

William R Wagner

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

232
papers

12,711
citations

60
h-index

105
g-index

247
ext. papers

13,909
ext. citations

7
avg, IF

6.21
L-index

#	Paper	IF	Citations
232	Engineering in-plane mechanics of electrospun polyurethane scaffolds for cardiovascular tissue applications.. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2022 , 128, 105126	4.1	1
231	PDMS-Zwitterionic Hybrid for Facile, Antifouling Microfluidic Device Fabrication.. <i>Langmuir</i> , 2022 , 38, 3775-3784	4	1
230	Continuous Microfiber Wire Mandrel-Less Biofabrication for Soft Tissue Engineering Applications.. <i>Advanced Healthcare Materials</i> , 2022 , e2102613	10.1	
229	Month-long Respiratory Support by a Wearable Pumping Artificial Lung in an Ovine Model. <i>Transplantation</i> , 2021 , 105, 999-1007	1.8	2
228	Can a Biohybrid Patch Salvage Ventricular Function at a Late Time Point in the Post-Infarction Remodeling Process?. <i>JACC Basic To Translational Science</i> , 2021 , 6, 447-463	8.7	2
227	A Cell-free Biodegradable Synthetic Artificial Ligament for the Reconstruction of Anterior Cruciate Ligament in a Rat Model. <i>Acta Biomaterialia</i> , 2021 , 121, 275-287	10.8	3
226	In-vivo assessment of a tissue engineered vascular graft computationally optimized for target vessel compliance. <i>Acta Biomaterialia</i> , 2021 , 123, 298-311	10.8	7
225	Injectable hydrogels for vascular embolization and cell delivery: The potential for advances in cerebral aneurysm treatment. <i>Biomaterials</i> , 2021 , 277, 121109	15.6	4
224	Development of a Semi-Automated, Bulk Seeding Device for Large Animal Model Implantation of Tissue Engineered Vascular Grafts. <i>Frontiers in Bioengineering and Biotechnology</i> , 2020 , 8, 597847	5.8	4
223	Evaluation of Blood-Materials Interactions 2020 , 879-898		2
222	Covalently-Attached, Surface-Eroding Polymer Coatings on Magnesium Alloys for Corrosion Control and Temporally Varying Support of Cell Adhesion. <i>Advanced Materials Interfaces</i> , 2020 , 7, 2000356	4.6	4
221	Taking the Next Steps in Regenerative Rehabilitation: Establishment of a New Interdisciplinary Field. <i>Archives of Physical Medicine and Rehabilitation</i> , 2020 , 101, 917-923	2.8	15
220	Acute In Vivo Functional Assessment of a Biodegradable Stentless Elastomeric Tricuspid Valve. <i>Journal of Cardiovascular Translational Research</i> , 2020 , 13, 796-805	3.3	5
219	In vivo testing of the low-flow CO removal application of a compact, platform respiratory device. <i>Intensive Care Medicine Experimental</i> , 2020 , 8, 45	3.7	2
218	A biostable, anti-fouling zwitterionic polyurethane-urea based on PDMS for use in blood-contacting medical devices. <i>Journal of Materials Chemistry B</i> , 2020 , 8, 8305-8314	7.3	12
217	Adipose-derived stem cell sheet under an elastic patch improves cardiac function in rats after myocardial infarction. <i>Journal of Thoracic and Cardiovascular Surgery</i> , 2020 ,	1.5	9
216	In-vivo efficacy of biodegradable ultrahigh ductility Mg-Li-Zn alloy tracheal stents for pediatric airway obstruction. <i>Communications Biology</i> , 2020 , 3, 787	6.7	2

