

# Svetlana A Sukhishvili

## List of Publications by Year in descending order

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118  
papers

7,943  
citations

36271

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49868

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119  
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119  
docs citations

119  
times ranked

6741  
citing authors

#	ARTICLE	IF	CITATIONS
1	Detection of volatile organic compounds using mid-infrared silicon nitride waveguide sensors. <i>Scientific Reports</i> , 2022, 12, 5572.	1.6	8
2	Cationic Fluoropolyphosphazenes: Synthesis and Assembly with Heparin as a Pathway to Hemocompatible Nanocoatings. <i>ACS Applied Bio Materials</i> , 2022, 5, 313-321.	2.3	6
3	Nonionic star polymers with upper critical solution temperature in aqueous solutions. <i>Polymer Chemistry</i> , 2022, 13, 2637-2650.	1.9	7
4	Dynamic polymer network conductive Nanocomposites: Low percolation threshold and Joule-heating-induced network plasticity. <i>Chemical Engineering Journal</i> , 2022, 443, 136400.	6.6	11
5	Hierarchically Structured, All-Aqueous-Coated Hydrophobic Surfaces with pH-Selective Droplet Transfer Capability. <i>ACS Applied Materials &amp; Interfaces</i> , 2022, 14, 26225-26237.	4.0	7
6	Temperature-Dependent Capsule Shell Bonding and Destruction Based on Hindered Poly(urea-urethane) Chemistry. <i>Chemistry of Materials</i> , 2022, 34, 5821-5831.	3.2	7
7	Impact of Crosslinker on Stereochemistry of a Dynamic Covalent Polymer Network: A Molecular Dynamics Simulation. <i>Chemical Physics Letters</i> , 2022, , 139858.	1.2	0
8	Polyphosphazenes enable durable, hemocompatible, highly efficient antibacterial coatings. <i>Biomaterials</i> , 2021, 268, 120586.	5.7	26
9	Selective hydrogen bonding controls temperature response of layer-by-layer upper critical solution temperature micellar assemblies. <i>Soft Matter</i> , 2021, 17, 2181-2190.	1.2	10
10	Surface Functionalization Utilizing Mesoporous Silica Nanoparticles for Enhanced Evanescent-Field Mid-Infrared Waveguide Gas Sensing. <i>Coatings</i> , 2021, 11, 118.	1.2	11
11	Hydrogen-Bonded Complexes of Star Polymers. <i>Macromolecular Rapid Communications</i> , 2021, 42, 2100097.	2.0	1
12	Effect of Sand Type and PVA Fiber Content on the Properties of Metakaolin Based Engineered Geopolymer Composites. <i>Transportation Research Record</i> , 2021, 2675, 475-491.	1.0	1
13	Dynamics and Self-Healing of Layer-by-Layer Hydrogen-Bonded Films of Linear Synthetic Polyphenols. <i>Macromolecules</i> , 2021, 54, 7469-7479.	2.2	6
14	Integrating Antioxidant Functionality into Polymer Materials: Fundamentals, Strategies, and Applications. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 41372-41395.	4.0	45
15	Polymers in molten inorganic salt hydrate phase change materials: solubility and gelation. <i>Journal of Materials Chemistry A</i> , 2021, 9, 25892-25913.	5.2	8
16	Thermodynamics and Stereochemistry of Diels-Alder Polymer Networks: Role of Crosslinker Flexibility and Crosslinking Density. <i>Macromolecules</i> , 2021, 54, 10510-10519.	2.2	23
17	Rapid determination of aminoglycosides in pharmaceutical preparations by electrospray ionization mass spectrometry. <i>Journal of Analytical Science and Technology</i> , 2020, 11, .	1.0	8
18	Solvation and diffusion of poly(vinyl alcohol) chains in a hydrated inorganic ionic liquid. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 17705-17712.	1.3	6

