Shaoyi Jiang

List of Publications by Year
in descending order

260 papers	29,956 citations	3334 91 h-index	5120 166 g-index
266 all docs	266 docs citations	266 times ranked	19696 citing authors

#	Article	IF	Citations
1	Ultralowâ€Fouling, Functionalizable, and Hydrolyzable Zwitterionic Materials and Their Derivatives for Biological Applications. Advanced Materials, 2010, 22, 920-932.	21.0	1,697
2	Strong Resistance of Phosphorylcholine Self-Assembled Monolayers to Protein Adsorption:Â Insights into Nonfouling Properties of Zwitterionic Materials. Journal of the American Chemical Society, 2005, 127, 14473-14478.	13.7	918
3	Zwitterionic hydrogels implanted in mice resist the foreign-body reaction. Nature Biotechnology, 2013, 31, 553-556.	17.5	787
4	Zwitterionic Polymers Exhibiting High Resistance to Nonspecific Protein Adsorption from Human Serum and Plasma. Biomacromolecules, 2008, 9, 1357-1361.	5.4	712
5	Molecular Understanding and Design of Zwitterionic Materials. Advanced Materials, 2015, 27, 15-26.	21.0	682
6	Inhibition of bacterial adhesion and biofilm formation on zwitterionic surfaces. Biomaterials, 2007, 28, 4192-4199.	11.4	640
7	Superlow Fouling Sulfobetaine and Carboxybetaine Polymers on Glass Slides. Langmuir, 2006, 22, 10072-10077.	3.5	601
8	Integrated Antimicrobial and Nonfouling Zwitterionic Polymers. Angewandte Chemie - International Edition, 2014, 53, 1746-1754.	13.8	516
9	Surface Grafted Sulfobetaine Polymers via Atom Transfer Radical Polymerization as Superlow Fouling Coatings. Journal of Physical Chemistry B, 2006, 110, 10799-10804.	2.6	497
10	Poly(zwitterionic)protein conjugates offer increased stability without sacrificing binding affinity or bioactivity. Nature Chemistry, 2012, 4, 59-63.	13.6	494
11	Zwitterionic carboxybetaine polymer surfaces and their resistance to long-term biofilm formation. Biomaterials, 2009, 30, 5234-5240.	11.4	465
12	Anti-PEG antibodies in the clinic: Current issues and beyond PEGylation. Journal of Controlled Release, 2016, 244, 184-193.	9.9	465
13	Protein Adsorption on Oligo(ethylene glycol)-Terminated Alkanethiolate Self-Assembled Monolayers:Â The Molecular Basis for Nonfouling Behavior. Journal of Physical Chemistry B, 2005, 109, 2934-2941.	2.6	461
14	Dual-Functional Biomimetic Materials:Â Nonfouling Poly(carboxybetaine) with Active Functional Groups for Protein Immobilization. Biomacromolecules, 2006, 7, 3311-3315.	5.4	430
15	Blood compatibility of surfaces with superlow protein adsorption. Biomaterials, 2008, 29, 4285-4291.	11.4	424
16	Ultralow Fouling and Functionalizable Surface Chemistry Based on a Zwitterionic Polymer Enabling Sensitive and Specific Protein Detection in Undiluted Blood Plasma. Analytical Chemistry, 2008, 80, 7894-7901.	6.5	381
17	An New Avenue to Nonfouling Materials. Advanced Materials, 2008, 20, 335-338.	21.0	369
18	A Switchable Biocompatible Polymer Surface with Selfâ€Sterilizing and Nonfouling Capabilities. Angewandte Chemie - International Edition, 2008, 47, 8831-8834.	13.8	325

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19	Molecular Simulation Studies of Protein Interactions with Zwitterionic Phosphorylcholine Self-Assembled Monolayers in the Presence of Water. Langmuir, 2008, 24, 10358-10364.	3.5	319
