Carsten Werner

List of Publications by Year
in descending order

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465 papers	20,674 citations	11608 70 h-index	20307 116 g-index
498 all docs	498 docs citations	498 times ranked	23044 citing authors

#	Article	IF	Citations
1	Mesenchymal Stem Cells Can Be Differentiated Into Endothelial Cells In Vitro. Stem Cells, 2004, 22, 377-384.	1.4	1,143
2	Self-assembled monolayers with different terminating groups as model substrates for cell adhesion studies. Biomaterials, 2004, 25, 2721-2730.	5.7	663
3	A star-PEGâ€“heparin hydrogel platform to aid cell replacement therapies for neurodegenerative diseases. Biomaterials, 2009, 30, 5049-5060.	5.7	272
4	Extended Electrokinetic Characterization of Flat Solid Surfaces. Journal of Colloid and Interface Science, 1998, 208, 329-346.	5.0	259
5	Current strategies towards hemocompatible coatings. Journal of Materials Chemistry, 2007, 17, 3376.	6.7	240
6	Glycosaminoglycan-based hydrogels capture inflammatory chemokines and rescue defective wound healing in mice. Science Translational Medicine, 2017, 9, .	5.8	239
7	Blood coagulation on biomaterials requires the combination of distinct activation processes. Biomaterials, 2009, 30, 4447-4456.	5.7	233
8	Maleic Anhydride CopolymersA Versatile Platform for Molecular Biosurface Engineering. Biomacromolecules, 2003, 4, 1072-1079.	2.6	223
9	Electrokinetic Measurements Reveal Interfacial Charge at Polymer Films Caused by Simple Electrolyte Ions. Journal of Physical Chemistry B, 2001, 105, 8544-8549.	1.2	219
10	Smart Skin Patterns Protect Springtails. PLoS ONE, 2011, 6, e25105.	1.1	210
11	Hydroxide and hydronium ion adsorption â€” A survey. Current Opinion in Colloid and Interface Science, 2010, 15, 196-202.	3.4	209
12	Thermo-Responsive PNiPAAm-g-PEG Films for Controlled Cell Detachment. Biomacromolecules, 2003, 4, 1733-1739.	2.6	203
13	Wetting Resistance at Its Topographical Limit: The Benefit of Mushroom and Serif T Structures. Langmuir, 2013, 29, 1100-1112.	1.6	202
14	Tightly anchored tissue-mimetic matrices as instructive stem cell microenvironments. Nature Methods, 2013, 10, 788-794.	9.0	195
15	The springtail cuticle as a blueprint for omniphobic surfaces. Chemical Society Reviews, 2016, 45, 323-341.	18.7	191
16	Functional immobilization of signaling proteins enables control of stem cell fate. Nature Methods, 2008, 5, 645-650.	9.0	190
17	FGF-2 and VEGF functionalization of starPEGâ€“heparin hydrogels to modulate biomolecular and physical cues of angiogenesis. Biomaterials, 2010, 31, 7985-7994.	5.7	187
18	Sperm Micromotors for Cargo Delivery through Flowing Blood. ACS Nano, 2020, 14, 2982-2993.	7.3	181

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19	Glycosaminoglycan-based hydrogels to modulate heterocellular communication in in vitro angiogenesis models. Scientific Reports, 2014, 4, 4414.	1.6	179
20	Multi-parametric hydrogels support 3D inÂvitro bioengineered microenvironment models of tumour angiogenesis. Biomaterials, 2015, 53, 609-620.	5.7	173
21	Flow characteristics of water through a microchannel between two parallel plates with electrokinetic effects. International Journal of Heat and Fluid Flow, 1997, 18, 489-496.	1.1	172
22	Adsorption-induced conformational changes of proteins onto ceramic particles: Differential scanning calorimetry and FTIR analysis. Journal of Colloid and Interface Science, 2006, 299, 56-69.	5.0	161