215	Intramyocardial injection of a fully synthetic hydrogel attenuates left ventricular remodeling post myocardial infarction. <i>Biomaterials</i> , 2019 , 217, 119289	15.6	31
214	Current and Future Considerations in the Use of Mechanical Circulatory Support Devices: An Update, 2008-2018. <i>Annual Review of Biomedical Engineering</i> , 2019 , 21, 33-60	12	3
213	Evaluation of Microscopic Structure-Function Relationships of PEGylated Small Intestinal Submucosa Vascular Grafts for Arteriovenous Connection.. <i>ACS Applied Bio Materials</i> , 2019 , 2, 3706-3724 ¹	4.1	1
212	Blending Polymer Labile Elements at Differing Scales to Affect Degradation Profiles in Heart Valve Scaffolds. <i>Biomacromolecules</i> , 2019 , 20, 2494-2505	6.9	4
211	Surface Modification of Electrospun Scaffolds for Endothelialization of Tissue-Engineered Vascular Grafts Using Human Cord Blood-Derived Endothelial Cells. <i>Journal of Clinical Medicine</i> , 2019 , 8,	5.1	18
210	Biodegradable Zwitterionic Polymer Coatings for Magnesium Alloy Stents. <i>Langmuir</i> , 2019 , 35, 1421-1429 ¹	4	17
209	Design Principles in Biomaterials and Scaffolds 2019 , 505-522		6
208	In Vivo functional assessment of a novel degradable metal and elastomeric scaffold-based tissue engineered heart valve. <i>Journal of Thoracic and Cardiovascular Surgery</i> , 2019 , 157, 1809-1816	1.5	16
207	Evaluation of Poly (Carbonate-Urethane) Urea (PCUU) Scaffolds for Urinary Bladder Tissue Engineering. <i>Annals of Biomedical Engineering</i> , 2019 , 47, 891-901	4.7	8
206	Active wrinkles to drive self-cleaning: A strategy for anti-thrombotic surfaces for vascular grafts. <i>Biomaterials</i> , 2019 , 192, 226-234	15.6	24
205	In Vivo 5 Day Animal Studies of a Compact, Wearable Pumping Artificial Lung. <i>ASAIO Journal</i> , 2019 , 65, 94-100	3.6	17
204	Hybrid scaffolds of Mg alloy mesh reinforced polymer/extracellular matrix composite for critical-sized calvarial defect reconstruction. <i>Journal of Tissue Engineering and Regenerative Medicine</i> , 2018 , 12, 1374-1388	4.4	12
203	Injectable, porous, biohybrid hydrogels incorporating decellularized tissue components for soft tissue applications. <i>Acta Biomaterialia</i> , 2018 , 73, 112-126	10.8	27
202	Development of zwitterionic sulfobetaine block copolymer conjugation strategies for reduced platelet deposition in respiratory assist devices. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , 2018 , 106, 2681-2692	3.5	16
201	Heart valve scaffold fabrication: Bioinspired control of macro-scale morphology, mechanics and micro-structure. <i>Biomaterials</i> , 2018 , 150, 25-37	15.6	41
200	An exploratory study on the preparation and evaluation of a "same-day" adipose stem cell-based tissue-engineered vascular graft. <i>Journal of Thoracic and Cardiovascular Surgery</i> , 2018 , 156, 1814-1822.e3 ¹	1.5	10
199	Stretchable, Implantable, Nanostructured Flow-Diverter System for Quantification of Intra-aneurysmal Hemodynamics. <i>ACS Nano</i> , 2018 , 12, 8706-8716	16.7	15
198	Preclinical performance of a pediatric mechanical circulatory support device: The PediaFlow ventricular assist device. <i>Journal of Thoracic and Cardiovascular Surgery</i> , 2018 , 156, 1643-1651.e7	1.5	3

