

Buddy D Ratner

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227 papers	17,678 citations	67 h-index	129 g-index
237 ext. papers	18,930 ext. citations	6.2 avg, IF	6.91 L-index

#	Paper	IF	Citations
227	Biomaterials: where we have been and where we are going. <i>Annual Review of Biomedical Engineering</i> , 2004 , 6, 41-75	12	1188
226	Biomedical surface science: Foundations to frontiers. <i>Surface Science</i> , 2002 , 500, 28-60	1.8	1104
225	Zwitterionic hydrogels implanted in mice resist the foreign-body reaction. <i>Nature Biotechnology</i> , 2013 , 31, 553-6	44.5	641
224	Macrophage polarization: an opportunity for improved outcomes in biomaterials and regenerative medicine. <i>Biomaterials</i> , 2012 , 33, 3792-802	15.6	595
223	Template-imprinted nanostructured surfaces for protein recognition. <i>Nature</i> , 1999 , 398, 593-7	50.4	581
222	Proangiogenic scaffolds as functional templates for cardiac tissue engineering. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010 , 107, 15211-6	11.5	498
221	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
220	XPS O 1s binding energies for polymers containing hydroxyl, ether, ketone and ester groups. <i>Surface and Interface Analysis</i> , 1991 , 17, 267-272	1.5	421
219	Blood compatibility of surfaces with superlow protein adsorption. <i>Biomaterials</i> , 2008 , 29, 4285-91	15.6	385
218	New ideas in biomaterials science--a path to engineered biomaterials. <i>Journal of Biomedical Materials Research Part B</i> , 1993 , 27, 837-50		314
217	The catastrophe revisited: blood compatibility in the 21st Century. <i>Biomaterials</i> , 2007 , 28, 5144-7	15.6	294
216	PEO-like plasma polymerized tetraglyme surface interactions with leukocytes and proteins: in vitro and in vivo studies. <i>Journal of Biomaterials Science, Polymer Edition</i> , 2002 , 13, 367-90	3.5	269
215	Endothelial Cell Growth and Protein Adsorption on Terminally Functionalized, Self-Assembled Monolayers of Alkanethiolates on Gold. <i>Langmuir</i> , 1997 , 13, 3404-3413	4	255
214	Surface characterization of hydroxyapatite and related calcium phosphates by XPS and TOF-SIMS. <i>Analytical Chemistry</i> , 2000 , 72, 2886-94	7.8	254
213	Porous implants modulate healing and induce shifts in local macrophage polarization in the foreign body reaction. <i>Annals of Biomedical Engineering</i> , 2014 , 42, 1508-16	4.7	253
212	Plasma polymerized N-isopropylacrylamide: synthesis and characterization of a smart thermally responsive coating. <i>Biomacromolecules</i> , 2001 , 2, 32-6	6.9	231
211	Differentiation of Calcium Carbonate Polymorphs by Surface Analysis Techniques - An XPS and TOF-SIMS study. <i>Surface and Interface Analysis</i> , 2008 , 40, 1356-1361	1.5	222

210	Synthetic Hydrogels for Biomedical Applications. <i>ACS Symposium Series</i> , 1976 , 1-36	0.4	221
209	Glow discharge plasma deposition of tetraethylene glycol dimethyl ether for fouling-resistant biomaterial surfaces. <i>Journal of Biomedical Materials Research Part B</i> , 1992 , 26, 415-39		219
208	Photo-patterning of porous hydrogels for tissue engineering. <i>Biomaterials</i> , 2007 , 28, 2978-86	15.6	215
207	Reducing capsular thickness and enhancing angiogenesis around implant drug release systems. <i>Journal of Controlled Release</i> , 2002 , 78, 211-8	11.7	208
206	Radiation-grafted hydrogels for biomaterial applications as studied by the ESCA technique. <i>Journal of Applied Polymer Science</i> , 1978 , 22, 643-664	2.9	190
205	Engineering biomaterials to integrate and heal: the biocompatibility paradigm shifts. <i>Biotechnology and Bioengineering</i> , 2012 , 109, 1898-911	4.9	185
204	Plasma-deposited polymeric films prepared from carbonyl-containing volatile precursors: XPS chemical derivatization and static SIMS surface characterization. <i>Chemistry of Materials</i> , 1991 , 3, 51-61	9.6	183
