Shaoyi Jiang

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85 264 25,430 153 h-index g-index citations papers 266 8.4 27,704 7.32 avg, IF L-index ext. citations ext. papers

#	Paper	IF	Citations
264	Ultralow-fouling, functionalizable, and hydrolyzable zwitterionic materials and their derivatives for biological applications. <i>Advanced Materials</i> , 2010 , 22, 920-32	24	1480
263	Strong resistance of phosphorylcholine self-assembled monolayers to protein adsorption: insights into nonfouling properties of zwitterionic materials. <i>Journal of the American Chemical Society</i> , 2005 , 127, 14473-8	16.4	814
262	Zwitterionic hydrogels implanted in mice resist the foreign-body reaction. <i>Nature Biotechnology</i> , 2013 , 31, 553-6	44.5	641
261	Zwitterionic polymers exhibiting high resistance to nonspecific protein adsorption from human serum and plasma. <i>Biomacromolecules</i> , 2008 , 9, 1357-61	6.9	637
260	Inhibition of bacterial adhesion and biofilm formation on zwitterionic surfaces. <i>Biomaterials</i> , 2007 , 28, 4192-9	15.6	571
259	Superlow fouling sulfobetaine and carboxybetaine polymers on glass slides. <i>Langmuir</i> , 2006 , 22, 10072-	-74	558
258	Molecular understanding and design of zwitterionic materials. <i>Advanced Materials</i> , 2015 , 27, 15-26	24	501
257	Surface grafted sulfobetaine polymers via atom transfer radical polymerization as superlow fouling coatings. <i>Journal of Physical Chemistry B</i> , 2006 , 110, 10799-804	3.4	456
256	Integrated antimicrobial and nonfouling zwitterionic polymers. <i>Angewandte Chemie - International Edition</i> , 2014 , 53, 1746-54	16.4	426
255	Poly(zwitterionic)protein conjugates offer increased stability without sacrificing binding affinity or bioactivity. <i>Nature Chemistry</i> , 2011 , 4, 59-63	17.6	425
254	Protein adsorption on oligo(ethylene glycol)-terminated alkanethiolate self-assembled monolayers: The molecular basis for nonfouling behavior. <i>Journal of Physical Chemistry B</i> , 2005 , 109, 2934-41	3.4	421
253	Zwitterionic carboxybetaine polymer surfaces and their resistance to long-term biofilm formation. <i>Biomaterials</i> , 2009 , 30, 5234-40	15.6	420
252	Dual-functional biomimetic materials: nonfouling poly(carboxybetaine) with active functional groups for protein immobilization. <i>Biomacromolecules</i> , 2006 , 7, 3311-5	6.9	390
251	Blood compatibility of surfaces with superlow protein adsorption. <i>Biomaterials</i> , 2008 , 29, 4285-91	15.6	385
250	An New Avenue to Nonfouling Materials. <i>Advanced Materials</i> , 2008 , 20, 335-338	24	342
249	Ultralow fouling and functionalizable surface chemistry based on a zwitterionic polymer enabling sensitive and specific protein detection in undiluted blood plasma. <i>Analytical Chemistry</i> , 2008 , 80, 7894-	-9 70 8	337
248	Anti-PEG antibodies in the clinic: Current issues and beyond PEGylation. <i>Journal of Controlled Release</i> , 2016 , 244, 184-193	11.7	319

(2009-2008)

247	A switchable biocompatible polymer surface with self-sterilizing and nonfouling capabilities. Angewandte Chemie - International Edition, 2008, 47, 8831-4	16.4	279
246	Strong repulsive forces between protein and oligo (ethylene glycol) self-assembled monolayers: a molecular simulation study. <i>Biophysical Journal</i> , 2005 , 89, 158-66	2.9	278
245	Molecular simulation studies of protein interactions with zwitterionic phosphorylcholine self-assembled monolayers in the presence of water. <i>Langmuir</i> , 2008 , 24, 10358-64	4	276
244	Pursuing "zero" protein adsorption of poly(carboxybetaine) from undiluted blood serum and plasma. <i>Langmuir</i> , 2009 , 25, 11911-6	4	267
243	Highly protein-resistant coatings from well-defined diblock copolymers containing sulfobetaines. <i>Langmuir</i> , 2006 , 22, 2222-6	4	265
242	Spectral surface plasmon resonance biosensor for detection of staphylococcal enterotoxin B in milk. <i>International Journal of Food Microbiology</i> , 2002 , 75, 61-9	5.8	261
