

# Metallic implant biomaterials

Materials Science and Engineering Reports  
87, 1-57

DOI: [10.1016/j.mser.2014.10.001](https://doi.org/10.1016/j.mser.2014.10.001)

Citation Report

#	ARTICLE	IF	CITATIONS
1	Ti-Mo Alloys Used in Medical Applications. <i>Advanced Materials Research</i> , 0, 1128, 105-111.	0.3	20
2	Monitoring Tensile Fatigue of Superelastic NiTi Wire in Liquids by Electrochemical Potential. <i>Shape Memory and Superelasticity</i> , 2015, 1, 204-230.	1.1	22
3	The effect of surface roughness on corrosion behavior of Ti-6Al-4V alloy in saliva solution. , 2015, , .		4
4	Calcification of MC3T3-E1 cells on titanium and zirconium. <i>Dental Materials Journal</i> , 2015, 34, 713-718.	0.8	6
5	Influence of rolling temperature on structure, phase composition and mechanical properties of austenitic steel Fe-17Cr-13Ni-3Mo. <i>AIP Conference Proceedings</i> , 2015, , .	0.3	3
6	Mechanical Characterization of Ti-12Mo-13Nb Alloy for Biomedical Application Hot Swaged and Aged. <i>Materials Research</i> , 2015, 18, 8-12.	0.6	20
7	Calcium Orthophosphate-Containing Biocomposites and Hybrid Biomaterials for Biomedical Applications. <i>Journal of Functional Biomaterials</i> , 2015, 6, 708-832.	1.8	118
8	Effect of Ta interlayer on laser welding of NiTi to AISI 316L stainless steel. <i>Journal of Materials Processing Technology</i> , 2015, 226, 69-77.	3.1	49
9	Synergistic Effects of Surface Chemistry and Topologic Structure from Modified Microarc Oxidation Coatings on Ti Implants for Improving Osseointegration. <i>ACS Applied Materials &amp; Interfaces</i> , 2015, 7, 8932-8941.	4.0	74
10	Superelastic behaviors of biomedical porous NiTi alloy with high porosity and large pore size prepared by spark plasma sintering. <i>Journal of Alloys and Compounds</i> , 2015, 644, 513-522.	2.8	71
11	H <sub>2</sub> Ti <sub>5</sub> O <sub>11</sub> ·H <sub>2</sub> O nanorod arrays formed on a Ti surface via a hybrid technique of microarc oxidation and chemical treatment. <i>CrystEngComm</i> , 2015, 17, 2705-2717.	1.3	9
12	Microstructure and mechanical properties of sintered porous magnesium using polymethyl methacrylate as the space holder. <i>Materials Letters</i> , 2015, 161, 583-586.	1.3	37
13	Surface characterization, corrosion properties and bioactivity of Ca-doped TiO <sub>2</sub> coatings for biomedical applications. <i>Surface and Coatings Technology</i> , 2015, 280, 291-300.	2.2	19
14	Mechanical behaviors of porous Ti with high porosity and large pore size prepared by one-step spark plasma sintering technique. <i>Vacuum</i> , 2015, 122, 187-194.	1.6	40
15	Extremely durable biofouling-resistant metallic surfaces based on electrodeposited nanoporous tungstite films on steel. <i>Nature Communications</i> , 2015, 6, 8649.	5.8	326
16	Modelling of the hot flow behaviors for Ti-13Nb-13Zr alloy by BP-ANN model and its application. <i>International Journal of Precision Engineering and Manufacturing</i> , 2015, 16, 2129-2137.	1.1	19
17	New Frontiers in Biomaterials Research for Tissue Repair and Regeneration. <i>Translational Neuroscience and Clinics</i> , 2016, 2, 120-137.	0.1	0
18	Effects of Cr <sub>2</sub> N Precipitation on the Antibacterial Properties of AISI 430 Stainless Steel. <i>Metals</i> , 2016, 6, 73.	1.0	6

#	ARTICLE	IF	CITATIONS
19	Electrochemical Characterization of a New Biodegradable FeMnSi Alloy Coated with Hydroxyapatite-Zirconia by PLD Technique. Journal of Chemistry, 2016, 2016, 1-9.	0.9	16
20	Implant Materials and Their Processing Technologies. , 2016, , .		11
21	The Needs of Current Implant Technology in Orthopaedic Prosthesis Biomaterials Application to Reduce Prosthesis Failure Rate. Journal of Nanomaterials, 2016, 2016, 1-9.	1.5	35
22	New Cu-Free Ti-Based Composites with Residual Amorphous Matrix. Materials, 2016, 9, 331.	1.3	2
23	Two-Level Micro-to-Nanoscale Hierarchical TiO <sub>2</sub> Nanolayers on Titanium Surface. Materials, 2016, 9, 1010.	1.3	10
24	Metallic nanosystems in hard tissue implants. , 2016, , 381-412.		0
25	Microstructure, mechanical and corrosion properties of biodegradable powder metallurgical Fe-2 wt% X (X=Al, Ag and C) alloys. Materials Chemistry and Physics, 2016, 181, 501-511.	2.0	42
26	Differences in the calcification of preosteoblast cultured on sputter-deposited titanium, zirconium, and gold. Journal of Biomedical Materials Research - Part A, 2016, 104, 639-651.	2.1	13
27	Uniaxial Compaction-Based Manufacturing Strategy and 3D Microstructural Evaluation of Near-Net-Shape ZrO <sub>2</sub> -Toughened Al <sub>2</sub> O <sub>3</sub> Acetabular Socket. Advanced Engineering Materials, 2016, 18, 1634-1644.	1.6	10
28	A comparative study on biodegradation and mechanical properties of pressureless infiltrated Ti/Ti6Al4V-Mg composites. Journal of the Mechanical Behavior of Biomedical Materials, 2016, 63, 273-286.	1.5	27
32	Mechanical and corrosion properties of Mg-Gd-Zn-Zr-Mn biodegradable alloy by hot extrusion. Journal of Alloys and Compounds, 2016, 685, 222-230.	2.8	76
33	Enhanced in vitro bioactivity of porous NiTi-HA composites with interconnected pore characteristics prepared by spark plasma sintering. Materials and Design, 2016, 101, 170-180.	3.3	33
34	Microneedle arrays as transdermal and intradermal drug delivery systems: Materials science, manufacture and commercial development. Materials Science and Engineering Reports, 2016, 104, 1-32.	14.8	582
35	Mechanical, electrochemical and biocompatibility evaluation of AZ91D magnesium alloy as a biomaterial. Journal of Alloys and Compounds, 2016, 687, 906-919.	2.8	49
36	Influence cutting parameters on the surface quality and corrosion behavior of Ti-6Al-4V alloy in synthetic body environment (SBF) using Response Surface Method. Measurement: Journal of the International Measurement Confederation, 2016, 88, 223-237.	2.5	24
37	Premature Failure of a Femoral Hip Replacement. Materials Today: Proceedings, 2016, 3, 1114-1117.	0.9	3
38	Biomaterials in Orthopaedics. Advanced Structured Materials, 2016, , 161-181.	0.3	36
39	In vitro and in vivo degradation and mechanical properties of ZEK100 magnesium alloy coated with alginate, chitosan and mechano-growth factor. Materials Science and Engineering C, 2016, 63, 450-461.	3.8	36

#	ARTICLE	IF	CITATIONS
40	Mechanical properties and fractal analysis of the surface texture of sputtered hydroxyapatite coatings. <i>Applied Surface Science</i> , 2016, 379, 338-346.	3.1	45
41	Biological activity of nanostructured metallic materials for biomedical applications. <i>Materials Technology</i> , 2016, 31, 772-781.	1.5	17
42	Influence of $\beta$ phase precipitation on mechanical performance and corrosion resistance of Ti-6Al-4Zr alloy. <i>Materials and Design</i> , 2016, 111, 421-428.	3.3	31
43	Deformation behaviour of self-expanding magnesium stents based on auxetic chiral lattices. <i>Ciência &amp; Tecnologia Dos Materiais</i> , 2016, 28, 14-18.	0.5	10
44	Corrosion of nanostructured and ultrafine-grained metallic implant materials. <i>Materials Technology</i> , 2016, 31, 812-817.	1.5	3
45	Ultra-fine grained pure Titanium for biomedical applications. <i>Materials Technology</i> , 2016, 31, 756-771.	1.5	20
46	On the fatigue behavior of medical Ti6Al4V roughened by grit blasting and abrasiveless waterjet peening. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2016, 63, 390-398.	1.5	43
47	Mg-Zn-Ca amorphous alloys for application as temporary implant: Effect of Zn content on the mechanical and corrosion properties. <i>Materials and Design</i> , 2016, 110, 188-195.	3.3	41
48	Corrosion and tribocorrosion performance of M (M Ta, Ti) doped amorphous carbon multilayers in Hank's solution. <i>Surface and Coatings Technology</i> , 2016, 305, 11-22.	2.2	46
49	Multifunctional PLGA/Parylene C Coating for Implant Materials: An Integral Approach for Biointerface Optimization. <i>ACS Applied Materials &amp; Interfaces</i> , 2016, 8, 22093-22105.	4.0	29
50	Corrosion-wear of $\beta$ -Ti alloy TMZF (Ti-12Mo-6Zr-2Fe) in simulated body fluid. <i>Acta Biomaterialia</i> , 2016, 42, 429-439.	4.1	111
51	Development of high performance MgFe alloy as potential biodegradable materials. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2016, 671, 48-53.	2.6	25
53	Inhibition of Staphylococcus aureus biofilm by a copper-bearing 317L-Cu stainless steel and its corrosion resistance. <i>Materials Science and Engineering C</i> , 2016, 69, 744-750.	3.8	51
54	Mechanical properties, in vitro degradation behavior, hemocompatibility and cytotoxicity evaluation of Zn-1.2Mg alloy for biodegradable implants. <i>RSC Advances</i> , 2016, 6, 86410-86419.	1.7	108
55	Highly porous, low elastic modulus 316L stainless steel scaffold prepared by selective laser melting. <i>Materials Science and Engineering C</i> , 2016, 69, 631-639.	3.8	148
56	Toxicological aspects of soluble titanium – a review of in vitro and in vivo studies. <i>Metallomics</i> , 2016, 8, 1227-1242.	1.0	21
57	Fabrication and characterization of carboxymethyl cellulose novel microparticles for bone tissue engineering. <i>Materials Science and Engineering C</i> , 2016, 69, 733-743.	3.8	62
58	Cryogenic Machining of Biomedical Implant Materials for Improved Functional Performance, Life and Sustainability. <i>Procedia CIRP</i> , 2016, 46, 7-14.	1.0	28

#	ARTICLE	IF	CITATIONS
59	Austenitic stainless steel's magnetic field evaluation after plastic deformation. , 2016, , .		0
60	Multifunctional coating based on EPC-specific peptide and phospholipid polymers for potential applications in cardiovascular implants fate. Journal of Materials Chemistry B, 2016, 4, 7870-7881.	2.9	16
61	The Determinants of Morphology and Properties of the Nanohydroxyapatite Coating Deposited on the Ti13Zr13Nb Alloy by Electrophoretic Technique. Advances in Materials Science, 2016, 16, 56-66.	0.4	7
62	Static Corrosion Test of Porous Iron Material with Polymer Coating. Powder Metallurgy Progress, 2016, 16, 99-106.	0.6	5
63	Effect of HA (Hydroxyapatite) content on the microstructure, mechanical and corrosion properties of (Ti13Nb13Zr)-xHA biocomposites synthesized by sparkle plasma sintering. Vacuum, 2016, 131, 176-180.	1.6	22
64	Effect of Cold Deformation on the Friction&Wear Property of a Biomedical Nickel-Free High-Nitrogen Stainless Steel. Acta Metallurgica Sinica (English Letters), 2016, 29, 217-227.	1.5	11
65	Ti Cu Zr Fe Sn Si Sc bulk metallic glasses with good mechanical properties for biomedical applications. Journal of Alloys and Compounds, 2016, 679, 341-349.	2.8	29
66	Rapidly sintering of interconnected porous Ti-HA biocomposite with high strength and enhanced bioactivity. Materials Science and Engineering C, 2016, 67, 104-114.	3.8	52
67	Low Young&TM's modulus Ti-based porous bulk glassy alloy without cytotoxic elements. Acta Biomaterialia, 2016, 36, 323-331.	4.1	29
68	One-step fabrication of cytocompatible micro/nano-textured surface with TiO2 mesoporous arrays on titanium by high current anodization. Electrochimica Acta, 2016, 199, 116-125.	2.6	12
69	Metallic glass matrix composites. Materials Science and Engineering Reports, 2016, 100, 1-69.	14.8	424
70	Development of a new $\hat{1}^2$ Ti alloy with low modulus and favorable plasticity for implant material. Materials Science and Engineering C, 2016, 61, 338-343.	3.8	74
71	The effect of sintering temperature on the structure and mechanical properties of medical-grade powder metallurgy stainless steels. Powder Technology, 2016, 289, 37-43.	2.1	37
72	A review of hydroxyapatite-based coating techniques: Sol&gel and electrochemical depositions on biocompatible metals. Journal of the Mechanical Behavior of Biomedical Materials, 2016, 57, 95-108.	1.5	276
73	A new titanium based alloy Ti&27Nb&13Zr produced by powder metallurgy with biomimetic coating for use as a biomaterial. Materials Science and Engineering C, 2016, 63, 671-677.	3.8	50
74	Electrochemical Investigations of Polycaprolactone-Coated AZ31 Mg Alloy in Earle&TM's Balance Salt Solution and Conventional Simulated Body Fluid. Jom, 2016, 68, 1701-1710.	0.9	14
75	Effects of the Dynamic Tapping Process on the Biocompatibility of Ti-6Al-4V Alloy in Simulated Human Body Environment. Arabian Journal for Science and Engineering, 2016, 41, 4313-4326.	1.1	15
76	Combinatorial incorporation of fluoride and cobalt ions into calcium phosphates to stimulate osteogenesis and angiogenesis. Biomedical Materials (Bristol), 2016, 11, 015020.	1.7	33

#	ARTICLE	IF	CITATIONS
77	Characterization of mechanical properties of hydroxyapatite-silicon multi walled carbon nano tubes composite coatings synthesized by EPD on NiTi alloys for biomedical application. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2016, 59, 337-352.	1.5	37
78	Microstructures and degradation mechanism in simulated body fluid of biomedical Mg-Zn-Ca alloy processed by high pressure torsion. <i>Materials and Design</i> , 2016, 96, 54-62.	3.3	76
79	Corrosion performance of MAO coatings on AZ31 Mg alloy in simulated body fluid vs. Earle's Balance Salt Solution. <i>Applied Surface Science</i> , 2016, 363, 328-337.	3.1	49
80	Novel Electromechanic Artificial Urinary Sphincter. <i>IEEE/ASME Transactions on Mechatronics</i> , 2016, 21, 945-955.	3.7	7
81	Preparation and characterization of biomedical highly porous Ti-Nb alloy. <i>Journal of Materials Science: Materials in Medicine</i> , 2016, 27, 76.	1.7	21
82	Improvement of corrosion resistance and biocompatibility of biodegradable metallic vascular stent via plasma allylamine polymerized coating. <i>Materials and Design</i> , 2016, 96, 341-349.	3.3	28
83	Role of Zinc in Enhancing the Corrosion Resistance of Mg-5Ca Alloys. <i>Journal of the Electrochemical Society</i> , 2016, 163, C76-C84.	1.3	24
84	An exploration of plastic deformation dependence of cell viability and adhesion in metallic implant materials. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2016, 60, 177-186.	1.5	23
85	Strengthening of Mg based alloy through grain refinement for orthopaedic application. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2016, 59, 57-70.	1.5	87
86	Multifunctional Coating Based on Hyaluronic Acid and Dopamine Conjugate for Potential Application on Surface Modification of Cardiovascular Implanted Devices. <i>ACS Applied Materials &amp; Interfaces</i> , 2016, 8, 109-121.	4.0	132
87	Ti-based bulk glassy composites obtained by replacement of Ni with Ga. <i>Intermetallics</i> , 2016, 69, 28-34.	1.8	7
88	Corrosion behavior, biocompatibility and biomechanical stability of a prototype magnesium-based biodegradable intramedullary nailing system. <i>Materials Science and Engineering C</i> , 2016, 59, 129-135.	3.8	46
89	Fatigue of Metallic Stents: From Clinical Evidence to Computational Analysis. <i>Annals of Biomedical Engineering</i> , 2016, 44, 287-301.	1.3	36
90	Vitroceramic coatings deposited by laser ablation on Ti-Zr substrates for implantable medical applications with improved biocompatibility. <i>Ceramics International</i> , 2017, 43, 5498-5504.	2.3	12
91	Biopolymeric coatings for delivery of antibiotic and controlled degradation of bioresorbable Mg AZ31 alloys. <i>International Journal of Polymeric Materials and Polymeric Biomaterials</i> , 2017, 66, 533-543.	1.8	12
92	In vitro degradation and surface bioactivity of iron-matrix composites containing silicate-based bioceramic. <i>Bioactive Materials</i> , 2017, 2, 10-18.	8.6	33
93	Designing a novel functional-structural NiTi/hydroxyapatite composite with enhanced mechanical properties and high bioactivity. <i>Intermetallics</i> , 2017, 84, 35-41.	1.8	13
94	Study of corrosion in biocompatible metals for implants: A review. <i>Journal of Alloys and Compounds</i> , 2017, 701, 698-715.	2.8	427

#	ARTICLE	IF	CITATIONS
95	Fabrication and evaluation of bulk nanostructured cobalt intended for dental and orthopedic implants. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2017, 68, 115-123.	1.5	12
96	Overview of ultrasonic shot peening. <i>Surface Engineering</i> , 2017, 33, 651-666.	1.1	44
97	In vitro evaluation of hydroxyapatite coatings with (002) crystallographic texture deposited by micro-plasma spraying. <i>Materials Science and Engineering C</i> , 2017, 75, 596-601.	3.8	31
98	Electrochemical analysis of the ASTM F75 alloy at different pH values and temperatures. <i>Materials and Corrosion - Werkstoffe Und Korrosion</i> , 2017, 68, 977-987.	0.8	4
99	Mechanical and biological behavior of ultrafine-grained Ti alloy aneurysm clip processed using high-pressure torsion. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2017, 68, 203-209.	1.5	12
100	Porous TiO <sub>2</sub> -ZrO <sub>2</sub> thin film formed by electrochemical technique to improve the biocompatibility of titanium alloy in physiological environment. <i>IOP Conference Series: Materials Science and Engineering</i> , 2017, 174, 012044.	0.3	4
101	On the passive and semiconducting behavior of severely deformed pure titanium in Ringer's physiological solution at 37 °C: A trial of the point defect model. <i>Materials Science and Engineering C</i> , 2017, 75, 64-71.	3.8	39
102	Biomedical materials and techniques to improve the tribological, mechanical and biomedical properties of orthopedic implants – A review article. <i>Journal of Alloys and Compounds</i> , 2017, 714, 636-667.	2.8	239
103	Cytocompatibility, biofilm assembly and corrosion behavior of Mg-HAP composites processed by extrusion. <i>Materials Science and Engineering C</i> , 2017, 78, 667-673.	3.8	11
104	Effect of mechanical properties of substrate and coating on wear performance of TiN- or DLC-coated 316LVM stainless steel. <i>Wear</i> , 2017, 382-383, 62-70.	1.5	78
105	Mechanical and corrosion properties of Ti-35Nb-7Zr- x HA composites fabricated by spark plasma sintering. <i>Transactions of Nonferrous Metals Society of China</i> , 2017, 27, 848-856.	1.7	12
106	Potential biodegradable Zn-Cu binary alloys developed for cardiovascular implant applications. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2017, 72, 182-191.	1.5	224
107	Effect of Remelting of the Ni-22Cr-9Mo Alloy on its Microstructural and Electrochemical Properties. <i>Archives of Metallurgy and Materials</i> , 2017, 62, 411-418.	0.6	3
108	A review of biocompatible metal injection moulding process parameters for biomedical applications. <i>Materials Science and Engineering C</i> , 2017, 78, 1263-1276.	3.8	114
109	Corrosion and surface modification on biocompatible metals: A review. <i>Materials Science and Engineering C</i> , 2017, 77, 1261-1274.	3.8	482
110	Graphene modified titanium alloy promote the adhesion, proliferation and osteogenic differentiation of bone marrow stromal cells. <i>Biochemical and Biophysical Research Communications</i> , 2017, 489, 187-192.	1.0	23
111	Influence of morphology and crystalline structure of TiO <sub>2</sub> nanotubes on their electrochemical properties and apatite-forming ability. <i>Electrochimica Acta</i> , 2017, 245, 337-349.	2.6	65
112	Al <sub>2</sub> O <sub>3</sub> -Ti functionally graded material prepared by spark plasma sintering for orthopaedic applications. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2017, 72, 82-89.	1.5	53



#	ARTICLE	IF	CITATIONS
113	Metal Ion Coordination Polymer-Capped pH-Triggered Drug Release System on Titania Nanotubes for Enhancing Self-antibacterial Capability of Ti Implants. ACS Biomaterials Science and Engineering, 2017, 3, 816-825.	2.6	74
114	Microarc oxidation coating covered Ti implants with micro-scale gouges formed by a multi-step treatment for improving osseointegration. Materials Science and Engineering C, 2017, 76, 908-917.	3.8	24
115	Advances in metals and alloys for joint replacement. Progress in Materials Science, 2017, 88, 232-280.	16.0	227
116	Characterization and corrosion properties of hydroxyapatite/graphene oxide bio-composite coating on magnesium alloy by one-step micro-arc oxidation method. Surface and Coatings Technology, 2017, 317, 125-133.	2.2	101
117	Investigation of the tribological and biomechanical properties of CrAlTiN and CrN/NbN coatings on SST 304. Ceramics International, 2017, 43, 7992-8003.	2.3	25
118	The microstructure and corrosion resistance of biological Mg-Zn-Ca alloy processed by high-pressure torsion and subsequently annealing. Journal of Materials Research, 2017, 32, 1061-1072.	1.2	27
119	TiO <sub>2</sub> nanorod arrays modified Ti substrates promote the adhesion, proliferation and osteogenic differentiation of human periodontal ligament stem cells. Materials Science and Engineering C, 2017, 76, 684-691.	3.8	38
120	Electrophoretic deposition of organic/inorganic composite coatings containing ZnO nanoparticles exhibiting antibacterial properties. Materials Science and Engineering C, 2017, 77, 780-789.	3.8	57
121	Rapid fabrication of function-structure-integrated NiTi alloys: Towards a combination of excellent superelasticity and favorable bioactivity. Intermetallics, 2017, 82, 1-13.	1.8	16
122	Effect of heat treatment atmosphere on the structure and apatite-inducing ability of Ca, P, Si and Na incorporated microarc oxidation coating on titanium. Surface and Coatings Technology, 2017, 310, 190-198.	2.2	5
123	Comparison of 3D-Printed Poly-ε-Caprolactone Scaffolds Functionalized with Tricalcium Phosphate, Hydroxyapatite, Bio-Oss, or Decellularized Bone Matrix. Tissue Engineering - Part A, 2017, 23, 503-514.	1.6	157
124	Design and characterizations of novel biodegradable Zn-Cu-Mg alloys for potential biodegradable implants. Materials and Design, 2017, 117, 84-94.	3.3	164
125	Alkaescent nanotube films on a titanium-based implant: A novel approach to enhance biocompatibility. Materials Science and Engineering C, 2017, 72, 464-471.	3.8	11
126	A super-hydrophilic coating with a macro/micro/nano triple hierarchical structure on titanium by two-step micro-arc oxidation treatment for biomedical applications. Surface and Coatings Technology, 2017, 311, 1-9.	2.2	26
127	Apatite formation and weight loss study in EDMed perforated AZ31 Mg-alloy. Journal of Magnesium and Alloys, 2017, 5, 362-367.	5.5	18
128	Ti-Mo-Zr-Ta Alloy for Biomedical Applications: Microstructures and Mechanical Properties. Key Engineering Materials, 2017, 750, 184-188.	0.4	1
129	Zirconia Dental Implant Materials. Materials Science Forum, 2017, 907, 99-103.	0.3	0
130	Mechanical properties of titanium-hydroxyapatite (Ti-HA) composite coating on stainless steel prepared by thermal spraying. AIP Conference Proceedings, 2017, , .	0.3	0