20	Strong Repulsive Forces between Protein and Oligo (Ethylene Glycol) Self-Assembled Monolayers: A Molecular Simulation Study. Biophysical Journal, 2005, 89, 158-166.	0.5	310
21	Spectral surface plasmon resonance biosensor for detection of staphylococcal enterotoxin B in milk. International Journal of Food Microbiology, 2002, 75, 61-69.	4.7	301
22	Pursuing â€œZeroâ€•Protein Adsorption of Poly(carboxybetaine) from Undiluted Blood Serum and Plasma. Langmuir, 2009, 25, 11911-11916.	3.5	289
23	Highly Protein-Resistant Coatings from Well-Defined Diblock Copolymers Containing Sulfobetaines. Langmuir, 2006, 22, 2222-2226.	3.5	284
24	Quantitative and simultaneous detection of four foodborne bacterial pathogens with a multi-channel SPR sensor. Biosensors and Bioelectronics, 2006, 22, 752-758.	10.1	274
25	Molecular Simulation Study of Water Interactions with Oligo (Ethylene Glycol)-Terminated Alkanethiol Self-Assembled Monolayers. Langmuir, 2004, 20, 8931-8938.	3.5	270
26	Super-hydrophilic zwitterionic poly(carboxybetaine) and amphiphilic non-ionic poly(ethylene glycol) for stealth nanoparticles. Nano Today, 2012, 7, 404-413.	11.9	270
27	Ultra-low fouling peptide surfaces derived from natural amino acids. Biomaterials, 2009, 30, 5892-5896.	11.4	265
28	Sequence, Structure, and Function of Peptide Self-Assembled Monolayers. Journal of the American Chemical Society, 2012, 134, 6000-6005.	13.7	254
29	Nonfouling Behavior of Polycarboxybetaine-Grafted Surfaces: Structural and Environmental Effects. Biomacromolecules, 2008, 9, 2686-2692.	5.4	244
30	Reversibly Switching the Function of a Surface between Attacking and Defending against Bacteria. Angewandte Chemie - International Edition, 2012, 51, 2602-2605.	13.8	237
31	Zwitterionic gel encapsulation promotes protein stability, enhances pharmacokinetics, and reduces immunogenicity. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 12046-12051.	7.1	236
32	Polysulfobetaine-Grafted Surfaces as Environmentally Benign Ultralow Fouling Marine Coatings. Langmuir, 2009, 25, 13516-13521.	3.5	235
33	Controlling Antibody Orientation on Charged Self-Assembled Monolayers. Langmuir, 2003, 19, 2859-2864.	3.5	232
34	Ultra low fouling zwitterionic polymers with a biomimetic adhesive group. Biomaterials, 2008, 29, 4592-4597.	11.4	231
35	Improved Method for the Preparation of Carboxylic Acid and Amine Terminated Self-Assembled Monolayers of Alkanethiolates. Langmuir, 2005, 21, 2633-2636.	3.5	230
36	Probing the Surface Hydration of Nonfouling Zwitterionic and PEG Materials in Contact with Proteins. ACS Applied Materials & Interfaces, 2015, 7, 16881-16888.	8.0	223

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37	Film Thickness Dependence of Protein Adsorption from Blood Serum and Plasma onto Poly(sulfobetaine)-Grafted Surfaces. Langmuir, 2008, 24, 9211-9214.	3.5	220
38	Functionalizable and ultra stable nanoparticles coated with zwitterionic poly(carboxybetaine) in undiluted blood serum. Biomaterials, 2009, 30, 5617-5621.	11.4	216
39	Strong Resistance of a Thin Crystalline Layer of Balanced Charged Groups to Protein Adsorption. Langmuir, 2006, 22, 8186-8191.	3.5	211
40	Softer Zwitterionic Nanogels for Longer Circulation and Lower Splenic Accumulation. ACS Nano, 2012, 6, 6681-6686.	14.6	211
41	Difference in Hydration between Carboxybetaine and Sulfobetaine. Journal of Physical Chemistry B, 2010, 114, 16625-16631.	2.6	198
