

Marcela Mm Bilek

List of Publications by Year in descending order

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48
papers

2,308
citations

218592

26
h-index

233338

45
g-index

48
all docs

48
docs citations

48
times ranked

2539
citing authors

#	ARTICLE	IF	CITATIONS
1	Plasma treatment in air at atmospheric pressure that enables reagent-free covalent immobilization of biomolecules on polytetrafluoroethylene (PTFE). <i>Applied Surface Science</i> , 2020, 518, 146128.	3.1	26
2	A multifaceted biomimetic interface to improve the longevity of orthopedic implants. <i>Acta Biomaterialia</i> , 2020, 110, 266-279.	4.1	34
3	A review of biomimetic surface functionalization for bone-integrating orthopedic implants: Mechanisms, current approaches, and future directions. <i>Progress in Materials Science</i> , 2019, 106, 100588.	16.0	147
4	Enhanced biocompatibility of polyurethane-type shape memory polymers modified by plasma immersion ion implantation treatment and collagen coating: An in vivo study. <i>Materials Science and Engineering C</i> , 2019, 99, 863-874.	3.8	19
5	Cellular responses to radical propagation from ion-implanted plasma polymer surfaces. <i>Applied Surface Science</i> , 2018, 456, 701-710.	3.1	21
6	HiPIMS carbon coatings show covalent protein binding that imparts enhanced hemocompatibility. <i>Carbon</i> , 2018, 139, 118-128.	5.4	27
7	Plasma immersion ion implantation of polyurethane shape memory polymer: Surface properties and protein immobilization. <i>Applied Surface Science</i> , 2017, 416, 686-695.	3.1	30
8	Plasma activated coating immobilizes apolipoprotein A-I to stainless steel surfaces in its bioactive form and enhances biocompatibility. <i>Nanomedicine: Nanotechnology, Biology, and Medicine</i> , 2017, 13, 2141-2150.	1.7	7
9	Blended Polyurethane and Tropoelastin as a Novel Class of Biologically Interactive Elastomer. <i>Tissue Engineering - Part A</i> , 2016, 22, 524-533.	1.6	16
10	Effects of pulse voltage and deposition time on the adhesion strength of graded metal/carbon films deposited on bendable stainless steel foils by hybrid cathodic arc glow discharge plasma assisted chemical vapor deposition. <i>Applied Surface Science</i> , 2016, 366, 535-544.	3.1	4
11	Plasma immersion ion implantation of a two-phase blend of polysulfone and polyvinylpyrrolidone. <i>Materials and Design</i> , 2016, 97, 381-391.	3.3	8
12	Back Cover: Plasma Process. <i>Polym. 2015</i> . <i>Plasma Processes and Polymers</i> , 2015, 12, 194-194.	1.6	0
13	Immobilization of bioactive plasmin reduces the thrombogenicity of metal surfaces. <i>Colloids and Surfaces B: Biointerfaces</i> , 2015, 136, 944-954.	2.5	12
14	Bio-Activation of Polyether Ether Ketone Using Plasma Immersion Ion Implantation: A Kinetic Model. <i>Plasma Processes and Polymers</i> , 2015, 12, 180-193.	1.6	24
15	Covalent immobilization of enzymes and yeast: Towards a continuous simultaneous saccharification and fermentation process for cellulosic ethanol. <i>Biomass and Bioenergy</i> , 2015, 81, 234-241.	2.9	19
16	Evaluation of corrosion resistance and cytocompatibility of graded metal carbon film on Ti and NiTi prepared by hybrid cathodic arc/glow discharge plasma-assisted chemical vapor deposition. <i>Corrosion Science</i> , 2015, 97, 126-138.	3.0	38
17	Graded metal carbon protein binding films prepared by hybrid cathodic arc glow discharge plasma assisted chemical vapor deposition. <i>Surface and Coatings Technology</i> , 2015, 265, 222-234.	2.2	10
18	Electrochemical corrosion behavior of biodegradable Mg-Y-RE and Mg-Zn-Zr alloys in Ringer's solution and simulated body fluid. <i>Corrosion Science</i> , 2015, 91, 160-184.	3.0	162