#	ARTICLE	IF	CITATIONS
131	The immobilization of antibiotic-loaded polymeric coatings on osteoarticular Ti implants for the prevention of bone infections. <i>Biomaterials Science</i> , 2017, 5, 2337-2346.	2.6	55
132	Experimental study of wear for implant materials under dry sliding conditions. <i>Industrial Lubrication and Tribology</i> , 2017, 69, 828-832.	0.6	7
133	Fabrication and characterization of Ti-13Nb-13Zr alloy with radial porous Ti-HA coatings for bone implants. <i>Materials Letters</i> , 2017, 209, 543-546.	1.3	12
134	Designing a multifunctional Ti-2Cu-4Ca porous biomaterial with favorable mechanical properties and high bioactivity. <i>Journal of Alloys and Compounds</i> , 2017, 727, 338-345.	2.8	8
135	The Effect of Heat Treatment on Microstructure and Mechanical Properties of Ti-8.5Nb-4.5Ta-13Zr Alloy. <i>Materials Science Forum</i> , 0, 899, 389-394.	0.3	0
136	Unusual dynamic precipitation softening induced by dislocation glide in biomedical beta-titanium alloys. <i>Scientific Reports</i> , 2017, 7, 8056.	1.6	9
137	Conductive Biomaterial Inhomogeneities Modeling in Electromagnetic Nondestructive Evaluation. <i>Procedia Engineering</i> , 2017, 192, 348-352.	1.2	0
138	Corrosion Resistance and Mechanical Characterization of Ankle Prostheses Fabricated via Selective Laser Melting. <i>Procedia CIRP</i> , 2017, 65, 25-31.	1.0	11
139	Influence of Pore Characteristics on Electrochemical and Biological Behavior of Ti Foams. <i>Journal of Materials Engineering and Performance</i> , 2017, 26, 3756-3766.	1.2	6
140	High recoverable strain tailoring by Zr adjustment of sintered Ti-13Nb-(0-6)Zr biomedical alloys. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2017, 75, 574-580.	1.5	14
141	Surface Evaluation of AISI 316L After Fatigue Failure. <i>Procedia Engineering</i> , 2017, 192, 644-648.	1.2	3
142	MWCNT reinforced bone like calcium phosphate-Hydroxyapatite composite coating developed through pulsed electrodeposition with varying amount of apatite phase and crystallinity to promote superior osteoconduction, cytocompatibility and corrosion protection performance compared to bare metallic implant surface. <i>Surface and Coatings Technology</i> , 2017, 325, 496-514.	2.2	29
144	Advances in the induction of osteogenesis by zinc surface modification based on titanium alloy substrates for medical implants. <i>Journal of Alloys and Compounds</i> , 2017, 726, 1072-1084.	2.8	42
145	Effects of Heat Treatment on Corrosion and Wear Behaviors of Mg-6Gd-2Zn-0.4Zr Alloy in Simulated Body Fluid. <i>Journal of Materials Engineering and Performance</i> , 2017, 26, 5501-5510.	1.2	11
146	Giant thermal expansion and $\beta$ -precipitation pathways in Ti-alloys. <i>Nature Communications</i> , 2017, 8, 1429.	5.8	81
147	Enhanced cytocompatibility and osteoinductive properties of sol-gel-derived silica/zirconium dioxide coatings by metformin functionalization. <i>Journal of Biomaterials Applications</i> , 2017, 32, 570-586.	1.2	18
148	About thermostability of biocompatible Ti-Zr-Ta-Si amorphous alloys. <i>Journal of Thermal Analysis and Calorimetry</i> , 2017, 127, 107-113.	2.0	7
149	First-principles investigation of strain effects on the stacking fault energies, dislocation core structure, and Peierls stress of magnesium and its alloys. <i>Physical Review B</i> , 2017, 95, .	1.1	36

#	ARTICLE	IF	CITATIONS
150	Microstructure evolution, mechanical properties and enhanced bioactivity of Ti-Nb-Zr based biocomposite by bioactive calcium pyrophosphate. <i>Journal of Alloys and Compounds</i> , 2017, 720, 567-581.	2.8	16
151	Materials and processing approaches for foundry-compatible transient electronics. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, E5522-E5529.	3.3	93
152	Strengthening Mg by self-dispersed nano-lamellar faults. <i>Materials Research Letters</i> , 2017, 5, 415-425.	4.1	17
153	Effect of cold rolling on the microstructural evolution of new $\beta$ -typed Ti-6Mo-6V-5Cr-3Sn-2.5Zr alloys. <i>Materials Characterization</i> , 2017, 123, 67-74.	1.9	18
154	Mechanical and microstructural characteristics of commercial purity titanium implants fabricated by electron-beam additive manufacturing. <i>Materials Letters</i> , 2017, 187, 64-67.	1.3	27
155	Bioactivity and electrochemical behavior of hydroxyapatite-silicon-multi walled carbon nano-tubes composite coatings synthesized by EPD on NiTi alloys in simulated body fluid. <i>Materials Science and Engineering C</i> , 2017, 71, 473-482.	3.8	43
156	Reduced bacteria adhesion on octenidine loaded mesoporous silica nanoparticles coating on titanium substrates. <i>Materials Science and Engineering C</i> , 2017, 70, 386-395.	3.8	30
157	Magnesium alloys: A stony pathway from intensive research to clinical reality. Different test methods and approval-related considerations. <i>Journal of Biomedical Materials Research - Part A</i> , 2017, 105, 329-347.	2.1	37
158	Effect of Solution Pretreatment on Homogeneity and Corrosion Resistance of Biomedical Mg-Zn-Ca Alloy Processed by High Pressure Torsion. <i>Advanced Engineering Materials</i> , 2017, 19, 1600326.	1.6	9
159	Current status on clinical applications of magnesium-based orthopaedic implants: A review from clinical translational perspective. <i>Biomaterials</i> , 2017, 112, 287-302.	5.7	674
160	Cellular responses of osteoblast-like cells to 17 elemental metals. <i>Journal of Biomedical Materials Research - Part A</i> , 2017, 105, 148-158.	2.1	59
161	Compression fatigue behavior and failure mechanism of porous titanium for biomedical applications. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2017, 65, 814-823.	1.5	56
162	Experimental investigation on the feasibility of dry and cryogenic machining as sustainable strategies when turning Ti6Al4V produced by Additive Manufacturing. <i>Journal of Cleaner Production</i> , 2017, 142, 4142-4151.	4.6	147
163	Encapsulation of anticancer drug copper bis(8-hydroxyquinoline) in hydroxyapatite for pH-sensitive targeted delivery and slow release. <i>Materials Science and Engineering C</i> , 2017, 71, 206-213.	3.8	50
164	Lattice modeling and finite element simulation for additive manufacturing of porous scaffolds. , 2017, , .		5
165	Degradable magnesium implant-associated infections by bacterial biofilms induce robust localized and systemic inflammatory reactions in a mouse model. <i>Biomedical Materials (Bristol)</i> , 2017, 12, 055006.	1.7	13
166	Nanotechnology for Reducing Orthopedic Implant Infections: Synthesis, Characterization, and Properties. , 2017, , 31-62.		1
167	Finite element modeling and analysis of implant scaffolds. , 2017, , .		5

#	ARTICLE	IF	CITATIONS
168	Structural Analysis of Plastic Deformation around the Crack Initiated in Austenitic Stainless Steel. Materials Science Forum, 0, 891, 225-229.	0.3	0
169	Obtaining and Mechanical Properties of Ti-Mo-Zr-Ta Alloys. IOP Conference Series: Materials Science and Engineering, 2017, 209, 012019.	0.3	7
170	Surface Characterization of NiTi Superelastic and Shape Memory Alloys After Electrolytic Polishing. Materials Research, 2017, 20, 572-579.	0.6	21
171	Lattice Structures and Functionally Graded Materials Applications in Additive Manufacturing of Orthopedic Implants: A Review. Journal of Manufacturing and Materials Processing, 2017, 1, 13.	1.0	182
172	Protein-Based Drug-Delivery Materials. Materials, 2017, 10, 517.	1.3	108
173	Improvement of Cr-Co-Mo Membrane Surface Used as Barrier for Bone Regeneration through UV Photofunctionalization: An In Vitro Study. Materials, 2017, 10, 825.	1.3	9
174	Influence of Alkali Treatment on Anodized Titanium Alloys in Wollastonite Suspension. Metals, 2017, 7, 322.	1.0	12
175	Development of HA/Ag-NPs Composite Coating from Green Process for Hip Applications. Molecules, 2017, 22, 1291.	1.7	10
176	Biocompatibility evaluation and corrosion resistance of tungsten added Co-30Cr-4Mo-1Ni alloy. Bio-Medical Materials and Engineering, 2017, 28, 687-701.	0.4	9
177	A Review of Additive Mixed-Electric Discharge Machining: Current Status and Future Perspectives for Surface Modification of Biomedical Implants. Advances in Materials Science and Engineering, 2017, 2017, 1-23.	1.0	78
178	Material and Mechanobiological Considerations for Bone Regeneration. , 2017, , 197-264.		4
179	Enhancement of the Pitting Corrosion Resistance of AISI 316LVM Steel with Ta-Hf-C/Au Bilayers for Biomedical Applications. Journal of Nanomaterials, 2017, 2017, 1-10.	1.5	9
180	Fabrication Methodologies of Biomimetic and Bioactive Scaffolds for Tissue Engineering Applications. , 0, , .		5
181	Resistance of Magnesium Alloys to Corrosion Fatigue for Biodegradable Implant Applications: Current Status and Challenges. Materials, 2017, 10, 1316.	1.3	26
182	Titanium dioxide coatings on magnesium alloys for biomaterials: A review. DYNA (Colombia), 2017, 84, 261-270.	0.2	17
183	Production methods and characterization of porous Mg and Mg alloys for biomedical applications. , 2017, , 25-82.		16
184	Surface Characterization of New Biomaterials. IOP Conference Series: Materials Science and Engineering, 2017, 209, 012022.	0.3	1
185	Particles/Fibers/Bulk. , 2017, , 7-25.		2

#	ARTICLE	IF	CITATIONS
186	Microstructure and Mechanical Properties of Ti-12Mo-8Nb Alloy Hot Swaged and Treated for Orthopedic Applications. <i>Materials Research</i> , 2017, 20, 526-531.	0.6	13
187	Corrosion Resistance After Mechanical Deformation of the Ti30Ta Experimental Alloy for Using in Biomedical Applications. <i>Materials Research</i> , 2017, 20, 1402-1405.	0.6	3
188	Biotribology of Cartilage Wear in Knee and Hip Joints Review of Recent Developments. <i>IOP Conference Series: Materials Science and Engineering</i> , 2018, 295, 012040.	0.3	4
189	Effect of Aging Treatment on the Formation of $\beta$ Precipitates in $\beta$ -Type Ti-6Mo-6V-5Cr-3Sn-2.5Zr Alloys. <i>Metals and Materials International</i> , 2018, 24, 441-447.	1.8	2
190	Electric Field-Assisted Orientation of Short Phosphate Glass Fibers on Stainless Steel for Biomedical Applications. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 11529-11538.	4.0	29
191	Influence of In content on physical properties of $\beta$ -type TiNbZrIn powders prepared by mechanical alloying. <i>Vacuum</i> , 2018, 151, 175-181.	1.6	10
192	Formation and in vitro/in vivo performance of $\alpha$ -cortex-like micro/nano-structured TiO <sub>2</sub> coatings on titanium by micro-arc oxidation. <i>Materials Science and Engineering C</i> , 2018, 87, 90-103.	3.8	53
193	Stability, mechanical and electronic properties of ceramic interphases in biomedical composites via first-principles calculations. <i>Ceramics International</i> , 2018, 44, 9656-9663.	2.3	8
194	Design of low modulus $\beta$ -type titanium alloys by tuning shear modulus C44. <i>Journal of Alloys and Compounds</i> , 2018, 745, 579-585.	2.8	29
195	Electrochemical deposition and characterization of ZrO <sub>2</sub> ceramic nanocoatings on superelastic NiTi alloy. <i>Applied Surface Science</i> , 2018, 450, 21-30.	3.1	17
196	Study on titanium-magnesium composites with bicontinuous structure fabricated by powder metallurgy and ultrasonic infiltration. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2018, 81, 10-15.	1.5	33
197	Influence of hybrid extrusion and solution treatment on the microstructure and degradation behavior of Mg-0.1Cu alloy. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2018, 229, 105-117.	1.7	32
198	Optimization of mechanical properties, biocorrosion properties and antibacterial properties of wrought Ti-3Cu alloy by heat treatment. <i>Bioactive Materials</i> , 2018, 3, 28-38.	8.6	55
199	About thermostability of biocompatible Ti-Zr-Ag-Pd-Sn amorphous alloys. <i>Journal of Thermal Analysis and Calorimetry</i> , 2018, 133, 189-197.	2.0	6
200	Immobilization of antibacterial metallic cations (Ga <sup>3+</sup> , Zn <sup>2+</sup> and Co <sup>2+</sup> ) in a polypyrrole coating formed on Nitinol. <i>Materials Science and Engineering C</i> , 2018, 86, 62-69.	3.8	20
201	State of the art of bioimplants manufacturing: part I. <i>Advances in Manufacturing</i> , 2018, 6, 20-40.	3.2	82
202	Microstructural evolutions and fractal characteristics in medium range level in AlxNi100-x alloys during rapid solidification process. <i>Journal of Alloys and Compounds</i> , 2018, 744, 750-758.	2.8	13
203	Tribocorrosion behaviors of a biodegradable Mg65Zn30Ca5 bulk metallic glass for potential biomedical implant applications. <i>Journal of Alloys and Compounds</i> , 2018, 745, 111-120.	2.8	37

#	ARTICLE	IF	CITATIONS
204	Fabrication of alumina-titanium composites by spark plasma sintering and their mechanical properties. <i>Journal of Alloys and Compounds</i> , 2018, 744, 759-768.	2.8	36
205	Mg Alloys: Challenges and Achievements in Controlling Performance, and Future Application Perspectives. <i>Minerals, Metals and Materials Series</i> , 2018, , 3-14.	0.3	8
206	In vitro and in vivo studies on as-extruded Mg- 5.25wt.%Zn-0.6wt.%Ca alloy as biodegradable metal. <i>Science China Materials</i> , 2018, 61, 619-628.	3.5	27
207	Evaluation of the osteogenesis and osseointegration of titanium alloys coated with graphene: an in vivo study. <i>Scientific Reports</i> , 2018, 8, 1843.	1.6	53
208	Initial organ distribution and biological safety of Mg <sup>2+</sup> released from a Mg alloy implant. <i>Biomedical Materials (Bristol)</i> , 2018, 13, 035006.	1.7	5
209	In Vitro Corrosion and Biocompatibility of Brushite/Hydroxyapatite Coatings Obtained by Galvanic Deposition on 316LSS. <i>Journal of the Electrochemical Society</i> , 2018, 165, G1-G10.	1.3	9
210	Improvement of the Mechanical and Biomedical Properties of Implants via the Production of Nanocomposite Based on Nanostructured Titanium Matrix and Bioactive Nanocoating. , 2018, , 461-468.		0
211	Biodegradable Electronic Systems in 3D, Heterogeneously Integrated Formats. <i>Advanced Materials</i> , 2018, 30, 1704955.	11.1	72
212	Selective cell response on natural polymer bio-interfaces textured by femtosecond laser. <i>Applied Physics A: Materials Science and Processing</i> , 2018, 124, 1.	1.1	7
213	Can gamma irradiation during radiotherapy influence the metal release process for biomedical CoCrMo and 316L alloys?. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , 2018, 106, 2673-2680.	1.6	8
214	Alloplastic temporomandibular joint replacement systems: a systematic review of their history. <i>International Journal of Oral and Maxillofacial Surgery</i> , 2018, 47, 743-754.	0.7	41
215	Surface nanostructuring of titanium imparts multifunctional properties for orthopedic and cardiovascular applications. <i>Materials and Design</i> , 2018, 144, 169-181.	3.3	35
217	Synergistic interplay between the two major bone minerals, hydroxyapatite and whitlockite nanoparticles, for osteogenic differentiation of mesenchymal stem cells. <i>Acta Biomaterialia</i> , 2018, 69, 342-351.	4.1	91
218	A review of powder additive manufacturing processes for metallic biomaterials. <i>Powder Technology</i> , 2018, 327, 128-151.	2.1	256
219	Passive and Semiconducting Properties Assessment of Commercially Pure Tantalum in Hank's Physiological Solution. <i>Journal of Materials Engineering and Performance</i> , 2018, 27, 116-123.	1.2	10
220	Effect of cumulative strain on the microstructural and mechanical properties of Zn-0.02wt%Mg alloy wires during room-temperature drawing process. <i>Journal of Alloys and Compounds</i> , 2018, 740, 949-957.	2.8	68
221	Structure and stability analysis of biocompatible hydroxyapatite reinforced chitosan nanocomposite. <i>Polymer Composites</i> , 2018, 39, E573.	2.3	6
222	Investigation on the properties of borate bonding agents: Ti6Al4V-porcelain bonding, chemical durability and preliminary cytotoxicity. <i>Materials Science and Engineering C</i> , 2018, 90, 341-355.	3.8	5

#	ARTICLE	IF	CITATIONS
223	Development of Alkoxide Precursors-Based Hybrid Coatings on Ti-6Al-4V Alloy for Biomedical Applications: Influence of pH of Sol. <i>Journal of Materials Engineering and Performance</i> , 2018, 27, 2863-2874.	1.2	7
224	Experimental Determination of Impurity and Interdiffusion Coefficients in Seven Ti and Zr Binary Systems Using Diffusion Multiples. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2018, 49, 3108-3116.	1.1	24
225	ZnO Nanoparticles with Different Sizes and Morphologies for Medical Implant Coatings: Synthesis and Cytotoxicity. <i>BioNanoScience</i> , 2018, 8, 587-595.	1.5	11
226	Zinc-based alloys for degradable vascular stent applications. <i>Acta Biomaterialia</i> , 2018, 71, 1-23.	4.1	324
227	Densification behavior of pure Zn metal parts produced by selective laser melting for manufacturing biodegradable implants. <i>Journal of Materials Processing Technology</i> , 2018, 258, 128-137.	3.1	98
228	Improvement in the corrosion protection and bactericidal properties of AZ91D magnesium alloy coated with a microstructured polypyrrole film. <i>Journal of Magnesium and Alloys</i> , 2018, 6, 15-22.	5.5	32
229	Pretreatment effect of the pure titanium surface on hybrid coating adhesion based on tetraethoxysilane and methyltriethoxysilane. <i>Journal of Coatings Technology Research</i> , 2018, 15, 1089-1106.	1.2	13
230	Hot deformation behavior of an antibacterial Co-29Cr-6Mo-1.8Cu alloy and its effect on mechanical property and corrosion resistance. <i>Journal of Materials Science and Technology</i> , 2018, 34, 523-533.	5.6	17
231	Ti6Al4V laser surface preparation and functionalization using hydroxyapatite for biomedical applications. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , 2018, 106, 1534-1545.	1.6	22
232	Biodegradable Metals as Biomaterials for Clinical Practice: Iron-Based Materials. , 2018, , 225-280.		9
233	Dual modulation of bone formation and resorption with zoledronic acid-loaded biodegradable magnesium alloy implants improves osteoporotic fracture healing: An in vitro and in vivo study. <i>Acta Biomaterialia</i> , 2018, 65, 486-500.	4.1	99
234	A comprehensive review of hydroxyapatite-based coatings adhesion on metallic biomaterials. <i>Ceramics International</i> , 2018, 44, 1250-1268.	2.3	259
235	A practical approach to assess inhalation toxicity of metal oxide nanoparticles in vitro. <i>Journal of Applied Toxicology</i> , 2018, 38, 160-171.	1.4	23
236	Mechanism of tribofilm formation on Ti6Al4V oxygen diffusion layer in a simulated body fluid. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2018, 77, 660-670.	1.5	15
237	Challenges and opportunities for biodegradable magnesium alloy implants. <i>Materials Technology</i> , 2018, 33, 153-172.	1.5	108
238	Hybrid coatings with collagen and chitosan for improved bioactivity of Mg alloys. <i>Surface and Coatings Technology</i> , 2018, 341, 103-113.	2.2	35
239	Surface modification of metallic biomaterials for enhanced functionality: a review. <i>Materials Technology</i> , 2018, 33, 93-105.	1.5	81
240	Characterization of Mechanical Properties of Metal Biomaterials. , 2018, , 601-631.		0



#	ARTICLE	IF	CITATIONS
241	Influence of functionally graded pores on bone ingrowth in cementless hip prosthesis: a finite element study using mechano-regulatory algorithm. <i>Biomechanics and Modeling in Mechanobiology</i> , 2018, 17, 701-716.	1.4	16
242	Load path change on superelastic NiTi alloys: In situ synchrotron XRD and SEM DIC. <i>Acta Materialia</i> , 2018, 144, 874-883.	3.8	42
243	Medium entropy alloy CoCrNi coatings: Enhancing hardness and damage-tolerance through a nanotwinned structuring. <i>Surface and Coatings Technology</i> , 2018, 335, 257-264.	2.2	52
244	Conversion coating on magnesium alloy sheet (AZ31) by vanillic acid treatment: Preparation, characterization and corrosion behavior. <i>Journal of Alloys and Compounds</i> , 2018, 738, 224-232.	2.8	40
245	Studying the effect of composition on the <i>in vitro</i> wear behavior and elastic modulus of titanium-niobium-based alloys for biomedical implants. <i>Biomedical Physics and Engineering Express</i> , 2018, 4, 027003.	0.6	8
246	Porous Metals in Orthopedics. , 2018, , 281-301.		3
247	Comparison of Osteoconduction, cytocompatibility and corrosion protection performance of hydroxyapatite-calcium hydrogen phosphate composite coating synthesized in-situ through pulsed electro-deposition with varying amount of phase and crystallinity. <i>Surfaces and Interfaces</i> , 2018, 10, 1-10.	1.5	34
248	Biomaterials in temporomandibular joint replacement: current status and future perspectivesâ€”a narrative review. <i>International Journal of Oral and Maxillofacial Surgery</i> , 2018, 47, 518-533.	0.7	38
249	Deciphering the role and nature of phosphate species at the surface of stainless steel immersed in phosphoric acid solutions. <i>Applied Surface Science</i> , 2018, 434, 561-572.	3.1	8
250	Microstructural characterization of laser micro-welded Nitinol wires. <i>Materials Characterization</i> , 2018, 135, 40-45.	1.9	21
251	Surface functionalization of biomaterials by plasma and ion beam. <i>Surface and Coatings Technology</i> , 2018, 336, 2-8.	2.2	22
252	The Influence of Process Parameters on the Structure, Phase Composition, and Texture of Micro-Plasma Sprayed Hydroxyapatite Coatings. <i>Coatings</i> , 2018, 8, 106.	1.2	4
253	Effect of Voltage on the Microstructure and Corrosion Properties of MAO Coatings on Biodegradable ZK60 Mg Alloys. <i>International Journal of Electrochemical Science</i> , 2018, , 3555-3565.	0.5	6
254	Obtaining of light biocompatible magnesium alloys using levitation equipment under controlled argon atmosphere. <i>IOP Conference Series: Materials Science and Engineering</i> , 2018, 448, 012004.	0.3	1
255	Noninvasive Evaluation of Special Alloys for Prostheses Using Complementary Methods. <i>IOP Conference Series: Materials Science and Engineering</i> , 2018, 374, 012030.	0.3	7
256	Preparation of porous Ta-10%Nb alloy scaffold and its <i>in vitro</i> biocompatibility evaluation using MC3T3-E1 cells. <i>Transactions of Nonferrous Metals Society of China</i> , 2018, 28, 2053-2061.	1.7	6
257	Effects of the Intermetallic Phases on Microstructure and Properties of Biodegradable Magnesium Matrix and Zinc Matrix Prepared by Powder Metallurgy. <i>Materials Transactions</i> , 2018, 59, 1837-1844.	0.4	8
258	Bulk nanostructured metals for advanced medical implants and devices. <i>IOP Conference Series: Materials Science and Engineering</i> , 0, 461, 012089.	0.3	4



#	ARTICLE	IF	CITATIONS
259	Mechanical Alloying and Hot Pressing of Ti-Zr-Si-B Powder Mixtures. <i>Metals</i> , 2018, 8, 82.	1.0	2
260	Biomaterials and Devices in Hard Tissue Augmentation. , 2018, , 219-232.		0
263	Biocomposites for Hard Tissue Replacement and Repair. <i>Materials Horizons</i> , 2018, , 281-296.	0.3	9
264	Microstructural Characterization and Mechanical Behavior of NiTi Shape Memory Alloys Ultrasonic Joints Using Cu Interlayer. <i>Materials</i> , 2018, 11, 1830.	1.3	23
265	Microstructure, Mechanical Properties, and Sliding Wear Behavior of Spark Plasma Sintered Ti-Cu Alloys. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2018, 49, 6147-6160.	1.1	20
266	Studies on Bio-acceptability of Thermo-Mechanically Processed Mg-4Li-0.5Ca Alloy and Its Microstructural Correlation. <i>Journal of Materials Engineering and Performance</i> , 2018, 27, 6458-6467.	1.2	4
267	Special Biodegradable Fixation Device for Anterior Cruciate Ligament Reconstruction—Safety and Efficacy in a Beagle Model. <i>ACS Biomaterials Science and Engineering</i> , 2018, 4, 3600-3609.	2.6	5
268	Hydroxyapatite mixed-electro discharge formation of bioceramic Laksargiite (CaZrO <sub>3</sub> ) on Zr—Cu—Ni—Ti—Be for orthopedic application. <i>Materials and Manufacturing Processes</i> , 2018, 33, 1734-1744.	2.7	31
269	Unraveling the osteogenesis of magnesium by the activity of osteoblasts <i>in vitro</i> . <i>Journal of Materials Chemistry B</i> , 2018, 6, 6615-6621.	2.9	38
270	Morphological and mechanical characterization of topologically ordered open cell porous iron foam fabricated using 3D printing and pressureless microwave sintering. <i>Materials and Design</i> , 2018, 160, 442-454.	3.3	48
271	Effect of the Heat-Treated Ti6Al4V Alloy on the Fibroblastic Cell Response. <i>Materials</i> , 2018, 11, 21.	1.3	9
272	The determining role of nanoscale mechanical twinning on cellular functions of nanostructured materials. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2018, 88, 185-195.	1.5	10
273	Effect of pore geometry on the fatigue properties and cell affinity of porous titanium scaffolds fabricated by selective laser melting. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2018, 88, 478-487.	1.5	80
274	Chemical nanocavitation of surfaces to enhance the utility of stainless steel as a medical material. <i>Colloids and Surfaces B: Biointerfaces</i> , 2018, 161, 677-687.	2.5	19
275	Cytotoxicity and in Vitro Degradation Kinetics of Foundry-Compatible Semiconductor Nanomembranes and Electronic Microcomponents. <i>ACS Nano</i> , 2018, 12, 9721-9732.	7.3	18
276	Laser additive manufacturing of Zn metal parts for biodegradable applications: Processing, formation quality and mechanical properties. <i>Materials and Design</i> , 2018, 155, 36-45.	3.3	114
278	Tribological properties of nanotubes grown on Ti-35Nb alloy by anodization. <i>Thin Solid Films</i> , 2018, 660, 529-537.	0.8	21
279	High strength and high ductility in the Co—20Cr—15W—10Ni alloy having a bimodal grain structure achieved by static recrystallization. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2018, 732, 70-77.	2.6	21