42	Nanoparticles for Drug Delivery Prepared from Amphiphilic PLGA Zwitterionic Block Copolymers with Sharp Contrast in Polarity between Two Blocks. Angewandte Chemie - International Edition, 2010, 49, 3771-3776.	13.8	175
43	Functionalizable and ultra-low fouling zwitterionic surfaces via adhesive mussel mimetic linkages. Biomaterials, 2010, 31, 1486-1492.	11.4	174
44	Protein interactions with oligo(ethylene glycol) (OEG) self-assembled monolayers: OEG stability, surface packing density and protein adsorption. Journal of Biomaterials Science, Polymer Edition, 2007, 18, 1415-1427.	3.5	170
45	Nonfouling Polymer Brushes via Surface-Initiated, Two-Component Atom Transfer Radical Polymerization. Macromolecules, 2008, 41, 4216-4219.	4.8	170
46	Functionalizable surface platform with reduced nonspecific protein adsorption from full blood plasmaâ€"Material selection and protein immobilization optimization. Biosensors and Bioelectronics, 2009, 24, 1924-1930.	10.1	170
47	Expansion of primitive human hematopoietic stem cells by culture in a zwitterionic hydrogel. Nature Medicine, 2019, 25, 1566-1575.	30.7	162
48	pH responsive properties of non-fouling mixed-charge polymer brushes based on quaternary amine and carboxylic acid monomers. Biomaterials, 2010, 31, 2919-2925.	11.4	159
49	Hierarchical zwitterionic modification of a SERS substrate enables real-time drug monitoring in blood plasma. Nature Communications, 2016, 7, 13437.	12.8	156
50	Molecular level studies on interfacial hydration of zwitterionic and other antifouling polymers in situ. Acta Biomaterialia, 2016, 40, 6-15.	8.3	155
51	Probing the Orientation of Surface-Immobilized Immunoglobulin G by Time-of-Flight Secondary Ion Mass Spectrometry. Langmuir, 2004, 20, 1877-1887.	3.5	152
52	Poly(carboxybetaine) nanomaterials enable long circulation and prevent polymer-specific antibody production. Nano Today, 2014, 9, 10-16.	11.9	151
53	Trimethylamine <i>N</i> -oxideâ€"derived zwitterionic polymers: A new class of ultralow fouling bioinspired materials. Science Advances, 2019, 5, eaaw9562.	10.3	149
54	DNA Directed Protein Immobilization on Mixed ssDNA/Oligo(ethylene glycol) Self-Assembled Monolayers for Sensitive Biosensors. Analytical Chemistry, 2004, 76, 6967-6972.	6.5	148

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55	Molecular Simulation Studies of the Orientation and Conformation of Cytochrome c Adsorbed on Self-Assembled Monolayers. Journal of Physical Chemistry B, 2004, 108, 17418-17424.	2.6	145
56	Functionalizable and nonfouling zwitterionic carboxybetaine hydrogels with a carboxybetaine dimethacrylate crosslinker. Biomaterials, 2011, 32, 961-968.	11.4	143
57	Bloodâ€Inert Surfaces via Ionâ€Pair Anchoring of Zwitterionic Copolymer Brushes in Human Whole Blood. Advanced Functional Materials, 2013, 23, 1100-1110.	14.9	143
58	Brazilin inhibits amyloid Î²-protein fibrillogenesis, remodels amyloid fibrils and reduces amyloid cytotoxicity. Scientific Reports, 2015, 5, 7992.	3.3	134
59	Controlled Chemical and Structural Properties of Mixed Self-Assembled Monolayers of Alkanethiols on Au(111). Langmuir, 2000, 16, 9287-9293.	3.5	133
60	Development of Biocompatible Interpenetrating Polymer Networks Containing a Sulfobetaine-Based Polymer and a Segmented Polyurethane for Protein Resistance. Biomacromolecules, 2007, 8, 122-127.	5.4	132