197	Nitro-Oleic Acid (NO-OA) Release Enhances Regional Angiogenesis in a Rat Abdominal Wall Defect Model. <i>Tissue Engineering - Part A</i> , 2018 , 24, 889-904	3.9	11
196	Meso-scale topological cues influence extracellular matrix production in a large deformation, elastomeric scaffold model. <i>Soft Matter</i> , 2018 , 14, 8483-8495	3.6	3
195	Assessment of Thrombelastography and Platelet Life Span in Ovines. <i>Artificial Organs</i> , 2018 , 42, E427-E434	2.6	3
194	Decreased Platelet Deposition in SIS-Based Vascular Grafts via Covalent Conjugation of RAFT Polymers 2018 ,		1
193	Comparison of endothelial cell attachment on surfaces of biodegradable polymer-coated magnesium alloys in a microfluidic environment. <i>PLoS ONE</i> , 2018 , 13, e0205611	3.7	3
192	Reactive oxygen species scavenging with a biodegradable, thermally responsive hydrogel compatible with soft tissue injection. <i>Biomaterials</i> , 2018 , 177, 98-112	15.6	81
191	Topography-driven surface renewal. <i>Nature Physics</i> , 2018 , 14, 948-953	16.2	43
190	Multi-Constituent Simulation of Thrombus Deposition. <i>Scientific Reports</i> , 2017 , 7, 42720	4.9	38
189	Ventricular wall biomaterial injection therapy after myocardial infarction: Advances in material design, mechanistic insight and early clinical experiences. <i>Biomaterials</i> , 2017 , 129, 37-53	15.6	48
188	Ultrasound Molecular Imaging of Angiogenesis Using Vascular Endothelial Growth Factor-Conjugated Microbubbles. <i>Molecular Pharmaceutics</i> , 2017 , 14, 781-790	5.6	17
187	Sustained viral gene delivery from a micro-fibrous, elastomeric cardiac patch to the ischemic rat heart. <i>Biomaterials</i> , 2017 , 133, 132-143	15.6	40
186	Aging of the skeletal muscle extracellular matrix drives a stem cell fibrogenic conversion. <i>Aging Cell</i> , 2017 , 16, 518-528	9.9	104
185	Evaluation of the stromal vascular fraction of adipose tissue as the basis for a stem cell-based tissue-engineered vascular graft. <i>Journal of Vascular Surgery</i> , 2017 , 66, 883-890.e1	3.5	30
184	Use of a pedicled omental flap to reduce inflammation and vascularize an abdominal wall patch. <i>Journal of Surgical Research</i> , 2017 , 212, 77-85	2.5	3
183	A retrievable rescue stent graft and radiofrequency positioning for rapid control of noncompressible hemorrhage. <i>Journal of Trauma and Acute Care Surgery</i> , 2017 , 83, 249-255	3.3	7
182	Skeletal muscle derived stem cells microintegrated into a biodegradable elastomer for reconstruction of the abdominal wall. <i>Biomaterials</i> , 2017 , 113, 31-41	15.6	24
181	A novel compartmentalised stent graft to isolate the perfusion of the abdominal organs. <i>Journal of Medical Engineering and Technology</i> , 2017 , 41, 141-150	1.8	1
180	An Elastomeric Polymer Matrix, PEUU-Tac, Delivers Bioactive Tacrolimus Transdurally to the CNS in Rat. <i>EBioMedicine</i> , 2017 , 26, 47-59	8.8	6

