Marcela Mm Bilek

List of Publications by Year
in descending order

48 papers	2,308 citations	218677 26 h-index	233421 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). Applied Surface Science, 2020, 518, 146128.	6.1	26
2	A multifaceted biomimetic interface to improve the longevity of orthopedic implants. Acta Biomaterialia, 2020, 110, 266-279.	8.3	34
3	A review of biomimetic surface functionalization for bone-integrating orthopedic implants: Mechanisms, current approaches, and future directions. Progress in Materials Science, 2019, 106, 100588.	32.8	147
4	Enhanced biocompatibility of polyurethane-type shape memory polymers modified by plasma immersion ion implantation treatment and collagen coating: An in vivo study. Materials Science and Engineering C, 2019, 99, 863-874.	7.3	19
5	Cellular responses to radical propagation from ion-implanted plasma polymer surfaces. Applied Surface Science, 2018, 456, 701-710.	6.1	21
6	HiPIMS carbon coatings show covalent protein binding that imparts enhanced hemocompatibility. Carbon, 2018, 139, 118-128.	10.3	27
7	Plasma immersion ion implantation of polyurethane shape memory polymer: Surface properties and protein immobilization. Applied Surface Science, 2017, 416, 686-695.	6.1	30
8	Plasma activated coating immobilizes apolipoprotein A-I to stainless steel surfaces in its bioactive form and enhances biocompatibility. Nanomedicine: Nanotechnology, Biology, and Medicine, 2017, 13, 2141-2150.	3.3	7
9	Blended Polyurethane and Tropoelastin as a Novel Class of Biologically Interactive Elastomer. Tissue Engineering - Part A, 2016, 22, 524-533.	3.1	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 â€“ glow discharge plasma assisted chemical vapor deposition. Applied Surface Science, 2016, 366, 535-544.	6.1	4
11	Plasma immersion ion implantation of a two-phase blend of polysulfone and polyvinylpyrrolidone. Materials and Design, 2016, 97, 381-391.	7.0	8
12	Back Cover: Plasma Process. Polym. 2â•2015. Plasma Processes and Polymers, 2015, 12, 194-194.	3.0	0
13	Immobilization of bioactive plasmin reduces the thrombogenicity of metal surfaces. Colloids and Surfaces B: Biointerfaces, 2015, 136, 944-954.	5.0	12
14	Bio-Activation of Polyether Ether Ketone Using Plasma Immersion Ion Implantation: A Kinetic Model. Plasma Processes and Polymers, 2015, 12, 180-193.	3.0	24
15	Covalent immobilization of enzymes and yeast: Towards a continuous simultaneous saccharification and fermentation process for cellulosic ethanol. Biomass and Bioenergy, 2015, 81, 234-241.	5.7	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. Corrosion Science, 2015, 97, 126-138.	6.6	38
17	Graded metal carbon protein binding films prepared by hybrid cathodic arc â€" Glow discharge plasma assisted chemical vapor deposition. Surface and Coatings Technology, 2015, 265, 222-234.	4.8	10
18	Electrochemical corrosion behavior of biodegradable Mgâ€"Yâ€"RE and Mgâ€"Znâ€"Zr alloys in Ringerâ€™s solution and simulated body fluid. Corrosion Science, 2015, 91, 160-184.	6.6	162

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19	A Novel Cell Adhesion Region in Tropoelastin Mediates Attachment to Integrin Î±VÎ²5. Journal of Biological Chemistry, 2014, 289, 1467-1477.	3.4	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.	3.2	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.	6.1	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.	6.6	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.	5.0	3
24	Immobilisation of a fibrillin-1 fragment enhances the biocompatibility of PTFE. Colloids and Surfaces B: Biointerfaces, 2014, 116, 544-552.	5.0	17
25	Effects of zirconium and nitrogen plasma immersion ion implantation on the electrochemical corrosion behavior of Mgâ€“Yâ€“RE alloy in simulated body fluid and cell culture medium. Corrosion Science, 2014, 86, 239-251.	6.6	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.	11.4	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.	5.0	22
28	The Vroman effect: Competitive protein exchange with dynamic multilayer protein aggregates. Colloids and Surfaces B: Biointerfaces, 2013, 103, 395-404.	5.0	240
29	An integrated solution for rapid biosensing with robust linker free covalent bindingsurfaces. Biosensors and Bioelectronics, 2013, 42, 447-452.	10.1	8
30	Cell patterning via linker-free protein functionalization of an organic conducting polymer (polypyrrole) electrode. Acta Biomaterialia, 2012, 8, 2538-2548.	8.3	40
31	InÂvivo biocompatibility of a plasma-activated, coronary stent coating. Biomaterials, 2012, 33, 7984-7992.	11.4	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.	1.4	55
34	Comparison on protein adsorption properties of diamond-like carbon and nitrogen-containing plasma polymer surfaces. Thin Solid Films, 2012, 520, 3021-3025.	1.8	15
35	Directed cell attachment by tropoelastin on masked plasma immersion ion implantation treated PTFE. Biomaterials, 2011, 32, 6710-6718.	11.4	28
36	Binding of the cell adhesive protein tropoelastin to PTFE through plasma immersion ion implantation treatment. Biomaterials, 2011, 32, 5100-5111.	11.4	67

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37	Universal Biomolecule Binding Interlayers Created by Energetic Ion Bombardment. Materials Research Society Symposia Proceedings, 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. Biomaterials, 2010, 31, 8332-8340.	11.4	96
39	The linker-free covalent attachment of collagen to plasma immersion ion implantation treated polytetrafluoroethylene and subsequent cell-binding activity. Biomaterials, 2010, 31, 2526-2534.	11.4	60
40	Protein immobilization capacity and covalent binding coverage of pulsed plasma polymer surfaces. Applied Surface Science, 2010, 256, 4984-4989.	6.1	18
41	Cell Adhesion to Tropoelastin Is Mediated via the C-terminal GRKRK Motif and Integrin Î±VÎ²3. Journal of Biological Chemistry, 2009, 284, 28616-28623.	3.4	147
42	Covalent immobilisation of tropoelastin on a plasma deposited interface for enhancement of endothelialisation on metal surfaces. Biomaterials, 2009, 30, 1675-1681.	11.4	118
43	Acetylene plasma polymerized surfaces for covalent immobilization of dense bioactive protein monolayers. Surface and Coatings Technology, 2009, 203, 1310-1316.	4.8	50
44	Mechanisms for surface energy changes observed in plasma immersion ion implanted polyethylene: The roles of free radicals and oxygen-containing groups. Polymer Degradation and Stability, 2009, 94, 638-646.	5.8	63
45	Linker-free covalent attachment of the extracellular matrix protein tropoelastin to a polymer surface for directed cell spreading. Acta Biomaterialia, 2009, 5, 3371-3381.	8.3	44
46	Attachment of horseradish peroxidase to polytetrafluorethylene (teflon) after plasma immersion ion implantation. Acta Biomaterialia, 2008, 4, 1218-1225.	8.3	62
47	Covalent attachment of functional protein to polymer surfaces: a novel one-step dry process. Journal of the Royal Society Interface, 2008, 5, 663-669.	3.4	39
48	The attachment of catalase and poly-l-lysine to plasma immersion ion implantation-treated polyethylene. Acta Biomaterialia, 2007, 3, 695-704.	8.3	53