#	ARTICLE	IF	CITATIONS
280	3D-printed titanium alloys for orthopedic applications. , 2018, , 251-275.		3
281	Bioactive Silica-Based Coating on Stainless Steel Implants. , 2018, , 3505-3553.		1
282	Design and fabrication of a low modulus $\beta$ -type Ti-Nb-Zr alloy by controlling martensitic transformation. Rare Metals, 2018, 37, 789-794.	3.6	19
283	Evolution of the microstructure and fracture characteristics of a Mg-Nd-Zn-Zr-Mn alloy through heat treatment and extrusion. Journal of Alloys and Compounds, 2018, 765, 470-479.	2.8	18
284	Effects of thermomechanical history and environment on the fatigue behavior of ( $\beta$ )-Ti-Nb implant alloys. MATEC Web of Conferences, 2018, 165, 06001.	0.1	10
285	Bioactive metallic surfaces for bone tissue engineering. , 2018, , 79-110.		5
286	Metallic biomaterials for dental implant systems. , 2018, , 111-137.		6
287	Densification and microstructural evolution of spark plasma sintered NiTi shape memory alloy. Advanced Powder Technology, 2018, 29, 2456-2462.	2.0	24
288	Tribological Behavior of CoCr28Mo/CoCr28Mo Pair in the Presence of Bio-lubrication. Journal of Bionic Engineering, 2018, 15, 703-712.	2.7	2
289	Thermal Considerations with Tissue Electroporation. , 2018, , 2489-2519.		0
290	Effect of the Microstructure and Distribution of the Second Phase on the Stress Corrosion Cracking of Biomedical Mg-Zn-Zr-xSr Alloys. Materials, 2018, 11, 551.	1.3	19
291	Microstructure and Corrosion Resistance of Laser-Welded Crossed Nitinol Wires. Materials, 2018, 11, 842.	1.3	7
292	Biodegradable Metallic Wires in Dental and Orthopedic Applications: A Review. Metals, 2018, 8, 212.	1.0	33
293	TiO <sub>2</sub> Nanotubes on Ti Dental Implant. Part 3: Electrochemical Behavior in Hank's Solution of Titania Nanotubes Formed in Ethylene Glycol. Metals, 2018, 8, 489.	1.0	13
294	An In Vitro Corrosion Study of Open Cell Iron Structures with PEG Coating for Bone Replacement Applications. Metals, 2018, 8, 499.	1.0	30
295	Effects of solution composition and electrophoretic deposition voltage on various properties of nanohydroxyapatite coatings on the Ti <sub>13</sub> Zr <sub>13</sub> Nb alloy. Ceramics International, 2018, 44, 19236-19246.	2.3	27
296	Nanotribological response of a-C:H coated metallic biomaterials: the cases of stainless steel, titanium, and niobium. Journal of Applied Biomaterials and Functional Materials, 2018, 16, 230-240.	0.7	3
297	Corrosion and wear properties of biomedical Ti-Zr-based alloys. Materials and Corrosion - Werkstoffe Und Korrosion, 2018, 69, 1703-1712.	0.8	6

#	ARTICLE	IF	CITATIONS
298	In vitro corrosion behavior and biocompatibility of nanostructured Ti6Al4V. <i>Materials Science and Engineering C</i> , 2018, 92, 268-279.	3.8	32
299	Molecular Investigation of the Initial Nucleation of Calcium Phosphate on TiO <sub>2</sub> Substrate: The Effects of Surface Nanotopographies. <i>Crystal Growth and Design</i> , 2018, 18, 3283-3290.	1.4	10
300	Hydroxyapatite-Based Coating on Biomedical Implant. , 0, , .		15
301	Surface modification of stainless steel for biomedical applications: Revisiting a century-old material. <i>Materials Science and Engineering C</i> , 2018, 93, 1073-1089.	3.8	163
302	Thermogel Loaded with Low-Dose Paclitaxel as a Facile Coating to Alleviate Periprosthetic Fibrous Capsule Formation. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 30235-30246.	4.0	33
303	Enhancing Biocompatibility and Corrosion Resistance of Ti-6Al-4V Alloy by Surface Modification Route. <i>Journal of Thermal Spray Technology</i> , 2018, 27, 1388-1400.	1.6	33
304	“The return of ceramic implants” Rose stem inspired dual layered modification of ceramic scaffolds with improved mechanical and anti-infective properties. <i>Materials Science and Engineering C</i> , 2018, 93, 873-879.	3.8	13
305	Enhanced Osseointegration of Hierarchically Structured Ti Implant with Electrically Bioactive SnO <sub>2</sub> TiO <sub>2</sub> Bilayered Surface. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 30191-30200.	4.0	26
306	Fabrication of two distinct hydroxyapatite coatings and their effects on MC3T3-E1 cell behavior. <i>Colloids and Surfaces B: Biointerfaces</i> , 2018, 171, 40-48.	2.5	37
307	Microstructure evolution, electrochemical properties and in-vitro properties of Ti-Nb-Zr based biocomposite by hydroxyapatite bioceramic. <i>Journal of Alloys and Compounds</i> , 2018, 764, 987-1002.	2.8	8
308	Antibacterial activities and biocompatibilities of Ti-Ag alloys prepared by spark plasma sintering and acid etching. <i>Materials Science and Engineering C</i> , 2018, 92, 121-131.	3.8	83
309	Current status and outlook on the clinical translation of biodegradable metals. <i>Materials Today</i> , 2019, 23, 57-71.	8.3	271
310	In vitro bioactivity and corrosion resistance enhancement of Ti-6Al-4V by highly ordered TiO <sub>2</sub> nanotube arrays. <i>Journal of the Australian Ceramic Society</i> , 2019, 55, 187-200.	1.1	23
311	Failure Analysis of Prematurely Failed Hip Joint Implant Inside the Femur Bone. <i>Lecture Notes in Mechanical Engineering</i> , 2019, , 286-296.	0.3	0
312	The Foreign Body Response Demystified. <i>ACS Biomaterials Science and Engineering</i> , 2019, 5, 19-44.	2.6	113
313	Implant surface design for improved implant stability “ A study on Ti6Al4V dense and cellular structures produced by Selective Laser Melting. <i>Tribology International</i> , 2019, 129, 272-282.	3.0	43
314	Mechanistic insight on the combined effect of albumin and hydrogen peroxide on surface oxide composition and extent of metal release from Ti6Al4V. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , 2019, 107, 858-867.	1.6	23
315	Anisotropic microstructure and mechanical properties of additively manufactured Co-Cr-Mo alloy using selective electron beam melting for orthopedic implants. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2019, 765, 138270.	2.6	49

#	ARTICLE	IF	CITATIONS
316	Improving biotribological properties and corrosion resistance of CoCrMo alloy via a Cr-GLC nanocomposite film in simulated body fluids. <i>Surface and Coatings Technology</i> , 2019, 378, 124840.	2.2	19
317	Poly(L-lactic acid) (PLLA) Coatings with Controllable Hierarchical Porous Structures on Magnesium Substrate: An Evaluation of Corrosion Behavior and Cytocompatibility. <i>ACS Applied Bio Materials</i> , 2019, 2, 3843-3853.	2.3	17
318	Fretting initiated crevice corrosion of 316LVM stainless steel in physiological phosphate buffered saline: Potential and cycles to initiation. <i>Acta Biomaterialia</i> , 2019, 97, 565-577.	4.1	40
319	The Influence of Nitrogen Absorption on Microstructure, Properties and Cytotoxicity Assessment of 316L Stainless Steel Alloy Reinforced with Boron and Niobium. <i>Processes</i> , 2019, 7, 506.	1.3	16
320	Synthetic bone: Design by additive manufacturing. <i>Acta Biomaterialia</i> , 2019, 97, 637-656.	4.1	169
321	Microstructural, mechanical and electrochemical characterization of TiZrTaHfNb and Ti <sub>1.5</sub> ZrTa <sub>0.5</sub> Hf <sub>0.5</sub> Nb <sub>0.5</sub> refractory high-entropy alloys for biomedical applications. <i>Intermetallics</i> , 2019, 113, 106572.	1.8	111
322	Anodizing-induced evolution of nanostructural surface morphologies in Ti-10Mo-xSi alloys for enhanced corrosion resistance. <i>Surface and Coatings Technology</i> , 2019, 377, 124924.	2.2	4
323	Characterization of a new Ti-13Nb-13Zr-10Cu alloy with enhanced antibacterial activity for biomedical applications. <i>Materials Letters</i> , 2019, 253, 335-338.	1.3	25
324	Fabrication and properties of a biodegradable $\beta$ -TCP/Zn-Mg bio-composite. <i>Materials Research Express</i> , 2019, 6, 086511.	0.8	6
325	Effect of Hf substitution Cu on glass-forming ability, mechanical properties and corrosion resistance of Ni-free Zr-Ti-Cu-Al bulk metallic glasses. <i>Journal of Alloys and Compounds</i> , 2019, 806, 668-675.	2.8	40
326	Effect of reinforcing S53P4 bioactive glass on physio-mechanical and biological properties of Ti-8Nb-2Fe alloy. <i>Ceramics International</i> , 2019, 45, 21810-21818.	2.3	5
327	Investigations of surface integrity, bio-activity and performance characteristics during wire-electrical discharge machining of Ti-6Al-7Nb biomedical alloy. <i>Materials Research Express</i> , 2019, 6, 096568.	0.8	14
328	Evaluation of TiO <sub>2</sub> /CeO <sub>2</sub> coating on Ti6Al4V alloy in PBS physiological medium using conventional and near field electrochemical techniques. <i>Applied Surface Science</i> , 2019, 494, 1109-1118.	3.1	10
329	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
330	3-D printed Ti-6Al-4V scaffolds for supporting osteoblast and restricting bacterial functions without using drugs: Predictive equations and experiments. <i>Acta Biomaterialia</i> , 2019, 96, 662-673.	4.1	29
331	Cytotoxicity and Corrosion Behavior of Magnesium and Magnesium Alloys in Hank's Solution after Processing by High-Pressure Torsion. <i>Advanced Engineering Materials</i> , 2019, 21, 1900391.	1.6	31
332	Nanocatalytic Medicine. <i>Advanced Materials</i> , 2019, 31, e1901778.	11.1	396
333	Electrodeposition of Ginseng/Polyaniline Encapsulated Poly(lactic-&co&-glycolic Acid) Microcapsule Coating on Stainless Steel 316L at Different Deposition Parameters. <i>Chemical and Pharmaceutical Bulletin</i> , 2019, 67, 445-451.	0.6	5

#	ARTICLE	IF	CITATIONS
334	Challenges in the use of zinc and its alloys as biodegradable metals: Perspective from biomechanical compatibility. <i>Acta Biomaterialia</i> , 2019, 97, 23-45.	4.1	170
335	EDM $\frac{1}{4}$ -drilling in Ti-6Al-7Nb: experimental investigation and optimization using NSGA-II. <i>International Journal of Advanced Manufacturing Technology</i> , 2019, 104, 2727-2738.	1.5	44
336	Progress in Development of Beta Titanium Alloys for Biomedical Applications. , 2019, , 512-527.		3
337	Corrosion fatigue failure of a high carbon CoCrMo modular hip prosthesis: Failure analysis and electrochemical study. <i>Engineering Failure Analysis</i> , 2019, 105, 856-868.	1.8	21
338	Predicting the output dimensions, porosity and elastic modulus of additive manufactured biomaterial structures targeting orthopedic implants. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2019, 99, 104-117.	1.5	44
339	The Electrochemical and Mechanical Behavior of Bulk and Porous Superelastic Ti $\epsilon$ 'Zr-Based Alloys for Biomedical Applications. <i>Materials</i> , 2019, 12, 2395.	1.3	5
340	Effects of electrophoretic deposition times and nanotubular oxide surfaces on properties of the nanohydroxyapatite/nanocopper coating on the Ti13Zr13Nb alloy. <i>Ceramics International</i> , 2019, 45, 20002-20010.	2.3	25
341	Relationship between microstructure and formation-biodegradation mechanism of fluoride conversion coatings synthesised on the AZ31 magnesium alloy. <i>Surface and Coatings Technology</i> , 2019, 374, 424-436.	2.2	22
342	Degradation Behaviour of Mg0.6Ca and Mg0.6Ca2Ag Alloys with Bioactive Plasma Electrolytic Oxidation Coatings. <i>Coatings</i> , 2019, 9, 383.	1.2	14
343	Improving in vitro and in vivo antibacterial functionality of Mg alloys through micro-alloying with Sr and Ga. <i>Materials Science and Engineering C</i> , 2019, 104, 109926.	3.8	42
344	Metallic glasses for biodegradable implants. <i>Acta Materialia</i> , 2019, 176, 297-305.	3.8	25
345	An Efficient Approach for Nitrogen Diffusion and Surface Nitriding of Boron-Titanium Modified Stainless Steel Alloy for Biomedical Applications. <i>Metals</i> , 2019, 9, 755.	1.0	12
346	Shot peening effects on corrosion behavior of commercial pure titanium in body simulating solution. <i>Materials Research Express</i> , 2019, 6, 116556.	0.8	1
347	Polyvinyl alcohol/magnesium phosphate composite coated Mg $\epsilon$ 'Ca alloy for biodegradable orthopaedic implant applications. <i>Materials Research Express</i> , 2019, 6, 1165b7.	0.8	6
348	Chitosan in Surface Modification for Bone Tissue Engineering Applications. <i>Biotechnology Journal</i> , 2019, 14, e1900171.	1.8	39
349	The relationship of surface roughness and wettability of 316L stainless steel implants with plastic deformation mechanisms. <i>Materials Today: Proceedings</i> , 2019, 7, 389-393.	0.9	7
350	The Effect of Coating Density on Functional Properties of SiNx Coated Implants. <i>Materials</i> , 2019, 12, 3370.	1.3	8
351	In Vitro Biodegradation and Biocompatibility of Mg $\epsilon$ 'HA-Based Composites for Orthopaedic Applications: A Review. <i>Journal of the Indian Institute of Science</i> , 2019, 99, 303-327.	0.9	19

#	ARTICLE	IF	CITATIONS
352	Enhanced Osseointegration of Titanium Alloy Implants with Laser Microgrooved Surfaces and Graphene Oxide Coating. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 39470-39483.	4.0	82
353	Enhancement of corrosion resistance to sterilization stages of a biomedical grade AISI 316L stainless steel by means of low-temperature machining. <i>Materials Today: Proceedings</i> , 2019, 7, 552-559.	0.9	2
354	Bioceramic enhances the degradation and bioactivity of iron bone implant. <i>Materials Research Express</i> , 2019, 6, 115401.	0.8	13
355	XPS and EIS studies to account for the passive behavior of the alloy Ti-6Al-4V in Hank's solution. <i>Journal of Solid State Electrochemistry</i> , 2019, 23, 3187-3196.	1.2	23
356	Engineering High-Resolution Micropatterns Directly onto Titanium with Optimized Contact Guidance to Promote Osteogenic Differentiation and Bone Regeneration. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 43888-43901.	4.0	35
357	Characterization and Mechanical Properties of New TiMo Alloys Used for Medical Applications. <i>Materials</i> , 2019, 12, 2973.	1.3	44
358	Plasma Electrolytic Oxidation (PEO) Layers from Silicate/Phosphate Baths on Ti-6Al-4V for Biomedical Components: Influence of Deposition Conditions and Surface Finishing on Dry Sliding Behaviour. <i>Coatings</i> , 2019, 9, 614.	1.2	14
359	The influence of tool coating on the length of the normal operating region (steady-state wear) for micro end mills. <i>Precision Engineering</i> , 2019, 60, 306-319.	1.8	4
360	Effect of Extrusion Temperature and Extrusion Ratio on Microstructure and Biodegradation Behavior of Mg-4.5Zn Binary Alloy. <i>Jom</i> , 2019, 71, 4705-4714.	0.9	5
361	A strong, wear- and corrosion-resistant, and antibacterial Co-30 at.% Cr-5 at.% Ag ternary alloy for medical implants. <i>Materials and Design</i> , 2019, 184, 108190.	3.3	23
362	Effect of Zirconia ALD coating on stress corrosion cracking of AZ31 alloy in simulated body fluid. <i>Procedia Structural Integrity</i> , 2019, 18, 538-548.	0.3	10
363	Preparation and characterization of the aesthetic coating on nickel-titanium orthodontic archwire by electrophoretic deposition. <i>Progress in Organic Coatings</i> , 2019, 137, 105271.	1.9	6
364	The Positive Effect of Hydrogen Alloying on the Phase Tailoring and Mechanical Properties of Sintered Ti-13Nb SMAs. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2019, 50, 5525-5532.	1.1	0
365	A study on the impact behaviors of Mg wires/PLA composite for orthopedic implants. <i>Journal of Materials Science</i> , 2019, 54, 14545-14553.	1.7	5
366	Effect of Molybdenum Content on Structure and Properties of a Co-Cr Biomedical Alloy. <i>Journal of Materials Engineering and Performance</i> , 2019, 28, 6340-6353.	1.2	9
367	Electrophoretic deposition of Bioactive glass-Chitosan nanocomposite coatings on Ti-6Al-4V for orthopedic applications. <i>Carbohydrate Polymers</i> , 2019, 226, 115299.	5.1	39
368	The First-Row Transition Metals in the Periodic Table of Medicine. <i>Inorganics</i> , 2019, 7, 111.	1.2	31
369	Biodegradable Implantation Material: Mechanical Properties and Surface Corrosion Mechanism of Mg-1Ca-0.5Zr Alloy. <i>Metals</i> , 2019, 9, 857.	1.0	9



#	ARTICLE	IF	CITATIONS
370	First-Principles Study on a New All-d-Metal Full-Heusler-Based Shape-Memory Alloy Cd <sub>2</sub> MnPd. Spin, 2019, 09, .	0.6	7
371	The Electrochemical and Biological Behaviour of Biomedical Alloy by Surface Modification Technique through E-Beam Evaporation. Journal of Bio- and Tribo-Corrosion, 2019, 5, 1.	1.2	4
372	Electrophoretic deposition and characterization of bioglass-whisker hydroxyapatite nanocomposite coatings on titanium substrate. Surface and Coatings Technology, 2019, 378, 124949.	2.2	16
373	Miscibility, mechanical, and thermal properties of polylactic acid/polypropylene carbonate (PLA/PPC) blends prepared by melt-mixing method. Materials Today: Proceedings, 2019, 17, 534-542.	0.9	14
374	Synergetic effects of solute and strain in biocompatible Zn-based and Mg-based alloys. Acta Materialia, 2019, 181, 423-438.	3.8	18
375	Microstructure, mechanical properties and corrosion behaviors of biomedical Ti-Zr-Mo-xMn alloys for dental application. Corrosion Science, 2019, 161, 108195.	3.0	65
376	Innate glycosidic activity in metallic implants for localized synthesis of antibacterial drugs. Chemical Communications, 2019, 55, 443-446.	2.2	7
377	Improved bio-acceptability of thermomechanically processed ZM21 magnesium alloy. Materials Research Express, 2019, 6, 056524.	0.8	6
378	Development of Ti-Nb and Ti-Nb-Fe beta alloys from TiH <sub>2</sub> powders. Powder Metallurgy, 2019, 62, 44-53.	0.9	14
379	Enhanced calcification of osteoblast-like cells on zirconium through calcium-phosphate slurry processing. Applied Surface Science, 2019, 478, 567-573.	3.1	6
380	Microstructural, mechanical and biological properties of hydroxyapatite - CaZrO <sub>3</sub> biocomposites. Ceramics International, 2019, 45, 8195-8203.	2.3	18
381	Investigations into Ti-15Mo-W Alloys Developed for Medical Applications. Materials, 2019, 12, 147.	1.3	12
382	Magnesium-Based Bioresorbable Stent Materials: Review of Reviews. Journal of Bio- and Tribo-Corrosion, 2019, 5, 1.	1.2	24
383	Niobo-phosphate bioactive glass films produced by pulsed laser deposition on titanium surfaces for improved cell adhesion. Ceramics International, 2019, 45, 18052-18058.	2.3	10
384	Evaluation of the mechanical and wear properties of titanium produced by three different additive manufacturing methods for biomedical application. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2019, 760, 339-345.	2.6	90
385	Advanced titanium dioxide-polytetrafluorethylene (TiO <sub>2</sub> -PTFE) nanocomposite coatings on stainless steel surfaces with antibacterial and anti-corrosion properties. Applied Surface Science, 2019, 490, 231-241.	3.1	73
386	Bioactive nanomaterials/chitosan composites as scaffolds for tissue regeneration. , 2019, , 559-584.		3
387	Emerging magnesium-based biomaterials for orthopedic implantation. Emerging Materials Research, 2019, 8, 305-319.	0.4	38



#	ARTICLE	IF	CITATIONS
388	Coating Techniques for Functional Enhancement of Metal Implants for Bone Replacement: A Review. <i>Materials</i> , 2019, 12, 1795.	1.3	91
389	Enhancing general corrosion resistance of biomedical high nitrogen nickel-free stainless steel by water treatment. <i>Materials Letters</i> , 2019, 251, 196-200.	1.3	4
390	Investigation of zinc-copper alloys as potential materials for craniomaxillofacial osteosynthesis implants. <i>Materials Science and Engineering C</i> , 2019, 103, 109826.	3.8	70
391	Cyclic deformation characteristics of the metastable $\beta$ -type Ti-40Nb alloy. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2019, 761, 137966.	2.6	16
392	Synthesis and Characterization of Bioceramic Oxide Coating on Zr-Ti-Cu-Ni-Be BMG by Electro Discharge Process. <i>Lecture Notes in Mechanical Engineering</i> , 2019, , 518-531.	0.3	5
393	Fabrication and Characterization of Nanopillar-Like HA Coating on Porous Ti6Al4V Scaffold by a Combination of Alkali-Acid-Heat and Hydrothermal Treatments. <i>Acta Metallurgica Sinica (English) T</i> 1 0.784314 rg / Over	1.0	14
394	Injectable dicalcium phosphate bone cement prepared from biphasic calcium phosphate extracted from lamb bone. <i>Materials Science and Engineering C</i> , 2019, 103, 109863.	3.8	21
395	Microstructure Evolution and Mechanical Properties of Titanium/Alumina Brazed Joints for Medical Implants. <i>Metals</i> , 2019, 9, 644.	1.0	36
396	Characterization and hardness enhancement of amorphous Fe-based metallic glass laser cladded on nickel-free stainless steel for biomedical implant application. <i>Materials Chemistry and Physics</i> , 2019, 235, 121745.	2.0	26
397	In Vitro Corrosion and Bioactivity Performance of Surface-Treated Ti-20Nb-13Zr Alloys for Orthopedic Applications. <i>Coatings</i> , 2019, 9, 344.	1.2	12
398	Local Lattice Distortion Mediated Formation of Stacking Faults in Mg Alloys. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
399	Osteointegrative and microgeometric comparison between micro-blasted and alumina blasting/acid etching on grade II and V titanium alloys (Ti-6Al-4V). <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2019, 97, 288-295.	1.5	14
400	Nanocrystalline Ti49.2Ni50.8 shape memory alloy as orthopaedic implant material with better performance. <i>Journal of Materials Science and Technology</i> , 2019, 35, 2156-2162.	5.6	23
401	Osteogenic activity and antibacterial ability on titanium surfaces modified with magnesium-doped titanium dioxide coating. <i>Nanomedicine</i> , 2019, 14, 1109-1133.	1.7	35
402	Surface anodization of the biphasic Ti13Nb13Zr biocompatible alloy: Influence of phases on the formation of TiO <sub>2</sub> nanostructures. <i>Journal of Alloys and Compounds</i> , 2019, 796, 93-102.	2.8	31
403	Interfacial Zinc Phosphate is the Key to Controlling Biocompatibility of Metallic Zinc Implants. <i>Advanced Science</i> , 2019, 6, 1900112.	5.6	95
404	Evolution of surface modification trends in bone related biomaterials: A review. <i>Materials Chemistry and Physics</i> , 2019, 233, 68-78.	2.0	79
405	Development of biocompatible and fully bioabsorbable PLA/Mg films for tissue regeneration applications. <i>Acta Biomaterialia</i> , 2019, 98, 114-124.	4.1	78

#	ARTICLE	IF	CITATIONS
406	One pot and room temperature photochemical synthesis of high quantum yield NIR emissive Ag <sub>2</sub> S@Ag(In, Zn) <sub>2</sub> S core-shells at the presence of air in water. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2019, 380, 111854.	2.0	10
408	Biomedical applications of polyethylene. <i>European Polymer Journal</i> , 2019, 118, 412-428.	2.6	107
409	Precipitates formation and evolution in a Co-based alloy produced by powder bed fusion. <i>Journal of Alloys and Compounds</i> , 2019, 797, 652-658.	2.8	16
410	Improved Corrosion Resistance of Selective Laser Melted Ti-5Cu Alloy Using Atomized Ti-5Cu Powder. <i>Acta Metallurgica Sinica (English Letters)</i> , 2019, 32, 1007-1014.	1.5	9
411	Engineered bio-nanocomposite magnesium scaffold for bone tissue regeneration. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2019, 96, 45-52.	1.5	48
412	Exposure effects of endotoxin-free titanium-based wear particles to human osteoblasts. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2019, 95, 143-152.	1.5	15
413	Influence of Boron Additions and Heat Treatments on the Fatigue Resistance of CoCrMo Alloys. <i>Materials</i> , 2019, 12, 1076.	1.3	6
414	Characterization, adhesion strength and in-vitro cytotoxicity investigation of hydroxyapatite coating synthesized on Zr-based BMG by electro discharge process. <i>Surface and Coatings Technology</i> , 2019, 370, 213-226.	2.2	32
415	Bioactive inorganic-ion-doped titania nanotube coatings on bone implants with enhanced osteogenic activity and antibacterial properties. , 2019, , 401-427.		2
416	Corrosion of Al <sub>2</sub> O <sub>3</sub> -Ti composites under inflammatory condition in simulated physiological solution. <i>Materials Science and Engineering C</i> , 2019, 102, 200-211.	3.8	23
417	Proximal femur prosthesis remodeling and stress evaluation for Indonesian patient. <i>AIP Conference Proceedings</i> , 2019, , .	0.3	5
418	Engineering the porosity and superelastic behaviors of NiTi alloys prepared by an electro-assisted powder metallurgical route in molten salts. <i>Journal of Alloys and Compounds</i> , 2019, 794, 455-464.	2.8	13
419	Electrodeposition of cobalt-substituted calcium phosphate coatings on Ti <sub>22</sub> Nb <sub>6</sub> Zr alloy for bone implant applications. <i>Journal of Alloys and Compounds</i> , 2019, 793, 576-582.	2.8	20
420	Influence of Boron Addition on the Microstructure and the Corrosion Resistance of CoCrMo Alloy. <i>Metals</i> , 2019, 9, 307.	1.0	19
421	Effects of severe plastic deformation on pre-osteoblast cell behavior and proliferation on AISI 304 and Ti-6Al-4V metallic substrates. <i>Surface and Coatings Technology</i> , 2019, 366, 204-213.	2.2	19
422	Phase equilibrium, structure, mechanical and biocompatible properties of TiNi-based alloy with silver. <i>Materials Research Express</i> , 2019, 6, 066559.	0.8	7
423	Low-friction study between diamond-like carbon coating and Ti 6Al 4V under fretting conditions. <i>Tribology International</i> , 2019, 135, 368-388.	3.0	22
424	A Review on Biomedical Titanium Alloys: Recent Progress and Prospect. <i>Advanced Engineering Materials</i> , 2019, 21, 1801215.	1.6	659