179	Bi-layered polyurethane - Extracellular matrix cardiac patch improves ischemic ventricular wall remodeling in a rat model. <i>Biomaterials</i> , 2016 , 107, 1-14	15.6	79
178	Dual chamber stent prevents organ malperfusion in a model of donation after cardiac death. <i>Surgery</i> , 2016 , 160, 892-901	3.6	3
177	Orthogonally Functionalizable Polyurethane with Subsequent Modification with Heparin and Endothelium-Inducing Peptide Aiming for Vascular Reconstruction. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 14442-52	9.5	32
176	Large strain stimulation promotes extracellular matrix production and stiffness in an elastomeric scaffold model. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2016 , 62, 619-635	4.1	17
175	Abdominal wall reconstruction by a regionally distinct biocomposite of extracellular matrix digest and a biodegradable elastomer. <i>Journal of Tissue Engineering and Regenerative Medicine</i> , 2016 , 10, 748-614	4.4	21
174	Extracellular matrix fiber microarchitecture is region-specific in bicuspid aortic valve-associated ascending aortopathy. <i>Journal of Thoracic and Cardiovascular Surgery</i> , 2016 , 151, 1718-1728.e5	1.5	24
173	Timing effect of intramyocardial hydrogel injection for positively impacting left ventricular remodeling after myocardial infarction. <i>Biomaterials</i> , 2016 , 83, 182-93	15.6	52
172	Constitutive modeling of ascending thoracic aortic aneurysms using microstructural parameters. <i>Medical Engineering and Physics</i> , 2016 , 38, 121-30	2.4	32
171	Non-invasive and Non-destructive Characterization of Tissue Engineered Constructs Using Ultrasound Imaging Technologies: A Review. <i>Annals of Biomedical Engineering</i> , 2016 , 44, 621-35	4.7	21
170	A novel low-profile ventriculoamniotic shunt for foetal aqueductal stenosis. <i>Journal of Medical Engineering and Technology</i> , 2016 , 40, 186-98	1.8	6
169	In Vivo Functional Evaluation of Tissue-Engineered Vascular Grafts Fabricated Using Human Adipose-Derived Stem Cells from High Cardiovascular Risk Populations. <i>Tissue Engineering - Part A</i> , 2016 , 22, 765-75	3.9	35
168	Biodegradable, elastomeric coatings with controlled anti-proliferative agent release for magnesium-based cardiovascular stents. <i>Colloids and Surfaces B: Biointerfaces</i> , 2016 , 144, 170-179	6	49
167	Design of a Coupled Thermoresponsive Hydrogel and Robotic System for Postinfarct Biomaterial Injection Therapy. <i>Annals of Thoracic Surgery</i> , 2016 , 102, 780-786	2.7	18
166	Visualization and analysis of biomaterial-centered thrombus formation within a defined crevice under flow. <i>Biomaterials</i> , 2016 , 96, 72-83	15.6	26
165	Nanometer-sized extracellular matrix coating on polymer-based scaffold for tissue engineering applications. <i>Journal of Biomedical Materials Research - Part A</i> , 2016 , 104, 94-103	5.4	29
164	Correlations between transmural mechanical and morphological properties in porcine thoracic descending aorta. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2015 , 47, 12-20	4.1	10
163	Thiol click modification of cyclic disulfide containing biodegradable polyurethane urea elastomers. <i>Biomacromolecules</i> , 2015 , 16, 1622-33	6.9	27
162	Preoperative liver dysfunction influences blood product administration and alterations in circulating haemostatic markers following ventricular assist device implantation. <i>European Journal of Cardio-thoracic Surgery</i> , 2015 , 47, 497-504	3	5

