Svetlana A Sukhishvili

List of Publications by Year
in descending order

118	7,943	36271 51	49868 87
papers	citations	h-index	g-index

119	119	119	6741
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Layered, Erasable Polymer Multilayers Formed by Hydrogen-Bonded Sequential Self-Assembly. Macromolecules, 2002, 35, 301-310.	2.2	500
2	Layerâ€byâ€Layer Hydrogenâ€Bonded Polymer Films: From Fundamentals to Applications. Advanced Materials, 2009, 21, 3053-3065.	11.1	377
3	Layered, Erasable, Ultrathin Polymer Films. Journal of the American Chemical Society, 2000, 122, 9550-9551.	6.6	359
4	Responsive polymer films and capsules via layer-by-layer assembly. Current Opinion in Colloid and Interface Science, 2005, 10, 37-44.	3.4	318
5	Hydrogen-Bonded Multilayers of a Neutral Polymer and a Polyphenol. Macromolecules, 2008, 41, 3962-3970.	2.2	285
6	Where Polyelectrolyte Multilayers and Polyelectrolyte Complexes Meet. Macromolecules, 2006, 39, 8873-8881.	2.2	261
7	Self-Defensive Layer-by-Layer Films with Bacteria-Triggered Antibiotic Release. ACS Nano, 2014, 8, 7733-7745.	7.3	238
8	Poly(methacrylic acid) Hydrogel Films and Capsules:Â Response to pH and Ionic Strength, and Encapsulation of Macromolecules. Chemistry of Materials, 2006, 18, 328-336.	3.2	225
9	Polymer assemblies for controlled delivery of bioactive molecules from surfaces. Advanced Drug Delivery Reviews, 2011, 63, 822-836.	6.6	189
10	Diffusion of a polymer â€˜pancakeâ€™. Nature, 2000, 406, 146-146.	13.7	164
11	Hydrogen-Bonded Polymer Capsules Formed by Layer-by-Layer Self-Assembly. Macromolecules, 2003, 36, 8590-8592.	2.2	162
12	Ionization and pH Stability of Multilayers Formed by Self-Assembly of Weak Polyelectrolytes. Langmuir, 2003, 19, 1235-1243.	1.6	157
13	Hydrogenâ€Bonded Layerâ€byâ€Layer Polymer Films. Journal of Macromolecular Science - Reviews in Macromolecular Chemistry and Physics, 2006, 46, 377-395.	2.2	148
14	Polymer Multilayers with pH-Triggered Release of Antibacterial Agents. Biomacromolecules, 2010, 11, 3448-3456.	2.6	137
15	Hydrogen-Bonded Multilayers of Thermoresponsive Polymers. Macromolecules, 2005, 38, 10523-10531.	2.2	133
16	Surface Diffusion of Poly(ethylene glycol). Macromolecules, 2002, 35, 1776-1784.	2.2	130
17	Self-defensive antibacterial layer-by-layer hydrogel coatings with pH-triggered hydrophobicity. Biomaterials, 2015, 45, 64-71.	5.7	128
18	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