61	Endothelial Cell Migration on Surface-Density Gradients of Fibronectin, VEGF, or Both Proteins. Langmuir, 2007, 23, 11168-11173.	3.5	132
62	DNA-Directed Protein Immobilization on Mixed Self-Assembled Monolayers via a Streptavidin Bridge. Langmuir, 2004, 20, 8090-8095.	3.5	130
63	Zwitterionic poly(carboxybetaine) hydrogels for glucose biosensors in complex media. Biosensors and Bioelectronics, 2011, 26, 2454-2459.	10.1	130
64	Orientation of Adsorbed Antibodies on Charged Surfaces by Computer Simulation Based on a United-Residue Model. Langmuir, 2003, 19, 3472-3478.	3.5	129
65	One-Step Dip Coating of Zwitterionic Sulfobetaine Polymers on Hydrophobic and Hydrophilic Surfaces. ACS Applied Materials & Interfaces, 2014, 6, 6664-6671.	8.0	123
66	Differences in Cationic and Anionic Charge Densities Dictate Zwitterionic Associations and Stimuli Responses. Journal of Physical Chemistry B, 2014, 118, 6956-6962.	2.6	121
67	Zwitterionic fusion in hydrogels and spontaneous and time-independent self-healing under physiological conditions. Biomaterials, 2014, 35, 3926-3933.	11.4	119
68	Imaging and cell targeting characteristics of magnetic nanoparticles modified by a functionalizable zwitterionic polymer with adhesive 3,4-dihydroxyphenyl-l-alanine linkages. Biomaterials, 2010, 31, 6582-6588.	11.4	117
69	In Situ Probing of the Surface Hydration of Zwitterionic Polymer Brushes: Structural and Environmental Effects. Journal of Physical Chemistry C, 2014, 118, 15840-15845.	3.1	117
70	Surface functionalization for self-referencing surface plasmon resonance (SPR) biosensors by multi-step self-assembly. Sensors and Actuators B: Chemical, 2003, 90, 22-30.	7.8	116
71	Multifunctional and degradable zwitterionic nanogels for targeted delivery, enhanced MR imaging, reduction-sensitive drug release, and renal clearance. Biomaterials, 2011, 32, 4604-4608.	11.4	116
72	Synchronizing nonfouling and antimicrobial properties in a zwitterionic hydrogel. Biomaterials, 2012, 33, 8928-8933.	11.4	116

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73	Origin of repulsive force and structure/dynamics of interfacial water in OEGâ€“protein interactions: a molecular simulation study. Physical Chemistry Chemical Physics, 2008, 10, 5539.	2.8	112
74	Engineering the Polymer Backbone To Strengthen Nonfouling Sulfobetaine Hydrogels. Langmuir, 2010, 26, 14793-14798.	3.5	112
75	Detection of low-molecular-weight domoic acid using surface plasmon resonance sensor. Sensors and Actuators B: Chemical, 2005, 107, 193-201.	7.8	111
76	Comparison of E. coli O157:H7 preparation methods used for detection with surface plasmon resonance sensor. Sensors and Actuators B: Chemical, 2005, 107, 202-208.	7.8	111
77	Integrated Antimicrobial and Nonfouling Hydrogels to Inhibit the Growth of Planktonic Bacterial Cells and Keep the Surface Clean. Langmuir, 2010, 26, 10425-10428.	3.5	110
78	Uniform zwitterionic polymer hydrogels with a nonfouling and functionalizable crosslinker using photopolymerization. Biomaterials, 2011, 32, 6893-6899.	11.4	109
79	Molecular simulation study of the c(4Ã—2) superlattice structure of alkanethiol self-assembled monolayers on Au(111). Journal of Chemical Physics, 2002, 117, 7342-7349.	3.0	106
80	A Thermoresponsive Antimicrobial Wound Dressing Hydrogel Based on a Cationic Betaine Ester. Advanced Functional Materials, 2011, 21, 4028-4034.	14.9	106