161	Fabrication of elastomeric scaffolds with curvilinear fibrous structures for heart valve leaflet engineering. <i>Journal of Biomedical Materials Research - Part A</i> , 2015 , 103, 3101-6	5.4	28
160	Real time visualization and characterization of platelet deposition under flow onto clinically relevant opaque surfaces. <i>Journal of Biomedical Materials Research - Part A</i> , 2015 , 103, 1303-11	5.4	20
159	Tailoring the degradation rates of thermally responsive hydrogels designed for soft tissue injection by varying the autocatalytic potential. <i>Biomaterials</i> , 2015 , 53, 484-93	15.6	31
158	Hollow fiber membrane modification with functional zwitterionic macromolecules for improved thromboresistance in artificial lungs. <i>Langmuir</i> , 2015 , 31, 2463-71	4	31
157	Biomaterials for refractive correction: corneal onlays and inlays. <i>Science China Chemistry</i> , 2014 , 57, 501-509	5.0	9
156	From single fiber to macro-level mechanics: A structural finite-element model for elastomeric fibrous biomaterials. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2014 , 39, 146-61	4.1	56
155	Biodegradable poly(ester urethane)urea elastomers with variable amino content for subsequent functionalization with phosphorylcholine. <i>Acta Biomaterialia</i> , 2014 , 10, 4639-4649	10.8	53
154	Systems level approach reveals the correlation of endoderm differentiation of mouse embryonic stem cells with specific microstructural cues of fibrin gels. <i>Journal of the Royal Society Interface</i> , 2014 , 11, 20140009	4.1	9
153	A custom image-based analysis tool for quantifying elastin and collagen micro-architecture in the wall of the human aorta from multi-photon microscopy. <i>Journal of Biomechanics</i> , 2014 , 47, 935-943	2.9	37
152	Collagenase-labile polyurethane urea synthesis and processing into hollow fiber membranes. <i>Biomacromolecules</i> , 2014 , 15, 2924-32	6.9	11
151	Intramyocardial injection of a synthetic hydrogel with delivery of bFGF and IGF1 in a rat model of ischemic cardiomyopathy. <i>Biomacromolecules</i> , 2014 , 15, 1-11	6.9	39
150	Effects of fabrication on the mechanics, microstructure and micromechanical environment of small intestinal submucosa scaffolds for vascular tissue engineering. <i>Journal of Biomechanics</i> , 2014 , 47, 2766-73 ⁹	7.3	24
149	In vivo monitoring of structural and mechanical changes of tissue scaffolds by multi-modality imaging. <i>Biomaterials</i> , 2014 , 35, 7851-9	15.6	25
148	Ultrasound Detection of Myocardial Ischemic Memory Using an E-Selectin Targeting Peptide Amenable to Human Application. <i>Molecular Imaging</i> , 2014 , 13, 7290.2014.00006	3.7	15
147	Direct writing of bio-functional coatings for cardiovascular applications. <i>Journal of Biomedical Materials Research - Part A</i> , 2014 , 102, 4290-300	5.4	5
146	Temporal leukocyte numbers and granulocyte activation in pulsatile and rotary ventricular assist device patients. <i>Artificial Organs</i> , 2014 , 38, 447-55	2.6	15
145	Nonthrombogenic, biodegradable elastomeric polyurethanes with variable sulfobetaine content. <i>ACS Applied Materials & Interfaces</i> , 2014 , 6, 22796-806	9.5	54
144	Biocompatibility Assessment of the CentriMag-Novalung Adult ECMO Circuit in a Model of Acute Pulmonary Hypertension. <i>ASAIO Journal</i> , 2014 , 60, 429-35	3.6	5