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19	In situ SERS study of Rhodamine 6G adsorbed on individually immobilized Ag nanoparticles. Journal of Raman Spectroscopy, 2006, 37, 762-770.	1.2	123
20	Multilayers of a Globular Protein and a Weak Polyacid:Â Role of Polyacid Ionization in Growth and Decomposition in Salt Solutions. Biomacromolecules, 2005, 6, 1782-1788.	2.6	118
21	Temperature-Induced Swelling and Small Molecule Release with Hydrogen-Bonded Multilayers of Block Copolymer Micelles. ACS Nano, 2009, 3, 3595-3605.	7.3	112
22	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
23	Hydrogen-Bonded Layer-by-Layer Temperature-Triggered Release Films. Langmuir, 2009, 25, 14025-14029.	1.6	96
24	Noneluting Enzymatic Antibiofilm Coatings. ACS Applied Materials & Interfaces, 2012, 4, 4708-4716.	4.0	93
25	Molecular Weight Dependence of Polymer Chain Mobility within Multilayer Films. ACS Macro Letters, 2013, 2, 865-868.	2.3	93
26	Multilayer-derived, ultrathin, stimuli-responsive hydrogels. Soft Matter, 2009, 5, 4077.	1.2	89
27	pH-Triggered softening of crosslinked hydrogen-bonded capsules. Soft Matter, 2006, 2, 966.	1.2	85
28	Towards Fullâ€Length Accumulative Surfaceâ€Enhanced Raman Scatteringâ€Active Photonic Crystal Fibers. Advanced Materials, 2010, 22, 2647-2651.	11.1	81
29	Polyelectrolyte adsorption onto an initially-bare solid surface of opposite electrical charge. Journal of Chemical Physics, 1998, 109, 6861-6868.	1.2	79
30	Amphoteric Surface Hydrogels Derived from Hydrogen-Bonded Multilayers:â€‰ Reversible Loading of Dyes and Macromolecules. Langmuir, 2007, 23, 175-181.	1.6	76
31	Polyelectrolyte Multilayers of Weak Polyacid and Cationic Copolymer:â€‰ Competition of Hydrogen-Bonding and Electrostatic Interactions. Macromolecules, 2003, 36, 9950-9956.	2.2	72
32	Surface Priming and the Self-Assembly of Hydrogen-Bonded Multilayer Capsules and Films. Macromolecules, 2005, 38, 4828-4836.	2.2	72
33	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
34	Tunable pH and temperature response of weak polyelectrolyte brushes: role of hydrogen bonding and monomer hydrophobicity. Soft Matter, 2013, 9, 5464.	1.2	72
35	Polyelectrolyte Multilayers of Diblock Copolymer Micelles with Temperature-Responsive Cores. Langmuir, 2011, 27, 409-415.	1.6	71
36	Linear versus Exponential Growth of Weak Polyelectrolyte Multilayers: Correlation with Polyelectrolyte Complexes. Macromolecules, 2012, 45, 3892-3901.	2.2	71

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37	Hydrogen-Bonded Hybrid Multilayers: Film Architecture Controls Release of Macromolecules. Macromolecules, 2008, 41, 8737-8744.	2.2	67
38	Amphoteric Hydrogel Capsules:Â Multiple Encapsulation and Release Routes. Macromolecules, 2006, 39, 6191-6199.	2.2	66
39	Hydrogen-Bonded Polymer Multilayers Probed by Neutron Reflectivity. Langmuir, 2008, 24, 11346-11349.	1.6	66
40	Fluorescence correlation spectroscopy studies of diffusion of a weak polyelectrolyte in aqueous solutions. Journal of Chemical Physics, 2005, 122, 014907.	1.2	64
41	Release of a Dye from Hydrogen-Bonded and Electrostatically Assembled Polymer Films Triggered by Adsorption of a Polyelectrolyte. Langmuir, 2004, 20, 9677-9685.	1.6	63
42	pH-Controlled Permeability of Layered Hydrogen-Bonded Polymer Capsules. Macromolecules, 2006, 39, 5569-5572.	2.2	61
43	Determination of film thickness and refractive index in one measurement of phase-modulated ellipsometry. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2006, 23, 2639.	0.8	61
44	Substrates with Discretely Immobilized Silver Nanoparticles for Ultrasensitive Detection of Anions in Water Using Surface-Enhanced Raman Scattering. Langmuir, 2008, 24, 4765-4771.	1.6	61
45	Salt-Induced Multilayer Growth:Â Correlation with Phase Separation in Solution. Macromolecules, 2004, 37, 8400-8406.	2.2	58
46	How Polyelectrolyte Adsorption Depends on History: A Combined Fourier Transform Infrared Spectroscopy in Attenuated Total Reflection and Surface Forces Study. Langmuir, 1999, 15, 8474-8482.	1.6	57
47	Tuning swelling pH and permeability of hydrogel multilayer capsules. Soft Matter, 2008, 4, 1499.	1.2	57
48	Ionization-Controlled Stability of Polyelectrolyte Multilayers in Salt Solutions. Langmuir, 2003, 19, 5188-5191.	1.6	55
49	Temperature-Induced, Reversible Swelling Transitions in Multilayers of a Cationic Triblock Copolymer and a Polyacid. Macromolecules, 2010, 43, 1950-1957.	2.2	55
50	Steric Effects in Ionic Pairing and Polyelectrolyte Interdiffusion within Multilayered Films: A Neutron Reflectometry Study. Macromolecules, 2011, 44, 6518-6524.	2.2	55
51	Adsorption of human serum albumin: Dependence on molecular architecture of the oppositely charged surface. Journal of Chemical Physics, 1999, 110, 10153-10161.	1.2	54
52	pH-Induced Release of Polyanions from Multilayer Films. Physical Review Letters, 2008, 100, 128303.	2.9	51
53	Control of Specific Attachment of Proteins by Adsorption of Polymer Layers. Langmuir, 2006, 22, 11329-11336.	1.6	49
54	Small-molecule-hosting nanocomposite films with multiple bacteria-triggered responses. NPG Asia Materials, 2014, 6, e121-e121.	3.8	48