203	Glucose-sensitive membranes containing glucose oxidase: activity, swelling, and permeability studies. <i>Journal of Biomedical Materials Research Part B</i> , 1985 , 19, 1117-33		177
202	Static secondary ion mass spectrometry of adsorbed proteins. <i>Analytical Chemistry</i> , 1993 , 65, 1431-8	7.8	176
201	Cell sheet detachment affects the extracellular matrix: a surface science study comparing thermal liftoff, enzymatic, and mechanical methods. <i>Journal of Biomedical Materials Research - Part A</i> , 2005 , 75, 1-13	5.4	168
200	Surface chemical and mechanical properties of plasma-polymerized N-isopropylacrylamide. <i>Langmuir</i> , 2005 , 21, 7833-41	4	162
199	The role of adsorbed fibrinogen in platelet adhesion to polyurethane surfaces: a comparison of surface hydrophobicity, protein adsorption, monoclonal antibody binding, and platelet adhesion. <i>Journal of Biomedical Materials Research - Part A</i> , 2005 , 74, 722-38	5.4	158
198	Degradable, thermo-sensitive poly(N-isopropyl acrylamide)-based scaffolds with controlled porosity for tissue engineering applications. <i>Biomacromolecules</i> , 2010 , 11, 2583-92	6.9	142
197	The influence of surface energy on competitive protein adsorption on oxidized NiTi surfaces. <i>Biomaterials</i> , 2007 , 28, 586-94	15.6	142
196	The engineering of biomaterials exhibiting recognition and specificity. <i>Journal of Molecular Recognition</i> , 1996 , 9, 617-25	2.6	142
195	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
194	Microporous nanofibrous fibrin-based scaffolds for bone tissue engineering. <i>Biomaterials</i> , 2008 , 29, 4091-96	15.6	139
193	Surface characterization of extracellular matrix scaffolds. <i>Biomaterials</i> , 2010 , 31, 428-37	15.6	136

192	A fibrinogen-based precision microporous scaffold for tissue engineering. <i>Biomaterials</i> , 2007 , 28, 5298-3066	10.6	136
191	VEGF induces differentiation of functional endothelium from human embryonic stem cells: implications for tissue engineering. <i>Arteriosclerosis, Thrombosis, and Vascular Biology</i> , 2010 , 30, 80-9	9.4	133
190	Radiofrequency plasma deposition of oxygen-containing films on polystyrene and poly(ethylene terephthalate) substrates improves endothelial cell growth. <i>Journal of Biomedical Materials Research Part B</i> , 1990 , 24, 1637-59		132
189	Degradable poly(2-hydroxyethyl methacrylate)-co-polycaprolactone hydrogels for tissue engineering scaffolds. <i>Biomacromolecules</i> , 2008 , 9, 3370-7	6.9	128
188	Static time-of-flight secondary ion mass spectrometry and x-ray photoelectron spectroscopy characterization of adsorbed albumin and fibronectin films. <i>Surface and Interface Analysis</i> , 2001 , 31, 724-733	15.3	124
187	Observation of Surface Rearrangement of Polymers Using ESCA. <i>Journal of Colloid and Interface Science</i> , 1993 , 159, 77-85	9.3	116
186	Nacre surface transformation to hydroxyapatite in a phosphate buffer solution. <i>Biomaterials</i> , 2003 , 24, 4323-31	15.6	114
185	Blood compatibility--a perspective. <i>Journal of Biomaterials Science, Polymer Edition</i> , 2000 , 11, 1107-19	3.5	113
184	The impact of detergents on the tissue decellularization process: A ToF-SIMS study. <i>Acta Biomaterialia</i> , 2017 , 50, 207-219	10.8	104
183	Novel cell patterning using microheater-controlled thermoresponsive plasma films. <i>Journal of Biomedical Materials Research - Part A</i> , 2004 , 70, 159-68	5.4	102
182	Surface characterization of biomaterials by electron spectroscopy for chemical analysis. <i>Annals of Biomedical Engineering</i> , 1983 , 11, 313-36	4.7	99
181	Solution Assembled and Microcontact Printed Monolayers of Dodecanethiol on Gold: A Multivariate Exploration of Chemistry and Contamination. <i>Langmuir</i> , 2002 , 18, 1518-1527	4	95