81	Label-free detection of cancer biomarker candidates using surface plasmon resonance imaging. Analytical and Bioanalytical Chemistry, 2009, 393, 1157-1163.	3.7	104
82	Controlled Hierarchical Architecture in Surfaceâ€initiated Zwitterionic Polymer Brushes with Structurally Regulated Functionalities. Advanced Materials, 2012, 24, 1834-1837.	21.0	103
83	Effect of Carbon Spacer Length on Zwitterionic Carboxybetaines. Journal of Physical Chemistry B, 2013, 117, 1357-1366.	2.6	101
84	Label-Free Biomarker Sensing in Undiluted Serum with Suspended Microchannel Resonators. Analytical Chemistry, 2010, 82, 1905-1910.	6.5	100
85	Physical, Chemical, and Chemicalâˆ’Physical Double Network of Zwitterionic Hydrogels. Journal of Physical Chemistry B, 2008, 112, 5327-5332.	2.6	99
86	Zwitterionic Hydrogels: an in Vivo Implantation Study. Journal of Biomaterials Science, Polymer Edition, 2009, 20, 1845-1859.	3.5	99
87	Influence of Charged Groups on the Properties of Zwitterionic Moieties: A Molecular Simulation Study. Journal of Physical Chemistry B, 2014, 118, 7630-7637.	2.6	99
88	Modulation of barnacle (<i>Balanus amphitrite</i> Darwin) cyprid settlement behavior by sulfobetaine and carboxybetaine methacrylate polymer coatings. Biofouling, 2010, 26, 673-683.	2.2	98
89	Superhydrophilic Zwitterionic Polymers Stabilize Liposomes. Langmuir, 2012, 28, 11625-11632.	3.5	96
90	Decoding nonspecific interactions from nature. Chemical Science, 2012, 3, 3488.	7.4	96

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91	Ultra-low fouling and functionalizable zwitterionic coatings grafted onto SiO2 via a biomimetic adhesive group for sensing and detection in complex media. Biosensors and Bioelectronics, 2010, 25, 2276-2282.	10.1	95
92	Selfâ€Healing Zwitterionic Microgels as a Versatile Platform for Malleable Cell Constructs and Injectable Therapies. Advanced Materials, 2018, 30, e1803087.	21.0	94
93	Suppressing Surface Reconstruction of Superhydrophobic PDMS Using a Superhydrophilic Zwitterionic Polymer. Biomacromolecules, 2012, 13, 1683-1687.	5.4	93
94	Strong Resistance of Oligo(phosphorylcholine) Self-Assembled Monolayers to Protein Adsorption. Langmuir, 2006, 22, 2418-2421.	3.5	92
95	Hydration of â€œNonfoulingâ€• Functional Groups. Journal of Physical Chemistry B, 2009, 113, 197-201.	2.6	91
96	Surface hydration for antifouling and bio-adhesion. Chemical Science, 2020, 11, 10367-10377.	7.4	91
97	Layering, freezing transitions, capillary condensation and diffusion of methane in slit carbon pores. Molecular Physics, 1993, 79, 373-391.	1.7	89
98	Controlling DNA Orientation on Mixed ssDNA/OEG SAMs. Langmuir, 2006, 22, 4694-4698.	3.5	89
99	Ultralow Fouling Zwitterionic Polymers Grafted from Surfaces Covered with an Initiator via an Adhesive Mussel Mimetic Linkage. Journal of Physical Chemistry B, 2008, 112, 15269-15274.	2.6	89
100	Stealth Surface Modification of Surface-Enhanced Raman Scattering Substrates for Sensitive and Accurate Detection in Protein Solutions. ACS Nano, 2015, 9, 2668-2676.	14.6	89
101	Zwitterionic polymer-protein conjugates reduce polymer-specific antibody response. Nano Today, 2016, 11, 285-291.	11.9	89
102	Zwitterionic Polymer-Based Platform with Two-Layer Architecture for Ultra Low Fouling and High Protein Loading. Analytical Chemistry, 2012, 84, 3440-3445.	6.5	88