#	ARTICLE	IF	CITATIONS
425	Vanadium Dioxide Nanocoating Induces Tumor Cell Death through Mitochondrial Electron Transport Chain Interruption. <i>Global Challenges</i> , 2019, 3, 1800058.	1.8	33
426	3D printing of Zr-based bulk metallic glasses and components for potential biomedical applications. <i>Journal of Alloys and Compounds</i> , 2019, 790, 963-973.	2.8	66
427	Exploring the Role of Manganese on the Microstructure, Mechanical Properties, Biodegradability, and Biocompatibility of Porous Iron-Based Scaffolds. <i>ACS Biomaterials Science and Engineering</i> , 2019, 5, 1686-1702.	2.6	62
428	Structure and nanoindentation mechanical properties of novel porous Ti-Ta material with a core-shell structure using the powder metallurgy method. <i>Advanced Powder Technology</i> , 2019, 30, 1006-1017.	2.0	5
429	Additive manufacturing of magnesium-zinc-zirconium (ZK) alloys via capillary-mediated binderless three-dimensional printing. <i>Materials and Design</i> , 2019, 169, 107683.	3.3	62
430	Selection of extraction medium influences cytotoxicity of zinc and its alloys. <i>Acta Biomaterialia</i> , 2019, 98, 235-245.	4.1	60
431	Sol-gel-derived mineral scaffolds within SiO <sub>2</sub> -P <sub>2</sub> O <sub>5</sub> -CaO-MgO-ZnO-CaF <sub>2</sub> system. <i>Journal of Sol-Gel Science and Technology</i> , 2019, 90, 411-421.	1.1	8
432	Local lattice distortion mediated formation of stacking faults in Mg alloys. <i>Acta Materialia</i> , 2019, 170, 231-239.	3.8	45
433	Parametric Modeling of Biomimetic Cortical Bone Microstructure for Additive Manufacturing. <i>Materials</i> , 2019, 12, 913.	1.3	32
434	Enhanced cytocompatibility and antibacterial property of zinc phosphate coating on biodegradable zinc materials. <i>Acta Biomaterialia</i> , 2019, 98, 174-185.	4.1	148
435	Formation Quality, Mechanical Properties, and Processing Behavior of Pure Zinc Parts Produced by Laser-Based Manufacturing for Biodegradable Implants. <i>BHM-Zeitschrift Fuer Rohstoffe Geotechnik Metallurgie Werkstoffe Maschinen-Und Anlagentechnik</i> , 2019, 164, 133-140.	0.4	6
436	Nano-Pt ennobling of stainless steel for biomedical applications. <i>Electrochimica Acta</i> , 2019, 301, 153-161.	2.6	13
437	Degradable magnesium-based alloys for biomedical applications: The role of critical alloying elements. <i>Journal of Biomaterials Applications</i> , 2019, 33, 1348-1372.	1.2	61
438	Salan vs. salen metal complexes in catalysis and medicinal applications: Virtues and pitfalls. <i>Coordination Chemistry Reviews</i> , 2019, 388, 227-247.	9.5	115
439	Early osteointegration evaluation of porous Ti6Al4V scaffolds designed based on triply periodic minimal surface models. <i>Journal of Orthopaedic Translation</i> , 2019, 19, 94-105.	1.9	57
440	Electrochemical methods for fabrication of polymers/calcium phosphates nanocomposites as hard tissue implants. <i>Applied Physics Reviews</i> , 2019, 6, 021303.	5.5	5
441	Laser additive manufacturing of Zn metal parts for biodegradable implants: Effect of gas flow on evaporation and formation quality. <i>Journal of Laser Applications</i> , 2019, 31, .	0.8	14
442	Effect of Saliva and Mucin-Based Saliva Substitutes on Fretting Processes of 316 Austenitic Stainless Steel. <i>Metals</i> , 2019, 9, 178.	1.0	10

#	ARTICLE	IF	CITATIONS
443	Effects of Extrusion on Mechanical and Corrosion Resistance Properties of Biomedical Mg-Zn-Nd-xCa Alloys. <i>Materials</i> , 2019, 12, 1049.	1.3	5
444	High Performance Fine-Grained Biodegradable Mg-Zn-Ca Alloys Processed by Severe Plastic Deformation. <i>Metals</i> , 2019, 9, 186.	1.0	36
445	Large current ion beam polishing and characterization of mechanically finished titanium alloy (Ti6Al4V) surface. <i>Applied Surface Science</i> , 2019, 476, 905-913.	3.1	18
446	Enhanced corrosion resistance and bio-performance of Al <sub>2</sub> O <sub>3</sub> coated NiTi alloy improved by polydopamine-induced hydroxyapatite mineralization. <i>Surface and Coatings Technology</i> , 2019, 364, 81-88.	2.2	8
447	Load-bearing biodegradable polycaprolactone-poly (lactic-co-glycolic acid)-beta tri-calcium phosphate scaffolds for bone tissue regeneration. <i>Polymers for Advanced Technologies</i> , 2019, 30, 1189-1197.	1.6	14
448	Influence of Porosity on the Elastic Modulus of Ti-Zr-Ta-Nb Foams with a Low Nb Content. <i>Metals</i> , 2019, 9, 176.	1.0	16
449	Interface Engineering of Fully Metallic Stents Enabling Controllable H <sub>2</sub> O <sub>2</sub> Generation for Antirestenosis. <i>Langmuir</i> , 2019, 35, 3634-3642.	1.6	6
450	Functionalized-ferroelectric-coating-driven enhanced biomineralization and protein-conformation on metallic implants. <i>Journal of Materials Chemistry B</i> , 2019, 7, 2177-2189.	2.9	14
451	Polydopamine-mediated covalent functionalization of collagen on a titanium alloy to promote biocompatibility with soft tissues. <i>Journal of Materials Chemistry B</i> , 2019, 7, 2019-2031.	2.9	45
452	Influence of proteins on the corrosion behavior of a chitosan-bioactive glass coated magnesium alloy. <i>Materials Science and Engineering C</i> , 2019, 100, 706-714.	3.8	28
453	Mechanical tests for Ti-based alloys as new medical materials. <i>IOP Conference Series: Materials Science and Engineering</i> , 2019, 572, 012029.	0.3	14
454	Mechanobiological assessment of Ti-6Al-4V fabricated via selective laser melting technique: a review. <i>Rapid Prototyping Journal</i> , 2019, 25, 1266-1284.	1.6	36
455	Formation of submicrocrystalline structure in a biodegradable Mg alloy. <i>IOP Conference Series: Materials Science and Engineering</i> , 2019, 485, 012010.	0.3	0
456	45S5 bioactive glass coating on Ti6Al4V alloy using pulsed laser deposition technique. <i>Materials Research Express</i> , 2019, 6, 125428.	0.8	10
457	Enhanced Bone Remodeling Effects of Low-Modulus Ti-5Zr-3Sn-5Mo-25Nb Alloy Implanted in the Mandible of Beagle Dogs under Delayed Loading. <i>ACS Omega</i> , 2019, 4, 18653-18662.	1.6	6
458	In Situ Formation of Ti <sub>47</sub> Cu <sub>38</sub> Zr <sub>7.5</sub> Fe <sub>2.5</sub> Sn <sub>2</sub> Si <sub>1</sub> Nb <sub>2</sub> Amorphous Coating by Laser Surface Remelting. <i>Materials</i> , 2019, 12, 3660.	1.3	5
459	Computational structural analysis of 3D printed hip joint implant and comparison of bio-compatible coating materials for design parameters: Coating thickness, hardness, and adhesion requirements. <i>Advances in Mechanical Engineering</i> , 2019, 11, 168781401988764.	0.8	1
460	Mechanical and degradation behaviour of biodegradable magnesium-zinc/hydroxyapatite composite with different powder mixing techniques. <i>Journal of Magnesium and Alloys</i> , 2019, 7, 566-576.	5.5	30

#	ARTICLE	IF	CITATIONS
461	Development and Characterization of Nanofiber-Reinforced Hydrogel for Bone Regeneration. , 2019, , .		1
462	A Comparative Study of Friction and Wear Processes of Model Metallic Biomaterials Including Registration of Friction-Induced Temperature Response of a Tribological Pair. <i>Materials</i> , 2019, 12, 4163.	1.3	11
463	Mg-Phenolic Network Strategy for Enhancing Corrosion Resistance and Osteocompatibility of Degradable Magnesium Alloys. <i>ACS Omega</i> , 2019, 4, 21931-21944.	1.6	27
464	Multi-walled Carbon Nanotubes Reinforced-Based Magnesium Metal Matrix Composites Prepared by Powder Metallurgy. <i>IOP Conference Series: Materials Science and Engineering</i> , 2019, 578, 012041.	0.3	4
465	Microstructure and compressive properties of porous Ti-Nb-Ta-Zr alloy for orthopedic applications. <i>Journal of Materials Research</i> , 2019, 34, 4045-4055.	1.2	4
466	Mechanical Behavior and Microstructure Evolution of a Ti-15Mo/TiB Titanium Matrix Composite during Hot Deformation. <i>Metals</i> , 2019, 9, 1175.	1.0	22
467	Preparation and Characterization of Mg-RE Alloy Sheets and Formation of Amorphous/Crystalline Composites by Twin Roll Casting for Biomedical Implant Application. <i>Metals</i> , 2019, 9, 1075.	1.0	6
468	Evolutionary approaches in protein engineering towards biomaterial construction. <i>RSC Advances</i> , 2019, 9, 34720-34734.	1.7	6
469	Relationships between surface energy and charge of surface-modified titanium and HAp formation. <i>Applied Surface Science</i> , 2019, 465, 509-516.	3.1	12
470	Mechanical and in Vitro study of an isotropic Ti6Al4V lattice structure fabricated using selective laser melting. <i>Journal of Alloys and Compounds</i> , 2019, 782, 209-223.	2.8	112
471	Effects of Mo contents on the microstructure, properties and cytocompatibility of the microwave sintered porous Ti-Mo alloys. <i>Materials Science and Engineering C</i> , 2019, 97, 156-165.	3.8	89
472	Processing Magnesium and Its Alloys by High-Pressure Torsion: An Overview. <i>Advanced Engineering Materials</i> , 2019, 21, 1801039.	1.6	51
473	A paradigm shift towards compositionally zero-sum binderless 3D printing of magnesium alloys via capillary-mediated bridging. <i>Acta Materialia</i> , 2019, 165, 294-306.	3.8	47
474	Vanadium ionic species from degradation of Ti-6Al-4V metallic implants: In vitro cytotoxicity and speciation evaluation. <i>Materials Science and Engineering C</i> , 2019, 96, 730-739.	3.8	135
475	Porous Ti-based bulk metallic glass with excellent mechanical properties and good biocompatibility. <i>Intermetallics</i> , 2019, 105, 153-162.	1.8	41
476	Conceptual Study for Tissue-Regenerative Biodegradable Magnesium Implant Integrated with Nitric Oxide-Releasing Nanofibers. <i>Metals and Materials International</i> , 2019, 25, 1098-1107.	1.8	7
477	Additive manufacturing technology for porous metal implant applications and triple minimal surface structures: A review. <i>Bioactive Materials</i> , 2019, 4, 56-70.	8.6	348
478	Effect of diffusion distance on evolution of Kirkendall pores in titanium-coated nickel wires. <i>Intermetallics</i> , 2019, 104, 124-132.	1.8	10

#	ARTICLE	IF	CITATIONS
479	Preparation and Properties of Coatings and Thin Films on Metal Implants. , 2019, , 203-212.		16
480	Ti6Al4V-PEEK multi-material structures " design, fabrication and tribological characterization focused on orthopedic implants. Tribology International, 2019, 131, 672-678.	3.0	28
481	Tribo-mechanical properties and cellular viability of electrochemically treated Ti-10Nb and Ti-20Nb alloys. Journal of Alloys and Compounds, 2019, 779, 129-139.	2.8	16
482	Zinc-Based Biomaterials for Regeneration and Therapy. Trends in Biotechnology, 2019, 37, 428-441.	4.9	243
483	Structural, chemical and mechanical study of TiAlV film on UHMWPE produced by DC magnetron sputtering. Journal of the Mechanical Behavior of Biomedical Materials, 2019, 93, 23-30.	1.5	8
484	Response of Saos-2 osteoblast-like cells to laser surface texturing, sandblasting and hydroxyapatite coating on CoCrMo alloy surfaces. Materials Science and Engineering C, 2019, 98, 1005-1013.	3.8	27
485	Advancement of the artificial amorphous-crystalline structure of laser clad FeCrMoCB on nickel-free stainless-steel for bone-implants. Materials Chemistry and Physics, 2019, 227, 358-367.	2.0	21
486	RGD Mutation of the Heparin Binding II Fragment of Fibronectin for Guiding Mesenchymal Stem Cell Behavior on Titanium Surfaces. ACS Applied Materials & Interfaces, 2019, 11, 3666-3678.	4.0	15
487	Microstructure evolution, mechanical properties, and enhanced bioactivity of Ti-13Nb-13Zr based calcium pyrophosphate composites for biomedical applications. Materials Science and Engineering C, 2019, 98, 279-287.	3.8	20
488	Development of $\beta$ -TCP-Ti6Al4V structures: Driving cellular response by modulating physical and chemical properties. Materials Science and Engineering C, 2019, 98, 705-716.	3.8	30
489	Tailoring surface properties from nanotubes and anodic layers of titanium for biomedical applications. , 2019, , 179-199.		3
490	Nanocomposites in total hip joint replacements. , 2019, , 221-252.		5
491	Influence of Ti, Zr or Nb carbide adhesion layers on the adhesion, corrosion resistance and cell proliferation of titania doped hydroxyapatite to the Ti6Al4V alloy substrate, utilizable for orthopaedic implants. Ceramics International, 2019, 45, 1710-1723.	2.3	17
492	Microstructure and tribological properties of TiTaHfNbZr high entropy alloy coatings deposited on Ti 6Al 4V substrates. Intermetallics, 2019, 105, 99-106.	1.8	84
493	Microstructure, mechanical properties and springback behaviour of TiAl4V alloy connection rod for spinal fixation device. Materials Science and Engineering C, 2019, 94, 811-820.	3.8	4
494	Electrochemical corrosion of Ti-Al2O3 biocomposites in Ringer's solution. Journal of Alloys and Compounds, 2019, 777, 34-43.	2.8	24
495	Corrosion resistance of glucose-induced hydrothermal calcium phosphate coating on pure magnesium. Applied Surface Science, 2019, 465, 1066-1077.	3.1	97
496	Effect of alloying elements on the microstructure, coefficient of friction, in-vitro corrosion and antibacterial nature of selected Ti-Nb alloys. Applied Surface Science, 2019, 469, 617-623.	3.1	24



#	ARTICLE	IF	CITATIONS
497	Degradation behaviour of Mg-4Ag and Mg-5Gd alloys under in-vitro conditions and different time-frames. <i>Journal of Alloys and Compounds</i> , 2019, 774, 980-987.	2.8	11
498	Preliminary evaluations on development of new materials for hip joint femoral head. <i>Proceedings of the Institution of Mechanical Engineers, Part L: Journal of Materials: Design and Applications</i> , 2019, 233, 885-899.	0.7	10
499	Ti-Zr-Cu-Fe-Si-Ag-Ta bulk metallic glasses with good corrosion resistance as potential biomaterials. <i>Rare Metals</i> , 2020, 39, 688-694.	3.6	14
500	Physicomechanical Properties of Porous Materials by Spark Plasma Sintering. <i>Critical Reviews in Solid State and Materials Sciences</i> , 2020, 45, 22-65.	6.8	29
501	Structural, physical, chemical, and biological surface characterization of thermomechanically treated Ti-Nb-based alloys for bone implants. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , 2020, 108, 647-662.	1.6	19
502	Nanotechnology-based biomaterials for orthopaedic applications: Recent advances and future prospects. <i>Materials Science and Engineering C</i> , 2020, 106, 110154.	3.8	147
503	Lamellar structure/processing relationships and compressive properties of porous Ti6Al4V alloys fabricated by freeze casting. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2020, 101, 103424.	1.5	14
504	A comparative machinability study on titanium alloy Ti-6Al-4V during dry turning by cryogenic treated and untreated condition of uncoated WC inserts. <i>Materials Today: Proceedings</i> , 2020, 27, 2324-2328.	0.9	16
505	Materials evolution of bone plates for internal fixation of bone fractures: A review. <i>Journal of Materials Science and Technology</i> , 2020, 36, 190-208.	5.6	133
506	Enhancement of stress corrosion cracking of AZ31 magnesium alloy in simulated body fluid thanks to cryogenic machining. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2020, 101, 103429.	1.5	35
507	Fabrication of high strength, antibacterial and biocompatible Ti-5Mo-5Ag alloy for medical and surgical implant applications. <i>Materials Science and Engineering C</i> , 2020, 106, 110165.	3.8	34
508	Tribological and wear behaviour of alumina toughened zirconia nanocomposites obtained by pressureless rapid microwave sintering. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2020, 101, 103415.	1.5	28
509	Microstructure, mechanical properties and antibacterial properties of the microwave sintered porous Ti-3Cu alloys. <i>Journal of Alloys and Compounds</i> , 2020, 812, 152142.	2.8	51
510	Structure, wettability, corrosion and biocompatibility of nitinol treated by alkaline hydrothermal and hydrophobic functionalization for cardiovascular applications. <i>Applied Surface Science</i> , 2020, 506, 144657.	3.1	40
511	Effect of composition on in vitro degradability of Ti-Mg metal-metal composites. <i>Materials Science and Engineering C</i> , 2020, 107, 110327.	3.8	20
512	Versatile bioactive and antibacterial coating system based on silica, gentamicin, and chitosan: Improving early stage performance of titanium implants. <i>Surface and Coatings Technology</i> , 2020, 381, 125138.	2.2	70
513	The effects of $\beta$ -TCP on mechanical properties, corrosion behavior and biocompatibility of $\beta$ -TCP/Zn-Mg composites. <i>Materials Science and Engineering C</i> , 2020, 108, 110397.	3.8	36
514	Response of human periosteal cells to degradation products of zinc and its alloy. <i>Materials Science and Engineering C</i> , 2020, 108, 110208.	3.8	31



#	ARTICLE	IF	CITATIONS
515	A MGI-oriented investigation of the Young's modulus and its application to the development of a novel Ti-Nb-Zr-Cr bio-alloy. <i>Materials Science and Engineering C</i> , 2020, 106, 110265.	3.8	25
516	Precise fabrication of microtextured stainless steel surfaces using metal injection moulding. <i>Precision Engineering</i> , 2020, 62, 89-94.	1.8	11
517	Medical devices biomaterials <sc> &A</sc> review. <i>Proceedings of the Institution of Mechanical Engineers, Part L: Journal of Materials: Design and Applications</i> , 2020, 234, 218-228.	0.7	42
518	Enhancing General Corrosion Resistance of Biomedical High Nitrogen Nickel-Free Stainless Steel by Nitric Acid Passivation. <i>Acta Metallurgica Sinica (English Letters)</i> , 2020, 33, 307-312.	1.5	3
519	Additive manufactured porous biomaterials targeting orthopedic implants: A suitable combination of mechanical, physical and topological properties. <i>Materials Science and Engineering C</i> , 2020, 107, 110342.	3.8	56
520	The effect of laser frequency on roughness, microstructure, cell viability and attachment of Ti6Al4V alloy. <i>Materials Science and Engineering C</i> , 2020, 109, 110637.	3.8	28
521	New approach to improve polymer-Mg interface in biodegradable PLA/Mg composites through particle surface modification. <i>Surface and Coatings Technology</i> , 2020, 383, 125285.	2.2	28
522	On the mechanical biocompatibility of Ti-15Zr-based alloys for potential use as load-bearing implants. <i>Journal of Materials Research and Technology</i> , 2020, 9, 1241-1250.	2.6	16
523	Characterization and cytocompatibility of hierarchical porous TiO <sub>2</sub> coatings incorporated with calcium and strontium by one-step micro-arc oxidation. <i>Materials Science and Engineering C</i> , 2020, 109, 110610.	3.8	36
524	Recent progress on parylene C polymer for biomedical applications: A review. <i>Progress in Organic Coatings</i> , 2020, 140, 105493.	1.9	87
525	Tuning the surface immunomodulatory functions of polyetheretherketone for enhanced osseointegration. <i>Biomaterials</i> , 2020, 230, 119642.	5.7	100
526	On the characterization of functionally graded biomaterial primed through a novel plaster mold casting process. <i>Materials Science and Engineering C</i> , 2020, 110, 110654.	3.8	16
527	Surface Modification of Titanium and Titanium Alloys: Technologies, Developments, and Future Interests. <i>Advanced Engineering Materials</i> , 2020, 22, 1901258.	1.6	243
528	Role of Biomaterials and Controlled Architecture on Tendon/Ligament Repair and Regeneration. <i>Advanced Materials</i> , 2020, 32, e1904511.	11.1	97
529	Non-transdermal microneedles for advanced drug delivery. <i>Advanced Drug Delivery Reviews</i> , 2020, 165-166, 41-59.	6.6	80
530	Strength retention, corrosion control and biocompatibility of Mg-Zn-Si/HA nanocomposites. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2020, 103, 103584.	1.5	50
531	Effects of nano-engineered surfaces on osteoblast adhesion, growth, differentiation, and apoptosis. <i>Proceedings of the Institution of Mechanical Engineers, Part N: Journal of Nanomaterials, Nanoengineering and Nanosystems</i> , 2020, 234, 59-66.	0.5	0
532	Effects of quenching process on microstructure, mechanical properties and magnetic susceptibility in Zr 1Mo alloy fabricated by powder bed fusion process. <i>Materials and Design</i> , 2020, 187, 108356.	3.3	10

#	ARTICLE	IF	CITATIONS
533	Evolution of metallic cardiovascular stent materials: A comparative study among stainless steel, magnesium and zinc. <i>Biomaterials</i> , 2020, 230, 119641.	5.7	113
534	Effect of electrolyte composition on the microstructure and bio-corrosion behavior of micro-arc oxidized coatings on biomedical Ti6Al4V alloy. <i>Journal of Materials Research and Technology</i> , 2020, 9, 1477-1490.	2.6	27
535	Octacalcium phosphate coating for 3D printed cranioplastic porous titanium implants. <i>Surface and Coatings Technology</i> , 2020, 383, 125192.	2.2	10
536	Oxide coating containing apatite formed on Ti-25Nb-25Ta alloy treated by Two-Step Plasma Electrolytic Oxidation. <i>Surface and Coatings Technology</i> , 2020, 382, 125224.	2.2	15
537	Nanocavitation of stainless steel improves its corrosion resistance and minimizes toxic effects on MC3T3-E1 osteogenic cells. <i>Surface and Coatings Technology</i> , 2020, 382, 125225.	2.2	7
538	Antibacterial effects of silver incorporated zeolite coatings on 3D printed porous stainless steels. <i>Materials Science and Engineering C</i> , 2020, 108, 110430.	3.8	34
539	Ultraviolet irradiation assisted liquid phase deposited titanium dioxide (TiO <sub>2</sub> )-incorporated into phytic acid coating on magnesium for slowing-down biodegradation and improving osteo-compatibility. <i>Materials Science and Engineering C</i> , 2020, 108, 110487.	3.8	17
540	Development of New Mg- or Sr-Containing Bioactive Interfaces to Stimulate Osseointegration of Metallic Implants. <i>Applied Sciences (Switzerland)</i> , 2020, 10, 6647.	1.3	5
541	Cobalt Chromium Molybdenum Surface Modifications Alter the Osteogenic Differentiation Potential of Human Mesenchymal Stem Cells. <i>Materials</i> , 2020, 13, 4292.	1.3	8
542	Biodegradable ternary Znâ€“3Geâ€“0.5X (X=Cu, Mg, and Fe) alloys for orthopedic applications. <i>Acta Biomaterialia</i> , 2020, 115, 432-446.	4.1	42
543	Effect of Potential and Microstructure on the Tribocorrosion Behaviour of Beta and Near Beta Ti Alloys I. <i>Biotribology</i> , 2020, 24, 100141.	0.9	9
544	Surface characterization and electrochemical properties of tantalum nitride (TaN) nanostructured coatings produced by reactive DC magnetron sputtering. <i>Surfaces and Interfaces</i> , 2020, 21, 100685.	1.5	11
545	Design of custom cranial prostheses combining manufacturing and drop test finite element simulations. <i>International Journal of Advanced Manufacturing Technology</i> , 2020, 111, 1627-1641.	1.5	6
546	Antimicrobial Properties of MgO Nanostructures on Magnesium Substrates. <i>ACS Omega</i> , 2020, 5, 24613-24627.	1.6	29
547	Hydrothermally grown TiO <sub>2</sub> -nanorods on surface mechanical attrition treated Ti: Improved corrosion fatigue and osteogenesis. <i>Acta Biomaterialia</i> , 2020, 116, 400-414.	4.1	28
548	Mechanical and Corrosion Properties of Porous Titanium Prepared by an Electro-Assisted Powder Metallurgy Approach. <i>Jom</i> , 2020, 72, 4674-4681.	0.9	4
549	Additively manufactured biodegradable porous metals. <i>Acta Biomaterialia</i> , 2020, 115, 29-50.	4.1	113
550	3D-printed tungsten sheet-gyroids via reduction and sintering of extruded WO <sub>3</sub> -nanopowder inks. <i>Additive Manufacturing</i> , 2020, 36, 101613.	1.7	4