241	Molecular simulation study of water interactions with oligo (ethylene glycol)-terminated alkanethiol self-assembled monolayers. <i>Langmuir</i> , 2004 , 20, 8931-8	4	256
240	Quantitative and simultaneous detection of four foodborne bacterial pathogens with a multi-channel SPR sensor. <i>Biosensors and Bioelectronics</i> , 2006 , 22, 752-8	11.8	246
239	Super-hydrophilic zwitterionic poly(carboxybetaine) and amphiphilic non-ionic poly(ethylene glycol) for stealth nanoparticles. <i>Nano Today</i> , 2012 , 7, 404-413	17.9	221
238	Ultra-low fouling peptide surfaces derived from natural amino acids. <i>Biomaterials</i> , 2009 , 30, 5892-6	15.6	217
237	Polysulfobetaine-grafted surfaces as environmentally benign ultralow fouling marine coatings. <i>Langmuir</i> , 2009 , 25, 13516-21	4	212
236	Nonfouling behavior of polycarboxybetaine-grafted surfaces: structural and environmental effects. <i>Biomacromolecules</i> , 2008 , 9, 2686-92	6.9	212
235	Improved method for the preparation of carboxylic acid and amine terminated self-assembled monolayers of alkanethiolates. <i>Langmuir</i> , 2005 , 21, 2633-6	4	212
234	Controlling Antibody Orientation on Charged Self-Assembled Monolayers. <i>Langmuir</i> , 2003 , 19, 2859-28	6 <u>4</u>	209
233	Ultra low fouling zwitterionic polymers with a biomimetic adhesive group. <i>Biomaterials</i> , 2008 , 29, 4592-	715.6	208
232	Reversibly switching the function of a surface between attacking and defending against bacteria. <i>Angewandte Chemie - International Edition</i> , 2012 , 51, 2602-5	16.4	205
231	Film thickness dependence of protein adsorption from blood serum and plasma onto poly(sulfobetaine)-grafted surfaces. <i>Langmuir</i> , 2008 , 24, 9211-4	4	203
230	Functionalizable and ultra stable nanoparticles coated with zwitterionic poly(carboxybetaine) in undiluted blood serum. <i>Biomaterials</i> , 2009 , 30, 5617-21	15.6	197

229	Zwitterionic gel encapsulation promotes protein stability, enhances pharmacokinetics, and reduces immunogenicity. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015 , 112, 12046-51	11.5	196
228	Sequence, structure, and function of peptide self-assembled monolayers. <i>Journal of the American Chemical Society</i> , 2012 , 134, 6000-5	16.4	186
227	Strong resistance of a thin crystalline layer of balanced charged groups to protein adsorption. <i>Langmuir</i> , 2006 , 22, 8186-91	4	184
226	Probing the Surface Hydration of Nonfouling Zwitterionic and PEG Materials in Contact with Proteins. <i>ACS Applied Materials & </i>	9.5	171
225	Softer zwitterionic nanogels for longer circulation and lower splenic accumulation. <i>ACS Nano</i> , 2012 , 6, 6681-6	16.7	170
224	Nonfouling Polymer Brushes via Surface-Initiated, Two-Component Atom Transfer Radical Polymerization. <i>Macromolecules</i> , 2008 , 41, 4216-4219	5.5	160
223	Difference in hydration between carboxybetaine and sulfobetaine. <i>Journal of Physical Chemistry B</i> , 2010 , 114, 16625-31	3.4	158
222	Functionalizable and ultra-low fouling zwitterionic surfaces via adhesive mussel mimetic linkages. <i>Biomaterials</i> , 2010 , 31, 1486-92	15.6	157
221	Protein interactions with oligo(ethylene glycol) (OEG) self-assembled monolayers: OEG stability, surface packing density and protein adsorption. <i>Journal of Biomaterials Science, Polymer Edition</i> , 2007 , 18, 1415-27	3.5	157
220	Nanoparticles for drug delivery prepared from amphiphilic PLGA zwitterionic block copolymers with sharp contrast in polarity between two blocks. <i>Angewandte Chemie - International Edition</i> , 2010 , 49, 3771-6	16.4	152
219	Functionalizable surface platform with reduced nonspecific protein adsorption from full blood plasmamaterial selection and protein immobilization optimization. <i>Biosensors and Bioelectronics</i> , 2009 , 24, 1924-30	11.8	147
218	Probing the orientation of surface-immobilized immunoglobulin G by time-of-flight secondary ion mass spectrometry. <i>Langmuir</i> , 2004 , 20, 1877-87	4	141