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19	All-nanoparticle layer-by-layer coatings for Mid-IR on-chip gas sensing. <i>Chemical Communications</i> , 2020, 56, 14283-14286.	2.2	5
20	A Tailorable Family of Elastomeric to Rigid, 3D Printable, Interbonding Polymer Networks. <i>Advanced Functional Materials</i> , 2020, 30, 2002374.	7.8	39
21	Hydrogen-Bonded, Mechanically Strong Nanofibers with Tunable Antioxidant Activity. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 11026-11035.	4.0	13
22	Layer-by-Layer Hydrogen-Bonded Antioxidant Films of Linear Synthetic Polyphenols. <i>Macromolecules</i> , 2020, 53, 1033-1042.	2.2	15
23	New Family of Water-Soluble Sulfofluoro Polyphosphazenes and Their Assembly within Hemocompatible Nanocoatings. <i>ACS Applied Bio Materials</i> , 2019, 2, 3897-3906.	2.3	11
24	Activation Energy for Dissociation of Hydrogen Bonding Crosslinkers in Phase Change Salogels: Dynamic Light Scattering versus Rheological Studies. <i>Macromolecular Chemistry and Physics</i> , 2019, 220, 1900329.	1.1	3
25	Ocean Salinity Sensing Using Long-Period Fiber Gratings Functionalized with Layer-by-Layer Hydrogels. <i>ACS Omega</i> , 2019, 4, 2134-2141.	1.6	42
26	Effect of a Competitive Solvent on Binding Enthalpy and Chain Intermixing in Hydrogen-Bonded Layer-by-Layer Films. <i>Macromolecules</i> , 2019, 52, 4432-4440.	2.2	19
27	Functional Surfaces through Controlled Assemblies of Upper Critical Solution Temperature Block and Star Copolymers. <i>Langmuir</i> , 2019, 35, 10677-10688.	1.6	12
28	Biocompatible Nanocoatings of Fluorinated Polyphosphazenes through Aqueous Assembly. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 9756-9764.	4.0	28
29	Micelle-Coated, Hierarchically Structured Nanofibers with Dual Release Capability for Accelerated Wound Healing and Infection Control. <i>Advanced Healthcare Materials</i> , 2018, 7, e1800132.	3.9	42
30	Swelling Transitions in Layer-by-Layer Assemblies of UCST Block Copolymer Micelles. <i>Macromolecules</i> , 2018, 51, 3467-3476.	2.2	21
31	Self-Healing Phase Change Salogels with Tunable Gelation Temperature. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 14786-14795.	4.0	27
32	A family of linear phenolic polymers with controlled hydrophobicity, adsorption and antioxidant properties. <i>Polymer Chemistry</i> , 2018, 9, 506-516.	1.9	34
33	Fluorinated Polyphosphazene Coatings Using Aqueous Nano-Assembly of Polyphosphazene Polyelectrolytes. <i>ACS Symposium Series</i> , 2018, , 101-118.	0.5	8
34	Enzymatically degradable star polypeptides with tunable UCST transitions in solution and within layer-by-layer films. <i>Polymer Chemistry</i> , 2018, 9, 4979-4983.	1.9	12
35	Hydrophobic Antioxidant Polymers for Corrosion Protection of an Aluminum Alloy. <i>ACS Sustainable Chemistry and Engineering</i> , 2018, 6, 14302-14313.	3.2	25
36	Ionically Paired Layer-by-Layer Hydrogels: Water and Polyelectrolyte Uptake Controlled by Deposition Time. <i>Gels</i> , 2018, 4, 7.	2.1	13

