Mrio A Barbosa

List of Publications by Citations

242 papers	9,801 citations	55 h-index	85 g-index
247 ext. papers	11,086 ext. citations	7 avg, IF	6.21 L-index

#	Paper	IF	Citations
242	Chemical modification of chitosan by phosphorylation: an XPS, FT-IR and SEM study. *Journal of Biomaterials Science, Polymer Edition*, **2005**, 16, 1575-93	3.5	307
241	Corrosion behaviour of commercially pure titanium shot blasted with different materials and sizes of shot particles for dental implant applications. *Biomaterials*, **2003**, 24, 263-73	15.6	217
240	Calcium phosphate-alginate microspheres as enzyme delivery matrices. *Biomaterials*, **2004**, 25, 4363-73	15.6	210
239	Mesenchymal Stromal Cell Secretome: Influencing Therapeutic Potential by Cellular Pre-conditioning. *Frontiers in Immunology*, **2018**, 9, 2837	8.4	203
238	Impact of 3-D printed PLA- and chitosan-based scaffolds on human monocyte/macrophage responses: unraveling the effect of 3-D structures on inflammation. *Acta Biomaterialia*, **2014**, 10, 613-22	10.8	200
237	Fibrinogen adsorption, platelet adhesion and activation on mixed hydroxyl-/methyl-terminated self-assembled monolayers. *Biomaterials*, **2006**, 27, 5357-67	15.6	184
236	Pectin-based injectable biomaterials for bone tissue engineering. *Biomacromolecules*, **2011**, 12, 568-77	6.9	174
235	The effect of the co-immobilization of human osteoprogenitors and endothelial cells within alginate microspheres on mineralization in a bone defect. *Biomaterials*, **2009**, 30, 3271-8	15.6	171
234	Inflammation in intervertebral disc degeneration and regeneration. *Journal of the Royal Society Interface*, **2015**, 12, 20141191	4.1	169
233	Corrosion behaviour of titanium in biofluids containing H2O2 studied by electrochemical impedance spectroscopy. *Corrosion Science*, **2001**, 43, 547-559	6.8	156
232	The correlation between the adsorption of adhesive proteins and cell behaviour on hydroxyl-methyl mixed self-assembled monolayers. *Biomaterials*, **2009**, 30, 307-16	15.6	132
231	Improving chitosan-mediated gene transfer by the introduction of intracellular buffering moieties into the chitosan backbone. *Acta Biomaterialia*, **2009**, 5, 2995-3006	10.8	129
230	Upregulation of bone cell differentiation through immobilization within a synthetic extracellular matrix. *Biomaterials*, **2007**, 28, 3644-55	15.6	128
229	Injectable in situ crosslinkable RGD-modified alginate matrix for endothelial cells delivery. *Biomaterials*, **2011**, 32, 7897-904	15.6	126
228	Immobilization of human mesenchymal stem cells within RGD-grafted alginate microspheres and assessment of their angiogenic potential. *Biomacromolecules*, **2010**, 11, 1956-64	6.9	119
227	Protein adsorption on mixtures of hydroxyl- and methyl-terminated alkanethiols self-assembled monolayers. *Journal of Biomedical Materials Research Part B*, **2003**, 67, 158-71		117
226	Human serum albumin adsorption on TiO2 from single protein solutions and from plasma. *Langmuir* , **2004**, 20, 9745-54	4	116

225	The uptake of titanium ions by hydroxyapatite particles-structural changes and possible mechanisms. *Biomaterials*, **2006**, 27, 1749-61	15.6	112
224	Ionizing radiation modulates human macrophages towards a pro-inflammatory phenotype preserving their pro-invasive and pro-angiogenic capacities. *Scientific Reports*, **2016**, 6, 18765	4.9	107
223	Cellulose phosphates as biomaterials. In vivo biocompatibility studies. *Biomaterials*, **2002**, 23, 971-80	15.6	104
222	Chitosan drives anti-inflammatory macrophage polarisation and pro-inflammatory dendritic cell stimulation. *European Cells and Materials*, **2012**, 24, 136-52; discussion 152-3	4.3	104
221	Apatite deposition on titanium surfaces--the role of albumin adsorption. *Biomaterials*, **1997**, 18, 963-8	15.6	101
220	Cellulose phosphates as biomaterials. I. Synthesis and characterization of highly phosphorylated cellulose gels. *Journal of Applied Polymer Science*, **2001**, 82, 3341-3353	2.9	100
219	A novel dry active electrode for EEG recording. *IEEE Transactions on Biomedical Engineering*, **2007**, 54, 162-5	5	99
218	Albumin and fibrinogen adsorption on PU-PHEMA surfaces. *Biomaterials*, **2003**, 24, 2067-76	15.6	99
217	Constructing thromboresistant surface on biomedical stainless steel via layer-by-layer deposition anticoagulant. *Biomaterials*, **2003**, 24, 4699-705	15.6	99
216	Modulation of the inflammatory response to chitosan through M2 macrophage polarization using pro-resolution mediators. *Biomaterials*, **2015**, 37, 116-23	15.6	97
215	The Two Faces of Tumor-Associated Macrophages and Their Clinical Significance in Colorectal Cancer. *Frontiers in Immunology*, **2019**, 10, 1875	8.4	93
214	Layer-by-layer self-assembly of chitosan and poly(Eglutamic acid) into polyelectrolyte complexes. *Biomacromolecules*, **2011**, 12, 4183-95	6.9	92
213	Macrophage polarization following chitosan implantation. *Biomaterials*, **2013**, 34, 9952-9	15.6	90
212	Effect of hydroxyapatite thickness on metal ion release from Ti6Al4V substrates. *Biomaterials*, **1996**, 17, 397-404	15.6	89
211	Osteoblast adhesion and morphology on TiO2 depends on the competitive preadsorption of albumin and fibronectin. *Journal of Biomedical Materials Research - Part A*, **2008**, 84, 281-90	5.4	85
210	Phenotypic and proliferative modulation of human mesenchymal stem cells via crosstalk with endothelial cells. *Stem Cell Research*, **2011**, 7, 186-97	1.6	84
209	Preparation and characterisation of calcium-phosphate porous microspheres with a uniform size for biomedical applications. *Journal of Materials Science: Materials in Medicine*, **2006**, 17, 455-63	4.5	84
208	Macrophages stimulate gastric and colorectal cancer invasion through EGFR Y(1086), c-Src, Erk1/2 and Akt phosphorylation and smallGTPase activity. *Oncogene*, **2014**, 33, 2123-33	9.2	77