217	pH responsive properties of non-fouling mixed-charge polymer brushes based on quaternary amine and carboxylic acid monomers. <i>Biomaterials</i> , 2010 , 31, 2919-25	15.6	140
216	DNA directed protein immobilization on mixed ssDNA/oligo(ethylene glycol) self-assembled monolayers for sensitive biosensors. <i>Analytical Chemistry</i> , 2004 , 76, 6967-72	7.8	140
215	Molecular Simulation Studies of the Orientation and Conformation of Cytochrome c Adsorbed on Self-Assembled Monolayers. <i>Journal of Physical Chemistry B</i> , 2004 , 108, 17418-17424	3.4	132
214	Development of biocompatible interpenetrating polymer networks containing a sulfobetaine-based polymer and a segmented polyurethane for protein resistance. <i>Biomacromolecules</i> , 2007 , 8, 122-7	6.9	126
213	Blood-Inert Surfaces via Ion-Pair Anchoring of Zwitterionic Copolymer Brushes in Human Whole Blood. <i>Advanced Functional Materials</i> , 2013 , 23, 1100-1110	15.6	125
212	Functionalizable and nonfouling zwitterionic carboxybetaine hydrogels with a carboxybetaine dimethacrylate crosslinker. <i>Biomaterials</i> , 2011 , 32, 961-8	15.6	125

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211	Endothelial cell migration on surface-density gradients of fibronectin, VEGF, or both proteins. <i>Langmuir</i> , 2007 , 23, 11168-73	4	125
210	Controlled Chemical and Structural Properties of Mixed Self-Assembled Monolayers of Alkanethiols on Au(111). <i>Langmuir</i> , 2000 , 16, 9287-9293	4	125
209	Poly(carboxybetaine) nanomaterials enable long circulation and prevent polymer-specific antibody production. <i>Nano Today</i> , 2014 , 9, 10-16	17.9	122
208	Zwitterionic poly(carboxybetaine) hydrogels for glucose biosensors in complex media. <i>Biosensors and Bioelectronics</i> , 2011 , 26, 2454-9	11.8	119
207	DNA-directed protein immobilization on mixed self-assembled monolayers via a streptavidin bridge. <i>Langmuir</i> , 2004 , 20, 8090-5	4	117
206	Orientation of Adsorbed Antibodies on Charged Surfaces by Computer Simulation Based on a United-Residue Model. <i>Langmuir</i> , 2003 , 19, 3472-3478	4	116
205	Molecular level studies on interfacial hydration of zwitterionic and other antifouling polymers in situ. <i>Acta Biomaterialia</i> , 2016 , 40, 6-15	10.8	110
204	Hierarchical zwitterionic modification of a SERS substrate enables real-time drug monitoring in blood plasma. <i>Nature Communications</i> , 2016 , 7, 13437	17.4	108
203	Zwitterionic fusion in hydrogels and spontaneous and time-independent self-healing under physiological conditions. <i>Biomaterials</i> , 2014 , 35, 3926-33	15.6	105
202	Imaging and cell targeting characteristics of magnetic nanoparticles modified by a functionalizable zwitterionic polymer with adhesive 3,4-dihydroxyphenyl-l-alanine linkages. <i>Biomaterials</i> , 2010 , 31, 6582-	- 8 5.6	105
201	Comparison of E. coli O157:H7 preparation methods used for detection with surface plasmon resonance sensor. <i>Sensors and Actuators B: Chemical</i> , 2005 , 107, 202-208	8.5	105
2 00	Surface functionalization for self-referencing surface plasmon resonance (SPR) biosensors by multi-step self-assembly. <i>Sensors and Actuators B: Chemical</i> , 2003 , 90, 22-30	8.5	102
199	One-step dip coating of zwitterionic sulfobetaine polymers on hydrophobic and hydrophilic surfaces. <i>ACS Applied Materials & amp; Interfaces</i> , 2014 , 6, 6664-71	9.5	101
198	Synchronizing nonfouling and antimicrobial properties in a zwitterionic hydrogel. <i>Biomaterials</i> , 2012 , 33, 8928-33	15.6	101
197	Uniform zwitterionic polymer hydrogels with a nonfouling and functionalizable crosslinker using photopolymerization. <i>Biomaterials</i> , 2011 , 32, 6893-9	15.6	100
196	Integrated antimicrobial and nonfouling hydrogels to inhibit the growth of planktonic bacterial cells and keep the surface clean. <i>Langmuir</i> , 2010 , 26, 10425-8	4	100