143	Corneal stromal stem cells versus corneal fibroblasts in generating structurally appropriate corneal stromal tissue. <i>Experimental Eye Research</i> , 2014 , 120, 71-81	3.7	63
142	Ultrasound Detection of Myocardial Ischemic Memory Using an E-Selectin Targeting Peptide Amenable to Human Application. <i>Molecular Imaging</i> , 2014 , 16, 1-9	3.7	3
141	Introduction to Regenerative Medicine 2014 , 1-16		
140	Ultrasound detection of myocardial ischemic memory using an E-selectin targeting peptide amenable to human application. <i>Molecular Imaging</i> , 2014 , 13, 1-9	3.7	8
139	Implantable Cardiac Assist Devices and IABPs 2013 , 799-811		
138	The effect of polymer degradation time on functional outcomes of temporary elastic patch support in ischemic cardiomyopathy. <i>Biomaterials</i> , 2013 , 34, 7353-63	15.6	45
137	Non-invasive characterization of polyurethane-based tissue constructs in a rat abdominal repair model using high frequency ultrasound elasticity imaging. <i>Biomaterials</i> , 2013 , 34, 2701-9	15.6	36
136	Biodegradable elastic patch plasty ameliorates left ventricular adverse remodeling after ischemia-reperfusion injury: a preclinical study of a porous polyurethane material in a porcine model. <i>Journal of Thoracic and Cardiovascular Surgery</i> , 2013 , 146, 391-9.e1	1.5	33
135	Fiber micro-architecture in the longitudinal-radial and circumferential-radial planes of ascending thoracic aortic aneurysm media. <i>Journal of Biomechanics</i> , 2013 , 46, 2787-94	2.9	43
134	Optimal elastomeric scaffold leaflet shape for pulmonary heart valve leaflet replacement. <i>Journal of Biomechanics</i> , 2013 , 46, 662-9	2.9	44
133	Surface modification of a biodegradable magnesium alloy with phosphorylcholine (PC) and sulfobetaine (SB) functional macromolecules for reduced thrombogenicity and acute corrosion resistance. <i>Langmuir</i> , 2013 , 29, 8320-7	4	55
132	Bioengineering organized, multilamellar human corneal stromal tissue by growth factor supplementation on highly aligned synthetic substrates. <i>Tissue Engineering - Part A</i> , 2013 , 19, 2063-75	3.9	81
131	Urinary bladder matrix promotes site appropriate tissue formation following right ventricle outflow tract repair. <i>Organogenesis</i> , 2013 , 9, 149-60	1.7	27
130	The engineering of organized human corneal tissue through the spatial guidance of corneal stromal stem cells. <i>Biomaterials</i> , 2012 , 33, 1343-52	15.6	115
129	Immobilized Carbonic Anhydrase on Hollow Fiber Membranes Accelerates CO(2) Removal from Blood. <i>Journal of Membrane Science</i> , 2012 , 404-404, 25-31	9.6	62
128	Extended and sequential delivery of protein from injectable thermoresponsive hydrogels. <i>Journal of Biomedical Materials Research - Part A</i> , 2012 , 100, 776-85	5.4	41
127	Synthesis, characterization, and paclitaxel release from a biodegradable, elastomeric, poly(ester urethane)urea bearing phosphorylcholine groups for reduced thrombogenicity. <i>Biomacromolecules</i> , 2012 , 13, 3686-94	6.9	49
126	In vivo PEG modification of vascular surfaces for targeted delivery. <i>Journal of Vascular Surgery</i> , 2012 , 55, 1087-95	3.5	13

125	Placement of an elastic biodegradable cardiac patch on a subacute infarcted heart leads to cellularization with early developmental cardiomyocyte characteristics. <i>Journal of Cardiac Failure</i> , 2012 , 18, 585-95	3.3	33
124	Microstructural manipulation of electrospun scaffolds for specific bending stiffness for heart valve tissue engineering. <i>Acta Biomaterialia</i> , 2012 , 8, 4268-77	10.8	66
123	An elastomeric patch electrospun from a blended solution of dermal extracellular matrix and biodegradable polyurethane for rat abdominal wall repair. <i>Tissue Engineering - Part C: Methods</i> , 2012 , 18, 122-32	2.9	47
122	Right ventricular outflow tract repair with a cardiac biologic scaffold. <i>Cells Tissues Organs</i> , 2012 , 195, 159-70	2.1	54
121	Covalent attachment of multilayers on poly(tetrafluoroethylene) surfaces. <i>Langmuir</i> , 2011 , 27, 11106-104		11
120	Biodegradable polyurethane ureas with variable polyester or polycarbonate soft segments: effects of crystallinity, molecular weight, and composition on mechanical properties. <i>Biomacromolecules</i> , 2011 , 12, 3265-74	6.9	148
119	Mesenchymal stem cells attenuate angiotensin II-induced aortic aneurysm growth in apolipoprotein E-deficient mice. <i>Journal of Vascular Surgery</i> , 2011 , 54, 1743-52	3.5	47
118	Platelet activation after implantation of the Levitronix PediVAS in the ovine model. <i>ASAIO Journal</i> , 2011 , 57, 516-21	3.6	7
117	Biocompatibility assessment of the first generation PediaFlow pediatric ventricular assist device. <i>Artificial Organs</i> , 2011 , 35, 9-21	2.6	17
116	Platelet activation in ovines undergoing sham surgery or implant of the second generation PediaFlow pediatric ventricular assist device. <i>Artificial Organs</i> , 2011 , 35, 602-13	2.6	16
115	Controlled release of IGF-1 and HGF from a biodegradable polyurethane scaffold. <i>Pharmaceutical Research</i> , 2011 , 28, 1282-93	4.5	50
114	Intra-myocardial biomaterial injection therapy in the treatment of heart failure: Materials, outcomes and challenges. <i>Acta Biomaterialia</i> , 2011 , 7, 1-15	10.8	158
113	Mechanical properties and in vivo behavior of a biodegradable synthetic polymer microfiber-extracellular matrix hydrogel biohybrid scaffold. <i>Biomaterials</i> , 2011 , 32, 3387-94	15.6	161
112	Rapid Engineered Small Diameter Vascular Grafts from Smooth Muscle Cells. <i>Cardiovascular Engineering and Technology</i> , 2011 , 2, 149-159	2.2	7
111	In Vitro and In Vivo Performance Evaluation of the Second Developmental Version of the PediaFlow Pediatric Ventricular Assist Device. <i>Cardiovascular Engineering and Technology</i> , 2011 , 2, 253-262		15
110	Elastomeric electrospun polyurethane scaffolds: the interrelationship between fabrication conditions, fiber topology, and mechanical properties. <i>Advanced Materials</i> , 2011 , 23, 106-11	24	68
109	In vivo performance of a phospholipid-coated bioerodable elastomeric graft for small-diameter vascular applications. <i>Journal of Biomedical Materials Research - Part A</i> , 2011 , 96, 436-48	5.4	89
108	Spatial control of gene expression within a scaffold by localized inducer release. <i>Biomaterials</i> , 2011 , 32, 3062-71	15.6	17