207	Polysaccharides as scaffolds for bone regeneration. *IRBM News*, **2005**, 26, 212-217		77
206	The two faces of metal ions: From implants rejection to tissue repair/regeneration. *Biomaterials*, **2016**, 84, 262-275	15.6	76
205	In vitro degradation behavior of a novel bioresorbable composite material based on PLA and a soluble CaP glass. *Acta Biomaterialia*, **2005**, 1, 411-9	10.8	75
204	Concept, design and fabrication of smart orthopedic implants. *Medical Engineering and Physics*, **2000**, 22, 469-79	2.4	75
203	Cellulose phosphates as biomaterials. Mineralization of chemically modified regenerated cellulose hydrogels. *Journal of Materials Science*, **2001**, 36, 2163-2172	4.3	74
202	Bridging Autism Spectrum Disorders and Schizophrenia through inflammation and biomarkers - pre-clinical and clinical investigations. *Journal of Neuroinflammation*, **2017**, 14, 179	10.1	72
201	Attachment, spreading and short-term proliferation of human osteoblastic cells cultured on chitosan films with different degrees of acetylation. *Journal of Biomaterials Science, Polymer Edition* , **2007**, 18, 469-85	3.5	71
200	Decellularized human colorectal cancer matrices polarize macrophages towards an anti-inflammatory phenotype promoting cancer cell invasion via CCL18. *Biomaterials*, **2017**, 124, 211-224	15.6	70
199	Extracellular Vesicles: Immunomodulatory messengers in the context of tissue repair/regeneration. *European Journal of Pharmaceutical Sciences*, **2017**, 98, 86-95	5.1	63
198	Biofunctional chemically modified pectin for cell delivery. *Soft Matter*, **2012**, 8, 4731	3.6	63
197	miR-195 in human primary mesenchymal stromal/stem cells regulates proliferation, osteogenesis and paracrine effect on angiogenesis. *Oncotarget*, **2016**, 7, 7-22	3.3	61
196	Development of an immunomodulatory biomaterial: using resolvin D1 to modulate inflammation. *Biomaterials*, **2015**, 53, 566-73	15.6	60
195	The effect of hyaluronan-based delivery of stromal cell-derived factor-1 on the recruitment of MSCs in degenerating intervertebral discs. *Biomaterials*, **2014**, 35, 8144-53	15.6	59
194	Dynamics of fibronectin adsorption on TiO2 surfaces. *Langmuir*, **2007**, 23, 7046-54	4	59
193	Extracellular vesicles: intelligent delivery strategies for therapeutic applications. *Journal of Controlled Release*, **2018**, 289, 56-69	11.7	58
192	Surface engineering of poly(DL-lactide) via electrostatic self-assembly of extracellular matrix-like molecules. *Biomacromolecules*, **2003**, 4, 378-86	6.9	57
191	The inflammatory response in the regression of lumbar disc herniation. *Arthritis Research and Therapy*, **2018**, 20, 251	5.7	56
190	Inflammatory responses and cell adhesion to self-assembled monolayers of alkanethiolates on gold. *Biomaterials*, **2004**, 25, 2557-63	15.6	55

189	Rat bone marrow stromal cell osteogenic differentiation and fibronectin adsorption on chitosan membranes: the effect of the degree of acetylation. *Journal of Biomedical Materials Research - Part A*, **2005**, 75, 387-97	5.4	55
188	Production, characterization and biocompatibility of marine collagen matrices from an alternative and sustainable source: the sea urchin Paracentrotus lividus. *Marine Drugs*, **2014**, 12, 4912-33	6	54
187	Three-dimensional culture of human osteoblastic cells in chitosan sponges: the effect of the degree of acetylation. *Journal of Biomedical Materials Research - Part A*, **2006**, 76, 335-46	5.4	53
186	Interactions between calcium, phosphate, and albumin on the surface of titanium. *Journal of Biomedical Materials Research Part B*, **2001**, 55, 45-53		53
185	The influence of functional groups of self-assembled monolayers on fibrous capsule formation and cell recruitment. *Journal of Biomedical Materials Research - Part A*, **2006**, 76, 737-43	5.4	52
184	Enhanced mesenchymal stromal cell recruitment via natural killer cells by incorporation of inflammatory signals in biomaterials. *Journal of the Royal Society Interface*, **2012**, 9, 261-71	4.1	51
183	Biocompatibility of chemoenzymatically derived dextran-acrylate hydrogels. *Journal of Biomedical Materials Research Part B*, **2004**, 68, 584-96		50
182	The inflammasome in host response to biomaterials: Bridging inflammation and tissue regeneration. *Acta Biomaterialia*, **2019**, 83, 1-12	10.8	50
181	Engineering endochondral bone: in vivo studies. *Tissue Engineering - Part A*, **2009**, 15, 635-43	3.9	48
180	Proliferation, activity, and osteogenic differentiation of bone marrow stromal cells cultured on calcium titanium phosphate microspheres. *Journal of Biomedical Materials Research Part B*, **2005**, 72, 57-66		48
179	Effect of Polyelectrolyte Film Stiffness on Endothelial Cells During Endothelial-to-Mesenchymal Transition. *Biomacromolecules*, **2015**, 16, 3584-93	6.9	47
178	Injectability of a bone filler system based on hydroxyapatite microspheres and a vehicle with in situ gel-forming ability. *Journal of Biomedical Materials Research - Part B Applied Biomaterials*, **2008**, 87, 49-58	3.5	47
177	TiO2 type influences fibronectin adsorption. *Journal of Materials Science: Materials in Medicine*, **2005**, 16, 1173-8	4.5	47
176	Engineering endochondral bone: in vitro studies. *Tissue Engineering - Part A*, **2009**, 15, 625-34	3.9	46
175	NAP-2 Secreted by Human NK Cells Can Stimulate Mesenchymal Stem/Stromal Cell Recruitment. *Stem Cell Reports*, **2016**, 6, 466-473	8	46
174	Modulation of stability and mucoadhesive properties of chitosan microspheres for therapeutic gastric application. *International Journal of Pharmaceutics*, **2013**, 454, 116-24	6.5	44
173	Differential effects of eight metal ions on lymphocyte differentiation antigens in vitro. *Journal of Biomedical Materials Research Part B*, **1990**, 24, 1059-68		44
172	The pitting resistance of AISI 316 stainless steel passivated in diluted nitric acid. *Corrosion Science*, **1983**, 23, 1293-1305	6.8	44