180	In vitro platelet interactions in whole human blood exposed to biomaterial surfaces: insights on blood compatibility. <i>Journal of Biomedical Materials Research Part B</i> , 1993 , 27, 1181-93		94
179	Zwitterionic hydrogels: an in vivo implantation study. <i>Journal of Biomaterials Science, Polymer Edition</i> , 2009 , 20, 1845-59	3.5	92
178	Self-assembled molecular structures as ultrasonically-responsive barrier membranes for pulsatile drug delivery. <i>Journal of Biomedical Materials Research Part B</i> , 2001 , 57, 151-64		92
177	Biomechanics of the sensor-tissue interface-effects of motion, pressure, and design on sensor performance and the foreign body response-part I: theoretical framework. <i>Journal of Diabetes Science and Technology</i> , 2011 , 5, 632-46	4.1	90
176	Endothelial cell growth on oxygen-containing films deposited by radio-frequency plasmas: the role of surface carbonyl groups. <i>Journal of Biomaterials Science, Polymer Edition</i> , 1991 , 3, 163-83	3.5	87
175	The biocompatibility manifesto: biocompatibility for the twenty-first century. <i>Journal of Cardiovascular Translational Research</i> , 2011 , 4, 523-7	3.3	85

174	Inhibition of monocyte adhesion and fibrinogen adsorption on glow discharge plasma deposited tetraethylene glycol dimethyl ether. <i>Journal of Biomaterials Science, Polymer Edition</i> , 2001 , 12, 961-78	3.5	85
173	Two-Dimensional Assembly of Purines and Pyrimidines on Au(111). <i>Langmuir</i> , 1994 , 10, 3845-3852	4	83
172	Transport through crosslinked poly(2-hydroxyethyl methacrylate) hydrogel membranes. <i>Journal of Biomedical Materials Research Part B</i> , 1973 , 7, 353-67		81
171	Baboon Fibrinogen Adsorption and Platelet Adhesion to Polymeric Materials. <i>Thrombosis and Haemostasis</i> , 1991 , 65, 608-617	7	81
170	IR spectral changes of bovine serum albumin upon surface adsorption. <i>Journal of Biomedical Materials Research Part B</i> , 1989 , 23, 549-69		76
169	An X-ray photoelectron spectroscopic investigation of the selectivity of hydroxyl derivatization reactions. <i>Surface and Interface Analysis</i> , 1991 , 17, 567-574	1.5	75
168	Plasma deposition of ultrathin films of poly(2-hydroxyethyl methacrylate): surface analysis and protein adsorption measurements. <i>Macromolecules</i> , 1993 , 26, 3247-3253	5.5	74
167	The surface molecular functionality of decellularized extracellular matrices. <i>Biomaterials</i> , 2011 , 32, 137-43.6	3.6	73
166	Replacing and Renewing: Synthetic Materials, Biomimetics, and Tissue Engineering in Implant Dentistry. <i>Journal of Dental Education</i> , 2001 , 65, 1340-1347	1.6	72
165	Plasma-deposited tetraglyme surfaces greatly reduce total blood protein adsorption, contact activation, platelet adhesion, platelet procoagulant activity, and in vitro thrombus deposition. <i>Journal of Biomedical Materials Research - Part A</i> , 2007 , 81, 827-37	5.4	71
164	In vitro study of the intrinsic toxicity of synthetic surfaces to cells. <i>Journal of Biomedical Materials Research Part B</i> , 1994 , 28, 667-75		71
163	Surface characterization of butyl methacrylate polymers by XPS and static SIMS. <i>Surface and Interface Analysis</i> , 1990 , 15, 479-486	1.5	69
162	Integrated bi-layered scaffold for osteochondral tissue engineering. <i>Advanced Healthcare Materials</i> , 2013 , 2, 872-83	10.1	68
161	Template recognition of protein-imprinted polymer surfaces. <i>Journal of Biomedical Materials Research Part B</i> , 2000 , 49, 1-11		67
160	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
159	Self-Assembly of Tetraphenylporphyrin Monolayers on Gold Substrates. <i>Langmuir</i> , 2000 , 16, 5644-5653	4	66
158	Drug encapsulated polymeric microspheres for intracranial tumor therapy: A review of the literature. <i>Advanced Drug Delivery Reviews</i> , 2015 , 91, 23-37	18.5	64