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55	Diffusional Response of Layer-by-Layer Assembled Polyelectrolyte Chains to Salt Annealing. Macromolecules, 2015, 48, 3983-3990.	2.2	48
56	Layer-by-layer films of stimuli-responsive block copolymer micelles. Journal of Materials Chemistry, 2012, 22, 7667.	6.7	47
57	Integrating Antioxidant Functionality into Polymer Materials: Fundamentals, Strategies, and Applications. ACS Applied Materials & Interfaces, 2021, 13, 41372-41395.	4.0	45
58	Anisotropic Diffusion of Polyelectrolyte Chains within Multilayer Films. ACS Macro Letters, 2012, 1, 127-130.	2.3	44
59	Polymerâ€“Metal Complexes in Polyelectrolyte Multilayer Films as Catalysts for Oxidation of Toluene. Langmuir, 2012, 28, 11948-11955.	1.6	43
60	Micelleâ€Coated, Hierarchically Structured Nanofibers with Dualâ€Release Capability for Accelerated Wound Healing and Infection Control. Advanced Healthcare Materials, 2018, 7, e1800132.	3.9	42
61	Ocean Salinity Sensing Using Long-Period Fiber Gratings Functionalized with Layer-by-Layer Hydrogels. ACS Omega, 2019, 4, 2134-2141.	1.6	42
62	Copolymerization ofN-vinylcaprolactam and glycidyl methacrylate: Reactivity ratio and composition control. Journal of Polymer Science Part A, 2006, 44, 183-191.	2.5	40
63	<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>p</mml:mi><mml:mi mathvariant="normal">H</mml:mi></mml:math>-Triggered Block Copolymer Micelle-to-Micelle Phase Transition. Physical Review Letters, 2009, 103, 118301.	2.9	40
64	A Tailorable Family of Elastomericâ€toâ€Rigid, 3D Printable, Interbonding Polymer Networks. Advanced Functional Materials, 2020, 30, 2002374.	7.8	39
65	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
66	Kinetic regimes of polyelectrolyte exchange between the adsorbed state and free solution. Journal of Chemical Physics, 1998, 109, 6869-6878.	1.2	34
67	Thermally annealed Ag nanoparticles on anodized aluminium oxide for SERS sensing. RSC Advances, 2013, 3, 17954.	1.7	34
68	A family of linear phenolic polymers with controlled hydrophobicity, adsorption and antioxidant properties. Polymer Chemistry, 2018, 9, 506-516.	1.9	34
69	Nonlinear Layer-by-Layer Films: Effects of Chain Diffusivity on Film Structure and Swelling. Macromolecules, 2017, 50, 6192-6201.	2.2	33
70	Stimuli-responsive layer-by-layer nanocomposites. Soft Matter, 2013, 9, 5149.	1.2	32
71	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
72	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