171	Anti-inflammatory Chitosan/Poly-glutamic acid nanoparticles control inflammation while remodeling extracellular matrix in degenerated intervertebral disc. *Acta Biomaterialia*, **2016**, 42, 168-179	10.8	44
170	Adsorbed fibrinogen leads to improved bone regeneration and correlates with differences in the systemic immune response. *Acta Biomaterialia*, **2013**, 9, 7209-17	10.8	43
169	Fibrinogen scaffolds with immunomodulatory properties promote in vivo bone regeneration. *Biomaterials*, **2016**, 111, 163-178	15.6	43
168	Dendritic Cell-derived Extracellular Vesicles mediate Mesenchymal Stem/Stromal Cell recruitment. *Scientific Reports*, **2017**, 7, 1667	4.9	41
167	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	10.8	41
166	Long noncoding RNAs: a missing link in osteoporosis. *Bone Research*, **2019**, 7, 10	13.3	41
165	Fibronectin-mediated endothelialisation of chitosan porous matrices. *Biomaterials*, **2009**, 30, 5465-75	15.6	41
164	Investigation of the dissolution of the bioceramic hydroxyapatite in the presence of titanium ions using ToF-SIMS and XPS. *Biomaterials*, **1997**, 18, 311-6	15.6	41
163	Surface characterization and cell response of a PLA/CaP glass biodegradable composite material. *Journal of Biomedical Materials Research - Part A*, **2008**, 85, 477-86	5.4	41
162	Albumin adsorption on alkanethiols self-assembled monolayers on gold electrodes studied by chronopotentiometry. *Biomaterials*, **2003**, 24, 3697-706	15.6	41
161	Targeted gene delivery into peripheral sensorial neurons mediated by self-assembled vectors composed of poly(ethylene imine) and tetanus toxin fragment c. *Journal of Controlled Release*, **2010**, 143, 350-8	11.7	40
160	Three-dimensional scaffolds of fetal decellularized hearts exhibit enhanced potential to support cardiac cells in comparison to the adult. *Biomaterials*, **2016**, 104, 52-64	15.6	40
159	and clinical application of strontium-enriched biomaterials for bone regeneration: A systematic review. *Bone and Joint Research*, **2017**, 6, 366-375	4.2	39
158	Cellulose phosphates as biomaterials. II. Surface chemical modification of regenerated cellulose hydrogels. *Journal of Applied Polymer Science*, **2001**, 82, 3354-3365	2.9	39
157	Corrosion resistance of titanium CP in saline physiological solutions with calcium phosphate and proteins. *Clinical Materials*, **1993**, 14, 287-294		39
156	Ibuprofen-loaded poly(trimethylene carbonate-co-caprolactone) electrospun fibres for nerve regeneration. *Journal of Tissue Engineering and Regenerative Medicine*, **2016**, 10, E154-66	4.4	38
155	Adhesion of human leukocytes to biomaterials: an in vitro study using alkanethiolate monolayers with different chemically functionalized surfaces. *Journal of Biomedical Materials Research - Part A*, **2003**, 65, 429-34	5.4	38
154	Mesenchymal stem cell recruitment by stromal derived factor-1-delivery systems based on chitosan/poly(glutamic acid) polyelectrolyte complexes. *European Cells and Materials*, **2012**, 23, 249-60; discussion 260-1	4.3	38