#	ARTICLE	IF	CITATIONS
551	Sol-gel coatings incorporating borosilicate bioactive glass enhance anti corrosive and surface performance of stainless steel implants. <i>Journal of Electroanalytical Chemistry</i> , 2020, 876, 114735.	1.9	28
552	Additive manufacturing of pure Ti with superior mechanical performance, low cost, and biocompatibility for potential replacement of Ti-6Al-4V. <i>Materials and Design</i> , 2020, 196, 109142.	3.3	58
553	A review on plasma electrolytic oxidation (PEO) of niobium: Mechanism, properties and applications. <i>Surfaces and Interfaces</i> , 2020, 21, 100719.	1.5	29
554	Biopolymer-Based Coatings: Promising Strategies to Improve the Biocompatibility and Functionality of Materials Used in Biomedical Engineering. <i>Advanced Materials Interfaces</i> , 2020, 7, 2000850.	1.9	69
555	Powder mixed-EDM for potential biomedical applications: A critical review. <i>Materials and Manufacturing Processes</i> , 2020, 35, 1789-1811.	2.7	73
556	In vitro corrosion resistance and cytocompatibility of Mg <sub>66</sub> Zn <sub>28</sub> Ca <sub>6</sub> amorphous alloy materials coated with a double-layered nHA and PCL/nHA coating. <i>Colloids and Surfaces B: Biointerfaces</i> , 2020, 196, 111251.	2.5	12
557	Bio-ceramic coatings adhesion and roughness of biomaterials through PM-EDM: a comprehensive review. <i>Materials and Manufacturing Processes</i> , 2020, 35, 1157-1180.	2.7	55
558	3D printable biomaterials for orthopedic implants: Solution for sustainable and circular economy. <i>Resources Policy</i> , 2020, 68, 101767.	4.2	45
559	The stress corrosion cracking behaviour of biomedical Mg-1Zn alloy in synthetic or natural biological media. <i>Corrosion Science</i> , 2020, 175, 108876.	3.0	27
560	Cotton pulp for bone tissue engineering. <i>Journal of Biomaterials Science, Polymer Edition</i> , 2020, 31, 2094-2113.	1.9	10
561	Research Progress of Titanium-Based High Entropy Alloy: Methods, Properties, and Applications. <i>Frontiers in Bioengineering and Biotechnology</i> , 2020, 8, 603522.	2.0	41
562	Development of New Advanced Ti-Mo Alloys for Medical Applications. , 0, , .		1
563	Fabrication of a biodegradable Fe-Mn-Si alloy by field assisted sintering. <i>Advanced Powder Technology</i> , 2020, 31, 4577-4584.	2.0	9
564	Study of HVOF-sprayed hydroxyapatite/titania graded coatings under in-vitro conditions. <i>Journal of Materials Research and Technology</i> , 2020, 9, 14002-14016.	2.6	13
565	Mechanical Properties of Different Nanopatterned TiO <sub>2</sub> Substrates and Their Effect on Hydrothermally Synthesized Bioactive Hydroxyapatite Coatings. <i>Materials</i> , 2020, 13, 5290.	1.3	10
566	Mechanical properties and biodegradability of Mg-Zn-Ca alloys: homogenization heat treatment and hot rolling. <i>Journal of Materials Science: Materials in Medicine</i> , 2020, 31, 123.	1.7	12
567	Surface modifications of metallic biomaterials. , 2020, , 387-424.		3
568	Multi-Response Optimization During Dry Turning of Bio-implant Steel (AISI 316L) Using Coated Carbide Inserts. <i>Arabian Journal for Science and Engineering</i> , 2020, 45, 9397-9411.	1.7	10

#	ARTICLE	IF	CITATIONS
569	Plasma-immersion ion implantation surface oxidation on a cobalt-chromium alloy for biomedical applications. <i>Biointerphases</i> , 2020, 15, 041004.	0.6	8
570	Comparison of wear properties of Ti6Al4V fabricated by wrought and electron beam melting processes in simulated body fluids. <i>Rapid Prototyping Journal</i> , 2020, 26, 959-969.	1.6	7
571	Electrophoretic Deposition and Characterization of Chitosan/Eudragit E 100 Coatings on Titanium Substrate. <i>Coatings</i> , 2020, 10, 607.	1.2	21
572	Superelastic Behavior of Ti-Nb Alloys Obtained by the Laser Engineered Net Shaping (LENS) Technique. <i>Materials</i> , 2020, 13, 2827.	1.3	9
573	Immobilizing magnesium ions on 3D printed porous tantalum scaffolds with polydopamine for improved vascularization and osteogenesis. <i>Materials Science and Engineering C</i> , 2020, 117, 111303.	3.8	48
574	Biomimetic Design for a Dual Concentric Porous Titanium Scaffold with Appropriate Compressive Strength and Cells Affinity. <i>Materials</i> , 2020, 13, 3316.	1.3	2
575	Biofunctionalization of titanium surfaces with alendronate and albumin modulates osteoblast performance. <i>Heliyon</i> , 2020, 6, e04455.	1.4	14
576	Fatigue behavior of biomedical Co-Cr-Mo-W alloy fabricated by selective laser melting. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2020, 795, 140000.	2.6	21
577	The Influence of SMAT and Polishing on the Degradation of AZ31B Magnesium Alloy in 3.5 Wt.% NaCl Solution. <i>Key Engineering Materials</i> , 0, 840, 377-382.	0.4	1
578	Material Selection Based on Finite Element Method in Customized Iliac Implant. <i>Materials Science Forum</i> , 0, 1000, 82-89.	0.3	3
579	Engineering the elastic modulus of NiTi cellular structures fabricated by selective laser melting. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2020, 110, 103891.	1.5	29
580	Coupled Diffusion-Mechanical Model of NiTi Alloys Accounting for Hydrogen Diffusion and Ageing. <i>International Journal of Applied Mechanics</i> , 2020, 12, 2050039.	1.3	4
581	High-strength low-modulus biocompatible Nb-1Zr alloy processed by accumulative roll bonding. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2020, 797, 140226.	2.6	7
582	Are Titania Photocatalysts and Titanium Implants Safe? Review on the Toxicity of Titanium Compounds. <i>Nanomaterials</i> , 2020, 10, 2065.	1.9	37
583	Exploring Macroporosity of Additively Manufactured Titanium Metamaterials for Bone Regeneration with Quality by Design: A Systematic Literature Review. <i>Materials</i> , 2020, 13, 4794.	1.3	22
584	In-vitro evaluation of a partially biodegradable TiMg dental implant: The cytotoxicity, genotoxicity, and oxidative stress. <i>Materialia</i> , 2020, 14, 100899.	1.3	10
585	A theoretical approach to the structural, elastic and electronic properties of $Ti_{8-x}V_4-y}Mox+y+zAl_4-z}$ lightweight shape memory alloys for biomaterial implant applications. <i>Physica B: Condensed Matter</i> , 2020, 598, 412416.	1.3	5
586	Novel Bionic Topography with MiR-21 Coating for Improving Bone-Implant Integration through Regulating Cell Adhesion and Angiogenesis. <i>Nano Letters</i> , 2020, 20, 7716-7721.	4.5	41

#	ARTICLE	IF	CITATIONS
587	Optimization of Anodization Parameters in Ti-30Ta Alloy. <i>Metals</i> , 2020, 10, 1059.	1.0	5
588	Recent Development in Beta Titanium Alloys for Biomedical Applications. <i>Metals</i> , 2020, 10, 1139.	1.0	151
589	Examination of hemocompatibility and corrosion resistance of electrical discharge-treated duplex stainless steel (DSS-2205) for biomedical applications. <i>Applied Physics A: Materials Science and Processing</i> , 2020, 126, 1.	1.1	17
590	The Effect of Cold Swaging Deformation on the Microstructures and Mechanical Properties of a Novel Metastable $\beta^2$ Type Ti-10Mo-6Zr-4Sn-3Nb Alloy for Biomedical Devices. <i>Frontiers in Materials</i> , 2020, 7, .	1.2	11
591	Friction and Wear Analysis of UHMWPE Material Using Pin-on-Disc Tester with Lubricant and Non-Lubricant. <i>Journal of Physics: Conference Series</i> , 2020, 1569, 032057.	0.3	5
592	Microstructure, Mechanical Properties, and Springback of Ti-Nb Alloys Modified by Mo Addition. <i>Journal of Materials Engineering and Performance</i> , 2020, 29, 5366-5373.	1.2	1
593	Tensile and Corrosion Properties of Anodized Ultrafine-Grained Ti-13Nb-13Zr Biomedical Alloy Obtained by High-Pressure Torsion. <i>Metals and Materials International</i> , 2021, 27, 3325-3341.	1.8	12
594	Electrochemical Surface Treatment to Enhance Corrosion Resistance and Bioresistance of Medical-Grade Stainless Steels. <i>Journal of Materials Engineering and Performance</i> , 2020, 29, 5985-5994.	1.2	7
595	The Effect of Increasing Fracture Site Stiffness on Bone-Pin Interface Stress and Foot Contact Pressure within the Equine Distal Limb Transfixation Cast: A Finite Element Analysis. <i>Veterinary and Comparative Orthopaedics and Traumatology</i> , 2020, 33, 348-355.	0.2	0
596	Fabrication of bioactive corrosion-resistant polyaniline/TiO <sub>2</sub> nanotubes nanocomposite and their application in orthopedics. <i>Journal of Materials Science</i> , 2020, 55, 15602-15620.	1.7	11
597	Mechanical properties, corrosion behavior and biocompatibility of orthopedic pure titanium-magnesium alloy screw prepared by friction welding. <i>Transactions of Nonferrous Metals Society of China</i> , 2020, 30, 2952-2966.	1.7	17
598	In-vivo efficacy of biodegradable ultrahigh ductility Mg-Li-Zn alloy tracheal stents for pediatric airway obstruction. <i>Communications Biology</i> , 2020, 3, 787.	2.0	12
599	Microstructural Analysis and Tribological Behavior of Ti-Based Alloys with a Ceramic Layer Using the Thermal Spray Method. <i>Coatings</i> , 2020, 10, 1216.	1.2	27
600	The Effect of Ca on In Vitro Behavior of Biodegradable Zn-Fe Alloy in Simulated Physiological Environments. <i>Metals</i> , 2020, 10, 1624.	1.0	10
601	Oxidation of Biocompatible Graphite-Ti Composite after Laser Ablation in Different Atmospheres. <i>IOP Conference Series: Materials Science and Engineering</i> , 2020, 987, 012032.	0.3	2
602	Effects of discharge mode and gas composition for plasma-hydrophilized titanium surface on hydrophilic sustainability. <i>Surface and Interface Analysis</i> , 2020, 52, 835-839.	0.8	0
603	The Effect of Zirconium Addition on Corrosion Behavior of Zn-Zr Alloys as Biodegradable Orthopedic Implant Application. <i>IOP Conference Series: Materials Science and Engineering</i> , 2020, 833, 012085.	0.3	2
604	Electrochemical Behaviour of Ti-Mo Alloys for Medical Application in Biological Solution. <i>IOP Conference Series: Materials Science and Engineering</i> , 2020, 877, 012031.	0.3	0

#	ARTICLE	IF	CITATIONS
605	Bisphosphonate-based surface biofunctionalization improves titanium biocompatibility. <i>Journal of Materials Science: Materials in Medicine</i> , 2020, 31, 109.	1.7	6
606	The Surface Morphology and Electrochemical Properties of Pure Titanium Obtained by Selective Laser Melting Method. <i>Solid State Phenomena</i> , 2020, 308, 21-32.	0.3	2
607	The Influence of Severe Plastic Deformation on Microstructure and In Vitro Biocompatibility of the New Ti-Nb-Zr-Ta-Fe-O Alloy Composition. <i>Materials</i> , 2020, 13, 4853.	1.3	9
608	Synthesis and Characterization of Zn-Mg Alloys as Biodegradable Materials. <i>Key Engineering Materials</i> , 0, 860, 205-212.	0.4	1
609	Metallurgy of a Ti-Au alloy synthesized by controlled electric resistance fusion. <i>Intermetallics</i> , 2020, 127, 106968.	1.8	5
610	Microstructure and Porosity Evolution of the Ti-35Zr Biomedical Alloy Produced by Elemental Powder Metallurgy. <i>Materials</i> , 2020, 13, 4539.	1.3	9
611	Functional behavior of chitosan/gelatin/silica-gentamicin coatings by electrophoretic deposition on surgical grade stainless steel. <i>Materials Science and Engineering C</i> , 2020, 115, 111062.	3.8	28
612	An <i>in vitro</i> and <i>in vivo</i> comparison of Mg(OH) <sub>2</sub> , MgF <sub>2</sub> and HA-coated Mg in degradation and osteointegration. <i>Biomaterials Science</i> , 2020, 8, 3320-3333.	2.6	11
613	Comparing electrochemical behavior of applied CrN/TiN nanoscale multilayer and TiN single-layer coatings deposited by CAE-PVD method. <i>Journal of Asian Ceramic Societies</i> , 2020, 8, 510-518.	1.0	30
614	Low Young's Modulus and High Strength Obtained in Ti-Nb-Zr-Cr Alloys by Optimizing Zr Content. <i>Journal of Materials Engineering and Performance</i> , 2020, 29, 2871-2878.	1.2	6
616	Modulating the Surface Properties of Metallic Implants and the Response of Breast Cancer Cells by Surface Relief Induced via Bulk Plastic Deformation. <i>Frontiers in Materials</i> , 2020, 7, .	1.2	5
617	Use of the Cold Substrate Method for Biomaterials: The Structural and Biological Properties of the Ag Layers Deposited on Ti-6Al-4V. <i>Journal of Materials Engineering and Performance</i> , 2020, 29, 2909-2919.	1.2	2
618	Improved osteointegration by SEW2871-encapsulated multilayers on micro-structured titanium via macrophages recruitment and immunomodulation. <i>Applied Materials Today</i> , 2020, 20, 100673.	2.3	7
619	The significant impact of mechanically-induced phase transformation on cellular functionality of biomedical austenitic stainless steel. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2020, 108, 103815.	1.5	7
620	Corrosion study of graphene oxide coatings on AZ31B magnesium alloy. <i>Journal of Coatings Technology Research</i> , 2020, 17, 1321-1329.	1.2	22
621	Morphology evolution of the porous coatings on Ti-xAl alloys by Al adding into Ti during micro-arc oxidation in Na <sub>2</sub> B <sub>4</sub> O <sub>7</sub> electrolyte. <i>Surface and Coatings Technology</i> , 2020, 395, 125948.	2.2	20
622	Tailoring biomineralization and biodegradation of Mg-Ca alloy by acetic acid pickling. <i>Materials Research Express</i> , 2020, 7, 054002.	0.8	4
623	Fabrication of a Novel Ta(Zn)O Thin Film on Titanium by Magnetron Sputtering and Plasma Electrolytic Oxidation for Cell Biocompatibilities and Antibacterial Applications. <i>Metals</i> , 2020, 10, 649.	1.0	11



#	ARTICLE	IF	CITATIONS
624	Evaluation of in vitro and in vivo biocompatibility of iron produced by powder metallurgy. <i>Materials Science and Engineering C</i> , 2020, 115, 111129.	3.8	16
625	Nanoporous layer formation on the Ti10Mo8Nb alloy surface using anodic oxidation. <i>Surface and Coatings Technology</i> , 2020, 386, 125467.	2.2	15
626	Additive manufacturing of NiTi-Ti6Al4V multi-material cellular structures targeting orthopedic implants. <i>Optics and Lasers in Engineering</i> , 2020, 134, 106208.	2.0	45
627	Enhanced durability, bio-activity and corrosion resistance of stainless steel through severe surface deformation. <i>Colloids and Surfaces B: Biointerfaces</i> , 2020, 194, 111197.	2.5	8
628	Impact of rare earth elements on nanohardness and nanowear properties of beta-type Ti-24Nb-38Zr-2Mo alloy for medical applications. <i>Materialia</i> , 2020, 12, 100772.	1.3	8
629	A biocompatible Pd-based BMG with excellent corrosive-wear resistance for implant applications. <i>Intermetallics</i> , 2020, 124, 106847.	1.8	11
630	HA coating on Mg alloys for biomedical applications: A review. <i>Journal of Magnesium and Alloys</i> , 2020, 8, 929-943.	5.5	104
631	Titanium surface treatment by calcium modification with acid-etching promotes osteogenic activity and stability of dental implants. <i>Materialia</i> , 2020, 12, 100801.	1.3	25
632	A Review of In-Vivo and In-Vitro Real-Time Corrosion Monitoring Systems of Biodegradable Metal Implants. <i>Applied Sciences (Switzerland)</i> , 2020, 10, 3141.	1.3	22
633	Preliminary studies of strontium and selenium binary doped CaO-SiO <sub>2</sub> -P <sub>2</sub> O <sub>5</sub> -MgO bioceramics for faster growth of hydroxyapatite and bone regeneration applications. <i>Materials Chemistry and Physics</i> , 2020, 253, 123329.	2.0	12
634	Mechanical properties and corrosion behavior of $\beta$ -type Ti-Zr-Nb-Mo alloys for biomedical application. <i>Journal of Alloys and Compounds</i> , 2020, 842, 155693.	2.8	75
635	Microstructure evolution during aging heat treatment and its effects on tensile properties and dynamic Young's modulus of a biomedical $\beta$ titanium alloy. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2020, 791, 139677.	2.6	16
636	Effects of harmonic structure on the electrochemical behavior of biomedical Ti6Al4V. <i>Materials Today: Proceedings</i> , 2020, 33, 1804-1808.	0.9	0
637	Influence of Cu <sup>2+</sup> ions on the Corrosion Resistance of AZ31 Magnesium Alloy with Microarc Oxidation. <i>Materials</i> , 2020, 13, 2647.	1.3	7
638	Organic-inorganic hybrid coatings containing phosphorus precursors prepared by sol-gel on Ti6Al4V alloy: Electrochemical and in-vitro biocompatibility evaluation. <i>Progress in Organic Coatings</i> , 2020, 148, 105834.	1.9	10
639	Bio-corrosion behavior and in vitro biocompatibility of equimolar TiZrHfNbTa high-entropy alloy. <i>Intermetallics</i> , 2020, 124, 106845.	1.8	74
640	Electrochemical corrosion behavior of a magnesium calcium alloy in simulated body fluids with different glucose concentrations. <i>Journal of Materials Research and Technology</i> , 2020, 9, 6612-6619.	2.6	14
641	Phosphorus Containing Coatings: Technologies and Applications. <i>ChemistrySelect</i> , 2020, 5, 6570-6584.	0.7	2



#	ARTICLE	IF	CITATIONS
642	Tailoring Biodegradation of Mg-Ca Alloys By Hydro-Thermal Treatment. <i>Materials Today: Proceedings</i> , 2020, 22, 2118-2123.	0.9	1
643	Biomedical applications of mechanically alloyed powders. , 2020, , 431-440.		1
644	Tribocorrosion behaviour of Ti6Al4V under various normal loads in phosphate buffered saline solution. <i>Transactions of Nonferrous Metals Society of China</i> , 2020, 30, 1300-1314.	1.7	11
645	Magnesium Alloys With Tunable Interfaces as Bone Implant Materials. <i>Frontiers in Bioengineering and Biotechnology</i> , 2020, 8, 564.	2.0	68
646	PVDF/ZnO composite films for photocatalysis: A comparative study of solution mixing and melt blending methods. <i>Polymer Engineering and Science</i> , 2020, 60, 1146-1157.	1.5	16
647	Optimization of Sintering Parameters of 316L Stainless Steel for In-Situ Nitrogen Absorption and Surface Nitriding Using Response Surface Methodology. <i>Processes</i> , 2020, 8, 297.	1.3	9
648	Metallic implants with properties and latest production techniques: a review. <i>Advances in Materials and Processing Technologies</i> , 2020, 6, 405-440.	0.8	46
649	Covalently functionalized poly(etheretherketone) implants with osteogenic growth peptide (OGP) to improve osteogenesis activity. <i>RSC Advances</i> , 2020, 10, 9777-9785.	1.7	25
650	Immunomodulation-Based Strategy for Improving Soft Tissue and Metal Implant Integration and Its Implications in the Development of Metal Soft Tissue Materials. <i>Advanced Functional Materials</i> , 2020, 30, 1910672.	7.8	35
651	Impact of chitosan/noble metals-based coatings on the plasmochemically activated surface of NiTi alloy. <i>Materials Chemistry and Physics</i> , 2020, 248, 122931.	2.0	7
652	The effect of Equal Channel Angular Pressing on the stress corrosion cracking susceptibility of AZ31 alloy in simulated body fluid. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2020, 106, 103724.	1.5	43
653	Cathodic electrodeposition of zinc-zinc phosphate-calcium phosphate composite coatings on pure iron for biodegradable implant applications. <i>New Journal of Chemistry</i> , 2020, 44, 6475-6489.	1.4	5
654	Corrosion in Hank's Solution and Mechanical Strength of Ultrafine-Grained Pure Iron. <i>Advanced Engineering Materials</i> , 2020, 22, 2000183.	1.6	7
655	Crystallinity and wettability induced osteogenic behaviors of commercially pure Ti and Ti-6Al-4V alloy implant surfaces having multiscale surface topography. <i>Materials Today: Proceedings</i> , 2021, 46, 9405-9411.	0.9	3
656	Effect of zirconia content and sintering temperature on the density, microstructure, corrosion, and biocompatibility of the Ti-12Mo matrix for dental applications. <i>Journal of Materials Research and Technology</i> , 2020, 9, 8820-8833.	2.6	18
657	Assessing the Bioactivity of Gentamicin-Preloaded Hydroxyapatite/Chitosan Composite Coating on Titanium Substrate. <i>ACS Omega</i> , 2020, 5, 15433-15445.	1.6	29
658	Surface Modifications for Implants Lifetime extension: An Overview of Sol-Gel Coatings. <i>Coatings</i> , 2020, 10, 589.	1.2	38
659	A functionalized duplex coating on CP-titanium for biomedical applications. <i>Surface and Coatings Technology</i> , 2020, 399, 126117.	2.2	7

#	ARTICLE	IF	CITATIONS
660	Physical and mechanical characterization of dissimilar laser welded joints of AISI 316/Cu/SMA using fiber laser technology. <i>Journal of Laser Applications</i> , 2020, 32, 032018.	0.8	10
661	Effect of fabrication method on the structure and properties of a nanostructured nickel-free stainless steel. <i>Advanced Powder Technology</i> , 2020, 31, 3408-3419.	2.0	10
662	Experimental Investigation and Optimization of Wire Electrical Discharge Machining for Surface Characteristics and Corrosion Rate of Biodegradable Mg Alloy. <i>Journal of Materials Engineering and Performance</i> , 2020, 29, 4117-4129.	1.2	32
663	Corrosion behavior of novel Titanium-based high entropy alloys designed for medical implants. <i>Materials Chemistry and Physics</i> , 2020, 254, 123377.	2.0	35
664	Phase formation of a biocompatible Ti-based alloy under kinetic constraints studied via in-situ high-energy X-ray diffraction. <i>Progress in Natural Science: Materials International</i> , 2020, 30, 432-436.	1.8	4
665	Ti, Zr and Ta coated UHMWPE aiming surface improvement for biomedical purposes. <i>Composites Part B: Engineering</i> , 2020, 189, 107909.	5.9	19
666	Mechanical performance, corrosion and tribological evaluation of a Co-Cr-Mo alloy processed by MIM for biomedical applications. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2020, 105, 103706.	1.5	20
667	Appraising the potential of Zr-based biomedical alloys to reduce magnetic resonance imaging artifacts. <i>Scientific Reports</i> , 2020, 10, 2621.	1.6	11
668	Stress corrosion cracking behavior of zirconia ALD-coated AZ31 alloy in simulated body fluid. <i>Material Design and Processing Communications</i> , 2020, 2, e126.	0.5	1
669	Additive manufacturing of low-cost porous titanium-based composites for biomedical applications: Advantages, challenges and opinion for future development. <i>Journal of Alloys and Compounds</i> , 2020, 827, 154263.	2.8	124
670	Achieving exceptional wear resistance in a compositionally complex alloy via tuning the interfacial structure and chemistry. <i>Acta Materialia</i> , 2020, 188, 697-710.	3.8	55
671	Surface mechanical attrition treatment of low modulus Ti-Nb-Ta-O alloy for orthopedic applications. <i>Materials Science and Engineering C</i> , 2020, 110, 110729.	3.8	27
672	Electrochemical behaviour of the MA8 Mg alloy in minimum essential medium. <i>Corrosion Science</i> , 2020, 168, 108552.	3.0	30
673	CoCrMo surface modifications affect biocompatibility, adhesion, and inflammation in human osteoblasts. <i>Scientific Reports</i> , 2020, 10, 1682.	1.6	16
674	Routes to control diffusive pathways and thermal expansion in Ti-alloys. <i>Scientific Reports</i> , 2020, 10, 3045.	1.6	16
675	ZnMg0.8Ca0.2 (wt%) biodegradable alloy – The influence of thermal treatment and extrusion on microstructural and mechanical characteristics. <i>Materials Characterization</i> , 2020, 162, 110230.	1.9	21
676	Corrosion fatigue behavior of additively manufactured biodegradable porous zinc. <i>Acta Biomaterialia</i> , 2020, 106, 439-449.	4.1	38
677	Influence of tantalum pentoxide secondary phase on surface features and mechanical properties of hydroxyapatite coating on NiTi alloy produced by electrophoretic deposition. <i>Surface and Coatings Technology</i> , 2020, 386, 125458.	2.2	31