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73	Large-Amplitude, Reversible, pH-Triggered Wetting Transitions Enabled by Layer-by-Layer Films. ACS Applied Materials & Interfaces, 2013, 5, 12617-12623.	4.0	29
74	Biocompatible Nanocoatings of Fluorinated Polyphosphazenes through Aqueous Assembly. ACS Applied Materials & Interfaces, 2018, 10, 9756-9764.	4.0	28
75	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
76	Self-Healing Phase Change Salogels with Tunable Gelation Temperature. ACS Applied Materials & Interfaces, 2018, 10, 14786-14795.	4.0	27
77	Polyphosphazenes enable durable, hemocompatible, highly efficient antibacterial coatings. Biomaterials, 2021, 268, 120586.	5.7	26
78	Hydrophobic Antioxidant Polymers for Corrosion Protection of an Aluminum Alloy. ACS Sustainable Chemistry and Engineering, 2018, 6, 14302-14313.	3.2	25
79	Effect of Block Copolymer Architecture on the Thermally Induced Swelling of Micelle-Containing Multilayer Thin Films. Macromolecules, 2011, 44, 7767-7774.	2.2	23
80	Chain Conformation and Dynamics in Spin-Assisted Weak Polyelectrolyte Multilayers. Langmuir, 2015, 31, 3889-3896.	1.6	23
81	Thermodynamics and Stereochemistry of Dielsâ€“Alder Polymer Networks: Role of Crosslinker Flexibility and Crosslinking Density. Macromolecules, 2021, 54, 10510-10519.	2.2	23
82	Swelling Transitions in Layer-by-Layer Assemblies of UCST Block Copolymer Micelles. Macromolecules, 2018, 51, 3467-3476.	2.2	21
83	Effect of a Competitive Solvent on Binding Enthalpy and Chain Intermixing in Hydrogen-Bonded Layer-by-Layer Films. Macromolecules, 2019, 52, 4432-4440.	2.2	19
84	Layer-by-Layer Self-Assembly of Ceramic Particles for Coating Complex Shape Substrates. Journal of the American Ceramic Society, 2006, 89, 1180-1187.	1.9	17
85	Formation and Characterization of Covalently Bound Polyelectrolyte Brushes. Langmuir, 1997, 13, 4935-4938.	1.6	15
86	Hydrogen-bonded polymer complexes and nanocages of weak polyacids templated by a PluronicÂ® block copolymer. Soft Matter, 2016, 12, 8744-8754.	1.2	15
87	Layer-by-Layer Hydrogen-Bonded Antioxidant Films of Linear Synthetic Polyphenols. Macromolecules, 2020, 53, 1033-1042.	2.2	15
88	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
89	Rheological behavior and self-healing of hydrogen-bonded complexes of a triblock Pluronic^{Â®} copolymer with a weak polyacid. Journal of Rheology, 2017, 61, 1103-1119.	1.3	14
90	Ionically Paired Layer-by-Layer Hydrogels: Water and Polyelectrolyte Uptake Controlled by Deposition Time. Gels, 2018, 4, 7.	2.1	13