107	Vascular endoluminal delivery of mesenchymal stem cells using acoustic radiation force. <i>Tissue Engineering - Part A</i> , 2011 , 17, 1457-64	3.9	22
106	Engineered fetal cardiac graft preserves its cardiomyocyte proliferation within postinfarcted myocardium and sustains cardiac function. <i>Tissue Engineering - Part A</i> , 2011 , 17, 585-96	3.9	28
105	Application of the HeartLander crawling robot for injection of a thermally sensitive anti-remodeling agent for myocardial infarction therapy. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference</i> , 2010 , 2010, 5428-31	0.9	3
104	In vivo assessment of a tissue-engineered vascular graft combining a biodegradable elastomeric scaffold and muscle-derived stem cells in a rat model. <i>Tissue Engineering - Part A</i> , 2010 , 16, 1215-23	3.9	122
103	Thermally responsive injectable hydrogel incorporating methacrylate-poly lactide for hydrolytic lability. <i>Biomacromolecules</i> , 2010 , 11, 1873-81	6.9	76
102	Reconstructing the lung. <i>Science</i> , 2010 , 329, 520-2	33.3	20
101	Scale-dependent fiber kinematics of elastomeric electrospun scaffolds for soft tissue engineering. <i>Journal of Biomedical Materials Research - Part A</i> , 2010 , 93, 1032-42	5.4	14
100	A three-dimensional gel bioreactor for assessment of cardiomyocyte induction in skeletal muscle-derived stem cells. <i>Tissue Engineering - Part C: Methods</i> , 2010 , 16, 375-85	2.9	19
99	Morphological and mechanical characteristics of the reconstructed rat abdominal wall following use of a wet electrospun biodegradable polyurethane elastomer scaffold. <i>Biomaterials</i> , 2010 , 31, 3253-65	15.6	67
98	Tailoring the degradation kinetics of poly(ester carbonate urethane)urea thermoplastic elastomers for tissue engineering scaffolds. <i>Biomaterials</i> , 2010 , 31, 4249-58	15.6	145
97	A biohybrid artificial lung prototype with active mixing of endothelialized microporous hollow fibers. <i>Biotechnology and Bioengineering</i> , 2010 , 106, 490-500	4.9	29
96	Optimization of ultrasound contrast agents with computational models to improve selection of ligands and binding strength. <i>Biotechnology and Bioengineering</i> , 2010 , 107, 854-64	4.9	26
95	Pericyte-based human tissue engineered vascular grafts. <i>Biomaterials</i> , 2010 , 31, 8235-44	15.6	120
94	A bilayered elastomeric scaffold for tissue engineering of small diameter vascular grafts. <i>Acta Biomaterialia</i> , 2010 , 6, 110-22	10.8	220
93	Injectable, rapid gelling and highly flexible hydrogel composites as growth factor and cell carriers. <i>Acta Biomaterialia</i> , 2010 , 6, 1978-91	10.8	146
92	On the biomechanical function of scaffolds for engineering load-bearing soft tissues. <i>Acta Biomaterialia</i> , 2010 , 6, 2365-81	10.8	105
91	Characterization of the complete fiber network topology of planar fibrous tissues and scaffolds. <i>Biomaterials</i> , 2010 , 31, 5345-54	15.6	123
90	Simple surface modification of a titanium alloy with silanated zwitterionic phosphorylcholine or sulfobetaine modifiers to reduce thrombogenicity. <i>Colloids and Surfaces B: Biointerfaces</i> , 2010 , 79, 357-64	6	68