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37	Skin Wound Healing: Micelle-Coated, Hierarchically Structured Nanofibers with Dual-Release Capability for Accelerated Wound Healing and Infection Control (Adv. Healthcare Mater. 11/2018). Advanced Healthcare Materials, 2018, 7, 1870045.	3.9	2
38	A temperature-responsive poly(vinyl alcohol) gel for controlling fluidity of an inorganic phase change material. Journal of Materials Chemistry A, 2017, 5, 12474-12482.	5.2	38
39	All-Aqueous Nanoprecipitation: Spontaneous Formation of Hydrogen-Bonded Nanoparticles and Nanocapsules Mediated by Phase Separation of Poly( <i>N</i> -isopropylacrylamide). Macromolecular Rapid Communications, 2017, 38, 1700242.	2.0	11
40	Rheological behavior and self-healing of hydrogen-bonded complexes of a triblock Pluronic <sup>®</sup> copolymer with a weak polyacid. Journal of Rheology, 2017, 61, 1103-1119.	1.3	14
41	Upper Critical Solution Temperature Layer-by-Layer Films of Polyamino acid-Based Micelles with Rapid, On-Demand Release Capability. Chemistry of Materials, 2017, 29, 9084-9094.	3.2	30
42	Nonlinear Layer-by-Layer Films: Effects of Chain Diffusivity on Film Structure and Swelling. Macromolecules, 2017, 50, 6192-6201.	2.2	33
43	Self-defensive antibiotic-loaded layer-by-layer coatings: Imaging of localized bacterial acidification and pH-triggering of antibiotic release. Acta Biomaterialia, 2017, 61, 66-74.	4.1	106
44	Marine salinity sensing using long-period fiber gratings enabled by stimuli-responsive polyelectrolyte multilayers. Sensors and Actuators B: Chemical, 2017, 253, 745-751.	4.0	31
45	Hydrogen-bonded polymer complexes and nanocages of weak polyacids templated by a Pluronic <sup>®</sup> block copolymer. Soft Matter, 2016, 12, 8744-8754.	1.2	15
46	Spontaneous, One-Pot Assembly of pH-Responsive Hydrogen-Bonded Polymer Capsules. ACS Macro Letters, 2016, 5, 35-39.	2.3	9
47	Self-defensive antibacterial layer-by-layer hydrogel coatings with pH-triggered hydrophobicity. Biomaterials, 2015, 45, 64-71.	5.7	128
48	Diffusional Response of Layer-by-Layer Assembled Polyelectrolyte Chains to Salt Annealing. Macromolecules, 2015, 48, 3983-3990.	2.2	48
49	Chain Conformation and Dynamics in Spin-Assisted Weak Polyelectrolyte Multilayers. Langmuir, 2015, 31, 3889-3896.	1.6	23
50	Impact of 3D Hierarchical Nanostructures on the Antibacterial Efficacy of a Bacteria-Triggered Self-Defensive Antibiotic Coating. ACS Applied Materials & Interfaces, 2015, 7, 20304-20313.	4.0	125
51	Small-molecule-hosting nanocomposite films with multiple bacteria-triggered responses. NPC Asia Materials, 2014, 6, e121-e121.	3.8	48
52	Self-Defensive Layer-by-Layer Films with Bacteria-Triggered Antibiotic Release. ACS Nano, 2014, 8, 7733-7745.	7.3	238
53	Molecular Weight Dependence of Polymer Chain Mobility within Multilayer Films. ACS Macro Letters, 2013, 2, 865-868.	2.3	93
54	Selective water uptake within micelle-containing layer-by-layer films of various architectures: a neutron reflectometry study. Soft Matter, 2013, 9, 410-417.	1.2	14

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55	Thermally annealed Ag nanoparticles on anodized aluminium oxide for SERS sensing. RSC Advances, 2013, 3, 17954.	1.7	34
56	Temperature-triggered on-demand drug release enabled by hydrogen-bonded multilayers of block copolymer micelles. Journal of Controlled Release, 2013, 171, 73-80.	4.8	72
57	Stimuli-responsive layer-by-layer nanocomposites. Soft Matter, 2013, 9, 5149.	1.2	32
58	Tunable pH and temperature response of weak polyelectrolyte brushes: role of hydrogen bonding and monomer hydrophobicity. Soft Matter, 2013, 9, 5464.	1.2	72
59	Large-Amplitude, Reversible, pH-Triggered Wetting Transitions Enabled by Layer-by-Layer Films. ACS Applied Materials & Interfaces, 2013, 5, 12617-12623.	4.0	29
60	Anisotropic Diffusion of Polyelectrolyte Chains within Multilayer Films. ACS Macro Letters, 2012, 1, 127-130.	2.3	44
61	Noneluting Enzymatic Antibiofilm Coatings. ACS Applied Materials & Interfaces, 2012, 4, 4708-4716.	4.0	93
62	Layer-by-layer films of stimuli-responsive block copolymer micelles. Journal of Materials Chemistry, 2012, 22, 7667.	6.7	47
63	Polymer-Metal Complexes in Polyelectrolyte Multilayer Films as Catalysts for Oxidation of Toluene. Langmuir, 2012, 28, 11948-11955.	1.6	43
64	Linear versus Exponential Growth of Weak Polyelectrolyte Multilayers: Correlation with Polyelectrolyte Complexes. Macromolecules, 2012, 45, 3892-3901.	2.2	71
65	Steric Effects in Ionic Pairing and Polyelectrolyte Interdiffusion within Multilayered Films: A Neutron Reflectometry Study. Macromolecules, 2011, 44, 6518-6524.	2.2	55
66	Polyelectrolyte Multilayers of Diblock Copolymer Micelles with Temperature-Responsive Cores. Langmuir, 2011, 27, 409-415.	1.6	71
67	Effect of Block Copolymer Architecture on the Thermally Induced Swelling of Micelle-Containing Multilayer Thin Films. Macromolecules, 2011, 44, 7767-7774.	2.2	23
68	Polymer assemblies for controlled delivery of bioactive molecules from surfaces. Advanced Drug Delivery Reviews, 2011, 63, 822-836.	6.6	189
69	Hydrogen-bonded layer-by-layer films of block copolymer micelles with pH-responsive cores. Journal of Colloid and Interface Science, 2011, 355, 61-69.	5.0	27
70	Towards Full-Length Accumulative Surface-Enhanced Raman Scattering-Active Photonic Crystal Fibers. Advanced Materials, 2010, 22, 2647-2651.	11.1	81
71	Temperature-Induced, Reversible Swelling Transitions in Multilayers of a Cationic Triblock Copolymer and a Polyacid. Macromolecules, 2010, 43, 1950-1957.	2.2	55
72	Polymer Multilayers with pH-Triggered Release of Antibacterial Agents. Biomacromolecules, 2010, 11, 3448-3456.	2.6	137