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19	A Novel Cell Adhesion Region in Tropoelastin Mediates Attachment to Integrin $\alpha 5 \beta 1$. Journal of Biological Chemistry, 2014, 289, 1467-1477.	1.6	64
20	Ion implantation treatment of beads for covalent binding of molecules: Application to bioethanol production using thermophilic beta-glucosidase. Enzyme and Microbial Technology, 2014, 54, 20-24.	1.6	18
21	Biofunctionalization of surfaces by energetic ion implantation: Review of progress on applications in implantable biomedical devices and antibody microarrays. Applied Surface Science, 2014, 310, 3-10.	3.1	87
22	Effects of zirconium and oxygen plasma ion implantation on the corrosion behavior of ZK60 Mg alloy in simulated body fluids. Corrosion Science, 2014, 82, 7-26.	3.0	106
23	Increasing binding density of yeast cells by control of surface charge with allylamine grafting to ion modified polymer surfaces. Colloids and Surfaces B: Biointerfaces, 2014, 122, 537-544.	2.5	3
24	Immobilisation of a fibrillin-1 fragment enhances the biocompatibility of PTFE. Colloids and Surfaces B: Biointerfaces, 2014, 116, 544-552.	2.5	17
25	Effects of zirconium and nitrogen plasma immersion ion implantation on the electrochemical corrosion behavior of Mg-Cu alloy in simulated body fluid and cell culture medium. Corrosion Science, 2014, 86, 239-251.	3.0	53
26	Surface plasma modification and tropoelastin coating of a polyurethane co-polymer for enhanced cell attachment and reduced thrombogenicity. Biomaterials, 2014, 35, 6797-6809.	5.7	74
27	Influence of pH on yeast immobilization on polystyrene surfaces modified by energetic ion bombardment. Colloids and Surfaces B: Biointerfaces, 2013, 104, 145-152.	2.5	22
28	The Vroman effect: Competitive protein exchange with dynamic multilayer protein aggregates. Colloids and Surfaces B: Biointerfaces, 2013, 103, 395-404.	2.5	240
29	An integrated solution for rapid biosensing with robust linker free covalent binding surfaces. Biosensors and Bioelectronics, 2013, 42, 447-452.	5.3	8
30	Cell patterning via linker-free protein functionalization of an organic conducting polymer (polypyrrole) electrode. Acta Biomaterialia, 2012, 8, 2538-2548.	4.1	40
31	In vivo biocompatibility of a plasma-activated, coronary stent coating. Biomaterials, 2012, 33, 7984-7992.	5.7	57
32	Linker Free Nitrogen Doped Plasma Polymer Biosensors with Label Free Ellipsometric Diagnosis Technique. Procedia Chemistry, 2012, 6, 149-154.	0.7	0
33	Free radical kinetics in a plasma immersion ion implanted polystyrene: Theory and experiment. Nuclear Instruments & Methods in Physics Research B, 2012, 280, 26-35.	0.6	55
34	Comparison on protein adsorption properties of diamond-like carbon and nitrogen-containing plasma polymer surfaces. Thin Solid Films, 2012, 520, 3021-3025.	0.8	15
35	Directed cell attachment by tropoelastin on masked plasma immersion ion implantation treated PTFE. Biomaterials, 2011, 32, 6710-6718.	5.7	28
36	Binding of the cell adhesive protein tropoelastin to PTFE through plasma immersion ion implantation treatment. Biomaterials, 2011, 32, 5100-5111.	5.7	67

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37	Universal Biomolecule Binding Interlayers Created by Energetic Ion Bombardment. <i>Materials Research Society Symposia Proceedings</i> , 2011, 1354, 3.	0.1	0
38	The immobilization of recombinant human tropoelastin on metals using a plasma-activated coating to improve the biocompatibility of coronary stents. <i>Biomaterials</i> , 2010, 31, 8332-8340.	5.7	96
39	The linker-free covalent attachment of collagen to plasma immersion ion implantation treated polytetrafluoroethylene and subsequent cell-binding activity. <i>Biomaterials</i> , 2010, 31, 2526-2534.	5.7	60
40	Protein immobilization capacity and covalent binding coverage of pulsed plasma polymer surfaces. <i>Applied Surface Science</i> , 2010, 256, 4984-4989.	3.1	18
41	Cell Adhesion to Tropoelastin Is Mediated via the C-terminal GRKRK Motif and Integrin $\alpha_5\beta_1$. <i>Journal of Biological Chemistry</i> , 2009, 284, 28616-28623.	1.6	147
42	Covalent immobilisation of tropoelastin on a plasma deposited interface for enhancement of endothelialisation on metal surfaces. <i>Biomaterials</i> , 2009, 30, 1675-1681.	5.7	118
43	Acetylene plasma polymerized surfaces for covalent immobilization of dense bioactive protein monolayers. <i>Surface and Coatings Technology</i> , 2009, 203, 1310-1316.	2.2	50
44	Mechanisms for surface energy changes observed in plasma immersion ion implanted polyethylene: The roles of free radicals and oxygen-containing groups. <i>Polymer Degradation and Stability</i> , 2009, 94, 638-646.	2.7	63
45	Linker-free covalent attachment of the extracellular matrix protein tropoelastin to a polymer surface for directed cell spreading. <i>Acta Biomaterialia</i> , 2009, 5, 3371-3381.	4.1	44
46	Attachment of horseradish peroxidase to polytetrafluoroethylene (teflon) after plasma immersion ion implantation. <i>Acta Biomaterialia</i> , 2008, 4, 1218-1225.	4.1	62
47	Covalent attachment of functional protein to polymer surfaces: a novel one-step dry process. <i>Journal of the Royal Society Interface</i> , 2008, 5, 663-669.	1.5	39
48	The attachment of catalase and poly-L-lysine to plasma immersion ion implantation-treated polyethylene. <i>Acta Biomaterialia</i> , 2007, 3, 695-704.	4.1	53