153	Octadecyl Chains Immobilized onto Hyaluronic Acid Coatings by Thiol-ene "Click Chemistry" Increase the Surface Antimicrobial Properties and Prevent Platelet Adhesion and Activation to Polyurethane. *ACS Applied Materials & Interfaces*, **2017**, 9, 7979-7989	9.5	37
152	Leptin effect on RANKL and OPG expression in MC3T3-E1 osteoblasts. *Journal of Cellular Biochemistry*, **2006**, 98, 1123-9	4.7	37
151	Biological evaluation of calcium alginate microspheres as a vehicle for the localized delivery of a therapeutic enzyme. *Journal of Biomedical Materials Research - Part A*, **2005**, 74, 545-52	5.4	37
150	TNF-alpha-induced microglia activation requires miR-342: impact on NF-kB signaling and neurotoxicity. *Cell Death and Disease*, **2020**, 11, 415	9.8	36
149	Protein adsorption on 18-alkyl chains immobilized on hydroxyl-terminated self-assembled monolayers. *Biomaterials*, **2005**, 26, 3891-99	15.6	36
148	An interferon-□delivery system based on chitosan/poly(□glutamic acid) polyelectrolyte complexes modulates macrophage-derived stimulation of cancer cell invasion in vitro. *Acta Biomaterialia*, **2015**, 23, 157-171	10.8	34
147	Mineralization of regenerated cellulose hydrogels. *Journal of Materials Science: Materials in Medicine*, **2001**, 12, 785-91	4.5	34
146	New insights into mutable collagenous tissue: correlations between the microstructure and mechanical state of a sea-urchin ligament. *PLoS ONE*, **2011**, 6, e24822	3.7	34
145	Immunomodulation of Human Mesenchymal Stem/Stromal Cells in Intervertebral Disc Degeneration: Insights From a Proinflammatory/Degenerative Ex Vivo Model. *Spine*, **2018**, 43, E673-E682	3.3	34
144	Evaluation of the effect of the degree of acetylation on the inflammatory response to 3D porous chitosan scaffolds. *Journal of Biomedical Materials Research - Part A*, **2010**, 93, 20-8	5.4	33
143	miR-195 inhibits macrophages pro-inflammatory profile and impacts the crosstalk with smooth muscle cells. *PLoS ONE*, **2017**, 12, e0188530	3.7	32
142	Cellulose phosphates as biomaterials. In vitro biocompatibility studies. *Reactive and Functional Polymers*, **2006**, 66, 728-739	4.6	31
141	Adsorption of a therapeutic enzyme to self-assembled monolayers: effect of surface chemistry and solution pH on the amount and activity of adsorbed enzyme. *Biomaterials*, **2005**, 26, 2695-704	15.6	31
140	Self-Healing Spongy Coating for Drug "Cocktail" Delivery. *ACS Applied Materials & Interfaces*, **2016**, 8, 4309-13	9.5	30
139	Pro-inflammatory chitosan/poly(□glutamic acid) nanoparticles modulate human antigen-presenting cells phenotype and revert their pro-invasive capacity. *Acta Biomaterialia*, **2017**, 63, 96-109	10.8	30
138	Adsorbed fibrinogen enhances production of bone- and angiogenic-related factors by monocytes/macrophages. *Tissue Engineering - Part A*, **2014**, 20, 250-63	3.9	30
137	Fabrication of alternating polycation and albumin multilayer coating onto stainless steel by electrostatic layer-by-layer adsorption. *Colloids and Surfaces B: Biointerfaces*, **2004**, 34, 185-90	6	30
136	Electrochemical and surface modifications on N+-ion implanted Ti-6A1-4V immersed in HBSS. *Corrosion Science*, **1995**, 37, 1861-1866	6.8	30

135	Macrophage interactions with polylactic acid and chitosan scaffolds lead to improved recruitment of human mesenchymal stem/stromal cells: a comprehensive study with different immune cells. *Journal of the Royal Society Interface*, **2016**, 13,	4.1	29
134	Osteogenic, anti-osteoclastogenic and immunomodulatory properties of a strontium-releasing hybrid scaffold for bone repair. *Materials Science and Engineering C*, **2019**, 99, 1289-1303	8.3	29
133	Mesenchymal Stem/Stromal Cells seeded on cartilaginous endplates promote Intervertebral Disc Regeneration through Extracellular Matrix Remodeling. *Scientific Reports*, **2016**, 6, 33836	4.9	28
132	A Degenerative/Proinflammatory Intervertebral Disc Organ Culture: An Ex Vivo Model for Anti-inflammatory Drug and Cell Therapy. *Tissue Engineering - Part C: Methods*, **2016**, 22, 8-19	2.9	28
131	Injectable hybrid system for strontium local delivery promotes bone regeneration in a rat critical-sized defect model. *Scientific Reports*, **2017**, 7, 5098	4.9	28
130	Electrochemical and surface modifications on N+-ion-implanted 316 L stainless steel. *Journal of Materials Science: Materials in Medicine*, **1997**, 8, 365-8	4.5	28
129	Stearyl poly(ethylene oxide) grafted surfaces for preferential adsorption of albumin. *Biomaterials*, **2001**, 22, 3015-23	15.6	28
128	Protein adsorption and clotting time of pHEMA hydrogels modified with C18 ligands to adsorb albumin selectively and reversibly. *Biomaterials*, **2009**, 30, 5541-51	15.6	27
127	Induction of notch signaling by immobilization of jagged-1 on self-assembled monolayers. *Biomaterials*, **2009**, 30, 6879-87	15.6	27
126	Albumin adsorption on cibacron blue F3G-A immobilized onto oligo(ethylene glycol)-terminated self-assembled monolayers. *Journal of Materials Science: Materials in Medicine*, **2003**, 14, 945-54	4.5	27
125	Chitosan/□PGA nanoparticles-based immunotherapy as adjuvant to radiotherapy in breast cancer. *Biomaterials*, **2020**, 257, 120218	15.6	27
124	The mechanically adaptive connective tissue of echinoderms: its potential for bio-innovation in applied technology and ecology. *Marine Environmental Research*, **2012**, 76, 108-13	3.3	26
123	Molecularly designed surfaces for blood deheparinization using an immobilized heparin-binding peptide. *Journal of Biomedical Materials Research - Part A*, **2009**, 88, 162-73	5.4	26
122	Improving the adhesion of poly(ethylene terephthalate) fibers to poly(hydroxyethyl methacrylate) hydrogels by ozone treatment: Surface characterization and pull-out tests. *Polymer*, **2005**, 46, 9840-9850	3.9	26
121	Joint analysis of IVD herniation and degeneration by rat caudal needle puncture model. *Journal of Orthopaedic Research*, **2017**, 35, 258-268	3.8	25
120	Macrophage response to chitosan/poly-(□glutamic acid) nanoparticles carrying an anti-inflammatory drug. *Journal of Materials Science: Materials in Medicine*, **2015**, 26, 167	4.5	25
119	Nanostructured lipid carriers loaded with resveratrol modulate human dendritic cells. *International Journal of Nanomedicine*, **2016**, 11, 3501-16	7.3	25
118	Dynamic stiffness of polyelectrolyte multilayer films based on disulfide bonds for in situ control of cell adhesion. *Journal of Materials Chemistry B*, **2015**, 3, 7546-7553	7.3	24