195	Multifunctional and degradable zwitterionic nanogels for targeted delivery, enhanced MR imaging, reduction-sensitive drug release, and renal clearance. <i>Biomaterials</i> , 2011 , 32, 4604-8	15.6	100
194	Detection of low-molecular-weight domoic acid using surface plasmon resonance sensor. <i>Sensors and Actuators B: Chemical</i> , 2005 , 107, 193-201	8.5	99

193	Molecular simulation study of the c(4½) superlattice structure of alkanethiol self-assembled monolayers on Au(111). <i>Journal of Chemical Physics</i> , 2002 , 117, 7342-7349	3.9	99
192	In Situ Probing of the Surface Hydration of Zwitterionic Polymer Brushes: Structural and Environmental Effects. <i>Journal of Physical Chemistry C</i> , 2014 , 118, 15840-15845	3.8	97
191	Brazilin inhibits amyloid Eprotein fibrillogenesis, remodels amyloid fibrils and reduces amyloid cytotoxicity. <i>Scientific Reports</i> , 2015 , 5, 7992	4.9	96
190	Differences in cationic and anionic charge densities dictate zwitterionic associations and stimuli responses. <i>Journal of Physical Chemistry B</i> , 2014 , 118, 6956-62	3.4	93
189	Engineering the polymer backbone to strengthen nonfouling sulfobetaine hydrogels. <i>Langmuir</i> , 2010 , 26, 14793-8	4	93
188	Modulation of barnacle (Balanus amphitrite Darwin) cyprid settlement behavior by sulfobetaine and carboxybetaine methacrylate polymer coatings. <i>Biofouling</i> , 2010 , 26, 673-83	3.3	92
187	Zwitterionic hydrogels: an in vivo implantation study. <i>Journal of Biomaterials Science, Polymer Edition</i> , 2009 , 20, 1845-59	3.5	92
186	Origin of repulsive force and structure/dynamics of interfacial water in OEG-protein interactions: a molecular simulation study. <i>Physical Chemistry Chemical Physics</i> , 2008 , 10, 5539-44	3.6	92
185	A Thermoresponsive Antimicrobial Wound Dressing Hydrogel Based on a Cationic Betaine Ester. <i>Advanced Functional Materials</i> , 2011 , 21, 4028-4034	15.6	90
184	Strong resistance of oligo(phosphorylcholine) self-assembled monolayers to protein adsorption. <i>Langmuir</i> , 2006 , 22, 2418-21	4	90
183	Controlled hierarchical architecture in surface-initiated zwitterionic polymer brushes with structurally regulated functionalities. <i>Advanced Materials</i> , 2012 , 24, 1834-7	24	89
182	Ultra-low fouling and functionalizable zwitterionic coatings grafted onto SiO2 via a biomimetic adhesive group for sensing and detection in complex media. <i>Biosensors and Bioelectronics</i> , 2010 , 25, 227	76-82	88
181	Label-free biomarker sensing in undiluted serum with suspended microchannel resonators. <i>Analytical Chemistry</i> , 2010 , 82, 1905-10	7.8	87
180	Label-free detection of cancer biomarker candidates using surface plasmon resonance imaging. <i>Analytical and Bioanalytical Chemistry</i> , 2009 , 393, 1157-63	4.4	86
179	Expansion of primitive human hematopoietic stem cells by culture in a zwitterionic hydrogel. <i>Nature Medicine</i> , 2019 , 25, 1566-1575	50.5	85
178	Layering, freezing transitions, capillary condensation and diffusion of methane in slit carbon pores. <i>Molecular Physics</i> , 1993 , 79, 373-391	1.7	84
177	Hydration of "nonfouling" functional groups. <i>Journal of Physical Chemistry B</i> , 2009 , 113, 197-201	3.4	83
176	Controlling DNA orientation on mixed ssDNA/OEG SAMs. <i>Langmuir</i> , 2006 , 22, 4694-8	4	83

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175	Ultralow fouling zwitterionic polymers grafted from surfaces covered with an initiator via an adhesive mussel mimetic linkage. <i>Journal of Physical Chemistry B</i> , 2008 , 112, 15269-74	3.4	82
174	Trimethylamine -oxide-derived zwitterionic polymers: A new class of ultralow fouling bioinspired materials. <i>Science Advances</i> , 2019 , 5, eaaw9562	14.3	81
173	Superhydrophilic zwitterionic polymers stabilize liposomes. <i>Langmuir</i> , 2012 , 28, 11625-32	4	81
172	Physical, chemical, and chemical-physical double network of zwitterionic hydrogels. <i>Journal of Physical Chemistry B</i> , 2008 , 112, 5327-32	3.4	81