#	ARTICLE	IF	CITATIONS
678	Surface modification of biodegradable AZ91 magnesium alloy by electrospun polymer nanocomposite: Evaluation of in vitro degradation and cytocompatibility. <i>Surface and Coatings Technology</i> , 2020, 386, 125461.	2.2	27
679	Design of Metallic Lattices for Bone Implants by Additive Manufacturing. <i>Minerals, Metals and Materials Series</i> , 2020, , 745-759.	0.3	3
680	Microwave Processing of Biomaterials for Orthopedic Implants: Challenges and Possibilities. <i>Jom</i> , 2020, 72, 1211-1228.	0.9	7
681	Novel CoCrWNi alloys with Cu addition: Microstructure, mechanical properties, corrosion properties and biocompatibility. <i>Journal of Alloys and Compounds</i> , 2020, 824, 153924.	2.8	14
682	Enhanced Biocorrosion Resistance and Cellular Response of a Dual-Phase High Entropy Alloy through Reduced Elemental Heterogeneity. <i>ACS Applied Bio Materials</i> , 2020, 3, 1233-1244.	2.3	28
683	Microstructure and mechanical properties of bimodal Ti-Bi alloys fabricated by mechanical alloying and spark plasma sintering for biomedical applications. <i>Materials Characterization</i> , 2020, 161, 110134.	1.9	10
684	Microstructure and bioactivity of a cold sprayed rough/porous Ta coating on Ti6Al4V substrate. <i>Science China Technological Sciences</i> , 2020, 63, 731-739.	2.0	10
685	Plasma electrolytic oxidation (PEO) treatment of zinc and its alloys: A review. <i>Surfaces and Interfaces</i> , 2020, 18, 100441.	1.5	41
686	Effect of Hot Rolling on the Microstructure and Mechanical Properties of a Ti-15Mo/TiB Metal-Matrix Composite. <i>Metals</i> , 2020, 10, 40.	1.0	22
687	A high bioactive alkali-treated titanium surface induced by induction heat treatment. <i>Surface and Coatings Technology</i> , 2020, 385, 125362.	2.2	27
688	CoCr alloy processed by Selective Laser Melting (SLM): effect of Laser Energy Density on microstructure, surface morphology, and hardness. <i>Journal of Manufacturing Processes</i> , 2020, 52, 106-119.	2.8	108
689	Impact of Cryogenic Treatment on HCF and FCP Performance of $\hat{1}^2$ -Solution Treated Ti-6Al-4V ELI Biomaterial. <i>Materials</i> , 2020, 13, 500.	1.3	11
690	Direct 3D printing of Ti6Al4V/HA composite porous scaffolds for customized mechanical properties and biological functions. <i>Journal of Tissue Engineering and Regenerative Medicine</i> , 2020, 14, 486-496.	1.3	15
691	Effect of Zr Content on Phase Stability, Deformation Behavior, and Young's Modulus in Ti-Nb-Zr Alloys. <i>Materials</i> , 2020, 13, 476.	1.3	52
692	Study on properties and biocompatibility of ZrO <sub>2</sub> /Ti composites prepared by selective laser melting. , 2020, , .		0
693	Chemical complexity, microstructure and martensitic transformation in high entropy shape memory alloys. <i>Intermetallics</i> , 2020, 122, 106792.	1.8	43
694	Study of mechanical, electrochemical, cellular and antibacterial response of Zn <sub>2</sub> Mg <sub>6</sub> SiC biodegradable implant. <i>Ceramics International</i> , 2020, 46, 18063-18070.	2.3	5
695	Ultrahigh hardness and biocompatibility of high-entropy alloy TiAlFeCoNi processed by high-pressure torsion. <i>Materials Science and Engineering C</i> , 2020, 112, 110908.	3.8	72

#	ARTICLE	IF	CITATIONS
696	Improving the Tribological Properties and Biocompatibility of Zr-Based Bulk Metallic Glass for Potential Biomedical Applications. <i>Materials</i> , 2020, 13, 1960.	1.3	13
697	Developing a new laser cladded FeCrMoCB metallic glass layer on nickel-free stainless-steel as a potential superior wear-resistant coating for joint replacement implants. <i>Surface and Coatings Technology</i> , 2020, 392, 125755.	2.2	22
698	Design of high-ductile medium entropy alloys for dental implants. <i>Materials Science and Engineering C</i> , 2020, 113, 110959.	3.8	54
699	Finite Element Analysis of Six Transcortical Pin Parameters and Their Effect on Bone-Pin Interface Stresses in the Equine Third Metacarpal Bone. <i>Veterinary and Comparative Orthopaedics and Traumatology</i> , 2020, 33, 121-129.	0.2	1
700	Annealing Temperature Effect on Tribocorrosion and Biocompatibility Properties of TiO <sub>2</sub> Nanotubes. <i>Journal of Bio- and Tribo-Corrosion</i> , 2020, 6, 1.	1.2	13
701	Influence of microstructure on corrosion behavior of biomedical Co-Cr-Mo-W alloy fabricated by selective laser melting. <i>Corrosion Science</i> , 2020, 170, 108688.	3.0	33
702	Fabrication and characterization of chitosan-hydroxyapatite-zirconium dioxide composites for biomedical applications. <i>Materials Today: Proceedings</i> , 2020, 26, 1878-1883.	0.9	4
703	Study on microstructure and mechanical property of a biomedical Co-20Cr-15W-10Ni alloy during multi-pass thermomechanical processing. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2020, 785, 139388.	2.6	7
704	Development of novel Ti-Mo-Mn alloys for biomedical applications. <i>Scientific Reports</i> , 2020, 10, 6298.	1.6	34
705	Antibacterial activities and cell responses of Ti-Ag alloys with a hybrid micro- to nanostructured surface. <i>Journal of Biomaterials Applications</i> , 2020, 34, 1368-1380.	1.2	8
706	Advance in Antibacterial Magnesium Alloys and Surface Coatings on Magnesium Alloys: A Review. <i>Acta Metallurgica Sinica (English Letters)</i> , 2020, 33, 615-629.	1.5	80
707	Corrosion behavior and biocompatibility of additively manufactured 316L stainless steel in a physiological environment: the effect of citrate ions. <i>Additive Manufacturing</i> , 2020, 34, 101237.	1.7	38
708	Comprehensive review on alloy design, processing, and performance of Titanium alloys as biomedical materials. <i>International Materials Reviews</i> , 2021, 66, 114-139.	9.4	71
709	Direct Current Stimulation for Improved Osteogenesis of MC3T3 Cells Using Mineralized Conductive Polyaniline. <i>ACS Biomaterials Science and Engineering</i> , 2021, 7, 852-861.	2.6	14
710	In vivo effect of UV-photofunctionalization of CoCrMo in processes of guided bone regeneration and tissue engineering. <i>Journal of Biomedical Materials Research - Part A</i> , 2021, 109, 31-41.	2.1	2
711	Effect of Nb content on the microstructure and mechanical properties of binary Ti-Nb alloys. <i>Materials Today: Proceedings</i> , 2021, 38, 913-917.	0.9	22
712	In-depth assessment of new Ti-based biocompatible materials. <i>Materials Chemistry and Physics</i> , 2021, 258, 123959.	2.0	23
713	A review on hydroxyapatite coatings for the biomedical applications: experimental and theoretical perspectives. <i>Journal of Materials Chemistry B</i> , 2021, 9, 228-249.	2.9	91

#	ARTICLE	IF	CITATIONS
714	Nanodiamond seeding on plasma-treated tantalum thin films and the role of surface contamination. <i>Applied Surface Science</i> , 2021, 538, 148016.	3.1	21
715	Biodegradable Zn <sup>3</sup> Cu and Zn <sup>3</sup> Cu <sup>0.2</sup> Ti alloys with ultrahigh ductility and antibacterial ability for orthopedic applications. <i>Journal of Materials Science and Technology</i> , 2021, 68, 76-90.	5.6	38
716	Influence of pulse frequency on the morphological and corrosion characteristics of the plasma electrolytic oxidized ZM21 magnesium alloy. <i>Materials Today: Proceedings</i> , 2021, 39, 1456-1464.	0.9	4
717	A sol-gel based silver nanoparticle/polytetrafluorethylene (AgNP/PTFE) coating with enhanced antibacterial and anti-corrosive properties. <i>Applied Surface Science</i> , 2021, 535, 147675.	3.1	42
718	Recent research and progress of biodegradable zinc alloys and composites for biomedical applications: Biomechanical and biocorrosion perspectives. <i>Bioactive Materials</i> , 2021, 6, 836-879.	8.6	192
719	Selective Laser Melting of Ti6Al4V sub-millimetric cellular structures: Prediction of dimensional deviations and mechanical performance. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2021, 113, 104123.	1.5	25
720	Interleukin-4 assisted calcium-strontium-zinc-phosphate coating induces controllable macrophage polarization and promotes osseointegration on titanium implant. <i>Materials Science and Engineering C</i> , 2021, 118, 111512.	3.8	41
721	Zn-contained mussel-inspired film on Mg alloy for inhibiting bacterial infection and promoting bone regeneration. <i>International Journal of Energy Production and Management</i> , 2021, 8, rbaa044.	1.9	21
722	Biocompatible Cubic Boron Nitride: A Noncytotoxic Ultrahard Material. <i>Advanced Functional Materials</i> , 2021, 31, 2005066.	7.8	9
723	A high strength and low modulus metastable $\hat{2}$ Ti-12Mo-6Zr-2Fe alloy fabricated by laser powder bed fusion in-situ alloying. <i>Additive Manufacturing</i> , 2021, 37, 101708.	1.7	5
724	New Ti <sup>3</sup> Mo <sup>3</sup> Si materials for bone prosthesis applications. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2021, 113, 104198.	1.5	31
725	Surface functionalization of chitosan as a coating material for orthopaedic applications: A comprehensive review. <i>Carbohydrate Polymers</i> , 2021, 255, 117487.	5.1	58
726	Scratch-resistant and well-adhered nanotube arrays produced via anodizing process on $\hat{2}$ -titanium alloy. <i>Materials Today Communications</i> , 2021, 26, 101947.	0.9	4
727	EDM performance characteristics and electrochemical corrosion analysis of Co-Cr alloy and duplex stainless steel: A comparative study. <i>Proceedings of the Institution of Mechanical Engineers, Part E: Journal of Process Mechanical Engineering</i> , 2021, 235, 812-823.	1.4	13
728	Niobium-oxynitride coatings for biomedical applications: Its antibacterial effects and in-vitro cytotoxicity. <i>Materials Science and Engineering C</i> , 2021, 120, 111662.	3.8	14
729	Corrosion behavior of additive manufactured CoCr parts polished with plasma electrolytic polishing. <i>Surface and Coatings Technology</i> , 2021, 406, 126640.	2.2	21
730	Calcium phosphate coatings enhance biocompatibility and degradation resistance of magnesium alloy: Correlating in vitro and in vivo studies. <i>Bioactive Materials</i> , 2021, 6, 1223-1229.	8.6	59
731	In vitro and in vivo studies of biodegradable Zn-Li-Mn alloy staples designed for gastrointestinal anastomosis. <i>Acta Biomaterialia</i> , 2021, 121, 713-723.	4.1	27

#	ARTICLE	IF	CITATIONS
732	Electrochemical characterization of some cobalt base alloys in Ringer solution. <i>Materials Chemistry and Physics</i> , 2021, 260, 124164.	2.0	21
733	Fabrication of nanocrystalline austenitic stainless steel with superior strength and ductility via binder assisted extrusion method. <i>Powder Technology</i> , 2021, 379, 38-48.	2.1	7
734	Mechanical, corrosion, and wear properties of biomedical Ti-Zr-Nb-Ta-Mo high entropy alloys. <i>Journal of Alloys and Compounds</i> , 2021, 861, 157997.	2.8	152
735	Function-structure-integrated Ti-HA coatings on TiNbZr with enhanced mechanical properties and bioactivity prepared by spark plasma sintering. <i>Vacuum</i> , 2021, 184, 109863.	1.6	10
736	Surface modifications of biometallic commercially pure Ti and Ti-13Nb-13Zr alloy by picosecond Nd:YAG laser. <i>International Journal of Minerals, Metallurgy and Materials</i> , 2021, 28, 285-295.	2.4	9
737	Post annealing effect on corrosion behavior, bacterial adhesion, and bioactivity of LVOF sprayed hydroxyapatite coating. <i>Surface and Coatings Technology</i> , 2021, 405, 126500.	2.2	15
738	Development of rare-earth oxide reinforced magnesium nanocomposites for orthopaedic applications: A mechanical/immersion/biocompatibility perspective. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2021, 114, 104162.	1.5	32
740	A Review on Powder Bed Fusion Additive Manufacturing for Metallic Fixation Implants. , 2021, , 235-256.		1
741	Cytocompatibility, stability and osteogenic activity of powder metallurgy Ta-xZr alloys as dental implant materials. <i>Journal of Biomaterials Applications</i> , 2021, 35, 790-798.	1.2	5
742	Tribological Characterization of AlCrN, AlTiN, AlTiON, and AlCrON Coatings on CoCrMo Alloy. <i>Tribology Transactions</i> , 2021, 64, 119-125.	1.1	6
743	Bimodal grain structures and tensile properties of a biomedical Co-20Cr-15W-10Ni alloy with different pre-strains. <i>Rare Metals</i> , 2021, 40, 20-30.	3.6	12
744	Obtaining the predicted number of cycles of femoral prosthesis manufactured with ASTM F138 and ASTM F75 alloys, applying the method of finite element.. <i>Journal of Physics: Conference Series</i> , 2021, 1730, 012026.	0.3	0
745	Chitosan Nanoparticle: Alternative for Sustainable Agriculture. <i>Materials Horizons</i> , 2021, , 95-132.	0.3	6
746	In vivo performance of Al <sub>2</sub> O <sub>3</sub> -Ti bone implants in the rat femur. <i>Journal of Orthopaedic Surgery and Research</i> , 2021, 16, 79.	0.9	9
747	Osteogenic properties of bioactive sodium titanate/titanium oxide composite coating prepared by anodic oxidation in NaOH electrolyte. <i>New Journal of Chemistry</i> , 2021, 45, 8572-8581.	1.4	3
748	Developments in plasma electrolytic oxidation (PEO) coatings for biodegradable magnesium alloys. <i>Materials Today: Proceedings</i> , 2021, 46, 1407-1415.	0.9	26
749	Bactericidal efficiency of micro- and nanostructured surfaces: a critical perspective. <i>RSC Advances</i> , 2021, 11, 1883-1900.	1.7	19
750	Characterization of Optimized TiO <sub>2</sub> Nanotubes Morphology for Medical Implants: Biological Activity and Corrosion Resistance. <i>International Journal of Nanomedicine</i> , 2021, Volume 16, 667-682.	3.3	13



#	ARTICLE	IF	CITATIONS
751	Tailoring the Surface Functionalities of Titania Nanotubes for Biomedical Applications. Springer Series in Biomaterials Science and Engineering, 2021, , 513-552.	0.7	2
752	Biodegradable alloys. , 2021, , 189-228.		0
753	The role of surface roughness during fretting corrosion of 316L stainless steel. Materials Today: Proceedings, 2021, 42, 2326-2333.	0.9	6
754	Biocomposites for biomedical devices. , 2021, , 287-300.		1
755	Is the 0.2%-Strain-Offset Approach Appropriate for Calculating the Yield Stress of Cortical Bone?. Annals of Biomedical Engineering, 2021, 49, 1747-1760.	1.3	7
756	Thermomechanical and annealing processing effect on a rapid solidified Co $\hat{=}$ 20 wt. % Cr alloy. Journal of Physics: Conference Series, 2021, 1723, 012002.	0.3	0
757	An updated review on surface functionalisation of titanium and its alloys for implants applications. Materials Today: Proceedings, 2021, 42, 270-282.	0.9	23
758	Multi-scale microstructure high-strength titanium alloy lattice structure manufactured <i>via</i> selective laser melting. RSC Advances, 2021, 11, 22734-22743.	1.7	6
759	Whole body vibration: Effects on human body and role of biomaterials in repairing fracture joints and tissues. Materials Today: Proceedings, 2021, 43, 141-147.	0.9	5
760	A Short Review on Polymer, Metal and Ceramic Based Implant Materials. IOP Conference Series: Materials Science and Engineering, 2021, 1017, 012038.	0.3	30
761	Acceleration of Bone Formation and Adhesion Ability on Dental Implant Surface via Plasma Electrolytic Oxidation in a Solution Containing Bone Ions. Metals, 2021, 11, 106.	1.0	20
762	Study of Ag precipitation and mechanical properties of Ti $\hat{=}$ Ta $\hat{=}$ Ag ternary alloy. RSC Advances, 2021, 11, 2976-2984.	1.7	7
763	The effect of bioinert electroexplosive coatings on stress distribution near the dental implant-bone interface. Materials Research Express, 2021, 8, 015016.	0.8	2
765	3D printed Ti6Al4V bone scaffolds with different pore structure effects on bone ingrowth. Journal of Biological Engineering, 2021, 15, 4.	2.0	70
766	Ti-25Nb-25Ta alloy treated by plasma electrolytic oxidation in phosphoric acid for implant applications. Revista Materia, 2021, 26, .	0.1	4
767	Corrosion Characteristics of TiNbMoMnFe High Entropy Thin Film Deposited on AISI316L for Biomedical Applications. Metals and Materials International, 2021, 27, 2341-2352.	1.8	15
768	Experimental measurement on the phase equilibria of the Mg $\hat{=}$ Ag $\hat{=}$ Cu ternary system at 350 and 400 $\hat{=}$ °C. Journal of Magnesium and Alloys, 2022, 10, 449-457.	5.5	3
769	Tribological Performance of CoCrMo Alloys with Boron Additions in As-Cast and Heat-Treated Conditions. Metals, 2021, 11, 355.	1.0	3



#	ARTICLE	IF	CITATIONS
770	Grain Refinement Affected Machinability in Commercial Pure Titanium. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2021, 52, 1282-1292.	1.1	4
771	Influence of annealing treatment on the microstructure, mechanical performance and magnetic susceptibility of low magnetic Zr-1Mo parts manufactured via laser additive manufacturing. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2021, 804, 140740.	2.6	9
772	Influence of the Silver Content on Mechanical Properties of Ti-Cu-Ag Thin Films. <i>Nanomaterials</i> , 2021, 11, 435.	1.9	8
773	Characteristics of Passive Films Formed on As-Cast Ti-6Al-4V in Hank's Solution Before and After Transpassivation. <i>Frontiers in Materials</i> , 2021, 7, .	1.2	6
774	Analysis of the New Forming Process of Medical Screws with a Cylindrical Head of 316 LVM Steel. <i>Materials</i> , 2021, 14, 710.	1.3	4
775	Assessment of Ion Release for Ni-Cr Dental Alloy with Monolithic and Multilayer Coatings in Different pH Level. <i>Surfaces and Interfaces</i> , 2021, 22, 100904.	1.5	5
776	Calcium phosphate/polyvinyl acetate coatings on SS304 via galvanic co-deposition for orthopedic implant applications. <i>Surface and Coatings Technology</i> , 2021, 408, 126771.	2.2	8
777	Combination of hot isostatic pressing and subsequent heat treatment for additively manufactured Zr-1Mo components. <i>Materials Letters</i> , 2021, 285, 129123.	1.3	3
778	Surface Characteristics and Corrosion Behavior of Wire Electrical Discharge Machining Processed Mg-4Zn Alloy. <i>Journal of Materials Engineering and Performance</i> , 2021, 30, 2955-2966.	1.2	16
779	Growth Mechanisms and Tribocorrosion Behavior of Bio-Functionalized ZrO <sub>2</sub> Nanoparticles-Containing MAO Coatings Formed on Ti-40Nb Alloy. <i>Journal of Bio- and Tribo-Corrosion</i> , 2021, 7, 1.	1.2	6
780	Influence of surface roughness on corrosion behaviour of 316L stainless steel in artificial saliva and body fluid. <i>IOP Conference Series: Materials Science and Engineering</i> , 2021, 1034, 012158.	0.3	1
781	Bone cement as a local chemotherapeutic drug delivery carrier in orthopedic oncology: A review. <i>Journal of Bone Oncology</i> , 2021, 26, 100345.	1.0	16
782	Controlled SrR Delivery by the Incorporation of Mg Particles on Biodegradable PLA-Based Composites. <i>Polymers</i> , 2021, 13, 1061.	2.0	12
783	Biological Applications of Severely Plastically Deformed Nano-Grained Medical Devices: A Review. <i>Nanomaterials</i> , 2021, 11, 748.	1.9	14
784	Photoactivity of an anodized biocompatible TiNbSn alloy prepared in sodium tartrate/hydrogen peroxide aqueous solution. <i>Applied Surface Science</i> , 2021, 543, 148829.	3.1	10
785	A novel Ag doping Ti alloys route: Formation and antibacterial effect of the TiO <sub>2</sub> nanotubes. <i>Materials Chemistry and Physics</i> , 2021, 261, 124192.	2.0	9
786	Direct-ink writing of strong and biocompatible titanium scaffolds with bimodal interconnected porosity. <i>Additive Manufacturing</i> , 2021, 39, 101859.	1.7	19
787	A Combined Scientometric and Critical Approach in Reviewing TiZr Implant Alloys and Coating Performances. <i>Coatings</i> , 2021, 11, 392.	1.2	3

#	ARTICLE	IF	CITATIONS
788	In vitro contact guidance of glioblastoma cells on metallic biomaterials. <i>Journal of Materials Science: Materials in Medicine</i> , 2021, 32, 35.	1.7	1
789	Enhanced cytocompatibility of Ti6Al4V alloy through selective removal of Al and V from the hierarchical micro-arc oxidation coating. <i>Applied Surface Science</i> , 2021, 541, 148547.	3.1	28
790	PEEK (Polyether-ether-ketone) and its composite materials in orthopedic implantation. <i>Arabian Journal of Chemistry</i> , 2021, 14, 102977.	2.3	75
791	Enhancement of the surface characteristics of Ti-based biomedical alloy by electropolishing in environmentally friendly deep eutectic solvent (Ethaline). <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2021, 613, 126125.	2.3	28
792	Characteristics of Ti-Nb-Mg alloy by powder metallurgy for biomedical applications. <i>Materials Characterization</i> , 2021, 173, 110953.	1.9	9
793	3D and 4D printing in dentistry and maxillofacial surgery: Printing techniques, materials, and applications. <i>Acta Biomaterialia</i> , 2021, 122, 26-49.	4.1	175
794	Effect of Prolonged Thermal Exposure on Microstructure and Mechanical Properties of Zr 1 wt.% Nb and Ti 45 wt.% Nb Ultrafine-Grained Bioinert Alloys. <i>Russian Physics Journal</i> , 2021, 63, 1846-1853.	0.2	2
795	Microstructure and mechanical behaviour of Ti-Cu foams synthesized via powder metallurgy technique. <i>Materials Research Express</i> , 2021, 8, 035402.	0.8	4
796	The Chemical and Biological Properties of Nanohydroxyapatite Coatings with Antibacterial Nanometals, Obtained in the Electrophoretic Process on the Ti13Zr13Nb Alloy. <i>International Journal of Molecular Sciences</i> , 2021, 22, 3172.	1.8	9
797	Synergistic friction-reducing and anti-wear behaviors of DLC on NCD films via in-situ synthesis by fs laser ablation. <i>Surface and Coatings Technology</i> , 2021, 409, 126947.	2.2	4
798	The Synergy of Topographical Micropatterning and Ta   TaCu Bilayered Thin Film on Titanium Implants Enables Dual Functions of Enhanced Osteogenesis and Anti-Infection. <i>Advanced Healthcare Materials</i> , 2021, 10, 2002020.	3.9	20
799	Degradation of Titanium Sintered with Magnesium: Effect of Hydrogen Uptake. <i>Metals</i> , 2021, 11, 527.	1.0	2
800	Recent Progress on Wear-Resistant Materials: Designs, Properties, and Applications. <i>Advanced Science</i> , 2021, 8, e2003739.	5.6	199
801	Phase Formation, Microstructure and Mechanical Properties of Mg67Ag33 as Potential Biomaterial. <i>Metals</i> , 2021, 11, 461.	1.0	0
802	Laser Beam Welding of a Ti-15Mo/TiB Metal Matrix Composite. <i>Metals</i> , 2021, 11, 506.	1.0	14
803	The Effects of Chemical Etching and Ultra-Fine Grain Structure of Titanium on MG-63 Cells Response. <i>Metals</i> , 2021, 11, 510.	1.0	6
804	Blood metal levels after minimally invasive repair of pectus excavatum. <i>Interactive Cardiovascular and Thoracic Surgery</i> , 2021, 33, 76-81.	0.5	1
805	Microstructure and Tribological Response of Selective Laser Melted AISI 316L Stainless Steel: The Role of Severe Surface Deformation. <i>Journal of Materials Engineering and Performance</i> , 2021, 30, 5170-5183.	1.2	13