157	Sustained release of antibiotic from poly(2-hydroxyethyl methacrylate) to prevent blinding infections after cataract surgery. <i>Biomaterials</i> , 2009 , 30, 5675-81	15.6	59

156	Multitechnique Surface Characterization of Derivatization Efficiencies for Hydroxyl-Terminated Self-Assembled Monolayers. <i>Langmuir</i> , 1998 , 14, 3545-3550	4	59
155	Characterization of graft polymers for biomedical applications. <i>Journal of Biomedical Materials Research Part B</i> , 1980 , 14, 665-87		59
154	Interaction of urea with poly(2-hydroxyethyl methacrylate) hydrogels. <i>Journal of Polymer Science Part A-1, Polymer Chemistry</i> , 1972 , 10, 2425-2445		59
153	A pore way to heal and regenerate: 21st century thinking on biocompatibility. <i>International Journal of Energy Production and Management</i> , 2016 , 3, 107-10	5.3	58
152	The effect of cupric ion on the radiation grafting of N-vinyl-2-pyrrolidone and other hydrophilic monomers onto silicone rubber. <i>Journal of Applied Polymer Science</i> , 1974 , 18, 3183-3204	2.9	58
151	Versatile synthesis and micropatterning of nonfouling polymer brushes on the wafer scale. <i>Biointerphases</i> , 2009 , 4, FA50-7	1.8	57
150	A paradigm shift: biomaterials that heal. <i>Polymer International</i> , 2007 , 56, 1183-1185	3.3	57
149	Compromised production of extracellular matrix in mice lacking secreted protein, acidic and rich in cysteine (SPARC) leads to a reduced foreign body reaction to implanted biomaterials. <i>American Journal of Pathology</i> , 2003 , 162, 627-35	5.8	57
148	Postadsorptive transitions in fibrinogen adsorbed to biomer: changes in baboon platelet adhesion, antibody binding, and sodium dodecyl sulfate elutability. <i>Journal of Biomedical Materials Research Part B</i> , 1991 , 25, 535-55		57
147	Micromachining of non-fouling coatings for bio-MEMS applications. <i>Sensors and Actuators B: Chemical</i> , 2001 , 81, 49-54	8.5	56
146	An intrinsically protein-resistant surface plasmon resonance biosensor based upon a RF-plasma-deposited thin film. <i>Sensors and Actuators B: Chemical</i> , 1999 , 54, 125-131	8.5	55
145	Design of infection-resistant antibiotic-releasing polymers: I. Fabrication and formulation. <i>Journal of Controlled Release</i> , 1999 , 62, 289-99	11.7	55
144	Surface and bulk structure of segmented poly(ether urethanes) with perfluoro chain extenders. 5. Incorporation of poly(dimethylsiloxane) and polyisobutylene macroglycols. <i>Macromolecules</i> , 1994 , 27, 1548-1554	5.5	54
143	Postadsorptive transitions in fibrinogen adsorbed to polyurethanes: changes in antibody binding and sodium dodecyl sulfate elutability. <i>Journal of Biomedical Materials Research Part B</i> , 1992 , 26, 757-78		53
142	Surface modification of polymers with self-assembled molecular structures: multitechnique surface characterization. <i>Biomacromolecules</i> , 2000 , 1, 139-48	6.9	51
141	Determination of surface coverage for tetraphenylporphyrin monolayers using ultraviolet visible absorption and x-ray photoelectron spectroscopies. <i>Surface and Interface Analysis</i> , 2002 , 33, 506-515	1.5	50
140	Advances in the analysis of surfaces of biomedical interest. <i>Surface and Interface Analysis</i> , 1995 , 23, 521-528	1.5	49
139	Chapter 8 Characterization of biomaterial surfaces. <i>Cardiovascular Pathology</i> , 1993 , 2, 87-100	3.8	49

138	Surface characterization of a poly(styrene/p-hydroxystyrene) copolymer series using x-ray photoelectron spectroscopy, static secondary ion mass spectrometry, and chemical derivatization techniques. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 1990 , 8, 2274-2282	2.9	49
137	Surface chemical composition and fibrinogen adsorption-retention of fluoropolymer films deposited from an RF glow discharge. <i>Plasmas and Polymers</i> , 1996 , 1, 299-326		47