117	Biosynthesis of highly pure poly-Ɣglutamic acid for biomedical applications. *Journal of Materials Science: Materials in Medicine*, **2012**, 23, 1583-91	4.5	24
116	Surface pretreatments of aluminium for electroplating. *Surface and Coatings Technology*, **1988**, 35, 321-331	3.4	24
115	Systemic Delivery of Bone Marrow Mesenchymal Stem Cells for In Situ Intervertebral Disc Regeneration. *Stem Cells Translational Medicine*, **2017**, 6, 1029-1039	6.9	23
114	The effect of immobilization of thrombin inhibitors onto self-assembled monolayers on the adsorption and activity of thrombin. *Biomaterials*, **2010**, 31, 3772-80	15.6	23
113	Protein electrostatic self-assembly on poly(DL-lactide) scaffold to promote osteoblast growth. *Journal of Biomedical Materials Research Part B*, **2004**, 71, 159-65		23
112	Circulating extracellular vesicles: Their role in tissue repair and regeneration. *Transfusion and Apheresis Science*, **2016**, 55, 53-61	2.4	23
111	Strontium-rich injectable hybrid system for bone regeneration. *Materials Science and Engineering C*, **2016**, 59, 818-827	8.3	22
110	Hip fractures cluster in space: an epidemiological analysis in Portugal. *Osteoporosis International*, **2008**, 19, 1797-804	5.3	22
109	Pretreatments of improve the adhesion of electrodeposits on aluminium. *Surface and Interface Analysis*, **1991**, 17, 519-528	1.5	22
108	Electrochemistry of AISI 316L stainless steel in calcium phosphate and protein solutions. *Journal of Materials Science: Materials in Electronics*, **1991**, 2, 19-26	2.1	22
107	The surface composition and corrosion behaviour of AISI 304 stainless steel after immersion in 20% HNO3 solution. *Corrosion Science*, **1991**, 32, 179-184	6.8	22
106	Impedance and photo electrochemical measurements on passive films formed on metallic biomaterials. *Corrosion Engineering Science and Technology*, **1990**, 25, 136-140		22
105	Chitosan/poly(Ɣglutamic acid) nanoparticles incorporating IFN-for immune response modulation in the context of colorectal cancer. *Biomaterials Science*, **2019**, 7, 3386-3403	7.4	21
104	Resveratrol as a natural anti-tumor necrosis factor-molecule: implications to dendritic cells and their crosstalk with mesenchymal stromal cells. *PLoS ONE*, **2014**, 9, e91406	3.7	21
103	Selective protein adsorption modulates platelet adhesion and activation to oligo(ethylene glycol)-terminated self-assembled monolayers with C18 ligands. *Journal of Biomedical Materials Research - Part A*, **2009**, 89, 642-53	5.4	21
102	Electrochemical and surface modifications on N+-ION implanted Ti-5Al-2.5Fe immersed in HBSS. *Corrosion Science*, **1997**, 39, 377-383	6.8	21
101	In vitro testing of surface-modified biomaterials. *Journal of Materials Science: Materials in Medicine*, **1998**, 9, 543-8	4.5	21
100	Functionalization of chitosan membranes through phosphorylation: Atomic force microscopy, wettability, and cytotoxicity studies. *Journal of Applied Polymer Science*, **2006**, 102, 276-284	2.9	21