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73	Layer-by-Layer Hydrogen-Bonded Polymer Films: From Fundamentals to Applications. <i>Advanced Materials</i> , 2009, 21, 3053-3065.	11.1	377
74	Temperature-Induced Swelling and Small Molecule Release with Hydrogen-Bonded Multilayers of Block Copolymer Micelles. <i>ACS Nano</i> , 2009, 3, 3595-3605.	7.3	112
75	Hydrogen-Bonded Layer-by-Layer Temperature-Triggered Release Films. <i>Langmuir</i> , 2009, 25, 14025-14029.	1.6	96
76	Multilayer-derived, ultrathin, stimuli-responsive hydrogels. <i>Soft Matter</i> , 2009, 5, 4077.	1.2	89
77	$p < H$ -Triggered Block Copolymer Micelle-to-Micelle Phase Transition. <i>Physical Review Letters</i> , 2009, 103, 118301.	2.9	40
78	HYDROGEN-BONDED LAYER-BY-LAYER POLYMER FILMS AND CAPSULES. , 2009, , 323-362.		2
79	Substrates with Discretely Immobilized Silver Nanoparticles for Ultrasensitive Detection of Anions in Water Using Surface-Enhanced Raman Scattering. <i>Langmuir</i> , 2008, 24, 4765-4771.	1.6	61
80	Tuning swelling pH and permeability of hydrogel multilayer capsules. <i>Soft Matter</i> , 2008, 4, 1499.	1.2	57
81	Hydrogen-Bonded Hybrid Multilayers: Film Architecture Controls Release of Macromolecules. <i>Macromolecules</i> , 2008, 41, 8737-8744.	2.2	67
82	Hydrogen-Bonded Polymer Multilayers Probed by Neutron Reflectivity. <i>Langmuir</i> , 2008, 24, 11346-11349.	1.6	66
83	Hydrogen-Bonded Multilayers of a Neutral Polymer and a Polyphenol. <i>Macromolecules</i> , 2008, 41, 3962-3970.	2.2	285
84	pH-Induced Release of Polyanions from Multilayer Films. <i>Physical Review Letters</i> , 2008, 100, 128303.	2.9	51
85	Amphoteric Surface Hydrogels Derived from Hydrogen-Bonded Multilayers: Reversible Loading of Dyes and Macromolecules. <i>Langmuir</i> , 2007, 23, 175-181.	1.6	76
86	Amphoteric Hydrogel Capsules: Multiple Encapsulation and Release Routes. <i>Macromolecules</i> , 2006, 39, 6191-6199.	2.2	66
87	pH-Triggered softening of crosslinked hydrogen-bonded capsules. <i>Soft Matter</i> , 2006, 2, 966.	1.2	85
88	Where Polyelectrolyte Multilayers and Polyelectrolyte Complexes Meet. <i>Macromolecules</i> , 2006, 39, 8873-8881.	2.2	261
89	Poly(methacrylic acid) Hydrogel Films and Capsules: Response to pH and Ionic Strength, and Encapsulation of Macromolecules. <i>Chemistry of Materials</i> , 2006, 18, 328-336.	3.2	225
90	pH-Controlled Permeability of Layered Hydrogen-Bonded Polymer Capsules. <i>Macromolecules</i> , 2006, 39, 5569-5572.	2.2	61