23	A practical guide to quantify cell adhesion using single-cell force spectroscopy. Methods, 2013, 60, 169-178.	1.9	161
24	Glycosaminoglycanâ€Based Biohybrid Hydrogels: A Sweet and Smart Choice for Multifunctional Biomaterials. Advanced Materials, 2016, 28, 8861-8891.	11.1	156
25	Tailored Poly(2â€oxazoline) Polymer Brushes to Control Protein Adsorption and Cell Adhesion. Macromolecular Bioscience, 2012, 12, 926-936.	2.1	153
26	Sustained delivery of SDF-1Î± from heparin-based hydrogels to attract circulating pro-angiogenic cells. Biomaterials, 2012, 33, 4792-4800.	5.7	152
27	Dissociation of Surface Functional Groups and Preferential Adsorption of Ions on Self-Assembled Monolayers Assessed by Streaming Potential and Streaming Current Measurements. Langmuir, 2001, 17, 4304-4311.	1.6	143
28	Defined Polymerâ€“Peptide Conjugates to Form Cellâ€Instructive starPEGâ€“Heparin Matrices In Situ. Advanced Materials, 2013, 25, 2606-2610.	11.1	141
29	Biologically Inspired Omniphobic Surfaces by Reverse Imprint Lithography. Advanced Materials, 2014, 26, 2029-2033.	11.1	139
30	Biofabricated soft network composites for cartilage tissue engineering. Biofabrication, 2017, 9, 025014.	3.7	135
31	Characterization of oxide layers on Ti6Al4V and titanium by streaming potential and streaming current measurements. Colloids and Surfaces B: Biointerfaces, 2002, 26, 387-395.	2.5	134
32	Bio-responsive polymer hydrogels homeostatically regulate blood coagulation. Nature Communications, 2013, 4, 2168.	5.8	132
33	Discovery of 505-million-year old chitin in the basal demosponge Vauxia gracilenta. Scientific Reports, 2013, 3, 3497.	1.6	123
34	The growth and differentiation of mesenchymal stem and progenitor cells cultured on aligned collagen matrices. Biomaterials, 2009, 30, 5950-5958.	5.7	118
35	3D Culture Method for Alzheimer's Disease Modeling Reveals Interleukin-4 Rescues Aî²42-Induced Loss of Human Neural Stem Cell Plasticity. Developmental Cell, 2018, 46, 85-101.e8.	3.1	118
36	Dual independent delivery of pro-angiogenic growth factors from starPEG-heparin hydrogels. Journal of Controlled Release, 2011, 156, 28-36.	4.8	116

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37	The role of the interplay between polymer architecture and bacterial surface properties on the microbial adhesion to polyoxazoline-based ultrathin films. Biomaterials, 2010, 31, 9462-9472.	5.7	114
38	Low pressure plasma treatment of poly(3-hydroxybutyrate): Toward tailored polymer surfaces for tissue engineering scaffolds. Journal of Biomedical Materials Research Part B, 2002, 59, 632-638.	3.0	112
39	3D extracellular matrix interactions modulate tumour cell growth, invasion and angiogenesis in engineered tumour microenvironments. Acta Biomaterialia, 2016, 36, 73-85.	4.1	112
40	In vitro hemocompatibility of self-assembled monolayers displaying various functional groups. Biomaterials, 2005, 26, 6547-6557.	5.7	108
41	Surface modification of poly(hydroxybutyrate) films to control cellâ€“matrix adhesion. Biomaterials, 2007, 28, 28-37.	5.7	105
42	Aligned fibrillar collagen matrices obtained by shear flow deposition. Biomaterials, 2008, 29, 3888-3895.	5.7	105
43	Thermoâ€responsive poly(NiPAAmâ€co â€DEGMA) substrates for gentle harvest of human corneal endothelial cell sheets. Journal of Biomedical Materials Research - Part A, 2007, 80A, 1003-1010.	2.1	103
44	Electrokinetic surface characterization of biomedical polymers â€” a survey. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 1999, 159, 519-529.	2.3	101