99	Matrix metalloproteinases in a sea urchin ligament with adaptable mechanical properties. *PLoS ONE*, **2012**, 7, e49016	3.7	21
98	Stiffness of polyelectrolyte multilayer film influences endothelial function of endothelial cell monolayer. *Colloids and Surfaces B: Biointerfaces*, **2017**, 149, 379-387	6	20
97	Albumin and fibrinogen adsorption on cibacron blue F3G-A immobilised onto PU-PHEMA (polyurethane-poly(hydroxyethylmethacrylate)) surfaces. *Journal of Biomaterials Science, Polymer Edition*, **2003**, 14, 439-55	3.5	20
96	Staphylococcus epidermidis RP62A adhesion to chemically modified cellulose derivatives. *Journal of Materials Science: Materials in Medicine*, **2001**, 12, 543-8	4.5	20
95	Adsorbed Fibrinogen stimulates TLR-4 on monocytes and induces BMP-2 expression. *Acta Biomaterialia*, **2017**, 49, 296-305	10.8	19
94	Bioengineered surfaces to improve the blood compatibility of biomaterials through direct thrombin inactivation. *Acta Biomaterialia*, **2012**, 8, 4101-10	10.8	19
93	Modifications in the molecular structure of hydroxyapatite induced by titanium ions. *Journal of Materials Science: Materials in Medicine*, **1995**, 6, 829-834	4.5	19
92	Neonatal human dermal fibroblasts immobilized in RGD-alginate induce angiogenesis. *Cell Transplantation*, **2014**, 23, 945-57	4	18
91	The effect of adsorbed fibronectin and osteopontin on macrophage adhesion and morphology on hydrophilic and hydrophobic model surfaces. *Acta Biomaterialia*, **2012**, 8, 3669-77	10.8	18
90	In vitro calcification of orthopaedic implant materials. *Journal of Materials Science: Materials in Medicine*, **1995**, 6, 849-852	4.5	18
89	Fibrinogen and magnesium combination biomaterials modulate macrophage phenotype, NF-kB signaling and crosstalk with mesenchymal stem/stromal cells. *Acta Biomaterialia*, **2020**, 114, 471-484	10.8	18
88	Macrophages Down-Regulate Gene Expression of Intervertebral Disc Degenerative Markers Under a Pro-inflammatory Microenvironment. *Frontiers in Immunology*, **2019**, 10, 1508	8.4	17
87	Genetically Engineered-MSC Therapies for Non-unions, Delayed Unions and Critical-size Bone Defects. *International Journal of Molecular Sciences*, **2019**, 20,	6.3	17
86	Characterization of polymeric solutions as injectable vehicles for hydroxyapatite microspheres. *AAPS PharmSciTech*, **2010**, 11, 852-8	3.9	17
85	Platelet and leukocyte adhesion to albumin binding self-assembled monolayers. *Journal of Materials Science: Materials in Medicine*, **2011**, 22, 2053-63	4.5	16
84	3D chitosan scaffolds impair NLRP3 inflammasome response in macrophages. *Acta Biomaterialia*, **2019**, 91, 123-134	10.8	15
83	E-cadherin-defective gastric cancer cells depend on Laminin to survive and invade. *Human Molecular Genetics*, **2015**, 24, 5891-900	5.6	15
82	Matrix metalloproteases as maestros for the dual role of LPS- and IL-10-stimulated macrophages in cancer cell behaviour. *BMC Cancer*, **2015**, 15, 456	4.8	15

81	Chitosan porous 3D scaffolds embedded with resolvin D1 to improve in vivo bone healing. *Journal of Biomedical Materials Research - Part A*, **2018**, 106, 1626-1633	5.4	15
80	Immune response and innervation signatures in aseptic hip implant loosening. *Journal of Translational Medicine*, **2016**, 14, 205	8.5	15
79	The Contribution of Inflammation to Autism Spectrum Disorders: Recent Clinical Evidence. *Methods in Molecular Biology*, **2019**, 2011, 493-510	1.4	15
78	Fibrinogen promotes resorption of chitosan by human osteoclasts. *Acta Biomaterialia*, **2013**, 9, 6553-62	10.8	15
77	Protein adsorption characterization. *Methods in Molecular Biology*, **2012**, 811, 141-61	1.4	15
76	Brazing parameters determine the degradation and mechanical behaviour of alumina/titanium brazed joints. *Journal of Materials Science*, **2000**, 35, 1165-1175	4.3	15
75	A co-culture system with three different primary human cell populations reveals that biomaterials and MSC modulate macrophage-driven fibroblast recruitment. *Journal of Tissue Engineering and Regenerative Medicine*, **2018**, 12, e1433-e1440	4.4	14
74	Endothelialization of chitosan porous conduits via immobilization of a recombinant fibronectin fragment (rhFNIII7-10). *Acta Biomaterialia*, **2013**, 9, 5643-52	10.8	14
73	Poly(□glutamic acid) and poly(□glutamic acid)-based nanocomplexes enhance type II collagen production in intervertebral disc. *Journal of Materials Science: Materials in Medicine*, **2017**, 28, 6	4.5	14
72	Correlations between the biochemistry and mechanical states of a sea-urchin ligament: a mutable collagenous structure. *Biointerphases*, **2012**, 7, 38	1.8	14
71	Production, bonding strength and electrochemical behaviour of commercially pure Ti/Al2O3 brazed joints. *Journal of Materials Science*, **1997**, 32, 653-659	4.3	14
70	Influence of substrate material and surface finishing on the morphology of the calcium-phosphate coating. *Journal of Biomedical Materials Research Part B*, **1997**, 36, 85-90		14
69	The attraction of Mac-1+ phagocytes during acute inflammation by methyl-coated self-assembled monolayers. *Biomaterials*, **2005**, 26, 3021-7	15.6	14
68	The effect of octadecyl chain immobilization on the hemocompatibility of poly (2-hydroxyethyl methacrylate). *Biomaterials*, **2012**, 33, 7677-85	15.6	13
67	Implanted neonatal human dermal fibroblasts influence the recruitment of endothelial cells in mice. *Biomatter*, **2012**, 2, 43-52		13
66	Microstructure, mechanical properties and chemical degradation of brazed AISI 316 stainless steel/alumina systems. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2008**, 480, 306-315	5.3	13
65	Self-Assembly and Surface Structure of an Amphiphilic Graft Copolymer, Polystyrene-graft-omega-Stearyl-Poly(ethylene oxide). *Journal of Colloid and Interface Science*, **2000**, 224, 255-260	9.3	13
64	Electrochemical studies of laser-treated Co-Cr-Mo alloy in a simulated physiological solution. *Journal of Materials Science: Materials in Medicine*, **1994**, 5, 353-356	4.5	12