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91	Control of Specific Attachment of Proteins by Adsorption of Polymer Layers. <i>Langmuir</i> , 2006, 22, 11329-11336.	1.6	49
92	Determination of film thickness and refractive index in one measurement of phase-modulated ellipsometry. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , 2006, 23, 2639.	0.8	61
93	Copolymerization of N-vinylcaprolactam and glycidyl methacrylate: Reactivity ratio and composition control. <i>Journal of Polymer Science Part A</i> , 2006, 44, 183-191.	2.5	40
94	Layer-by-Layer Self-Assembly of Ceramic Particles for Coating Complex Shape Substrates. <i>Journal of the American Ceramic Society</i> , 2006, 89, 1180-1187.	1.9	17
95	Hydrogen-Bonded Layer-by-Layer Polymer Films. <i>Journal of Macromolecular Science - Reviews in Macromolecular Chemistry and Physics</i> , 2006, 46, 377-395.	2.2	148
96	In situ SERS study of Rhodamine 6G adsorbed on individually immobilized Ag nanoparticles. <i>Journal of Raman Spectroscopy</i> , 2006, 37, 762-770.	1.2	123
97	Responsive polymer films and capsules via layer-by-layer assembly. <i>Current Opinion in Colloid and Interface Science</i> , 2005, 10, 37-44.	3.4	318
98	Hydrogen-Bonded Multilayers of Thermoresponsive Polymers. <i>Macromolecules</i> , 2005, 38, 10523-10531.	2.2	133
99	Multilayers of a Globular Protein and a Weak Polyacid: A Role of Polyacid Ionization in Growth and Decomposition in Salt Solutions. <i>Biomacromolecules</i> , 2005, 6, 1782-1788.	2.6	118
100	Surface Priming and the Self-Assembly of Hydrogen-Bonded Multilayer Capsules and Films. <i>Macromolecules</i> , 2005, 38, 4828-4836.	2.2	72
101	Fluorescence correlation spectroscopy studies of diffusion of a weak polyelectrolyte in aqueous solutions. <i>Journal of Chemical Physics</i> , 2005, 122, 014907.	1.2	64
102	Release of a Dye from Hydrogen-Bonded and Electrostatically Assembled Polymer Films Triggered by Adsorption of a Polyelectrolyte. <i>Langmuir</i> , 2004, 20, 9677-9685.	1.6	63
103	Salt-Induced Multilayer Growth: A Correlation with Phase Separation in Solution. <i>Macromolecules</i> , 2004, 37, 8400-8406.	2.2	58
104	Hydrogen-Bonded Polymer Capsules Formed by Layer-by-Layer Self-Assembly. <i>Macromolecules</i> , 2003, 36, 8590-8592.	2.2	162
105	Ionization-Controlled Stability of Polyelectrolyte Multilayers in Salt Solutions. <i>Langmuir</i> , 2003, 19, 5188-5191.	1.6	55
106	Ionization and pH Stability of Multilayers Formed by Self-Assembly of Weak Polyelectrolytes. <i>Langmuir</i> , 2003, 19, 1235-1243.	1.6	157
107	Simple Interpretation of Ionization and Helix-Coil Stability Shift When a Polyelectrolyte Adsorbs. <i>Langmuir</i> , 2003, 19, 1980-1983.	1.6	10
108	Polyelectrolyte Multilayers of Weak Polyacid and Cationic Copolymer: A Competition of Hydrogen-Bonding and Electrostatic Interactions. <i>Macromolecules</i> , 2003, 36, 9950-9956.	2.2	72

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109	Layered, Erasable Polymer Multilayers Formed by Hydrogen-Bonded Sequential Self-Assembly. <i>Macromolecules</i> , 2002, 35, 301-310.	2.2	500
110	Surface Diffusion of Poly(ethylene glycol). <i>Macromolecules</i> , 2002, 35, 1776-1784.	2.2	130
111	Diffusion of a polymer "pancake". <i>Nature</i> , 2000, 406, 146-146.	13.7	164
112	Layered, Erasable, Ultrathin Polymer Films. <i>Journal of the American Chemical Society</i> , 2000, 122, 9550-9551.	6.6	359
113	Orientation and Order of Aqueous Organic Ions Adsorbed to a Solid Surface. <i>Journal of Physical Chemistry B</i> , 1999, 103, 472-479.	1.2	12
114	Adsorption of human serum albumin: Dependence on molecular architecture of the oppositely charged surface. <i>Journal of Chemical Physics</i> , 1999, 110, 10153-10161.	1.2	54
115	How Polyelectrolyte Adsorption Depends on History: A Combined Fourier Transform Infrared Spectroscopy in Attenuated Total Reflection and Surface Forces Study. <i>Langmuir</i> , 1999, 15, 8474-8482.	1.6	57
116	Polyelectrolyte adsorption onto an initially-bare solid surface of opposite electrical charge. <i>Journal of Chemical Physics</i> , 1998, 109, 6861-6868.	1.2	79
117	Kinetic regimes of polyelectrolyte exchange between the adsorbed state and free solution. <i>Journal of Chemical Physics</i> , 1998, 109, 6869-6878.	1.2	34
118	Formation and Characterization of Covalently Bound Polyelectrolyte Brushes. <i>Langmuir</i> , 1997, 13, 4935-4938.	1.6	15