45	Electrokinetic Characterization of Oligo- and Poly(ethylene glycol)-Terminated Self-Assembled Monolayers on Gold and Glass Surfaces. Langmuir, 2003, 19, 7380-7385.	1.6	101
46	Influence of Three-Dimensional Roughness on Pressure-Driven Flow Through Microchannels. Journal of Fluids Engineering, Transactions of the ASME, 2003, 125, 871-879.	0.8	101
47	Electrostatic Interactions Modulate the Conformation of Collagen I. Biophysical Journal, 2007, 92, 2108-2119.	0.2	100
48	Heparin desulfation modulates VEGF release and angiogenesis in diabetic wounds. Journal of Controlled Release, 2015, 220, 79-88.	4.8	100
49	Multifunctional silkâ€“heparin biomaterials for vascular tissue engineering applications. Biomaterials, 2014, 35, 83-91.	5.7	98
50	Insights on structural variations of protein adsorption layers on hydrophobic fluorohydrocarbon polymers gained by spectroscopic ellipsometry (part I). Colloids and Surfaces A: Physicochemical and Engineering Aspects, 1999, 156, 3-17.	2.3	95
51	Streaming potential and streaming current measurements at planar solid/liquid interfaces for simultaneous determination of zeta potential and surface conductivity. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2001, 192, 205-213.	2.3	95
52	Nogo-A targeted therapy promotes vascular repair and functional recovery following stroke. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 14270-14279.	3.3	94
53	Electrokinetic Transport through Rough Microchannels. Analytical Chemistry, 2003, 75, 5747-5758.	3.2	92
54	Tunable nano-replication to explore the omniphobic characteristics of springtail skin. NPG Asia Materials, 2013, 5, e37-e37.	3.8	91

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55	Multilayer hydrogel coatings to combine hemocompatibility and antimicrobial activity. Biomaterials, 2015, 56, 198-205.	5.7	91
56	An Improved Method of Determining the Î¶-Potential and Surface Conductance. Journal of Colloid and Interface Science, 2000, 232, 186-197.	5.0	86
57	3D Microenvironment Stiffness Regulates Tumor Spheroid Growth and Mechanics via p21 and ROCK. Advanced Biology, 2019, 3, e1900128.	3.0	84
58	Heparin intercalation into reconstituted collagen I fibrils: Impact on growth kinetics and morphology. Biomaterials, 2008, 29, 1-14.	5.7	82
59	The blood compatibility challenge. Part 3: Material associated activation of blood cascades and cells. Acta Biomaterialia, 2019, 94, 25-32.	4.1	81
60	Microwave CO2 plasma-initiated vapour phase graft polymerization of acrylic acid onto polytetrafluoroethylene for immobilization of human thrombomodulin. Biomaterials, 1997, 18, 1139-1145.	5.7	80
61	Periosteum tissue engineering in an orthotopic inÂvivo platform. Biomaterials, 2017, 121, 193-204.	5.7	80
62	An attempt to explain bimodal behaviour of the sapphire c-plane electrolyte interface. Advances in Colloid and Interface Science, 2010, 157, 61-74.	7.0	79
63	Diversity and potential correlations to the function of Collembola cuticle structures. Zoomorphology, 2013, 132, 183-195.	0.4	79
64	Gene-Expression Profiling of CD34+Hematopoietic Cells Expanded in a Collagen I Matrix. Stem Cells, 2006, 24, 494-500.	1.4	78
65	Matrix elasticity regulates the secretory profile of human bone marrow-derived multipotent mesenchymal stromal cells (MSCs). Biochemical and Biophysical Research Communications, 2009, 389, 663-667.	1.0	78
66	The impact of structure dimensions on initial bacterial adhesion. Biomaterials Science, 2016, 4, 1074-1078.	2.6	78
