reverse Amyloid Fibril Formation. Journal of Physical Chemistry Letters, 2020, 11, 7417-7422. | 4.6 | 7 |
| 221 | Single-Molecule Observations Provide Mechanistic Insights into Bimolecular Knoevenagel Amino Catalysis. Journal of Physical Chemistry Letters, 2020, 11, 9714-9724. | 4.6 | 7 |
| 222 | Particle remobilization in filtration membranes during flow interruption. Journal of Membrane Science, 2020, 610, 118405. | 8.2 | 7 |
| 223 | Probing surface-adsorbate interactions through active particle dynamics. Journal of Colloid and Interface Science, 2022, 614, 425-435. | 9.4 | 7 |
| 224 | Using the dynamics of fluorescent cations to probe and map charged surfaces. Soft Matter, 2012, 8, 12017. | 2.7 | 6 |
| 225 | Line Tension and Line Activity in Mixed Monolayers Composed of Aliphatic and Terphenyl-Containing Surfactants. Langmuir, 2012, 28, 16294-16299. | 3.5 | 6 |
| 226 | Structure-Specific Liquid Crystal Anchoring Induced by the Molecular Combing of Short Oligonucleotides. ACS Applied Materials & Interfaces, 2015, 7, 26874-26879. | 8.0 | 6 |
| 227 | Diffusion of Short Semiflexible DNA Polymer Chains in Strong and Moderate Confinement. ACS Macro Letters, 2021, 10, 1191-1195. | 4.8 | 6 |
| 228 | Comment on â€˜â€˜Alternative method of imaging surface topologies of nonconducting bulk specimens by scanning tunneling microscopyâ€™â€™. Physical Review Letters, 1992, 68, 2563-2563. | 7.8 | 5 |
| 229 | The blooming transition in Langmuir monolayers and its microscopic origin. Thin Solid Films, 1996, 284-285, 110-114. | 1.8 | 5 |
| 230 | A technique for direct observation of particle motion under shear in a Langmuir monolayer. Journal of Rheology, 1997, 41, 1173-1181. | 2.6 | 5 |
| 231 | Evolution of a Steady State Island Size Distribution during Self-Assembled Monolayer Dissolution. Journal of Physical Chemistry B, 2000, 104, 9044-9047. | 2.6 | 5 |
| 232 | Periodic Arrays of Interfacial Cylindrical Reverse Micelles. Langmuir, 2005, 21, 9799-9802. | 3.5 | 5 |
| 233 | Sodium amytal as a means of obtaining contact in stuporous and uncommunicative cases. Psychiatric Quarterly, 1934, 8, 748-753. | 2.1 | 4 |
| 234 | Examining Langmuir-Blodgett Films with Atomic Force Microscopy. Science, 1994, 263, 1158-1158. | 12.6 | 4 |

| # | Article | IF | Citations |
|---|---|---|---|
| 235 | Receptor-Mediated Liposome Fusion Kinetics at Aqueous/Liquid Crystal Interfaces. ACS Applied Materials & Interfaces, 2015, 7, 20400-20409. | 8.0 | 4 |
| 236 | Single molecule characterization of anomalous transport in a thin, anisotropic film. Analytica Chimica Acta, 2021, 1154, 338331. | 5.4 | 4 |
| 237 | Atomic Force Microscopy of Instabilities and Reorganization of Langmuir-Blodgett Films. Acta Physica Polonica A, 1998, 93, 373-382. | 0.5 | 4 |
| 238 | Antimicrobial peptide activity is anticorrelated with lipid a leaflet affinity. PLoS ONE, 2020, 15, e0242907. | 2.5 | 4 |
| 239 | Scanning probe microscope studies of thermodynamic and kinetic processes in ultrathin organic films. Current Opinion in Colloid and Interface Science, 1998, 3, 131-136. | 7.4 | 3 |
| 240 | Colloidal Transfer Printing. ACS Applied Materials & Interfaces, 2013, 5, 12854-12859. | 8.0 | 3 |
| 241 | Unbiased Clustering of Molecular Dynamics for Spatially Resolved Analysis of Chemically Heterogeneous Surfaces. Langmuir, 2015, 31, 6099-6106. | 3.5 | 3 |
| 242 | Anisotropic molecular hopping at the solidâ€“nematic interface. Soft Matter, 2015, 11, 7712-7716. | 2.7 | 3 |
| 243 | Changes in microbubble dynamics upon adhesion to a solid surface. Applied Physics Letters, 2020, 116, 123703. | 3.3 | 3 |
| 244 | Investigating deposition sequence during synthesis of Pd/Al<sub>2</sub>O<sub>3</sub> catalysts modified with organic monolayers. Catalysis Science and Technology, 2022, 12, 2306-2314. | 4.1 | 3 |
| 245 | Toeholdâ€Mediated Displacement of an Adenosineâ€Binding Aptamer from a DNA Duplex by its Ligand. Angewandte Chemie, 2016, 128, 13914-13917. | 2.0 | 2 |
| 246 | Enhanced Facilitated Diffusion of Membrane-Associating Proteins under Symmetric Confinement. Journal of Physical Chemistry Letters, 2022, 13, 2901-2907. | 4.6 | 2 |
| 247 | Commensurate Defect Superstructures in a Langmuir-Blodgett Film. Physical Review Letters, 1993, 70, 2356-2356. | 7.8 | 1 |
| 248 | Dynamics of spheroid selfâ€assembly in liquidâ€overlay culture of DU 145 human prostate cancer cells. Biotechnology and Bioengineering, 2001, 72, 579-591. | 3.3 | 1 |
| 249 | Visualizing Langmuir-Blodgett Films with the Atomic Force Microscope. Materials Research Society Symposia Proceedings, 1994, 332, 429. | 0.1 | 0 |
| 250 | In Situ Observation of scaling Behavior During Solution-Phase Growth of Surfactant Monolayers. Materials Research Society Symposia Proceedings, 1999, 570, 163. | 0.1 | 0 |
| 251 | Preface to the Early Career Authors in Fundamental Colloid and Interface Science Special Issue. Langmuir, 2018, 34, 727-728. | 3.5 | 0 |
| 252 | Effects of Surface Hydrophobicity on Catalytic Transfer Hydrogenation of Styrene with Formic Acid in a Biphasic Mixture. ACS Applied Materials & Interfaces, 2022, 14, 33457-33462. | 8.0 | 0 |