#	ARTICLE	IF	CITATIONS
806	An Overview on Biomaterials and Its Applications in Medical Science. IOP Conference Series: Materials Science and Engineering, 2021, 1116, 012178.	0.3	13
807	Multi-material NiTi-PEEK hybrid cellular structures by Selective Laser Melting and Hot Pressing: Tribological characterization. Tribology International, 2021, 156, 106830.	3.0	15
808	Multiple-Criteria Decision-Making and Sensitivity Analysis for Selection of Materials for Knee Implant Femoral Component. Materials, 2021, 14, 2084.	1.3	75
809	Past Advances and Future Perspective of Ti-Ta Alloys. Global Journal of Engineering Sciences, 2021, 7, .	0.2	3
810	Wettability model for water-ethanol binary mixture droplet on roughened low-surface-energy solids. International Journal of Multiphase Flow, 2021, 137, 103569.	1.6	15
811	Fibronectin grafting to enhance skin sealing around transcutaneous titanium implant. Journal of Biomedical Materials Research - Part A, 2021, 109, 2187-2198.	2.1	8
812	Ti-based bulk metallic glass implantable biomaterial with adjustable porosity produced by a novel pressure regulation method in spark plasma sintering. Intermetallics, 2021, 131, 107105.	1.8	20
813	A composite coating with physical interlocking and chemical bonding on WE43 magnesium alloy for corrosion protection and cytocompatibility enhancement. Surface and Coatings Technology, 2021, 412, 127078.	2.2	22
814	An in-vitro evaluation study on the effects of surface modification via physical vapor deposition on the degradation rates of magnesium-based biomaterials. Surface and Coatings Technology, 2021, 411, 126972.	2.2	8
815	Biodegradable magnesium-based biomaterials: An overview of challenges and opportunities. MedComm, 2021, 2, 123-144.	3.1	77
816	Effect of Powder Particle Concentration and Tool Electrode Material amid Zinc Powder-Mixed $\mu$ EDM of Biocompatible Mg Alloy AZ91D. Journal of Materials Engineering and Performance, 2021, 30, 5704-5718.	1.2	11
817	Studying the in vitro corrosion response of nanostructured TaN coatings in Hank's physiological solution. International Journal of Applied Ceramic Technology, 2021, 18, 1269-1280.	1.1	2
818	Hybrid additive manufacturing of biocompatible Ti-Ta composite structures for biomedical applications. Journal of Materials Research, 2021, 36, 3679.	1.2	10
819	Co-deposited Zn-Cu/Gr nanocomposite: Corrosion behaviour and in-vitro cytotoxicity assessment. Transactions of the Institute of Metal Finishing, 2021, 99, 215-223.	0.6	3
820	Additively Manufactured Absorbable Porous Metal Implants – Processing, Alloying and Corrosion Behavior. Frontiers in Materials, 2021, 8, .	1.2	7
821	Effect of sterilization on 3-point dynamic response to in vitro bending of an Mg implant. Biomaterials Research, 2021, 25, 9.	3.2	1
822	Exploring the interconnectivity of biomimetic hierarchical porous Mg scaffolds for bone tissue engineering: Effects of pore size distribution on mechanical properties, degradation behavior and cell migration ability. Journal of Magnesium and Alloys, 2021, 9, 1954-1966.	5.5	27
823	Influence of Swaging on Microstructure, Elastic Modulus and Vickers Microhardness of $\hat{1}^2$ Ti-40Nb Alloy for Implants. Journal of Materials Engineering and Performance, 2021, 30, 3363-3369.	1.2	13

#	ARTICLE	IF	CITATIONS
824	Advanced polymer-based composites and structures for biomedical applications. <i>European Polymer Journal</i> , 2021, 149, 110388.	2.6	56
825	Recent advances in natural polymer-based hydroxyapatite scaffolds: Properties and applications. <i>European Polymer Journal</i> , 2021, 148, 110360.	2.6	73
826	Cytocompatibility of Ti-xZr alloys as dental implant materials. <i>Journal of Materials Science: Materials in Medicine</i> , 2021, 32, 50.	1.7	19
827	Effect of Mo and space holder content on microstructure, mechanical and corrosion properties in Ti6AlxMo based alloy for bone implant. <i>Materials Science and Engineering C</i> , 2021, 123, 111962.	3.8	10
828	Innovative Coatings of Metallic Alloys Used as Bioactive Surfaces in Implantology: A Review. <i>Coatings</i> , 2021, 11, 649.	1.2	16
829	Effect of Oxygen Ion Implantation on Physicochemical Structure and Corrosion-Electrochemical Behavior of High-Chromium Steel. <i>Inorganic Materials: Applied Research</i> , 2021, 12, 625-632.	0.1	1
830	Corrosion and antibacterial performance of novel selective-laser-melted (SLMed) Ti-xCu biomedical alloys. <i>Journal of Alloys and Compounds</i> , 2021, 864, 158415.	2.8	29
831	3D porous Ti6Al4V-beta-tricalcium phosphate scaffolds directly fabricated by additive manufacturing. <i>Acta Biomaterialia</i> , 2021, 126, 496-510.	4.1	23
832	Corrosion and degradation decelerating alendronate embedded zinc phosphate hybrid coating on biodegradable Zn biomaterials. <i>Corrosion Science</i> , 2021, 184, 109398.	3.0	24
833	Low velocity oxy fuel spraying of hydroxyapatite coating on a multifunctional UNS S31254 austenitic stainless steel. <i>Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine</i> , 2021, 235, 958-972.	1.0	3
834	Corrosion Behavior and Osteogenic Activity of a Biodegradable Orthopedic Implant Mg-Si Alloy with a Gradient Structure. <i>Metals</i> , 2021, 11, 781.	1.0	7
835	Biomechanical evaluation of glass fiber/polypropylene composite bone fracture fixation plates: Experimental and numerical analysis. <i>Computers in Biology and Medicine</i> , 2021, 132, 104303.	3.9	14
836	Design of multilayer hybrid sol-gel coatings with bifunctional barrier-bioactive response on the Elektron 21 magnesium alloy for biomedical applications. <i>Journal of Magnesium and Alloys</i> , 2021, 9, 2097-2112.	5.5	11
837	Effect of Mo and Ta on the Mechanical and Superelastic Properties of Ti-Nb Alloys Prepared by Mechanical Alloying and Spark Plasma Sintering. <i>Materials</i> , 2021, 14, 2619.	1.3	8
838	Recent Trends in the Development of Bone Regenerative Biomaterials. <i>Frontiers in Cell and Developmental Biology</i> , 2021, 9, 665813.	1.8	82
839	ON or OFF: Triggered therapies from anodized nano-engineered titanium implants. <i>Journal of Controlled Release</i> , 2021, 333, 521-535.	4.8	35
840	Mechanical, Electrochemical, and Osteoblastic Properties of Gradient Tantalum Coatings on Ti6Al4V by Prepared Plasma Alloying Technique. <i>Coatings</i> , 2021, 11, 631.	1.2	8
841	Additive manufacturing of Co-Cr alloys for biomedical applications: A concise review. <i>Journal of Materials Research</i> , 2021, 36, 3746-3760.	1.2	14

#	ARTICLE	IF	CITATIONS
842	Additively manufactured SiC-reinforced stainless steel with excellent strength and wear resistance. Additive Manufacturing, 2021, 41, 101971.	1.7	20
843	Influence of Sintering Temperature on Mechanical Properties of Ti-Nb-Zr-Fe Alloys Prepared by Spark Plasma Sintering. Journal of Materials Engineering and Performance, 2021, 30, 5719-5727.	1.2	2
844	Bioactivity of Ti6Al4V alloy with bioglass and corrosion protection by silane coating. Research, Society and Development, 2021, 10, e23310615308.	0.0	0
845	Development and Characterization of Zn(98 $\hat{\sim}$ x).Mg2.(SiC)x Composites Synthesized in Graphite Packed Non-oxidizing Media. Journal of Materials Engineering and Performance, 2021, 30, 4291-4299.	1.2	2
846	Mathematical Modeling and Analysis of Wear Behavior of AlTiN Coating on Titanium Alloy (Ti-6Al-4V). Advances in Materials Science and Engineering, 2021, 2021, 1-9.	1.0	8
847	Development of Electrochemical Surface Treatment for Improvement of Localized Corrosion Resistance of Zirconium in Chloride Environment. Materials Transactions, 2021, 62, 788-796.	0.4	2
848	Effect of Heat Treatment on the Electrochemical and Mechanical Behavior of the Ti6Al4V Alloy. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2021, 52, 3570-3584.	1.1	5
849	Reviewâ€”Preparation of Zirconium Metal by Electrolysis. Journal of the Electrochemical Society, 2021, 168, 062508.	1.3	12
850	Enhanced Nearâ€”Infrared Photocatalytic Eradication of MRSA Biofilms and Osseointegration Using Oxide Perovskiteâ€”Based Pâ€”N Heterojunction. Advanced Science, 2021, 8, e2002211.	5.6	33
851	Wear resistance of surface-modified TiNbSn alloy. Journal of Materials Science, 2021, 56, 14333-14347.	1.7	10
852	The roles of oxygen content on microstructural transformation, mechanical properties and corrosion resistance of Ti-Nb-based biomedical alloys with different I <sup>2</sup> stabilities. Materials Characterization, 2021, 176, 111122.	1.9	25
853	The role and significance of Magnesium in modern day research-A review. Journal of Magnesium and Alloys, 2022, 10, 1-61.	5.5	222
854	Biomedical Implants with Chargeâ€”Transfer Monitoring and Regulating Abilities. Advanced Science, 2021, 8, e2004393.	5.6	18
855	Multi-scale mechanical and morphological characterisation of sintered porous magnesium-based scaffolds for bone regeneration in critical-sized defects. Acta Biomaterialia, 2021, 127, 338-352.	4.1	17
856	Facile Coating of HAP on Ti6Al4V for Osseointegration. Engineering, Technology & Applied Science Research, 2021, 11, 7240-7246.	0.8	1
857	Empirical rule for predicting mechanical properties of Ti-6Al-4V bone implants with radial-gradient porosity bionic structures. Materials Today Communications, 2021, 27, 102346.	0.9	8
858	Toward a Better Regeneration through Implantâ€”Mediated Immunomodulation: Harnessing the Immune Responses. Advanced Science, 2021, 8, e2100446.	5.6	71
859	Investigation of the structure and mechanical properties of stainless steel alloyed with silver. Journal of Physics: Conference Series, 2021, 1942, 012101.	0.3	2

#	ARTICLE	IF	CITATIONS
860	Effect of heat treatment on the mechanical properties of stainless steel wire. <i>Journal of Physics: Conference Series</i> , 2021, 1942, 012102.	0.3	2
861	The use of noble metal coatings and nanoparticles for the modification of medical implant materials. <i>Materials and Design</i> , 2021, 204, 109672.	3.3	68
862	Carcinogenic hazard assessment of cobalt-containing alloys in medical devices: Review of in vivo studies. <i>Regulatory Toxicology and Pharmacology</i> , 2021, 122, 104910.	1.3	15
863	Investigation of Coatings, Corrosion and Wear Characteristics of Machined Biomaterials through Hydroxyapatite Mixed-EDM Process: A Review. <i>Materials</i> , 2021, 14, 3597.	1.3	29
864	Impact of scandium on mechanical properties, corrosion behavior, friction and wear performance, and cytotoxicity of a $\beta$ -type Ti-24Nb-38Zr-2Mo alloy for orthopedic applications. <i>Acta Biomaterialia</i> , 2021, 134, 791-803.	4.1	19
865	The significance of phase reversion-induced nanograined/ultrafine-grained (NG/UFG) structure on the strain hardening behavior and deformation mechanism in copper-bearing antimicrobial austenitic stainless steel. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2021, 119, 104489.	1.5	15
866	A comparative study of 3D printing and heat-compressing methods for manufacturing the thermoplastic composite bone fixation plate: Design, characterization, and in vitro biomechanical experimentation. <i>Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine</i> , 2021, 235, 0954411921110343.	1.0	3
867	Microstructural Characterization and Investigation on Corrosion Properties of Mg-Zn-RE-Ca Alloy as a Possible Biomedical Implant. <i>Metals and Materials International</i> , 2022, 28, 1386-1400.	1.8	6
868	Electrically facilitated mineralization of osteoblasts and polypyrrole micro-bowl coatings for promotion of the osteogenic activity. <i>Colloids and Interface Science Communications</i> , 2021, 43, 100450.	2.0	9
869	Biomedical Applications of Metal 3D Printing. <i>Annual Review of Biomedical Engineering</i> , 2021, 23, 307-338.	5.7	35
870	Noble Metals for Modern Implant Materials: MOCVD of Film Structures and Cytotoxic, Antibacterial, and Histological Studies. <i>Biomedicines</i> , 2021, 9, 851.	1.4	9
871	Evolution of anodised titanium for implant applications. <i>Heliyon</i> , 2021, 7, e07408.	1.4	41
872	Influence of laser irradiation parameters on the ultrafine-grained Ti 45Nb alloy surface characteristics. <i>Surface and Coatings Technology</i> , 2021, 418, 127255.	2.2	8
873	In vitro bioactivity and antibacterial performances of atmospheric plasma sprayed c-axis preferential oriented hydroxyapatite coatings. <i>Surface and Coatings Technology</i> , 2021, 417, 127209.	2.2	9
874	Beneficial osseointegration effect of hydroxyapatite coating on cranial implant – FEM investigation. <i>PLoS ONE</i> , 2021, 16, e0254837.	1.1	6
875	Tribological and corrosion performance of the plasma-sprayed conformal ceramic coating on selective laser melted CoCrMo alloy. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2021, 119, 104520.	1.5	6
876	<i>Research to Clinics</i> : Clinical Translation Considerations for Anodized Nano-Engineered Titanium Implants. <i>ACS Biomaterials Science and Engineering</i> , 2022, 8, 4077-4091.	2.6	21
877	Pharmaceutical electrospinning and 3D printing scaffold design for bone regeneration. <i>Advanced Drug Delivery Reviews</i> , 2021, 174, 504-534.	6.6	163



#	ARTICLE	IF	CITATIONS
878	Development of a low elastic modulus and antibacterial Ti-13Nb-13Zr-5Cu titanium alloy by microstructure controlling. <i>Materials Science and Engineering C</i> , 2021, 126, 112116.	3.8	23
879	Titanium Periimplant Tissue Alterations: A Prospective Cohort Plate Retrieval Study. <i>Applied Sciences (Switzerland)</i> , 2021, 11, 6315.	1.3	1
880	Machining of titanium alloys for medical application - a review. <i>Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture</i> , 2022, 236, 309-318.	1.5	21
881	Porous Ti6Al4V alloys with high strength-to-modulus ratio fabricated by unidirectional freeze casting of SiC fiber-containing slurry. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2021, 820, 141584.	2.6	6
882	Surface characterization of titanium-based substrates for orthopaedic applications. <i>Materials Characterization</i> , 2021, 177, 111161.	1.9	11
883	PREPARATION AND BIOLOGICAL EVALUATION OF PLD-BASED FORSTERITE/HYDROXYAPATITE NANOCOMPOSITE COATING ON STAINLESS STEEL 316L. <i>Surface Review and Letters</i> , 0, , 2141002.	0.5	0
884	An overview of assessment tools for determination of biological Magnesium implant degradation. <i>Medical Engineering and Physics</i> , 2021, 93, 49-58.	0.8	11
885	In vitro biological and antimicrobial properties of chitosan-based bioceramic coatings on zirconium. <i>Scientific Reports</i> , 2021, 11, 15104.	1.6	8
886	Morphological and mechanical characterization of chitosan/gelatin/silica-gentamicin/bioactive glass coatings on orthopaedic metallic implant materials. <i>Thin Solid Films</i> , 2021, 732, 138780.	0.8	26
887	Operational Variables on the Processing of Porous Titanium Bodies by Gelation of Slurries with an Expansive Porogen. <i>Materials</i> , 2021, 14, 4744.	1.3	0
888	Tuning the Biointerface: Low-Temperature Surface Modification Strategies for Orthopedic Implants to Enhance Osteogenic and Antimicrobial Activity. <i>ACS Applied Bio Materials</i> , 2021, 4, 6619-6629.	2.3	11
889	A novel TiZrNb medium entropy alloy (MEA) with appropriate elastic modulus for biocompatible materials. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2021, 270, 115226.	1.7	17
890	Influence of simulated body fluid (normal and inflammatory) on corrosion resistance of anodized titanium. <i>Research, Society and Development</i> , 2021, 10, e122101018606.	0.0	3
891	Phase Transformations upon Ageing in Ti15Mo Alloy Subjected to Two Different Deformation Methods. <i>Metals</i> , 2021, 11, 1230.	1.0	4
892	Effect of Surface Roughness on the Properties of Titanium Materials for Bone Implants. <i>Russian Journal of Inorganic Chemistry</i> , 2021, 66, 1073-1078.	0.3	3
893	Mg-Ca0.3 Electrochemical Activity Exposed to Hank's Physiological Solution and Properties of Ag-Nano-Particles Deposits. <i>Metals</i> , 2021, 11, 1357.	1.0	3
894	Analysis and Comparison of the Corrosive Behavior of Nickel-Based and Cobalt-Based Dental Alloys. <i>Materials</i> , 2021, 14, 4949.	1.3	4
895	Gifts from Nature: Bio-Inspired Materials for Rechargeable Secondary Batteries. <i>Advanced Materials</i> , 2021, 33, e2006019.	11.1	30



#	ARTICLE	IF	CITATIONS
896	Radio Frequency Magnetron Sputtering Coatings of Biomedical Implants Using Nanostructured Titanium Carbide Thin films. Journal of Bio- and Tribo-Corrosion, 2021, 7, 1.	1.2	1
897	Achieving ultrahigh-strength in beta-type titanium alloy by controlling the melt pool mode in selective laser melting. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2021, 823, 141731.	2.6	31
898	Behavioral Characteristics of Magnesium as a Biomaterial for Surface Engineering Application. Journal of Bio- and Tribo-Corrosion, 2021, 7, 1.	1.2	4
899	ZrN-ZrOxNy vs ZrO2-ZrOxNy coatings deposited via unbalanced DC magnetron sputtering. Scientific Reports, 2021, 11, 18926.	1.6	16
900	Synthesis and Characterization of a Ti-Zr-Based Alloy with Ultralow Young's Modulus and Excellent Biocompatibility. Advanced Engineering Materials, 2022, 24, .	1.6	3
901	Fabrication and applications of bioactive chitosan-based organic-inorganic hybrid materials: A review. Carbohydrate Polymers, 2021, 267, 118179.	5.1	43
902	Hybrid functionalized coatings on Metallic Biomaterials for Tissue Engineering. Surface and Coatings Technology, 2021, 422, 127508.	2.2	26
903	Tribo-mechanical and cellular behavior of superficially modified porous titanium samples using femtosecond laser. Surface and Coatings Technology, 2021, 422, 127555.	2.2	12
904	Computational exploration of biomedical Hf <sub>0.5</sub> Nb <sub>0.5</sub> Ta <sub>0.5</sub> Ti <sub>1.5</sub> Zr refractory high-entropy alloys. Materials Research Express, 2021, 8, 096534.	0.8	8
905	Evolution of the $\mu$ and $\beta$ phases in biodegradable Fe-Mn alloys produced using laser powder-bed fusion. Scientific Reports, 2021, 11, 19506.	1.6	8
906	Tribological Performance Evaluation of Ball Burnished Magnesium Alloy for Bioresorbable Implant Applications. Journal of Materials Engineering and Performance, 2022, 31, 1170-1186.	1.2	9
907	Modeling and Characterization of Complex Concentrated Alloys with Reduced Content of Critical Raw Materials. Materials, 2021, 14, 5263.	1.3	1
908	Bioresponsive starPEG-heparin hydrogel coatings on vascular stents for enhanced hemocompatibility. Materials Science and Engineering C, 2021, 128, 112268.	3.8	18
909	Effect of microstructural evolution and texture change on the in-vitro bio-corrosion behaviour of hard-plate hot forged Mg-4Zn-0.5Ca-0.16Mn (wt%) alloy. Corrosion Science, 2021, 192, 109860.	3.0	16
910	Critical evaluation and thermodynamic modeling of the Ag-X (X=Mn, Y, Sr) binary systems. Intermetallics, 2021, 136, 107260.	1.8	4
911	Surface Integrity and Biological Response of Ti-Alloy Implants after Surface Modification. Materials Today: Proceedings, 2021, , .	0.9	3
912	A scalelike micro/nano-textured structure on Ti-based implants with enhanced cytocompatibility and osteogenic activities. Surface and Coatings Technology, 2021, 422, 127497.	2.2	10
913	Structure and properties of metastable Ti-Nb-Sn-Mo alloys. MRS Communications, 2021, 11, 669.	0.8	5

#	ARTICLE	IF	CITATIONS
914	Characteristic Features of Ultrafine-Grained Ti-45 wt.% Nb Alloy under High Cycle Fatigue. <i>Materials</i> , 2021, 14, 5365.	1.3	2
915	Spectroscopic Investigations of 316L Stainless Steel under Simulated Inflammatory Conditions for Implant Applications: The Effect of Tryptophan as Corrosion Inhibitor/Hydrophobicity Marker. <i>Coatings</i> , 2021, 11, 1097.	1.2	6
916	High-manganese and nitrogen stabilized austenitic stainless steel (Fe-18Cr-22Mn-0.65N): a material with a bright future for orthopedic implant devices. <i>Biomedical Materials (Bristol)</i> , 2021, 16, 065011.	1.7	6
917	Synthesis and Characterization of a Novel Biocompatible Alloy, Ti-Nb-Zr-Ta-Sn. <i>International Journal of Molecular Sciences</i> , 2021, 22, 10611.	1.8	10
918	Microstructural aspects of Ti6Al4V degradation in H <sub>2</sub> O <sub>2</sub> -containing phosphate buffered saline. <i>Corrosion Science</i> , 2021, 190, 109640.	3.0	25
919	Effects of MgF <sub>2</sub> coating on the biodegradation and biological properties of magnesium. <i>Surface and Coatings Technology</i> , 2021, 422, 127552.	2.2	14
920	Evaluation of Ti/Al alloy coated with biogenic hydroxyapatite as an implant device in dogs' femur bones. <i>Journal of Materials Science: Materials in Medicine</i> , 2021, 32, 119.	1.7	1
921	Immobilization of bioactive vascular endothelial growth factor onto Ca-deficient hydroxyapatite-coated Mg by covalent bonding using polydopamine. <i>Journal of Orthopaedic Translation</i> , 2021, 30, 82-92.	1.9	25
922	Effects of stannum (Sn) addition on corrosion behavior and biocompatibility in vitro of biodegradable Zn-Sn alloys. <i>Materials and Corrosion - Werkstoffe Und Korrosion</i> , 0, , .	0.8	1
923	Synthesis and characterization of self-organized TiO <sub>2</sub> nanotubes grown on Ti-15Zr alloy surface to enhance cell response. <i>Surfaces and Interfaces</i> , 2021, 26, 101439.	1.5	9
924	An integrated benefit-risk assessment of cobalt-containing alloys used in medical devices: Implications for regulatory requirements in the European Union. <i>Regulatory Toxicology and Pharmacology</i> , 2021, 125, 105004.	1.3	6
925	Effect of N addition on nano-domain structure and mechanical properties of a meta-stable Ti-Zr based alloy. <i>Scripta Materialia</i> , 2021, 203, 114068.	2.6	4
926	Antibacterial Ti-35Nb-7Zr-xCu alloy with excellent mechanical properties generated with a spark plasma sintering method for biological applications. <i>Journal of Alloys and Compounds</i> , 2021, 879, 160473.	2.8	19
927	Modeling of interstitials diffusion during debinding/sintering of 3D printed metallic filaments: Application to titanium alloy and its embrittlement. <i>Acta Materialia</i> , 2021, 219, 117224.	3.8	11
928	Grain refinement effect on the Ti-45Nb alloy electrochemical behavior in simulated physiological solution. <i>Surface and Coatings Technology</i> , 2021, 423, 127609.	2.2	11
929	Mechanical properties and in vitro cytocompatibility of dense and porous Ti-6Al-4V ELI manufactured by selective laser melting technology for biomedical applications. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2021, 123, 104712.	1.5	27
930	Intrinsic mechanical properties of hexagonal multiple principal element alloy TiZrHf: An ab initio prediction. <i>International Journal of Refractory Metals and Hard Materials</i> , 2021, 100, 105626.	1.7	2
931	Core-shell Mg <sub>66</sub> Zn <sub>30</sub> Ca <sub>4</sub> bulk metallic glasses composites reinforced by Fe with high strength and controllable degradation. <i>Intermetallics</i> , 2021, 138, 107334.	1.8	12

#	ARTICLE	IF	CITATIONS
932	A bulge-test based viscoplastic model for superplastic deformation behaviour of a magnesium alloy. CIRP Journal of Manufacturing Science and Technology, 2021, 35, 778-786.	2.3	1
933	Assessment of anodization conditions and annealing temperature on the microstructure, elastic modulus, and wettability of Î²-Ti40Nb alloy. Thin Solid Films, 2021, 737, 138949.	0.8	8
934	Formation and properties of biocompatible Ti-based bulk metallic glasses in the Ti-Cu-Zr-Fe-Sn-Si-Ag system. Journal of Non-Crystalline Solids, 2021, 571, 121060.	1.5	9
935	Surface characterization of Fe-10Al-25Mn alloy for biomaterial applications. Journal of Materials Research and Technology, 2021, 15, 409-415.	2.6	6
936	Biodegradable metals for bone defect repair: A systematic review and meta-analysis based on animal studies. Bioactive Materials, 2021, 6, 4027-4052.	8.6	50
937	Osteoimmunomodulation mediating improved osteointegration by OGP-loaded cobalt-metal organic framework on titanium implants with antibacterial property. Chemical Engineering Journal, 2021, 423, 130176.	6.6	42
938	Analysis of hybrid HA/CNT suspended-EDM process and multiple-objectives optimization to improve machining responses of 316L steel. Journal of Materials Research and Technology, 2021, 15, 2557-2574.	2.6	20
939	Impact of sterilization treatments on biodegradability and cytocompatibility of zinc-based implant materials. Materials Science and Engineering C, 2021, 130, 112430.	3.8	7
940	Experimental investigation and thermodynamic modeling of the Mg-Cu-Ca ternary system. Calphad: Computer Coupling of Phase Diagrams and Thermochemistry, 2021, 75, 102325.	0.7	7
941	Enzymatically-degradable hydrogel coatings on titanium for bacterial infection inhibition and enhanced soft tissue compatibility via a self-adaptive strategy. Bioactive Materials, 2021, 6, 4670-4685.	8.6	12
942	Grain boundary character and stress corrosion cracking behavior of Co-Cr alloy fabricated by selective laser melting. Journal of Materials Science and Technology, 2021, 93, 244-253.	5.6	14
943	Fretting crevice corrosion of 316L stainless steel in physiological phosphate buffered saline: Load, potential and alloy counterface effects. Tribology International, 2021, 164, 107198.	3.0	16
944	Osteogenesis and angiogenesis of a bulk metallic glass for biomedical implants. Bioactive Materials, 2022, 8, 253-266.	8.6	15
945	Enhanced bioactivity and interfacial bonding strength of Ti3Zr2Sn3Mo25Nb alloy through graded porosity and surface bioactivation. Journal of Materials Science and Technology, 2022, 100, 137-149.	5.6	8
946	Processing and Characterization of Porous Titanium for Orthopedic Implant Prepared by Argon-atmospheric Sintering and Arc Plasma Sintering. Materials Research, 2021, 24, .	0.6	3
947	Titanium and titanium based alloy prepared by spark plasma sintering method for biomedical implant applications—a review. Materials Research Express, 2021, 8, 012001.	0.8	24
948	Effect of Stress Aging Induced Precipitates on Corrosion Behavior of NiTi Shape Memory Alloys. Metals and Materials International, 2021, 27, 3968-3974.	1.8	6
949	3D printing and 3D printed scaffolds. , 2021, , 183-200.		1