67	Standardized microgel beads as elastic cell mechanical probes. Journal of Materials Chemistry B, 2018, 6, 6245-6261.	2.9	78
68	The blood compatibility challenge. Part 4: Surface modification for hemocompatible materials: Passive and active approaches to guide blood-material interactions. Acta Biomaterialia, 2019, 94, 33-43.	4.1	78
69	Surface characterisation of NH3 plasma treated polyamide 6 foils. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2001, 195, 81-95.	2.3	77
70	Impact of processing parameters on the haemocompatibility of Bombyx mori silk films. Biomaterials, 2012, 33, 1017-1023.	5.7	74
71	Covalently immobilized thrombomodulin inhibits coagulation and complement activation of artificial surfaces in vitro. Biomaterials, 2004, 25, 5101-5113.	5.7	73
72	The Ion Sensitivity of Surface Conductive Single Crystalline Diamond. Journal of the American Chemical Society, 2007, 129, 1287-1292.	6.6	73

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73	Modulating Biofunctional starPEG Heparin Hydrogels by Varying Size and Ratio of the Constituents. Polymers, 2011, 3, 602-620.	2.0	73
74	Tissue-engineered 3D tumor angiogenesis models: Potential technologies for anti-cancer drug discovery. Advanced Drug Delivery Reviews, 2014, 79-80, 30-39.	6.6	73
75	Surface characterization of hemodialysis membranes based on streaming potential measurements. Journal of Biomaterials Science, Polymer Edition, 1996, 7, 61-76.	1.9	71
76	Design and evaluation of novel blood incubation systems forin vitrohemocompatibility assessment of planar solid surfaces. , 2003, 66B, 379-390.		70
77	Charging and structure of zwitterionic supported bilayer lipid membranes studied by streaming current measurements, fluorescence microscopy, and attenuated total reflection Fourier transform infrared spectroscopy. Biointerphases, 2009, 4, 1-6.	0.6	70
78	In vitro hemocompatibility of albuminâ€“heparin multilayer coatings on polyethersulfone prepared by the layer-by-layer technique. Journal of Biomedical Materials Research - Part A, 2006, 76A, 681-689.	2.1	69
79	Effect of human parathyroid hormone hPTH (1â€“34) applied at different regimes on fracture healing and muscle in ovariectomized and healthy rats. Bone, 2010, 47, 480-492.	1.4	69
80	Extracellular matrix deposition of bone marrow stroma enhanced by macromolecular crowding. Biomaterials, 2015, 73, 60-69.	5.7	69
81	Modification of poly(octadecene-alt-maleic anhydride) films by reaction with functional amines. Journal of Applied Polymer Science, 2003, 87, 1255-1266.	1.3	68
82	Intrinsic charge and Donnan potentials of grafted polyelectrolyte layers determined by surface conductivity data. Journal of Colloid and Interface Science, 2004, 274, 309-318.	5.0	68
83	Polarization of Human Hematopoietic Progenitors During Contact with Multipotent Mesenchymal Stromal Cells: Effects on Proliferation and Clonogenicity. Stem Cells and Development, 2006, 15, 815-829.	1.1	66
84	Engineered matrix coatings to modulate the adhesion of CD133+ human hematopoietic progenitor cells. Biomaterials, 2007, 28, 836-843.	5.7	66
85	Geometry-Driven Cell Organization Determines Tissue Growths in Scaffold Pores: Consequences for Fibronectin Organization. PLoS ONE, 2013, 8, e73545.	1.1	66
86	The multi-layered protective cuticle of Collembola: a chemical analysis. Journal of the Royal Society Interface, 2014, 11, 20140619.	1.5	65
87	Macroporous StarPEG-Heparin Cryogels. Biomacromolecules, 2012, 13, 2349-2358.	2.6	64