103	Photoiniferter-Mediated Polymerization of Zwitterionic Carboxybetaine Monomers for Low-Fouling and Functionalizable Surface Coatings. Macromolecules, 2011, 44, 9213-9220.	4.8	87
104	Direct cell encapsulation in biodegradable and functionalizable carboxybetaine hydrogels. Biomaterials, 2012, 33, 5706-5712.	11.4	86
105	Novel Zwitterionic-Polymer-Coated Silica Nanoparticles. Langmuir, 2009, 25, 3196-3199.	3.5	84
106	Revealing the Immunogenic Risk of Polymers. Angewandte Chemie - International Edition, 2018, 57, 13873-13876.	13.8	84
107	The hydrolysis of cationic polycarboxybetaine esters to zwitterionic polycarboxybetaines with controlled properties. Biomaterials, 2008, 29, 4719-4725.	11.4	83
108	Reversibly switchable polymer with cationic/zwitterionic/anionic behavior through synergistic protonation and deprotonation. Chemical Science, 2014, 5, 200-205.	7.4	82

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109	High-strength and fibrous capsuleâ€"resistant zwitterionic elastomers. Science Advances, 2021, 7, .	10.3	82
110	Comparative study of SPR and ELISA methods based on analysis of CD166/ALCAM levels in cancer and control human sera. Biosensors and Bioelectronics, 2009, 24, 2143-2148.	10.1	81
111	Achieving Oneâ€Step Surface Coating of Highly Hydrophilic Poly(Carboxybetaine Methacrylate) Polymers on Hydrophobic and Hydrophilic Surfaces. Advanced Materials Interfaces, 2014, 1, 1400071.	3.7	80
112	Achieving Ultralow Fouling under Ambient Conditions via Surface-Initiated ARGET ATRP of Carboxybetaine. ACS Applied Materials & Interfaces, 2017, 9, 9255-9259.	8.0	79
113	Protein Adsorption on Alkanethiolate Self-Assembled Monolayers:Â Nanoscale Surface Structural and Chemical Effects. Langmuir, 2003, 19, 2974-2982.	3.5	78
114	Molecular Dynamics Simulation Study of Ion Interactions with Zwitterions. Journal of Physical Chemistry B, 2011, 115, 8358-8363.	2.6	78
115	Strong Surface Hydration and Salt Resistant Mechanism of a New Nonfouling Zwitterionic Polymer Based on Protein Stabilizer TMAO. Journal of the American Chemical Society, 2021, 143, 16786-16795.	13.7	78
116	Ultra-low fouling and high antibody loading zwitterionic hydrogel coatings for sensing and detection in complex media. Acta Biomaterialia, 2016, 40, 31-37.	8.3	77
117	Understanding the nonfouling mechanism of surfaces through molecular simulations of sugar-based self-assembled monolayers. Journal of Chemical Physics, 2006, 125, 214704.	3.0	76
118	Molecular simulation study of temperature effect on ionic hydration in carbon nanotubes. Physical Chemistry Chemical Physics, 2008, 10, 1896.	2.8	76
119	Controlling osteopontin orientation on surfaces to modulate endothelial cell adhesion. Journal of Biomedical Materials Research - Part A, 2005, 74A, 23-31.	4.0	73
120	Functionalizable and Ultrastable Zwitterionic Nanogels. Langmuir, 2010, 26, 6883-6886.	3.5	73
121	Biologically Inspired Stealth Peptide-Capped Gold Nanoparticles. Langmuir, 2014, 30, 1864-1870.	3.5	73
122	The effect of lightly crosslinked poly(carboxybetaine) hydrogel coating on the performance of sensors in whole blood. Biomaterials, 2012, 33, 7945-7951.	11.4	71
123	Cellulose Paper Sensors Modified with Zwitterionic Poly(carboxybetaine) for Sensing and Detection in Complex Media. Analytical Chemistry, 2014, 86, 2871-2875.	6.5	71