171	Suppressing surface reconstruction of superhydrophobic PDMS using a superhydrophilic zwitterionic polymer. <i>Biomacromolecules</i> , 2012 , 13, 1683-7	6.9	80
170	Photoiniferter-Mediated Polymerization of Zwitterionic Carboxybetaine Monomers for Low-Fouling and Functionalizable Surface Coatings. <i>Macromolecules</i> , 2011 , 44, 9213-9220	5.5	80
169	Zwitterionic polymer-based platform with two-layer architecture for ultra low fouling and high protein loading. <i>Analytical Chemistry</i> , 2012 , 84, 3440-5	7.8	79
168	Novel zwitterionic-polymer-coated silica nanoparticles. <i>Langmuir</i> , 2009 , 25, 3196-9	4	79
167	Effect of carbon spacer length on zwitterionic carboxybetaines. <i>Journal of Physical Chemistry B</i> , 2013 , 117, 1357-66	3.4	77
166	The hydrolysis of cationic polycarboxybetaine esters to zwitterionic polycarboxybetaines with controlled properties. <i>Biomaterials</i> , 2008 , 29, 4719-25	15.6	77
165	Stealth surface modification of surface-enhanced Raman scattering substrates for sensitive and accurate detection in protein solutions. <i>ACS Nano</i> , 2015 , 9, 2668-76	16.7	75
164	Direct cell encapsulation in biodegradable and functionalizable carboxybetaine hydrogels. <i>Biomaterials</i> , 2012 , 33, 5706-12	15.6	75
163	Influence of Charged Groups on the Properties of Zwitterionic Moieties: A Molecular Simulation Study. <i>Journal of Physical Chemistry B</i> , 2014 , 118, 7630-7637	3.4	74
162	Decoding nonspecific interactions from nature. <i>Chemical Science</i> , 2012 , 3, 3488	9.4	74
161	Reversibly switchable polymer with cationic/zwitterionic/anionic behavior through synergistic protonation and deprotonation. <i>Chemical Science</i> , 2014 , 5, 200-205	9.4	71
160	Comparative study of SPR and ELISA methods based on analysis of CD166/ALCAM levels in cancer and control human sera. <i>Biosensors and Bioelectronics</i> , 2009 , 24, 2143-8	11.8	70
159	Molecular simulation study of temperature effect on ionic hydration in carbon nanotubes. <i>Physical Chemistry Chemical Physics</i> , 2008 , 10, 1896-906	3.6	70
158	Understanding the nonfouling mechanism of surfaces through molecular simulations of sugar-based self-assembled monolayers. <i>Journal of Chemical Physics</i> , 2006 , 125, 214704	3.9	70

157	Protein Adsorption on Alkanethiolate Self-Assembled Monolayers: Nanoscale Surface Structural and Chemical Effects. <i>Langmuir</i> , 2003 , 19, 2974-2982	4	69
156	Ultra-low fouling and high antibody loading zwitterionic hydrogel coatings for sensing and detection in complex media. <i>Acta Biomaterialia</i> , 2016 , 40, 31-37	10.8	67
155	Controlling osteopontin orientation on surfaces to modulate endothelial cell adhesion. <i>Journal of Biomedical Materials Research - Part A</i> , 2005 , 74, 23-31	5.4	66
154	Controlled Chemical and Structural Properties of Mixed Self-Assembled Monolayers by Coadsorption of Symmetric and Asymmetric Disulfides on Au(111). <i>Journal of Physical Chemistry B</i> , 2001 , 105, 2975-2980	3.4	66
153	Zwitterionic polymer-protein conjugates reduce polymer-specific antibody response. <i>Nano Today</i> , 2016 , 11, 285-291	17.9	65
152	Functionalizable and ultrastable zwitterionic nanogels. <i>Langmuir</i> , 2010 , 26, 6883-6	4	65
151	Molecular Simulation Study of Alkyl Monolayers on Si(111). <i>Langmuir</i> , 2001 , 17, 6275-6281	4	64
150	Achieving One-step Surface Coating of Highly Hydrophilic Poly(Carboxybetaine Methacrylate) Polymers on Hydrophobic and Hydrophilic Surfaces. <i>Advanced Materials Interfaces</i> , 2014 , 1, 1400071	4.6	63
149	Cellulose paper sensors modified with zwitterionic poly(carboxybetaine) for sensing and detection in complex media. <i>Analytical Chemistry</i> , 2014 , 86, 2871-5	7.8	63
148	The effect of lightly crosslinked poly(carboxybetaine) hydrogel coating on the performance of sensors in whole blood. <i>Biomaterials</i> , 2012 , 33, 7945-51	15.6	63