88	Thermo-Reversible Swelling of Thin Hydrogel Films Immobilized by Low-Pressure Plasma. Langmuir, 2004, 20, 10107-10114.	1.6	63
89	Electrokinetics of Diffuse Soft Interfaces. IV. Analysis of Streaming Current Measurements at Thermoresponsive Thin Films. Langmuir, 2009, 25, 10691-10703.	1.6	63
90	Antifouling potential of Subtilisin A immobilized onto maleic anhydride copolymer thin films. Biofouling, 2009, 25, 505-516.	0.8	63

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91	A three-dimensional ex vivo tri-culture model mimics cell-cell interactions between acute myeloid leukemia and the vascular niche. Haematologica, 2017, 102, 1215-1226.	1.7	63
92	A novel, biased-like SDF-1 derivative acts synergistically with starPEG-based heparin hydrogels and improves eEPC migration in vitro. Journal of Controlled Release, 2012, 162, 68-75.	4.8	62
93	Minimal Peptide Motif for Non-covalent Peptideâ€“Heparin Hydrogels. Journal of the American Chemical Society, 2013, 135, 2919-2922.	6.6	62
94	Tackling Cell Transplantation Anoikis: An Injectable, Shape Memory Cryogel Microcarrier Platform Material for Stem Cell and Neuronal Cell Growth. Small, 2015, 11, 5047-5053.	5.2	62
95	Highly Conductive, Stretchable, and Cellâ€Adhesive Hydrogel by Nanoclay Doping. Small, 2019, 15, e1901406.	5.2	62
96	Durable surface modification of poly(tetrafluoroethylene) by low pressure H2O plasma treatment followed by acrylic acid graft polymerization. Colloids and Surfaces B: Biointerfaces, 2002, 24, 63-71.	2.5	61
97	In Vitro Reconstitution of Fibrillar Collagen Type I Assemblies at Reactive Polymer Surfaces. Biomacromolecules, 2004, 5, 1340-1350.	2.6	61
98	Covalent Immobilization of Cellulose Layers onto Maleic Anhydride Copolymer Thin Films. Biomacromolecules, 2005, 6, 1628-1634.	2.6	61
99	Using Mean Field Theory to Guide Biofunctional Materials Design. Advanced Functional Materials, 2012, 22, 1391-1398.	7.8	61
100	Polymer Hydrogels to Guide Organotypic and Organoid Cultures. Advanced Functional Materials, 2020, 30, 2000097.	7.8	61
101	Biocompatibility assessment of silk nanoparticles: hemocompatibility and internalization by human blood cells. Nanomedicine: Nanotechnology, Biology, and Medicine, 2017, 13, 2633-2642.	1.7	60
102	Biocompatibility and surface structure of chemically modified immunoisolating alginateâ€PLL capsules. Journal of Biomedical Materials Research - Part A, 2003, 67A, 1219-1227.	2.1	59
103	Fibronectin anchorage to polymer substrates controls the initial phase of endothelial cell adhesion. Journal of Biomedical Materials Research - Part A, 2003, 67A, 647-657.	2.1	59
104	Electromechanical-Assisted Training for Walking After Stroke. Stroke, 2013, 44, e127-8.	1.0	59
105	Hematopoietic stem and progenitor cells in adhesive microcavities. Integrative Biology (United) Tj ETQq1 1 0.784314 rgBT /Overlock	0.6	58
106	Two-tier hydrogel degradation to boost endothelial cell morphogenesis. Biomaterials, 2011, 32, 9649-9657.	5.7	58
107	A Novel, Low-Volume Method for Organ Culture of Embryonic Kidneys That Allows Development of Cortico-Medullary Anatomical Organization. PLoS ONE, 2010, 5, e10550.	1.1	57
108	Enzymes for Antifouling Strategies. Journal of Adhesion Science and Technology, 2011, 25, 2317-2344.	1.4	57

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109	Liquid-fluid contact angle measurements on hydrophilic cellulosic materials. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 1996, 116, 79-91.	2.3	56
