Hicham Benhayoune

List of Publications by Year
in descending order

38	760	516215 16	525886 27
papers	citations	h-index	g-index

38	38	38	799
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	A new solâ€“gel synthesis of 45S5 bioactive glass using an organic acid as catalyst. Materials Science and Engineering C, 2015, 47, 407-412.	3.8	81
2	Electrophoretic deposition (EPD) of nano-hydroxyapatite coatings with improved mechanical properties on prosthetic Ti6Al4V substrates. Surface and Coatings Technology, 2016, 301, 94-99.	2.2	76
3	In vitro precipitation of electrodeposited calcium-deficient hydroxyapatite coatings on Ti6Al4V substrate. Materials Characterization, 2008, 59, 129-133.	1.9	68
4	Effects of pulsed current and H2O2 amount on the composition of electrodeposited calcium phosphate coatings. Materials Characterization, 2010, 61, 786-795.	1.9	53
5	In vitro dissolution and corrosion study of calcium phosphate coatings elaborated by pulsed electrodeposition current on Ti6Al4V substrate. Journal of Materials Science: Materials in Medicine, 2011, 22, 753-761.	1.7	42
6	Pulsed electrodeposition for the synthesis of strontium-substituted calcium phosphate coatings with improved dissolution properties. Materials Science and Engineering C, 2013, 33, 4260-4265.	3.8	33
7	Behavior of human osteoblast-like cells in contact with electrodeposited calcium phosphate coatings. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2006, 79B, 108-115.	1.6	29
8	Elaboration of Monophasic and Biphasic Calcium Phosphate Coatings on Ti6Al4V Substrate by Pulsed Electrodeposition Current. Advanced Engineering Materials, 2010, 12, B192.	1.6	29
9	In vitro corrosion behavior of electrodeposited calcium phosphate coatings on Ti6Al4V substrates. Journal of Solid State Electrochemistry, 2012, 16, 3069-3077.	1.2	29
10	Thermal Treatment Optimization of Electrodeposited Hydroxyapatite Coatings on Ti6Al4V Substrate. Advanced Engineering Materials, 2012, 14, 377-382.	1.6	27
11	Morphological modifications of electrodeposited calcium phosphate coatings under amino acids effect. Applied Surface Science, 2013, 268, 343-348.	3.1	27
12	In vitro effects of zirconia and alumina particles on human blood monocyte-derived macrophages: X-ray microanalysis and flow cytometric studies. Journal of Biomedical Materials Research Part B, 2000, 52, 587-594.	3.0	24
13	Effect of annealing temperature on the structural and mechanical properties of coatings prepared by electrophoretic deposition of TiO2 nanoparticles. Thin Solid Films, 2017, 638, 201-212.	0.8	22
14	Electrodeposition of Calcium Phosphate Coatings on Metallic Substrates for Bone Implant Applications: A Review. Coatings, 2022, 12, 539.	1.2	22
15	Electrodeposition of cobalt-substituted calcium phosphate coatings on Ti22Nb6Zr alloy for bone implant applications. Journal of Alloys and Compounds, 2019, 793, 576-582.	2.8	20
16	Chitosan effects on glass matrices evaluated by biomaterial. MAS-NMR and biological investigations. Korean Journal of Chemical Engineering, 2013, 30, 1775-1783.	1.2	16
17	Influence of the surface mechanical attrition treatment (SMAT) on the corrosion behavior of Co28Cr6Mo alloy in Ringerâ€™s solution. Journal of Solid State Electrochemistry, 2018, 22, 1091-1098.	1.2	16
18	Human osteoblast-like cells response to pulsed electrodeposited calcium phosphate coatings. RSC Advances, 2013, 3, 11148.	1.7	15

#	Article	IF	Citations
19	A New Process for the Thermal Treatment of Calcium Phosphate Coatings Electrodeposited on Ti6Al4V Substrate. Advanced Engineering Materials, 2015, 17, 1608-1615.	1.6	14
20	Effects of bioactive glass particles and their ionic products on intracellular concentrations. Journal of Biomedical Materials Research Part B, 2003, 65A, 441-446.	3.0	12
21	Electrophoretic Deposition of 45S5 BioglassÂ® Coatings on the Ti6Al4V Prosthetic Alloy with Improved Mechanical Properties. Coatings, 2020, 10, 1192.	1.2	12
22	Electrodeposition of biphasic calcium phosphate coatings with improved dissolution properties. Materials Chemistry and Physics, 2019, 236, 121797.	2.0	11
23	Electrophoretic Deposition of Bioactive Glass Coatings on Ti12Mo5Ta Alloy. Key Engineering Materials, 2012, 507, 135-140.	0.4	10
24	Microstructural characterization of Tiâ€6Alâ€4V alloy subjected to the duplex SMAT/plasma nitriding. Microscopy Research and Technique, 2013, 76, 897-903.	1.2	9
25	Characterization of <scp>HA</scp>/<scp>FHA</scp> Coatings on Smooth and Rough Implant Surface by Pulsed Electrodeposition. International Journal of Applied Ceramic Technology, 2015, 12, E222.	1.1	9
26	Nanomechanical Behavior, Adhesion and Corrosion Resistance of Hydroxyapatite Coatings for Orthopedic Implant Applications. Coatings, 2021, 11, 477.	1.2	9
27	Structural and morphological study of electrodeposited calcium phosphate materials submitted to thermal treatment. Materials Letters, 2017, 209, 27-31.	1.3	8
28	Kinetics of Short-Term Physicochemical Reactions at the Periphery of Bioactive Glass Particles. A Transmission Electron Microscopy Cryo-X-ray Microanalysis of Diffusible Ions. Langmuir, 2003, 19, 3840-3847.	1.6	7
29	Structural Characterization of Electrodeposited Strontium Substituted Calcium Phosphate Coatings. Journal of Biomaterials and Tissue Engineering, 2011, 1, 68-75.	0.0	6
30	Effect of surface mechanical attrition treatment on the microstructure of cobaltâ€“chromiumâ€“molybdenum biomedical alloy. Microscopy Research and Technique, 2021, 84, 238-245.	1.2	6
31	A Simple Method to Assess Surface Roughness by Photothermal Investigation (PTR) Using an Effective Semitransparent Layer. International Journal of Thermophysics, 2012, 33, 1960-1965.	1.0	4
32	Nanoscale Surface Modification of a Prosthetic Material: Case of Ti6Al4V into Ringer's Solution. Journal of Nanoscience and Nanotechnology, 2012, 12, 4956-4961.	0.9	3
33	Benefit of a Surface Nanocrystallization Treatment on Co28Cr6Mo Abrasive Wear Properties. Advanced Materials Research, 2014, 966-967, 435-441.	0.3	3
34	Electrophoretic Deposition of Hydroxyapatite and 58S Bioactive Glass Coatings on the Ti6Al4V Alloy Subjected to Surface Mechanical Attrition Treatment. Key Engineering Materials, 2015, 654, 149-153.	0.4	3
35	Advanced Biomaterials and Coatings. Coatings, 2022, 12, 965.	1.2	3
36	Cryoâ€Xâ€ray analysisâ€”A novel tool to better understand the physicochemical reactions at the bioglass/biological fluid interface. Microscopy Research and Technique, 2008, 71, 684-688.	1.2	2

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37	Sol-gel synthesis of 45S5 bioglass â€“ Prosthetic coating by electrophoretic deposition. MATEC Web of Conferences, 2013, 7, 04018.	0.1	0
38	Structural Analysis of Prosthetic Coatings Elaborated by Electrochemical Deposition. Key Engineering Materials, 2017, 758, 105-110.	0.4	0