147	Nonfouling Polyampholytes from an Ion-pair Comonomer with Biomimetic Adhesive Groups. <i>Macromolecules</i> , 2010 , 43, 14-16	5.5	63
146	Molecular dynamics simulation study of ion interactions with zwitterions. <i>Journal of Physical Chemistry B</i> , 2011 , 115, 8358-63	3.4	63
145	Radial Size of a Starburst Dendrimer in Solvents of Varying Quality. <i>Macromolecules</i> , 2002 , 35, 7865-786	8 5.5	63
144	Achieving Ultralow Fouling under Ambient Conditions via Surface-Initiated ARGET ATRP of Carboxybetaine. <i>ACS Applied Materials & Samp; Interfaces</i> , 2017 , 9, 9255-9259	9.5	62
143	Self-Healing Zwitterionic Microgels as a Versatile Platform for Malleable Cell Constructs and Injectable Therapies. <i>Advanced Materials</i> , 2018 , 30, e1803087	24	59
142	Direct detection of carcinoembryonic antigen autoantibodies in clinical human serum samples using a surface plasmon resonance sensor. <i>Colloids and Surfaces B: Biointerfaces</i> , 2009 , 70, 1-6	6	58
141	Revealing the Immunogenic Risk of Polymers. <i>Angewandte Chemie - International Edition</i> , 2018 , 57, 1387	736148	7 6 7
140	Local and bulk hydration of zwitterionic glycine and its analogues through molecular simulations. <i>Journal of Physical Chemistry B</i> , 2011 , 115, 660-7	3.4	57

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139	Biologically inspired stealth peptide-capped gold nanoparticles. <i>Langmuir</i> , 2014 , 30, 1864-70	4	56
138	Molecular simulation study of nanoscale friction for alkyl monolayers on Si(111). <i>Journal of Chemical Physics</i> , 2002 , 117, 1804-1811	3.9	55
137	Probing the Surface Hydration of Nonfouling Zwitterionic and Poly(ethylene glycol) Materials with Isotopic Dilution Spectroscopy. <i>Journal of Physical Chemistry C</i> , 2015 , 119, 8775-8780	3.8	54
136	A robust graft-to strategy to form multifunctional and stealth zwitterionic polymer-coated mesoporous silica nanoparticles. <i>Biomacromolecules</i> , 2014 , 15, 1845-51	6.9	54
135	Atomic indentation and friction of self-assembled monolayers by hybrid molecular simulations. <i>Journal of Chemical Physics</i> , 2000 , 113, 8800-8806	3.9	54
134	MC3T3-E1 cell adhesion to hydroxyapatite with adsorbed bone sialoprotein, bone osteopontin, and bovine serum albumin. <i>Colloids and Surfaces B: Biointerfaces</i> , 2008 , 64, 236-47	6	53
133	Mitigation of Inflammatory Immune Responses with Hydrophilic Nanoparticles. <i>Angewandte Chemie - International Edition</i> , 2018 , 57, 4527-4531	16.4	52
132	Adsorption, isosteric heat and commensurate-incommensurate transition of methane on graphite. <i>Molecular Physics</i> , 1993 , 80, 103-116	1.7	52
131	Molecular-Scale Mixed Alkanethiol Monolayers of Different Terminal Groups on Au(111) by Low-Current Scanning Tunneling Microscopy. <i>Langmuir</i> , 2003 , 19, 3266-3271	4	51
130	A Coating-Free Nonfouling Polymeric Elastomer. <i>Advanced Materials</i> , 2017 , 29, 1700617	24	50
129	Restraint of the differentiation of mesenchymal stem cells by a nonfouling zwitterionic hydrogel. <i>Angewandte Chemie - International Edition</i> , 2014 , 53, 12729-34	16.4	50
128	Manipulating sticky and non-sticky properties in a single material. <i>Angewandte Chemie - International Edition</i> , 2011 , 50, 6102-4	16.4	50
127	In situ single-molecule detection of antibody-antigen binding by tapping-mode atomic force microscopy. <i>Analytical Chemistry</i> , 2002 , 74, 6017-22	7.8	50
126	Measurements of Friction and Adhesion for Alkyl Monolayers on Si(111) by Scanning Force Microscopy. <i>Langmuir</i> , 2002 , 18, 5448-5456	4	50
125	Polypeptides with High Zwitterion Density for Safe and Effective Therapeutics. <i>Angewandte Chemie - International Edition</i> , 2018 , 57, 7743-7747	16.4	48
124	Zwitterionic Nanocages Overcome the Efficacy Loss of Biologic Drugs. <i>Advanced Materials</i> , 2018 , 30, e1705728	24	46
123	Divalent cation-mediated polysaccharide interactions with zwitterionic surfaces. <i>Biomaterials</i> , 2012 , 33, 2001-6	15.6	45