110	Impedance spectroscopy studies of interfacial acidâ€“base reactions of self-assembled monolayers. Journal of Electroanalytical Chemistry, 2003, 540, 145-151.	1.9	56
111	Electrohydrodynamics of Soft Polyelectrolyte Multilayers: Point of Zero-Streaming Current. Langmuir, 2011, 27, 10739-10752.	1.6	56
112	Intrafibrillar, bone-mimetic collagen mineralization regulates breast cancer cell adhesion and migration. Biomaterials, 2019, 198, 95-106.	5.7	56
113	Stability and ageing of plasma treated poly(tetrafluoroethylene) surfaces. Colloids and Surfaces B: Biointerfaces, 2002, 25, 313-324.	2.5	55
114	Permanent surface modification by electron-beam-induced grafting of hydrophilic polymers to PVDF membranes. RSC Advances, 2013, 3, 22518.	1.7	55
115	TGFÎ² functionalized starPEG-heparin hydrogels modulate human dermal fibroblast growth and differentiation. Acta Biomaterialia, 2015, 25, 65-75.	4.1	55
116	Fluorination of poly(dimethylsiloxane) surfaces by low pressure CF4 plasma â€“ physicochemical and antifouling properties. EXPRESS Polymer Letters, 2009, 3, 70-83.	1.1	53
117	On the use of electrokinetics for unraveling charging and structure of soft planar polymer films. Current Opinion in Colloid and Interface Science, 2013, 18, 83-92.	3.4	53
118	Surface Characterization of Polymers for Medical Devices. International Journal of Artificial Organs, 1999, 22, 160-176.	0.7	52
119	Fibronectin Displacement at Polymer Surfaces. Langmuir, 2005, 21, 4571-4577.	1.6	52
120	Modular StarPEGâ€Heparin Gels with Bifunctional Peptide Linkers. Macromolecular Rapid Communications, 2010, 31, 1529-1533.	2.0	52
121	Electrokinetic microslit experiments to analyse the charge formation at solid/liquid interfaces. Microfluidics and Nanofluidics, 2006, 2, 367-379.	1.0	51
122	StarPEGâ€Heparin Hydrogels to Protect and Sustainably Deliver ILâ€4. Advanced Healthcare Materials, 2016, 5, 3157-3164.	3.9	51
123	Cryogel-supported stem cell factory for customized sustained release of bispecific antibodies for cancer immunotherapy. Scientific Reports, 2017, 7, 42855.	1.6	51
124	Electrokinetic phenomena at grafted polyelectrolyte layers. Journal of Colloid and Interface Science, 2005, 286, 761-773.	5.0	50
125	The microscopy cell (MicCell), a versatile modular flowthrough system for cell biology, biomaterial research, and nanotechnology. Microfluidics and Nanofluidics, 2006, 2, 21-36.	1.0	50
126	In vitro blood reactivity to hydroxylated and non-hydroxylated polymer surfaces. Biomaterials, 2007, 28, 3617-3625.	5.7	50

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127	Immobilization of growth factors on solid supports for the modulation of stem cell fate. Nature Protocols, 2010, 5, 1042-1050.	5.5	50
128	Enzymatically degradable heparin-polyethylene glycol gels with controlled mechanical properties. Chemical Communications, 2010, 46, 1141-1143.	2.2	50
129	Hollow fibers made from a poly(3-hydroxybutyrate)/poly-Îµ-caprolactone blend. EXPRESS Polymer Letters, 2011, 5, 643-652.	1.1	50
130	A Positively Charged Surface Triggers Coagulation Activation Through Factor VII Activating Protease (FSAP). ACS Applied Materials & Interfaces, 2017, 9, 40107-40116.	4.0	50
131	Functional Films of Maleic Anhydride Copolymers under Physiological Conditions. Macromolecular Bioscience, 2005, 5, 890-895.	2.1	49
132	In Situ Study of the Thermoresponsive Behavior of Micropatterned Hydrogel Films by Imaging Ellipsometry. Langmuir, 2005, 21, 2317-2322.	1.6	49