63	Electrochemistry of galvanic couples between carbon and common metallic biomaterials in the presence of crevices. *Biomaterials*, **1990**, 11, 336-40	15.6	12
62	Intricate Macrophage-Colorectal Cancer Cell Communication in Response to Radiation. *PLoS ONE*, **2016**, 11, e0160891	3.7	12
61	Improvement of Bovine Nucleus Pulposus Cells Isolation Leads to Identification of Three Phenotypically Distinct Cell Subpopulations. *Tissue Engineering - Part A*, **2015**, 21, 2216-27	3.9	11
60	Ultrastructural and biochemical characterization of mechanically adaptable collagenous structures in the edible sea urchin Paracentrotus lividus. *Zoology*, **2015**, 118, 147-60	1.7	11
59	Fundamentals of protein and cell interactions in biomaterials **2018**, 1-27		11
58	The effect of hydroxyapatite thickness on metal ion release from stainless steel substrates. *Journal of Materials Science: Materials in Medicine*, **1995**, 6, 818-823	4.5	11
57	Age-Correlated Phenotypic Alterations in Cells Isolated From Human Degenerated Intervertebral Discs With Contained Hernias. *Spine*, **2018**, 43, E274-E284	3.3	10
56	Adhesion and Proliferation of Human Osteoblastic Cells Seeded on Injectable Hydroxyapatite Microspheres. *Key Engineering Materials*, **2003**, 254-256, 877-880	0.4	10
55	Poly(□Glutamic Acid) as an Exogenous Promoter of Chondrogenic Differentiation of Human Mesenchymal Stem/Stromal Cells. *Tissue Engineering - Part A*, **2015**, 21, 1869-85	3.9	9
54	miR-99a in bone homeostasis: Regulating osteogenic lineage commitment and osteoclast differentiation. *Bone*, **2020**, 134, 115303	4.7	9
53	Human Bone Marrow Mesenchymal Stem/Stromal Cells Preserve Their Immunomodulatory and Chemotactic Properties When Expanded in a Human Plasma Derived Xeno-Free Medium. *Stem Cells International*, **2017**, 2017, 2185351	5	9
52	Bioactivity of immobilized EGF on self-assembled monolayers: optimization of the immobilization process. *Journal of Biomedical Materials Research - Part A*, **2010**, 94, 576-85	5.4	9
51	XPS characterization of surface films formed on surface-modified implant materials after cell culture. *Journal of Materials Science: Materials in Medicine*, **1997**, 8, 423-6	4.5	9
50	Modulation of the In Vivo Inflammatory Response by Pro- Versus Anti-Inflammatory Intervertebral Disc Treatments. *International Journal of Molecular Sciences*, **2020**, 21,	6.3	8
49	Profiling the circulating miRnome reveals a temporal regulation of the bone injury response. *Theranostics*, **2018**, 8, 3902-3917	12.1	8
48	The stability of self-assembled monolayers with time and under biological conditions. *Journal of Biomedical Materials Research - Part A*, **2010**, 94, 833-43	5.4	8
47	A contribution to the understanding of a.c. anodizing of aluminium. *Journal of Applied Electrochemistry*, **1989**, 19, 829-838	2.6	8
46	Adhesion of human leukocytes on mixtures of hydroxyl- and methyl-terminated self-assembled monolayers: effect of blood protein adsorption. *Journal of Biomedical Materials Research - Part A*, **2010**, 93, 12-9	5.4	7

45	A novel urethane containing copolymer as a surface modification additive for blood contact materials. *Journal of Materials Science: Materials in Medicine*, **2002**, 13, 677-84	4.5	7
44	Active metal brazing for joining glass-ceramic to titanium: study on silver enrichment. *Journal of Materials Science: Materials in Medicine*, **1995**, 6, 835-838	4.5	7
43	Microstructure, Growth Kinetics, and Corrosion Resistance of Hot-Dip Galvanized Zn-5% Al Coatings. *Corrosion*, **1991**, 47, 536-541	1.8	7
42	Diffusion and corrosion behaviour of tungsten-implanted Aluminium and the Al12W phase. *Nuclear Instruments & Methods in Physics Research B*, **1990**, 50, 423-427	1.2	7
41	Immunomodulatory potential of chitosan-based materials for cancer therapy: a systematic review of , and clinical studies. *Biomaterials Science*, **2021**, 9, 3209-3227	7.4	7
40	Interactions of leukocytes and platelets with poly(lysine/leucine) immobilized on tetraethylene glycol-terminated self-assembled monolayers. *Acta Biomaterialia*, **2011**, 7, 1949-55	10.8	6
39	Changes induced in anodic behaviour of stainless steel in H2SO4 solutionsby preanodic treatment and potential sweep rate. *Corrosion Engineering Science and Technology*, **1988**, 23, 47-54		6
38	Stromal Cell Derived Factor-1-Mediated Migration of Mesenchymal Stem Cells Enhances Collagen Type II Expression in Intervertebral Disc. *Tissue Engineering - Part A*, **2018**,	3.9	6
37	Peripheral Biomarkers of Inflammation in Depression: Evidence from Animal Models and Clinical Studies. *Methods in Molecular Biology*, **2019**, 2011, 467-492	1.4	5
36	Selective albumin-binding surfaces modified with a thrombin-inhibiting peptide. *Acta Biomaterialia*, **2014**, 10, 1227-37	10.8	5
35	Finding and tracing human MSC in 3D microenvironments with the photoconvertible protein Dendra2. *Scientific Reports*, **2015**, 5, 10079	4.9	5
34	Inflammatory cell recruitment and adhesion to methyl-terminated self-assembled monolayers: effect of implantation time. *Microscopy Research and Technique*, **2005**, 66, 37-42	2.8	5
33	Effect of Calcium Phosphate Addition to Alginate Microspheres: Modulation of Enzyme Release Kinetics and Improvement of Cell Adhesion. *Key Engineering Materials*, **2005**, 284-286, 689-692	0.4	5
32	Electrochemical behaviour of laser treated AISI 316L stainless steel surfaces in a physiological solution. *Clinical Materials*, **1991**, 7, 31-37		5
31	IL-1β-pre-conditioned mesenchymal stem/stromal cells' secretome modulates the inflammatory response and aggrecan deposition in intervertebral disc. *European Cells and Materials*, **2021**, 41, 431-453	4.3	5
30	Decellularized Scaffolds for Intervertebral Disc Regeneration. *Trends in Biotechnology*, **2020**, 38, 947-951	15.1	4
29	The Systemic Immune Response to Collagen-Induced Arthritis and the Impact of Bone Injury in Inflammatory Conditions. *International Journal of Molecular Sciences*, **2019**, 20,	6.3	4
28	Kinetics and isotherm of fibronectin adsorption to three-dimensional porous chitosan scaffolds explored by [illegible]-radiolabelling. *Biomatter*, **2013**, 3,		4