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91	Hydrogen-Bonded, Mechanically Strong Nanofibers with Tunable Antioxidant Activity. ACS Applied Materials & Interfaces, 2020, 12, 11026-11035.	4.0	13
92	Orientation and Order of Aqueous Organic Ions Adsorbed to a Solid Surface. Journal of Physical Chemistry B, 1999, 103, 472-479.	1.2	12
93	Enzymatically degradable star polypeptides with tunable UCST transitions in solution and within layer-by-layer films. Polymer Chemistry, 2018, 9, 4979-4983.	1.9	12
94	Functional Surfaces through Controlled Assemblies of Upper Critical Solution Temperature Block and Star Copolymers. Langmuir, 2019, 35, 10677-10688.	1.6	12
95	Allâ€Aqueous Nanoprecipitation: Spontaneous Formation of Hydrogenâ€Bonded Nanoparticles and Nanocapsules Mediated by Phase Separation of Poly(Nâ€isopropylacrylamide). Macromolecular Rapid Communications, 2017, 38, 1700242.	2.0	11
96	New Family of Water-Soluble Sulfoâ€“Fluoro Polyphosphazenes and Their Assembly within Hemocompatible Nanocoatings. ACS Applied Bio Materials, 2019, 2, 3897-3906.	2.3	11
97	Surface Functionalization Utilizing Mesoporous Silica Nanoparticles for Enhanced Evanescent-Field Mid-Infrared Waveguide Gas Sensing. Coatings, 2021, 11, 118.	1.2	11
98	Dynamic polymer network conductive Nanocomposites: Low percolation threshold and Joule-heating-induced network plasticity. Chemical Engineering Journal, 2022, 443, 136400.	6.6	11
99	Simple Interpretation of Ionization and Helixâ^'Coil Stability Shift When a Polyelectrolyte Adsorbs. Langmuir, 2003, 19, 1980-1983.	1.6	10
100	Selective hydrogen bonding controls temperature response of layer-by-layer upper critical solution temperature micellar assemblies. Soft Matter, 2021, 17, 2181-2190.	1.2	10
101	Spontaneous, One-Pot Assembly of pH-Responsive Hydrogen-Bonded Polymer Capsules. ACS Macro Letters, 2016, 5, 35-39.	2.3	9
102	Fluorinated Polyphosphazene Coatings Using Aqueous Nano-Assembly of Polyphosphazene Polyelectrolytes. ACS Symposium Series, 2018, , 101-118.	0.5	8
103	Rapid determination of aminoglycosides in pharmaceutical preparations by electrospray ionization mass spectrometry. Journal of Analytical Science and Technology, 2020, 11, .	1.0	8
104	Polymers in molten inorganic salt hydrate phase change materials: solubility and gelation. Journal of Materials Chemistry A, 2021, 9, 25892-25913.	5.2	8
105	Detection of volatile organic compounds using mid-infrared silicon nitride waveguide sensors. Scientific Reports, 2022, 12, 5572.	1.6	8
106	Nonionic star polymers with upper critical solution temperature in aqueous solutions. Polymer Chemistry, 2022, 13, 2637-2650.	1.9	7
107	Hierarchically Structured, All-Aqueous-Coated Hydrophobic Surfaces with pH-Selective Droplet Transfer Capability. ACS Applied Materials & Interfaces, 2022, 14, 26225-26237.	4.0	7
108	Temperature-Dependent Capsule Shell Bonding and Destruction Based on Hindered Poly(urea-urethane) Chemistry. Chemistry of Materials, 2022, 34, 5821-5831.	3.2	7

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109	Solvation and diffusion of poly(vinyl alcohol) chains in a hydrated inorganic ionic liquid. Physical Chemistry Chemical Physics, 2020, 22, 17705-17712.	1.3	6
110	Dynamics and Self-Healing of Layer-by-Layer Hydrogen-Bonded Films of Linear Synthetic Polyphenols. Macromolecules, 2021, 54, 7469-7479.	2.2	6
111	Cationic Fluoropolyphosphazenes: Synthesis and Assembly with Heparin as a Pathway to Hemocompatible Nanocoatings. ACS Applied Bio Materials, 2022, 5, 313-321.	2.3	6
112	All-nanoparticle layer-by-layer coatings for Mid-IR on-chip gas sensing. Chemical Communications, 2020, 56, 14283-14286.	2.2	5
113	Activation Energy for Dissociation of Hydrogenâ€Bonding Crosslinkers in Phaseâ€Change Salogels: Dynamic Light Scattering versus Rheological Studies. Macromolecular Chemistry and Physics, 2019, 220, 1900329.	1.1	3
114	HYDROGEN-BONDED LAYER-BY-LAYER POLYMER FILMS AND CAPSULES. , 2009, , 323-362.		2
115	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
116	Hydrogenâ€Bonded Complexes of Star Polymers. Macromolecular Rapid Communications, 2021, 42, 2100097.	2.0	1
117	Effect of Sand Type and PVA Fiber Content on the Properties of Metakaolin Based Engineered Geopolymer Composites. Transportation Research Record, 2021, 2675, 475-491.	1.0	1
118	Impact of Crosslinker on Stereochemistry of a Dynamic Covalent Polymer Network: A Molecular Dynamics Simulation. Chemical Physics Letters, 2022, , 139858.	1.2	0