133	On the applicability of the Brinkman equation in soft surface electrokinetics. Journal of Colloid and Interface Science, 2010, 350, 1-4.	5.0	48
134	Interrelations between charging, structure and electrokinetics of nanometric polyelectrolyte films. Journal of Colloid and Interface Science, 2011, 362, 439-449.	5.0	48
135	Influence of the three-dimensional heterogeneous roughness on electrokinetic transport in microchannels. Journal of Colloid and Interface Science, 2004, 280, 527-536.	5.0	47
136	Musculoskeletal Response to Whole-Body Vibration During Fracture Healing in Intact and Ovariectomized Rats. Calcified Tissue International, 2010, 87, 168-180.	1.5	47
137	Combined influence of biophysical and biochemical cues on maintenance and proliferation of hematopoietic stem cells. Biomaterials, 2017, 138, 108-117.	5.7	47
138	Polyacrylamide Bead Sensors for in vivo Quantification of Cell-Scale Stress in Zebrafish Development. Scientific Reports, 2019, 9, 17031.	1.6	47
139	Quantitative analysis of immobilized proteins and protein mixtures by amino acid analysis. Journal of Chromatography A, 2003, 1005, 113-122.	1.8	46
140	Endogenous bone morphogenetic proteins in human bone marrow-derived multipotent mesenchymal stromal cells. European Journal of Cell Biology, 2009, 88, 257-271.	1.6	46
141	Directed Growth of Adult Human White Matter Stem Cellâ€“Derived Neurons on Aligned Fibrillar Collagen. Tissue Engineering - Part A, 2010, 16, 1103-1113.	1.6	46
142	Design and Validation of a Bioreactor for Simulating the Cardiac Niche: A System Incorporating Cyclic Stretch, Electrical Stimulation, and Constant Perfusion. Tissue Engineering - Part A, 2013, 19, 403-414.	1.6	46
143	In vitro blood compatibility of polymeric biomaterials through covalent immobilization of an amidine derivative. Biomaterials, 2004, 25, 3493-3501.	5.7	45
144	Growth factor delivery from hydrogel particle aggregates to promote tubular regeneration after acute kidney injury. Journal of Controlled Release, 2013, 167, 248-255.	4.8	45

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145	Enhanced targeting of invasive glioblastoma cells by peptide-functionalized gold nanorods in hydrogel-based 3D cultures. Acta Biomaterialia, 2017, 58, 12-25.	4.1	45
146	Electrokinetics of a Poly(N-isopropylacrylamid-co-carboxyacrylamid) Soft Thin Film: Evidence of Diffuse Segment Distribution in the Swollen State. Langmuir, 2010, 26, 18169-18181.	1.6	44
147	Polymeric Biomaterials for Stem Cell Bioengineering. Macromolecular Rapid Communications, 2012, 33, 1420-1431.	2.0	44
148	Ionization Characteristics and Structural Transitions of Alternating Maleic Acid Copolymer Films. Langmuir, 2003, 19, 5787-5793.	1.6	43
149	Biohybrid Networks of Selectively Desulfated Glycosaminoglycans for Tunable Growth Factor Delivery. Biomacromolecules, 2014, 15, 4439-4446.	2.6	43
150	Oxygen-Producing Gellan Gum Hydrogels for Dual Delivery of Either Oxygen or Peroxide with Doxorubicin. ACS Biomaterials Science and Engineering, 2017, 3, 787-792.	2.6	43
151	Interfacial charge of organic thin films characterized by streaming potential and streaming current measurements. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2001, 195, 97-102.	2.3	42
152	Modulated Fibronectin Anchorage at Polymer Substrates Controls Angiogenesis. Tissue Engineering, 2004, 10, 841-848.	4.9	42
153	Noncovalent Hydrogel Beads as Microcarriers for Cell Culture. Angewandte Chemie - International Edition, 2015, 54, 3962-3966.	7.2	42