124	Nonfouling Polyampholytes from an Ion-Pair Comonomer with Biomimetic Adhesive Groups. Macromolecules, 2010, 43, 14-16.	4.8	70
125	Controlled Chemical and Structural Properties of Mixed Self-Assembled Monolayers by Coadsorption of Symmetric and Asymmetric Disulfides on Au(111). Journal of Physical Chemistry B, 2001, 105, 2975-2980.	2.6	69
126	MC3T3-E1 cell adhesion to hydroxyapatite with adsorbed bone sialoprotein, bone osteopontin, and bovine serum albumin. Colloids and Surfaces B: Biointerfaces, 2008, 64, 236-247.	5.0	69

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127	Probing the Surface Hydration of Nonfouling Zwitterionic and Poly(ethylene glycol) Materials with Isotopic Dilution Spectroscopy. Journal of Physical Chemistry C, 2015, 119, 8775-8780.	3.1	69
128	Molecular Simulation Study of Alkyl Monolayers on Si(111). Langmuir, 2001, 17, 6275-6281.	3.5	66
129	Direct detection of carcinoembryonic antigen autoantibodies in clinical human serum samples using a surface plasmon resonance sensor. Colloids and Surfaces B: Biointerfaces, 2009, 70, 1-6.	5.0	66
130	Mitigation of Inflammatory Immune Responses with Hydrophilic Nanoparticles. Angewandte Chemie - International Edition, 2018, 57, 4527-4531.	13.8	66
131	Radial Size of a Starburst Dendrimer in Solvents of Varying Quality. Macromolecules, 2002, 35, 7865-7868.	4.8	65
132	Restraint of the Differentiation of Mesenchymal Stem Cells by a Nonfouling Zwitterionic Hydrogel. Angewandte Chemie - International Edition, 2014, 53, 12729-12734.	13.8	64
133	Polypeptides with High Zwitterion Density for Safe and Effective Therapeutics. Angewandte Chemie - International Edition, 2018, 57, 7743-7747.	13.8	64
134	Local and Bulk Hydration of Zwitterionic Glycine and its Analogues through Molecular Simulations. Journal of Physical Chemistry B, 2011, 115, 660-667.	2.6	63
135	Atomic indentation and friction of self-assembled monolayers by hybrid molecular simulations. Journal of Chemical Physics, 2000, 113, 8800-8806.	3.0	60
136	Ultralow Fouling and Functionalizable Surface Chemistry Based on Zwitterionic Carboxybetaine Random Copolymers. Langmuir, 2019, 35, 1544-1551.	3.5	60
137	A Robust Graft-to Strategy To Form Multifunctional and Stealth Zwitterionic Polymer-Coated Mesoporous Silica Nanoparticles. Biomacromolecules, 2014, 15, 1845-1851.	5.4	59
138	A Coatingâ€Free Nonfouling Polymeric Elastomer. Advanced Materials, 2017, 29, 1700617.	21.0	59
139	Zwitterionic Nanocages Overcome the Efficacy Loss of Biologic Drugs. Advanced Materials, 2018, 30, e1705728.	21.0	59
140	Molecular-Scale Mixed Alkanethiol Monolayers of Different Terminal Groups on Au(111) by Low-Current Scanning Tunneling Microscopy. Langmuir, 2003, 19, 3266-3271.	3.5	58
141	Highâ€Strength and Nonfouling Zwitterionic Tripleâ€Network Hydrogel in Saline Environments. Advanced Materials, 2021, 33, e2102479.	21.0	58
142	Molecular simulation study of nanoscale friction for alkyl monolayers on Si(111). Journal of Chemical Physics, 2002, 117, 1804-1811.	3.0	57
143	Manipulating Sticky and Nonâ€Sticky Properties in a Single Material. Angewandte Chemie - International Edition, 2011, 50, 6102-6104.	13.8	57
144	Adsorption, isosteric heat and commensurate-incommensurate transition of methane on graphite. Molecular Physics, 1993, 80, 103-116.	1.7	56