122	Reduced foreign body reaction to implanted biomaterials by surface treatment with oriented osteopontin. <i>Journal of Biomaterials Science, Polymer Edition,</i> 2008 , 19, 821-35	3.5	44

121	Stop band shift based chemical sensing with three-dimensional opal and inverse opal structures. <i>Sensors and Actuators B: Chemical</i> , 2007 , 124, 452-458	8.5	44
120	A Switchable Biocompatible Polymer Surface with Self-Sterilizing and Nonfouling Capabilities. <i>Angewandte Chemie</i> , 2008 , 120, 8963-8966	3.6	44
119	Hybrid surface platform for the simultaneous detection of proteins and DNAs using a surface plasmon resonance imaging sensor. <i>Analytical Chemistry</i> , 2008 , 80, 4231-6	7.8	43
118	Transport diffusion of liquid water and methanol through membranes. <i>Journal of Chemical Physics</i> , 2002 , 117, 808-818	3.9	42
117	Vapour-liquid equilibria in two-dimensional Lennard-Jones fluids: unperturbed and substrate-mediated films. <i>Molecular Physics</i> , 1995 , 86, 599-612	1.7	41
116	Effect of Surface Hydration on Antifouling Properties of Mixed Charged Polymers. <i>Langmuir</i> , 2018 , 34, 6538-6545	4	40
115	Intramolecular Janus Segregation of a Heteroarm Star Copolymer. <i>Macromolecules</i> , 2005 , 38, 6201-620	9 5.5	40
114	Molecular simulation studies of self-assembled monolayers of alkanethiols on Au(111). <i>Molecular Physics</i> , 2002 , 100, 2261-2275	1.7	40
113	Ultralow Fouling and Functionalizable Surface Chemistry Based on Zwitterionic Carboxybetaine Random Copolymers. <i>Langmuir</i> , 2019 , 35, 1544-1551	4	40
112	Low-fouling electrospun PLLA films modified with zwitterionic poly(sulfobetaine methacrylate)-catechol conjugates. <i>Acta Biomaterialia</i> , 2016 , 40, 92-99	10.8	39
112		10.8	39
	methacrylate)-catechol conjugates. <i>Acta Biomaterialia</i> , 2016 , 40, 92-99 Engineering buffering and hydrolytic or photolabile charge shifting in a polycarboxybetaine ester		
111	methacrylate)-catechol conjugates. <i>Acta Biomaterialia</i> , 2016 , 40, 92-99 Engineering buffering and hydrolytic or photolabile charge shifting in a polycarboxybetaine ester gene delivery platform. <i>Biomacromolecules</i> , 2013 , 14, 1587-93	6.9	39
111	methacrylate)-catechol conjugates. <i>Acta Biomaterialia</i> , 2016 , 40, 92-99 Engineering buffering and hydrolytic or photolabile charge shifting in a polycarboxybetaine ester gene delivery platform. <i>Biomacromolecules</i> , 2013 , 14, 1587-93 Surface hydration for antifouling and bio-adhesion. <i>Chemical Science</i> , 2020 , 11, 10367-10377 Nanoscavenger provides long-term prophylactic protection against nerve agents in rodents. <i>Science</i>	6.9 9.4 17.5	39
111 110 109	Engineering buffering and hydrolytic or photolabile charge shifting in a polycarboxybetaine ester gene delivery platform. <i>Biomacromolecules</i> , 2013 , 14, 1587-93 Surface hydration for antifouling and bio-adhesion. <i>Chemical Science</i> , 2020 , 11, 10367-10377 Nanoscavenger provides long-term prophylactic protection against nerve agents in rodents. <i>Science Translational Medicine</i> , 2019 , 11,	6.9 9.4 17.5 7 _{4.9}	393939
111 110 109 108	Engineering buffering and hydrolytic or photolabile charge shifting in a polycarboxybetaine ester gene delivery platform. <i>Biomacromolecules</i> , 2013 , 14, 1587-93 Surface hydration for antifouling and bio-adhesion. <i>Chemical Science</i> , 2020 , 11, 10367-10377 Nanoscavenger provides long-term prophylactic protection against nerve agents in rodents. <i>Science Translational Medicine</i> , 2019 , 11, Thermoresponsive self-assembled NiPAm-zwitterion copolymers. <i>Polymer Chemistry</i> , 2015 , 6, 1066-107 Zwitterionic polymer-modified silicon microring resonators for label-free biosensing in undiluted	6.9 9.4 17.5 7 _{4.9}	39393938