136	Characterization of an in vitro model for evaluating the interface between skin and percutaneous biomaterials. <i>Wound Repair and Regeneration</i> , 2006 , 14, 484-91	3.6	46
135	Biomolecules and surfaces. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 1990 , 8, 2306-2317	2.9	46
134	Biomaterials: Been There, Done That, and Evolving into the Future. <i>Annual Review of Biomedical Engineering</i> , 2019 , 21, 171-191	12	45
133	Electron Spectroscopy for Chemical Analysis47-112		44
132	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
131	Glow discharge plasma deposited hexafluoropropylene films: surface chemistry and interfacial materials properties. <i>Thin Solid Films</i> , 1999 , 352, 13-21	2.2	44
130	Glow discharge plasma treatment of polyethylene tubing with tetraglyme results in ultralow fibrinogen adsorption and greatly reduced platelet adhesion. <i>Journal of Biomedical Materials Research - Part A</i> , 2006 , 79, 788-803	5.4	43
129	Developing correlations between fibrinogen adsorption and surface properties using multivariate statistics. Student Research Award in the Doctoral Degree Candidate Category, 20th annual meeting of the Society for Biomaterials, Boston, MA, April 5-9, 1994. <i>Journal of Biomedical Materials Research Part B</i> , 1994 , 28, 1111-26		43
128	Sustained antibiotic release from an intraocular lens-hydrogel assembly for cataract surgery 2011 , 52, 6109-16		41
127	A tough, precision-porous hydrogel scaffold: ophthalmologic applications. <i>Biomaterials</i> , 2014 , 35, 8916-26	5.6	38
126	Quantifying the effect of pore size and surface treatment on epidermal incorporation into percutaneously implanted sphere-templated porous biomaterials in mice. <i>Journal of Biomedical Materials Research - Part A</i> , 2011 , 98, 499-508	5.4	38
125	Characterization and analysis of osteopontin-immobilized poly(2-hydroxyethyl methacrylate) surfaces. <i>Journal of Biomedical Materials Research Part B</i> , 2003 , 67, 334-43		36
124	ToF-SIMS quantification of albumin adsorbed on plasma-deposited fluoropolymers by partial least-squares regression. <i>Surface and Interface Analysis</i> , 2000 , 29, 837-844	1.5	36
123	Radiation-grafted polymers for biomaterial applications. I. 2-hydroxyethyl methacrylate: Ethyl methacrylate grafting onto low density polyethylene films. <i>Journal of Applied Polymer Science</i> , 1984 , 29, 2645-2663	2.9	36
122	Characterization of plasma-deposited styrene films by XPS and static SIMS. <i>Surface and Interface Analysis</i> , 1995 , 23, 22-28	1.5	35
121	Modulating cell adhesion and spreading by control of FnIII7-10 orientation on charged self-assembled monolayers (SAMs) of alkanethiolates. <i>Journal of Biomedical Materials Research - Part A</i> , 2006 , 77, 672-8	5.4	34

120	Blood compatibility assessment of polymers used in drug eluting stent coatings. <i>Biointerphases</i> , 2016 , 11, 029806	1.8	33
119	Identifying individual cell types in heterogeneous cultures using secondary ion mass spectrometry imaging with C60 etching and multivariate analysis. <i>Analytical Chemistry</i> , 2012 , 84, 893-900	7.8	32
118	Synthesis and fabrication of a degradable poly(N-isopropyl acrylamide) scaffold for tissue engineering applications. <i>Journal of Biomedical Materials Research - Part A</i> , 2013 , 101, 775-86	5.4	32
117	Micro-Scale Cell Patterning on Nonfouling Plasma Polymerized Tetraglyme Coatings by Protein Microcontact Printing. <i>Plasmas and Polymers</i> , 2002 , 7, 171-183		32
116	Substrate temperature effects on film chemistry in plasma depositions of organics. II. Polymerizable precursors. <i>Journal of Polymer Science Part A</i> , 1992 , 30, 2415-2425	2.5	32
115	Variations between Biomer lots. 2: The effect of differences between lots on in vitro enzymatic and oxidative degradation of a commercial polyurethane. <i>Journal of Biomedical Materials Research Part B</i> , 1993 , 27, 327-34		32