89	Hemocompatibility assessment of carbonic anhydrase modified hollow fiber membranes for artificial lungs. <i>Artificial Organs</i> , 2010 , 34, 439-42	2.6	20
88	Covalent surface modification of a titanium alloy with a phosphorylcholine-containing copolymer for reduced thrombogenicity in cardiovascular devices. <i>Journal of Biomedical Materials Research - Part A</i> , 2009 , 91, 18-28	5.4	36
87	Towards microfabricated biohybrid artificial lung modules for chronic respiratory support. <i>Biomedical Microdevices</i> , 2009 , 11, 117-27	3.7	52
86	Surface modification of a titanium alloy with a phospholipid polymer prepared by a plasma-induced grafting technique to improve surface thromboresistance. <i>Colloids and Surfaces B: Biointerfaces</i> , 2009 , 74, 96-102	6	32
85	A small diameter, fibrous vascular conduit generated from a poly(ester urethane)urea and phospholipid polymer blend. <i>Biomaterials</i> , 2009 , 30, 2457-67	15.6	139
84	Synthesis, characterization and therapeutic efficacy of a biodegradable, thermoresponsive hydrogel designed for application in chronic infarcted myocardium. <i>Biomaterials</i> , 2009 , 30, 4357-68	15.6	230
83	Synthesis, characterization and surface modification of low moduli poly(ether carbonate urethane)ureas for soft tissue engineering. <i>Acta Biomaterialia</i> , 2009 , 5, 2901-12	10.8	52
82	Fate of culture-expanded mesenchymal stem cells in the microvasculature: in vivo observations of cell kinetics. <i>Circulation Research</i> , 2009 , 104, 398-402	15.7	230
81	Naive rat amnion-derived cell transplantation improved left ventricular function and reduced myocardial scar of postinfarcted heart. <i>Cell Transplantation</i> , 2009 , 18, 477-86	4	42
80	Flow cytometric assays for quantifying activated ovine platelets. <i>Artificial Organs</i> , 2008 , 32, 136-45	2.6	22
79	Generating elastic, biodegradable polyurethane/poly(lactide-co-glycolide) fibrous sheets with controlled antibiotic release via two-stream electrospinning. <i>Biomacromolecules</i> , 2008 , 9, 1200-7	6.9	97
78	Protein-reactive, thermoresponsive copolymers with high flexibility and biodegradability. <i>Biomacromolecules</i> , 2008 , 9, 1283-92	6.9	82
77	Current and future considerations in the use of mechanical circulatory support devices. <i>Annual Review of Biomedical Engineering</i> , 2008 , 10, 59-84	12	15
76	Ultrasound molecular imaging of cardiovascular disease. <i>Nature Clinical Practice Cardiovascular Medicine</i> , 2008 , 5 Suppl 2, S26-32		46
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