1111 1100 1099 108	Engineering buffering and hydrolytic or photolabile charge shifting in a polycarboxybetaine ester gene delivery platform. <i>Biomacromolecules</i> , 2013 , 14, 1587-93 Surface hydration for antifouling and bio-adhesion. <i>Chemical Science</i> , 2020 , 11, 10367-10377 Nanoscavenger provides long-term prophylactic protection against nerve agents in rodents. <i>Science Translational Medicine</i> , 2019 , 11, Thermoresponsive self-assembled NiPAm-zwitterion copolymers. <i>Polymer Chemistry</i> , 2015 , 6, 1066-107 Zwitterionic polymer-modified silicon microring resonators for label-free biosensing in undiluted human plasma. <i>Biosensors and Bioelectronics</i> , 2013 , 42, 100-5 EKylation: Addition of an Alternating-Charge Peptide Stabilizes Proteins. <i>Biomacromolecules</i> , 2015 ,	6.9 9.4 17.5 7 4.9	3939393838

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94		3·7 6.2	33
	Sulfobetaine. RSC Advances, 2016, 6, 24827-24834 Directed neural stem cell differentiation on polyaniline-coated high strength hydrogels. Materials		32
93	Directed neural stem cell differentiation on polyaniline-coated high strength hydrogels. <i>Materials Today Chemistry</i> , 2016 , 1-2, 15-22 Butyrylcholinesterase nanocapsule as a long circulating bioscavenger with reduced immune	6.2	32
93	Directed neural stem cell differentiation on polyaniline-coated high strength hydrogels. <i>Materials Today Chemistry</i> , 2016 , 1-2, 15-22 Butyrylcholinesterase nanocapsule as a long circulating bioscavenger with reduced immune response. <i>Journal of Controlled Release</i> , 2016 , 230, 73-8 Nanoparticles for Drug Delivery Prepared from Amphiphilic PLGA Zwitterionic Block Copolymers	6.2 11.7 3.6	3 ²
93 92 91	Directed neural stem cell differentiation on polyaniline-coated high strength hydrogels. <i>Materials Today Chemistry</i> , 2016 , 1-2, 15-22 Butyrylcholinesterase nanocapsule as a long circulating bioscavenger with reduced immune response. <i>Journal of Controlled Release</i> , 2016 , 230, 73-8 Nanoparticles for Drug Delivery Prepared from Amphiphilic PLGA Zwitterionic Block Copolymers with Sharp Contrast in Polarity between Two Blocks. <i>Angewandte Chemie</i> , 2010 , 122, 3859-3864 Multimodal Biomaterial-Focused Anticoagulation via Superlow Fouling Zwitterionic Functional	6.2 11.7 3.6	3 ² 3 ² 31
93 92 91	Directed neural stem cell differentiation on polyaniline-coated high strength hydrogels. <i>Materials Today Chemistry</i> , 2016 , 1-2, 15-22 Butyrylcholinesterase nanocapsule as a long circulating bioscavenger with reduced immune response. <i>Journal of Controlled Release</i> , 2016 , 230, 73-8 Nanoparticles for Drug Delivery Prepared from Amphiphilic PLGA Zwitterionic Block Copolymers with Sharp Contrast in Polarity between Two Blocks. <i>Angewandte Chemie</i> , 2010 , 122, 3859-3864 Multimodal, Biomaterial-Focused Anticoagulation via Superlow Fouling Zwitterionic Functional Groups Coupled with Anti-Platelet Nitric Oxide Release. <i>Advanced Materials Interfaces</i> , 2016 , 3, 150064 Simple and robust approach for passivating and functionalizing surfaces for use in complex media.	6.2 11.7 3.6 6 ^{4.6}	32 32 31 30
93 92 91 90 89	Directed neural stem cell differentiation on polyaniline-coated high strength hydrogels. <i>Materials Today Chemistry</i> , 2016 , 1-2, 15-22 Butyrylcholinesterase nanocapsule as a long circulating bioscavenger with reduced immune response. <i>Journal of Controlled Release</i> , 2016 , 230, 73-8 Nanoparticles for Drug Delivery Prepared from Amphiphilic PLGA Zwitterionic Block Copolymers with Sharp Contrast in Polarity between Two Blocks. <i>Angewandte Chemie</i> , 2010 , 122, 3859-3864 Multimodal, Biomaterial-Focused Anticoagulation via Superlow Fouling Zwitterionic Functional Groups Coupled with Anti-Platelet Nitric Oxide Release. <i>Advanced Materials Interfaces</i> , 2016 , 3, 150064 Simple and robust approach for passivating and functionalizing surfaces for use in complex media. <i>Langmuir</i> , 2012 , 28, 9707-13	6.2 11.7 3.6 6 ^{4.6}	32 31 30 29

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