114	Engineered biomaterials control differentiation and proliferation of human-embryonic-stem-cell-derived cardiomyocytes via timed Notch activation. <i>Stem Cell Reports</i> , 2014 , 2, 271-81	8	31
113	A Plasma-Deposited Surface for Cell Sheet Engineering: Advantages over Mechanical Dissociation of Cells. <i>Plasma Processes and Polymers</i> , 2006 , 3, 516-523	3.4	31
112	Recognition templates for biomaterials with engineered bioreactivity. <i>Current Opinion in Solid State and Materials Science</i> , 1999 , 4, 395-402	12	30
111	Surface properties of RGD-peptide grafted polyurethane block copolymers: variable take-off angle and cold-stage ESCA studies. <i>Journal of Biomaterials Science, Polymer Edition</i> , 1993 , 4, 183-98	3.5	30
110	Advances in X-ray photoelectron spectroscopy instrumentation and methodology: instrument evaluation and new techniques with special reference to biomedical studies. <i>Colloids and Surfaces B: Biointerphases</i> , 1994 , 2, 333-346	6	30
109	Preparation and properties of plasma-deposited films with surface energies varying over a wide range. <i>Journal of Applied Polymer Science</i> , 1986 , 32, 4369-4381	2.9	30
108	Mesenchymal stromal cells from dermal and adipose tissues induce macrophage polarization to a pro-repair phenotype and improve skin wound healing. <i>Cytotherapy</i> , 2020 , 22, 247-260	4.8	29
107	Controlling the orientation of bone osteopontin via its specific binding with collagen I to modulate osteoblast adhesion. <i>Journal of Biomedical Materials Research - Part A</i> , 2007 , 80, 102-10	5.4	29
106	Enhancing the biological activity of immobilized osteopontin using a type-1 collagen affinity coating. <i>Journal of Biomedical Materials Research Part B</i> , 2004 , 70, 10-9		29
105	Effect of polyol type on the surface structure of sulfonate-containing polyurethanes. <i>Journal of Biomedical Materials Research Part B</i> , 1993 , 27, 735-45		28
104	Protein adsorption and clotting time of pHEMA hydrogels modified with C18 ligands to adsorb albumin selectively and reversibly. <i>Biomaterials</i> , 2009 , 30, 5541-51	15.6	27
103	Adhesion of MC3T3-E1 cells to bone sialoprotein and bone osteopontin specifically bound to collagen I. <i>Journal of Biomedical Materials Research - Part A</i> , 2008 , 86, 779-87	5.4	27

102	A Perspective on Titanium Biocompatibility. <i>Engineering Materials</i> , 2001 , 1-12	0.4	27
101	Rat peritoneal macrophage adhesion to hydroxyethyl methacrylate-ethyl methacrylate copolymers and hydroxystyrene-styrene copolymers. <i>Journal of Biomedical Materials Research Part B</i> , 1985 , 19, 1101-15		27
100	Determining depth profiles from angle dependent x-ray photoelectron spectroscopy: The effects of analyzer lens aperture size and geometry. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 1989 , 7, 1646-1654	2.9	26
99	A reversible thermosensitive adhesive for retinal implants: in vivo experience with plasma-deposited poly(N-isopropyl acrylamide). <i>Retina</i> , 2008 , 28, 1338-43	3.6	25
98	Healing with medical implants: The body battles back. <i>Science Translational Medicine</i> , 2015 , 7, 272fs4	17.5	22
97	Spatial Patterning of Thick Poly(2-hydroxyethyl methacrylate) Hydrogels. <i>Macromolecules</i> , 2006 , 39, 4395-4399	5.4	22
96	Biomaterials Science: An Evolving, Multidisciplinary Endeavor 2013 , xxv-xxxix		21
95	Analysis of polymer surfaces by SIMS: Part 15. Oxygen-functionalized aliphatic homopolymers. <i>Surface and Interface Analysis</i> , 1992 , 18, 604-618	1.5	21
94	Characterization of alkyl grafted polyurethane block copolymers by variable takeoff angle x-ray photoelectron spectroscopy. <i>Journal of Biomedical Materials Research Part B</i> , 1990 , 24, 605-20		21
93	Role of negative ions in the RF plasma deposition of fluoropolymer films from perfluoropropane. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 1988 , 26, 1237-1249	2.6	21