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145	Nanoscavenger provides long-term prophylactic protection against nerve agents in rodents. Science Translational Medicine, 2019, 11, .	12.4	56
146	De novo design of functional zwitterionic biomimetic material for immunomodulation. Science Advances, 2020, 6, eaba0754.	10.3	54
147	Effect of Surface Hydration on Antifouling Properties of Mixed Charged Polymers. Langmuir, 2018, 34, 6538-6545.	3.5	53
148	In Situ Single-Molecule Detection of Antibodyâˆ'Antigen Binding by Tapping-Mode Atomic Force Microscopy. Analytical Chemistry, 2002, 74, 6017-6022.	6.5	52
149	Absolute Orientations of Water Molecules at Zwitterionic Polymer Interfaces and Interfacial Dynamics after Salt Exposure. Langmuir, 2019, 35, 1327-1334.	3.5	52
150	Measurements of Friction and Adhesion for Alkyl Monolayers on Si(111) by Scanning Force Microscopy. Langmuir, 2002, 18, 5448-5456.	3.5	51
151	Divalent cation-mediated polysaccharide interactions with zwitterionic surfaces. Biomaterials, 2012, 33, 2001-2006.	11.4	51
152	EKylation: Addition of an Alternating-Charge Peptide Stabilizes Proteins. Biomacromolecules, 2015, 16, 3357-3361.	5.4	51
153	Paper Sensor Coated with a Poly(carboxybetaine)-Multiple DOPA Conjugate via Dip-Coating for Biosensing in Complex Media. Analytical Chemistry, 2017, 89, 10999-11004.	6.5	49
154	Reduced foreign body reaction to implanted biomaterials by surface treatment with oriented osteopontin. Journal of Biomaterials Science, Polymer Edition, 2008, 19, 821-835.	3.5	48
155	Hybrid Surface Platform for the Simultaneous Detection of Proteins and DNAs Using a Surface Plasmon Resonance Imaging Sensor. Analytical Chemistry, 2008, 80, 4231-4236.	6.5	47
156	Zwitterionic poly-carboxybetaine coating reduces artificial lung thrombosis in sheep and rabbits. Acta Biomaterialia, 2019, 92, 71-81.	8.3	47
157	Stop band shift based chemical sensing with three-dimensional opal and inverse opal structures. Sensors and Actuators B: Chemical, 2007, 124, 452-458.	7.8	46
158	Vapour-liquid equilibria in two-dimensional Lennard-Jones fluids: unperturbed and substrate-mediated films. Molecular Physics, 1995, 86, 599-612.	1.7	45
159	Low-fouling electrospun PLLA films modified with zwitterionic poly(sulfobetaine) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 182 Td (	8.3	45
160	Transport diffusion of liquid water and methanol through membranes. Journal of Chemical Physics, 2002, 117, 808-818.	3.0	44
161	Zwitterionic polymer-modified silicon microring resonators for label-free biosensing in undiluted humanplasma. Biosensors and Bioelectronics, 2013, 42, 100-105.	10.1	44
162	Functionalized plasmonic nanostructure arrays for direct and accurate mapping extracellular pH of living cells in complex media using SERS. Biosensors and Bioelectronics, 2015, 73, 202-207.	10.1	44

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163	Engineering Buffering and Hydrolytic or Photolabile Charge Shifting in a Polycarboxybetaine Ester Gene Delivery Platform. Biomacromolecules, 2013, 14, 1587-1593.	5.4	43
164	Thermoresponsive self-assembled NiPAm-zwitterion copolymers. Polymer Chemistry, 2015, 6, 1066-1077.	3.9	43
165	Molecular simulation studies of self-assembled monolayers of alkanethiols on Au(111). Molecular Physics, 2002, 100, 2261-2275.	1.7	42
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