154	High resolution bioprinting of multi-component hydrogels. Biofabrication, 2019, 11, 045008.	3.7	42
155	Dynamic Alterations of Fibronectin Layers on Copolymer Substrates with Graded Physicochemical Characteristics. Langmuir, 2004, 20, 2928-2933.	1.6	41
156	Supported Lipid Bilayers on Spacious and pH-Responsive Polymer Cushions with Varied Hydrophilicity. Journal of Physical Chemistry B, 2008, 112, 6373-6378.	1.2	41
157	Temperature dependent physicochemical properties of poly(N-isopropylacrylamide-co-N-(1-phenylethyl)) Tj ETQq1 1 0.784314 rgBT /Ov	1.2	41
158	Immobilization of Bacillus licheniformis Î±-amylase onto reactive polymer films. Journal of Biotechnology, 2011, 154, 216-221.	1.9	41
159	Macroporous biohybrid cryogels for co-housing pancreatic islets with mesenchymal stromal cells. Acta Biomaterialia, 2016, 44, 178-187.	4.1	41
160	Fabrication of multifunctional titanium surfaces by producing hierarchical surface patterns using laser based ablation methods. Scientific Reports, 2019, 9, 6721.	1.6	41
161	Electrokinetic fingerprinting of grafted polyelectrolyte layersâ€"a theoretical approach. Advances in Colloid and Interface Science, 2006, 122, 93-105.	7.0	40
162	Extracellular Matrix Functionalized Microcavities to Control Hematopoietic Stem and Progenitor Cell Fate. Macromolecular Bioscience, 2011, 11, 739-747.	2.1	40

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163	Electrokinetic Characterization of Poly(Acrylic Acid) and Poly(Ethylene Oxide) Brushes in Aqueous Electrolyte Solutions. Langmuir, 2005, 21, 5108-5114.	1.6	39
164	Degradation and oxidation postmortem of myofibrillar proteins in porcine skeleton muscle revealed by high resolution mass spectrometric proteome analysis. International Journal of Mass Spectrometry, 2011, 305, 217-227.	0.7	39
165	Dissecting the Impact of Matrix Anchorage and Elasticity in Cell Adhesion. Biophysical Journal, 2009, 97, 2154-2163.	0.2	38
166	Electrokinetics of soft polymeric interphases with layered distribution of anionic and cationic charges. Current Opinion in Colloid and Interface Science, 2016, 24, 1-12.	3.4	38
167	Macromolecular crowding for tailoring tissue-derived fibrillated matrices. Acta Biomaterialia, 2017, 55, 109-119.	4.1	38
168	Heparin-based hydrogels induce human renal tubulogenesis in vitro. Acta Biomaterialia, 2017, 57, 59-69.	4.1	38
169	In situ-forming, cell-instructive hydrogels based on glycosaminoglycans with varied sulfation patterns. Biomaterials, 2018, 181, 227-239.	5.7	38
170	Retargeting of UniCAR T cells with an in vivo synthesized target module directed against CD19 positive tumor cells. Oncotarget, 2018, 9, 7487-7500.	0.8	38
171	Low pressure plasma immobilization of thin hydrogel films on polymer surfaces. Surface and Coatings Technology, 2004, 185, 120-125.	2.2	37
172	Nanoscale Features of Fibronectin Fibrillogenesis Depend on Protein-Substrate Interaction and Cytoskeleton Structure. Biophysical Journal, 2005, 88, 527-534.	0.2	37
173	Hydrophobic and Electrostatic Interactions in the Adsorption of Fibronectin at Maleic Acid Copolymer Films. Journal of Physical Chemistry B, 2006, 110, 12119-12124.	1.2	37
174	Immobilized Hyperbranched Glycoacrylate Films as Bioactive Supports. Macromolecular Bioscience, 2006, 6, 658-666.	2.1	37
175	Human corneal endothelial cell sheets for transplantation: Thermo-responsive cell culture carriers to meet cell-specific requirements. Acta Biomaterialia, 2013, 9, 5031-5039.	4.1	37
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