92	Rapidly Biodegrading PLGA-Polyurethane Fibers for Sustained Release of Physicochemically Diverse Drugs. <i>ACS Biomaterials Science and Engineering</i> , 2016 , 2, 1595-1607	5.5	20
91	Prostate cancer xenografts engineered from 3D precision-porous poly(2-hydroxyethyl methacrylate) hydrogels as models for tumorigenesis and dormancy escape. <i>Biomaterials</i> , 2014 , 35, 8164-74	15.6	20
90	The Biocompatibility of Implant Materials 2015 , 37-51		19
89	Cutaneous and inflammatory response to long-term percutaneous implants of sphere-templated porous/solid poly(HEMA) and silicone in mice. <i>Journal of Biomedical Materials Research - Part A</i> , 2012 , 100, 1256-68	5.4	18
88	Surface fluorination of polylactide as a path to improve platelet associated hemocompatibility. <i>Acta Biomaterialia</i> , 2018 , 78, 23-35	10.8	17
87	Digital Drug Delivery: On-Off Ultrasound Controlled Antibiotic Release from Coated Matrices with Negligible Background Leaching. <i>Biomaterials Science</i> , 2014 , 2, 839-902	7.4	17
86	Surface Characterization of Materials for Blood Contact Applications. <i>Advances in Chemistry Series</i> , 1982 , 9-23		17
85	Foreign Body Response Investigated With an Implanted Biosensor by In Situ Electrical Impedance Spectroscopy. <i>IEEE Sensors Journal</i> , 2008 , 8, 104-112	4	16

84	Synthesis and ESCA surface studies of octadecyl chain-extended polyurethanes. <i>Journal of Polymer Science Part A</i> , 1989 , 27, 2673-2683	2.5	16
83	Radiation-grafted polymers for biomaterial applications. II. The morphology and structure of 2-hydroxyethyl methacrylate and ethyl methacrylate homopolymer grafts. <i>Journal of Applied Polymer Science</i> , 1987 , 33, 1-20	2.9	16
82	Surface characterization of tyrosine-derived polycarbonates. <i>Journal of Applied Polymer Science</i> , 1997 , 63, 1467-1479	2.9	15
81	Rapid postadsorptive changes in fibrinogen adsorbed from plasma to segmented polyurethanes. <i>Journal of Biomaterials Science, Polymer Edition</i> , 1998 , 9, 1071-87	3.5	15
80	Molecular adsorption and the chemistry of plasma-deposited thin organic films: Deposition of oligomers of ethylene glycol. <i>Plasmas and Polymers</i> , 1996 , 1, 127-151		15
79	Substrate temperature effects on film chemistry in plasma deposition of organics. III. Analysis by static secondary ion mass spectrometry. <i>Journal of Polymer Science Part A</i> , 1992 , 30, 2427-2441	2.5	15
78	Thrombotic Events on Grafted Polyacrylamide-Bilastic Surfaces as Studied in a Baboon. <i>Advances in Chemistry Series</i> , 1982 , 59-80		15
77	Biomaterials Science 1997 , 453-464		15
76	Facile Synthesis of Fluorine-Substituted Polylactides and Their Amphiphilic Block Copolymers. <i>Macromolecules</i> , 2018 , 51, 1280-1289	5.5	14
75	Introduction of Carboxyl Functional Groups onto Platinum by RF Plasma Deposition. <i>Plasma Processes and Polymers</i> , 2009 , 6, 219-227	3.4	14
74	Secreted protein acidic and rich in cysteine (SPARC/osteonectin/BM-40) binds to fibrinogen fragments D and E, but not to native fibrinogen. <i>Matrix Biology</i> , 2006 , 25, 20-6	11.4	14
73	New Substrates for Polymer Cationization with Time-of-Flight Secondary Ion Mass Spectrometry. <i>Langmuir</i> , 2000 , 16, 6503-6509	4	14
72	Surface characterization of a series of polyurethanes by X-ray photoelectron spectroscopy and contact angle methods. <i>Journal of Biomaterials Science, Polymer Edition</i> , 1990 , 1, 191-206	3.5	14
71	BloodSurf 2017: News from the blood-biomaterial frontier. <i>Acta Biomaterialia</i> , 2019 , 87, 55-60	10.8	13
70	The effect of octadecyl chain immobilization on the hemocompatibility of poly (2-hydroxyethyl methacrylate). <i>Biomaterials</i> , 2012 , 33, 7677-85	15.6	13
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