27	Recombinant glucocerebrosidase uptake by Gaucher disease human osteoblast culture model. *Blood Cells, Molecules, and Diseases*, **2005**, 35, 348-54	2.1	4
26	In Vitro Mineralisation of Chitosan Membranes Carrying Phosphate Functionalities. *Key Engineering Materials*, **2003**, 254-256, 577-580	0.4	4
25	Multinuclear Cell Analysis Using Laplacian of Gaussian and Delaunay Graphs. *Lecture Notes in Computer Science*, **2013**, 441-449	0.9	4
24	Preparation of albumin preferential surfaces on poly(vinyl chloride) membranes via surface self-segregation. *Journal of Biomedical Materials Research Part B*, **2002**, 61, 252-9		3
23	Use of microelectrodes as electrochemical sensors of metal ions released from biomaterials. *Biomaterials*, **1994**, 15, 821-6	15.6	3
22	Electrochemical studies of magnesium implanted with high doses of light ions. *Nuclear Instruments & Methods in Physics Research B*, **1989**, 39, 559-562	1.2	3
21	Stress-induced depressive-like behavior in male rats is associated with microglial activation and inflammation dysregulation in the hippocampus in adulthood. *Brain, Behavior, and Immunity*, **2022**, 99, 397-408	16.6	3
20	Comparable Decellularization of Fetal and Adult Cardiac Tissue Explants as 3D-like Platforms for In Vitro Studies. *Journal of Visualized Experiments*, **2019**,	1.6	2
19	Morphology and Mechanical Properties of Injectable Ceramic Microspheres. *Key Engineering Materials*, **2008**, 396-398, 691-694	0.4	2
18	Fabrication of alternating polycation and albumin mutilayer coating by electrostatic layer-by-layer adsorption. *Journal of Materials Science*, **2004**, 39, 349-351	4.3	2
17	Corrosion of Metallic Implants **1998**, 420-463		2
16	Osteoclasts degrade fibrinogen scaffolds and induce mesenchymal stem/stromal osteogenic differentiation. *Journal of Biomedical Materials Research - Part A*, **2020**, 108, 851-862	5.4	2
15	Fibroblast growth factor improves the motility of human mesenchymal stem cells expanded in a human plasma-derived xeno-free medium through V□B integrin. *Journal of Tissue Engineering and Regenerative Medicine*, **2019**, 13, 36-45	4.4	2
14	Alkaline phosphatase dual-binding sites for collagen dictate cell migration and microvessel assembly in vitro. *Journal of Cellular Biochemistry*, **2021**, 122, 116-129	4.7	2
13	Articular Repair/Regeneration in Healthy and Inflammatory Conditions: From Advanced In Vitro to In Vivo Models. *Advanced Functional Materials*, **2020**, 30, 1909523	15.6	1
12	Cellular response to the surface chemistry of nanostructured biomaterials **2009**, 85-113		1
11	Characterization of Hydroxyapatite Sputtered Films Doped with Titanium. *Key Engineering Materials*, **2007**, 330-332, 649-652	0.4	1
10	Microstructure, Mechanical Properties and Stability of Brazed Metal/Ceramic Systems **1998**, 329-340		1

9	Chapter 10 Corrosion of Metallic Implants **2016**, 509-548		1
8	Immunomodulatory properties of Musa paradisiaca L. inflorescence in Combined Allergic Rhinitis and Asthma Syndrome (CARAS) model towards NFB pathway inhibition. *Journal of Functional Foods*, **2021**, 83, 104540	5.1	1
7	Calcium Phosphate Microspheres for Localised Delivery of a Therapeutic Enzyme. *Key Engineering Materials*, **2006**, 309-311, 903-906	0.4	0
6	Fibrotic alterations in human annulus fibrosus correlate with progression of intervertebral disc herniation.. *Arthritis Research and Therapy*, **2022**, 24, 25	5.7	0
5	Harnessing chitosan and poly-(Eglutamic acid)-based biomaterials towards cancer immunotherapy. *Materials Today Advances*, **2022**, 15, 100252	7.4	0
4	The Biomaterials Network (Biomat.net) as a Major Internet Resource for Biomaterials, Tissue Engineering and Biomineralization373-390		
3	Affinity of Hydroxyapatite to Metal Cations - A Study on the Composition and Structure of Phosphates formed in the Presence of Titanium and Aluminium. *Key Engineering Materials*, **2000**, 192-195, 55-58	0.4	
2	Effects of Metal Ions Present in Iincate Solutions on the Characteristics of Iinc Alloy Films on Aluminium. *Surface Engineering*, **1990**, 6, 287-293	2.6	
1	The Immune System at the Metallic Implant Interface; Metal Ions Inhibit Immune Function but are not Cytotoxic **1991**, 19-28		