#	ARTICLE	IF	CITATIONS
950	Review of recent developments in surface nanocrystallization of metallic biomaterials. <i>Nanoscale</i> , 2021, 13, 2286-2301.	2.8	18
951	Effect of the carbamide content on the preparation of porous Ti6Al4V using arc plasma sintering method. <i>AIP Conference Proceedings</i> , 2021, , .	0.3	0
952	Fracture behavior of novel biomedical Ti-based high entropy alloys under impact loading. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2021, 803, 140456.	2.6	20
953	Tissue Engineering for Musculoskeletal Regeneration and Disease Modeling. <i>Handbook of Experimental Pharmacology</i> , 2020, 265, 235-268.	0.9	9
954	Biomaterials for Total Joint Replacements. , 2016, , 59-70.		3
955	Adhesion of Poly(lactide-glycolide) Coating (PLGA) on the Ti6Al7Nb Alloy Substrate. <i>Advances in Intelligent Systems and Computing</i> , 2019, , 578-589.	0.5	4
956	Bioactive Glasses in Orthopedic Applications. , 2020, , 557-575.		1
957	The Surface Texture of Ti6Al4V Titanium Alloy Under Wet and Dry Finish Turning Conditions. <i>Lecture Notes in Mechanical Engineering</i> , 2020, , 33-44.	0.3	4
958	Bioactive Silica Based Coating on Stainless Steel Implants. , 2016, , 1-49.		1
959	Thermal Considerations with Tissue Electroporation. , 2017, , 1-31.		2
960	Biomaterials: Characteristics and Properties. <i>Topics in Mining, Metallurgy and Materials Engineering</i> , 2017, , 5-15.	1.4	9
961	Metallic Biomaterials. <i>Topics in Mining, Metallurgy and Materials Engineering</i> , 2017, , 17-28.	1.4	2
962	Metallic Biomaterials. , 2018, , 183-224.		4
963	The Influence of Plastic Deformation Mechanisms on the Adhesion Behavior and Collagen Formation in Osteoblast Cells. <i>Minerals, Metals and Materials Series</i> , 2018, , 295-301.	0.3	2
964	Investigate the Effects of the Laser Cladding Parameters on the Microstructure, Phases Formation, Mechanical and Corrosion Properties of Metallic Glasses Coatings for Biomedical Implant Application. , 2019, , 299-323.		3
965	Bio Mimicking of Extracellular Matrix. <i>Advances in Experimental Medicine and Biology</i> , 2019, 1174, 371-399.	0.8	10
967	Biomaterials and Fabrication Methods of Scaffolds for Tissue Engineering Applications. <i>Materials Horizons</i> , 2020, , 167-186.	0.3	6
968	Dry wear behavior and mechanism of a Fe-based bulk metallic glass: description by Hertzian contact calculation and finite-element method simulation. <i>Journal of Non-Crystalline Solids</i> , 2020, 543, 120065.	1.5	18

#	ARTICLE	IF	CITATIONS
969	Corrosive wear behaviors and mechanisms of a biocompatible Fe-based bulk metallic glass. <i>Journal of Non-Crystalline Solids</i> , 2020, 542, 120088.	1.5	17
970	Fabrication of SiO <sub>2</sub> nanoparticles incorporated coating onto titanium substrates by the micro arc oxidation to improve the wear resistance. <i>Surface and Coatings Technology</i> , 2019, 364, 180-186.	2.2	47
971	Mechanical behavior of a NiTi superelastic bone plate obtained by investment casting assisted by additive manufacturing. <i>Smart Materials and Structures</i> , 2021, 30, 025009.	1.8	5
972	Elinvar effect in $\hat{\Gamma}^2$ -Ti simulated by on-the-fly trained moment tensor potential. <i>New Journal of Physics</i> , 2020, 22, 113005.	1.2	20
973	3D printed titanium scaffolds with homogeneous diamond-like structures mimicking that of the osteocyte microenvironment and its bone regeneration study. <i>Biofabrication</i> , 2021, 13, 015008.	3.7	45
974	Sustained release from biodegradable metallic matrix—The entrapment of drugs within iron. <i>Materials Research Express</i> , 2020, 7, 065404.	0.8	1
975	Antibacterial Ti-Cu alloy with enhanced mechanical properties as implant applications. <i>Materials Research Express</i> , 2020, 7, 105404.	0.8	15
976	The Calcium Phosphate Modified Titanium Implant Combined With Platelet-Rich Plasma Treatment Promotes Implant Stabilization in an Osteoporotic Model. <i>Journal of Craniofacial Surgery</i> , 2021, 32, 603-608.	0.3	4
977	Post Forming Analysis and In Vitro Biological Characterization of AZ31B Processed by Incremental Forming and Coated With Electrospun Polycaprolactone. <i>Journal of Manufacturing Science and Engineering, Transactions of the ASME</i> , 2021, 143, .	1.3	5
978	Novel zinc alloys for biodegradable surgical staples. <i>World Journal of Clinical Cases</i> , 2020, 8, 504-516.	0.3	14
979	Fabrication of a Ti porous microneedle array by metal injection molding for transdermal drug delivery. <i>PLoS ONE</i> , 2017, 12, e0172043.	1.1	80
980	Biocompatibility and corrosion resistance of metallic biomaterials. <i>Corrosion Reviews</i> , 2020, 38, 381-402.	1.0	43
981	Cenospheres and their application advantages in biomedical engineering - a systematic review. <i>Reviews on Advanced Materials Science</i> , 2020, 59, 115-130.	1.4	25
982	Fabrication and characterization of superelastic Ti—Nb alloy enhanced with antimicrobial Cu via spark plasma sintering for biomedical applications. <i>Journal of Materials Research</i> , 2017, 32, 2510-2520.	1.2	10
983	Titanium-Niobium (Ti-xNb) Alloys with High Nb Amounts for Applications in Biomaterials. <i>Materials Research</i> , 2020, 23, .	0.6	10
984	New frontiers in biomaterials research for tissue repair and regeneration. <i>Translational Neuroscience and Clinics</i> , 2016, 2, 120.	0.1	1
985	Corrosion resistance of Cr-Ni-Mo Stainless Steel in Chloride and Fluoride Containing Environment. <i>Manufacturing Technology</i> , 2016, 16, 1193-1198.	0.2	7
986	Microstructure of ultrafine-grained Ti-40wt.%—Nb alloy after annealing. <i>Letters on Materials</i> , 2020, 10, 54-59.	0.2	5

#	ARTICLE	IF	CITATIONS
987	Degradation of Functional Properties of Pseudoelastic NiTi Alloy Under Cyclic Loading: An Experimental Study. <i>Acta Mechanica Et Automatica</i> , 2019, 13, 95-100.	0.3	8
988	On the analysis of chip shaping after finishing turning of Ti6Al4V titanium alloy under dry, wet and MQL conditions. <i>Archives of Mechanical Technology and Materials</i> , 2019, 39, 36-40.	0.3	7
989	Application of adult mesenchymal stem cells in bone and vascular tissue engineering. <i>Physiological Research</i> , 2018, 67, 831-850.	0.4	25
990	Diseño de recubrimientos multicapa barrera-biomimético base TEOS-GPTMS sobre la aleación de magnesio Elektron 21 de potencial aplicación en la fabricación de implantes ortopédicos. <i>Revista De Metalurgia</i> , 2016, 52, e075.	0.1	4
991	Study on Zr-xCu and Zr-xSi alloys with low elastic modulus for improving stress shield effect. <i>Korean Journal of Dental Materials</i> , 2021, 48, 175-190.	0.2	0
992	Influence of Energy-Mechanical Treatment on Structure-Mechanical Properties of Co-Cr-Mo Alloys Obtained by Spark Plasma Sintering. <i>Inorganic Materials: Applied Research</i> , 2021, 12, 1344-1349.	0.1	0
993	Corrosion of titanium under simulated inflammation conditions: clinical context and in vitro investigations. <i>Acta Biomaterialia</i> , 2021, 136, 72-87.	4.1	54
994	Noninvasive evaluation of elastic properties for magnesium-calcium biodegradable alloys. <i>IOP Conference Series: Materials Science and Engineering</i> , 2021, 1182, 012068.	0.3	0
995	Surface functionalization of anodized tantalum with Mn3O4 nanoparticles for effective corrosion protection in simulated inflammatory condition. <i>Ceramics International</i> , 2022, 48, 3148-3156.	2.3	22
996	New Titanium Alloys, Promising Materials for Medical Devices. <i>Materials</i> , 2021, 14, 5934.	1.3	33
997	Reduced thrombogenicity of surface-treated Nitinol implants steered by altered protein adsorption. <i>Acta Biomaterialia</i> , 2022, 137, 331-345.	4.1	13
998	A Stable Cell Membrane-Based Coating with Antibiofouling and Macrophage Immunoregulatory Properties for Implants at the Macroscopic Level. <i>Chemistry of Materials</i> , 2021, 33, 7994-8006.	3.2	15
999	Influence of Degradation Product Thickness on the Elastic Stiffness of Porous Absorbable Scaffolds Made from an Bioabsorbable Zn-Mg Alloy. <i>Materials</i> , 2021, 14, 6027.	1.3	2
1000	Effects of composition of hydroxyapatite/gray titania coating fabricated by suspension plasma spraying on mechanical and antibacterial properties. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2022, 125, 104888.	1.5	17
1001	Surface Roughness Analysis and Prediction with an Artificial Neural Network Model for Dry Milling of Co-Cr Biomedical Alloys. <i>Materials</i> , 2021, 14, 6361.	1.3	8
1002	Investigations into Ti-Based Metallic Alloys for Biomedical Purposes. <i>Metals</i> , 2021, 11, 1626.	1.0	7
1003	Microstructure, corrosion rate, and mechanical properties of unidirectionally and cross-rolled Mg-37.5Ga and Mg-75.0Ga alloys. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , 2022, 110, 646-659.	1.6	3
1004	Powder Metallurgical Techniques for Fabrication of Biomaterials. <i>Manufacturing Technology</i> , 2015, 15, 964-969.	0.2	13

#	ARTICLE	IF	CITATIONS
1007	Microscopic Evaluation of 3D-Printed Materials Surface and Characteristic Microstructure. Manufacturing Technology, 2016, 16, 902-909.	0.2	4
1008	Comparison of the physicochemical properties of Al <sub>2</sub> O <sub>3</sub> layers applied to the surfaces of cpTi and the Ti6Al7Nb alloy using the ALD method. Materiali in Tehnologije, 2017, 51, 637-641.	0.3	0
1009	Thermal Considerations with Tissue Electroporation. , 2018, , 1-31.		1
1010	Caracteriza��o de a��o inoxid��vel ASTM 138 (CrNiMo) e biocompatibilidade em parafusos de fixa��o de pr��teses. The Academic Society Journal, 0, , 120-127.	0.1	1
1011	Corrosion of Stainless Steel and its Prevention through Surface Modification for Biomedical Application: A Review. Asian Journal of Engineering and Applied Technology, 2018, 7, 60-66.	0.3	1
1012	Hard Material Modulation for (Skeletal) Tissue Engineering Purposes. , 2019, , 1-18.		0
1013	Pathology and Histopathology Evaluations of Biomaterials and Medical Devices. , 2019, , 339-400.		0
1014	Surface Modifications in Ti-Based Orthopaedic Implants. , 2019, , 275-293.		0
1015	Bioresorbable Nano-Hydroxyapatite Reinforced Magnesium Alloplastic Bone Substitute for Biomedical Applications: A Study. Minerals, Metals and Materials Series, 2019, , 71-82.	0.3	2
1016	AVALIA��O ELETROQU��MICA DA CORROS��O POR ATRITO NA INTERFACE MODULAR CABE��A-CONE DE PR��TESE DE QUADRIL DE A��O INOXID��VEL UNS S31673. , 0, , .		0
1017	The problem of biomechanical compatibility of metallic materials and ways of solving it. Visnik Nacional Noi Akademii Nauk Ukrai Ni, 2019, , 42-49.	0.0	2
1018	Nitinol Spinal Vertebrae: A Favorable New Substitute. International Journal of Engineering, Transactions B: Applications, 2019, 32, .	0.6	1
1019	ASSESSMENT OF TRIBOLOGICAL PROPERTIES OF Ti13Nb13Zr TITANIUM ALLOY USED IN MEDICINE. Tribologia, 2019, 285, 97-106.	0.0	3
1020	Electrochemical Corrosion of Dental Alloys. Progress in Physics of Metals, 2019, 20, 310-346.	0.5	5
1021	Zinc-based Degradable Biomaterials - Limitations and Enhancements. Manufacturing Technology, 2019, 19, 632-636.	0.2	1
1022	Electroformation of Coatings Modified with Silver on Magnesium Alloys for Biomedical Applications. Portugaliae Electrochimica Acta, 2020, 38, 351-364.	0.4	1
1023	Antibacterial activities and cytocompatibility of zinc-contained strontium phosphate coating on titanium. Materials Research Express, 2020, 7, 075402.	0.8	7
1024	Ex vivo evaluation of blood coagulation on endothelial glycocalyx-inspired surfaces using thromboelastography. In Vitro Models, 0, , 1.	1.0	2



#	ARTICLE	IF	CITATIONS
1025	Ta2O5-doped TiO2 nanotubes on Ti6Al4V alloy with improved cytocompatibility to endothelial cells. Vacuum, 2022, 195, 110713.	1.6	4
1026	Creation and finite-element analysis of multi-lattice structure design in hip stem implant to reduce the stress-shielding effect. Proceedings of the Institution of Mechanical Engineers, Part L: Journal of Materials: Design and Applications, 0, , 146442072110462.	0.7	4
1027	Surface modification and antibacterial properties of superelastic Ti-Zr-based alloys for medical application. Colloids and Surfaces B: Biointerfaces, 2022, 209, 112183.	2.5	6
1028	Primary Information About Biomaterials. Advanced Structured Materials, 2020, , 1-30.	0.3	2
1029	Assessment of Mechanical, Chemical, and Biological Properties of Ti-Nb-Zr Alloy for Medical Applications. Materials, 2021, 14, 126.	1.3	9
1030	Research on suitable strength, elastic modulus and abrasion resistance of Ti-Zr-Nb medium entropy alloys (MEAs) for implant adaptation. Intermetallics, 2022, 140, 107401.	1.8	30
1031	Electrochemical response in physiological environments and mechanical properties of Ti51Si24Ni14Nb11 and Fe40Ti30Al18Si12 thin film metallic glasses. Journal of Non-Crystalline Solids, 2022, 575, 121209.	1.5	4
1032	Simultaneously increasing the strength and decreasing the modulus in TiNi alloys via plastic deformation. Scripta Materialia, 2022, 209, 114374.	2.6	5
1033	Developments in Metallic Biomaterials and Surface Coatings for Various Biomedical Applications. Lecture Notes in Mechanical Engineering, 2020, , 197-206.	0.3	4
1034	Hard Material Modulation for (Skeletal) Tissue Engineering Purposes. , 2020, , 449-466.		0
1036	Microstructures, mechanical properties, and corrosion behavior of novel multi-component Ti-6Mo-6Nb-xSn-xMn alloys for biomedical applications. AIMS Materials Science, 2020, 7, 192-202.	0.7	6
1037	Influence of heat treatment on color and flexibility of nickel-titanium endodontic instruments. Rgo, 0, 68, .	0.2	6
1038	Mechanical properties and corrosion behavior of novel $\beta$ -type biomaterial Zr-6Mo-4Ti-xY alloys in simulated body fluid Ringer's lactate solution for implant applications. AIMS Materials Science, 2020, 7, 887-901.	0.7	3
1039	Application of the Theory of the Critical Distances based methodology for the analysis of Environmentally Assisted Cracking processes in biomaterials. Procedia Structural Integrity, 2020, 28, 45-52.	0.3	0
1040	Improved Corrosion Fatigue and Immunomodulatory Osteogenesis of Hydrothermally Grown TiO <sub>2</sub> Nanorods Coated SMATed-Titanium. SSRN Electronic Journal, 0, , .	0.4	0
1041	Biomedical Activity of TiO <sub>2</sub> Loaded TiNbSn Alloy for Implant Application. Materia Japan, 2020, 59, 84-91.	0.1	0
1042	Systematic assessment of the biocompatibility of materials for inkjet-printed ozone sensors for medical therapy. Flexible and Printed Electronics, 2021, 6, 043003.	1.5	5
1043	FABRICATION AND SURFACE MODIFICATION OF BIOMATERIALS FOR ORTHOPEDIC IMPLANT: A REVIEW. Surface Review and Letters, 2023, 30, .	0.5	0

#	ARTICLE	IF	CITATIONS
1044	Anodic growth of Ta-Ti-O nanotube arrays on Ta/Ti6Al4V alloy layer. <i>Materials Characterization</i> , 2021, 182, 111572.	1.9	2
1045	Study on Wear Debris Characterization of Polycarbonate Urethane (PCU) as a Bearing of Artificial Hip Joint. <i>Journal of Physics: Conference Series</i> , 2021, 2065, 012004.	0.3	0
1046	Development of Cold Sprayed Titanium/Baghdadite Composite Coating for Bio-implant Applications. <i>Journal of Thermal Spray Technology</i> , 2021, 30, 2099-2116.	1.6	6
1047	Research on zirconium alloys with low elastic modulus and low magnetic susceptibility for improving bone resorption and susceptibility artifacts. <i>Korean Journal of Dental Materials</i> , 2020, 47, 143-156.	0.2	0
1048	Multi-Method Approach to Assess the Corrosion Behavior of a Coated WE43 Mg Alloy. <i>Corrosion</i> , 2021, 77, 209-217.	0.5	1
1049	Design and properties of novel Ti-Zr-Hf-Nb-Ta high-entropy alloys for biomedical applications. <i>Intermetallics</i> , 2022, 141, 107421.	1.8	45
1050	Biomimetic Approaches for the Design and Fabrication of Bone-to-Soft Tissue Interfaces. <i>ACS Biomaterials Science and Engineering</i> , 2023, 9, 3810-3831.	2.6	21
1051	Corrosion Resistance of AISI 316L Stainless Steel Biomaterial after Plasma Immersion Ion Implantation of Nitrogen. <i>Materials</i> , 2021, 14, 6790.	1.3	9
1052	Improved in-vitro biocompatibility of LZ91 Mg-Li alloy by formation of nanostructured Ti coating through surface mechanical nano-alloying treatment. <i>International Journal of Materials Research</i> , 2021, 112, 910-917.	0.1	0
1054	Bone Scaffolds: An Incorporation of Biomaterials, Cells, and Biofactors. <i>ACS Biomaterials Science and Engineering</i> , 2021, 7, 5397-5431.	2.6	41
1055	Design, Synthesis, and Preliminary Evaluation for Ti-Mo-Zr-Ta-Si Alloys for Potential Implant Applications. <i>Materials</i> , 2021, 14, 6806.	1.3	18
1056	Zn based hydroxyapatite based coatings deposited on a novel FeMoTaTiZr high entropy alloy used for bone implants. <i>Surfaces and Interfaces</i> , 2022, 28, 101591.	1.5	11
1057	Production and Characterization of a 316L Stainless Steel/ $\beta$ -TCP Biocomposite Using the Functionally Graded Materials (FGMs) Technique for Dental and Orthopedic Applications. <i>Metals</i> , 2021, 11, 1923.	1.0	6
1058	The Role of Biodegradable Magnesium and Its Alloys in Anterior Cruciate Ligament Reconstruction: A Systematic Review and Meta-Analysis Based on Animal Studies. <i>Frontiers in Bioengineering and Biotechnology</i> , 2021, 9, 789498.	2.0	1
1059	Novel Design and Finite Element Analysis of Diamond-like Porous Implants with Low Stiffness. <i>Materials</i> , 2021, 14, 6918.	1.3	6
1060	Evaluation of modified 316L surface properties through HAp suspended EDM process for biomedical application. <i>Surfaces and Interfaces</i> , 2022, 28, 101600.	1.5	15
1061	Factors affecting biocompatibility and biodegradation of magnesium based alloys. <i>Materials Today: Proceedings</i> , 2022, 52, 1092-1107.	0.9	6
1062	A Review on Development of Bio-Inspired Implants Using 3D Printing. <i>Biomimetics</i> , 2021, 6, 65.	1.5	38

#	ARTICLE	IF	CITATIONS
1063	Driving electrochemical corrosion of implanted CoCrMo metal via oscillatory electric fields without mechanical wear. <i>Scientific Reports</i> , 2021, 11, 22366.	1.6	2
1064	Dependence of mechanical behavior on grain size of metastable Tiâ€“Nbâ€“O titanium alloy. <i>Progress in Natural Science: Materials International</i> , 2022, 32, 63-71.	1.8	5
1065	Biomimetic Deposition of Hydroxyapatite Layer on Titanium Alloys. <i>Micromachines</i> , 2021, 12, 1447.	1.4	24
1066	Nanoâ€“silica/chitosan composite coatings on biodegradable magnesium alloys for enhanced corrosion resistance in simulated body fluid. <i>Materials and Corrosion - Werkstoffe Und Korrosion</i> , 0, , .	0.8	3
1067	Effects of post-production heat treatment on the mechanical and corrosion behaviour of CoCrMoW alloy manufactured through selective laser melting. <i>Materials Today Communications</i> , 2021, 29, 102994.	0.9	4
1068	Investigation on tribological behaviors of biodegradable pure Zn and Zn-X (Li, Cu, Ge) binary alloys. <i>Journal of Materials Science: Materials in Medicine</i> , 2021, 32, 149.	1.7	4
1069	Duty cycle influence on the corrosion behavior of coatings created by plasma electrolytic oxidation on AZ31B magnesium alloy in simulated body fluid. <i>Corrosion Communications</i> , 2021, 3, 62-70.	2.7	11
1070	Effects of Magnesium on Microstructural Properties and Degradation Behaviors of Zinc-Based Alloys Prepared by Selective Laser Melting. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
1071	Different Coating Methods of Titanium Dioxide on Metal Substrates for Orthopedic and Dental Applications: A Review. <i>Asian Journal of Chemistry</i> , 2021, 34, 9-17.	0.1	1
1072	Diffusion bonding of implantable Al <sub>2</sub> O <sub>3</sub> /Ti-13Nb-13Zr joints: Interfacial microstructure and mechanical properties. <i>Materials Characterization</i> , 2022, 184, 111665.	1.9	10
1073	Hyaluronic acid bisphosphonates as antifouling antimicrobial coatings for PEO-modified titanium implants. <i>Surfaces and Interfaces</i> , 2022, 28, 101678.	1.5	7
1074	Corrosion behavior of a non-equiatomic CoCrFeNiTi high-entropy alloy: A comparison with 304 stainless steel in simulated body fluids. <i>Journal of Alloys and Compounds</i> , 2022, 897, 163036.	2.8	16
1075	NiTi-based smart micro- and nanoalloys: an introduction. , 2022, , 3-8.		2
1076	Bone tissue engineering. , 2022, , 1-40.		1
1077	Development and application of TLM alloy for the replacement and repair of surgical implants. , 2022, , 163-198.		0
1078	Fabrication of titanium-based alloys with bioactive surface oxide layer as biomedical implants: Opportunity and challenges. <i>Transactions of Nonferrous Metals Society of China</i> , 2022, 32, 1-44.	1.7	29
1079	Effect of Nb Content and water quenching on microstructure and mechanical properties of Ti-Nb alloys fabricated by spark plasma sintering. <i>Powder Metallurgy</i> , 2022, 65, 426-438.	0.9	6
1080	Overview of the development and application of biomedical metal materials. , 2022, , 1-26.		0

#	ARTICLE	IF	CITATIONS
1081	Biomedical applications of NiTi alloys. , 2022, , 297-325.		1
1082	Enhancement of mechanical and bioactive characteristics of NiTiMD composite reinforced with waste marble dust. International Journal of Materials Research, 2022, 113, 44-59.	0.1	1
1083	Sol-gel coatings for protection and biofunctionalization of stainless-steel prosthetic intracorporeal devices in Latin-America. Journal of Sol-Gel Science and Technology, 2022, 102, 96-104.	1.1	8
1084	Influence of Thermal Treatment of Ti-45Nb Alloy in Ultrafine-Grained State on Its Structural Parameters and Heat Capacity. Russian Physics Journal, 2022, 64, 1676-1683.	0.2	1
1085	High-strength and low-modulus Ti-13Nb-7Sn-4Mo with $\beta + \beta'$ structure fabricated by cold rolling and aging treatment. MRS Communications, 2022, 12, 130.	0.8	0
1086	Mechanical properties and corrosion resistance characterization of a novel Co36Fe36Cr18Ni10 high-entropy alloy for bioimplants compared to 316L alloy. Journal of Alloys and Compounds, 2022, 906, 163947.	2.8	19
1087	Biodegradable Zn-Sr alloys with enhanced mechanical and biocompatibility for biomedical applications. Smart Materials in Medicine, 2022, 3, 117-127.	3.7	12
1088	Comparative study of titanium alloys machinability used for medical applications. Proceedings of the Institution of Mechanical Engineers, Part E: Journal of Process Mechanical Engineering, 2022, 236, 1845-1856.	1.4	4
1089	Partially biodegradable Ti-Mg composites prepared by microwave sintering for biomedical application. Materials Characterization, 2022, 185, 111748.	1.9	6
1090	A review on biomedical implant materials and the effect of friction stir based techniques on their mechanical and tribological properties. Journal of Materials Research and Technology, 2022, 17, 1054-1121.	2.6	61
1091	Microstructural evolution of strontium-zinc-phosphate coating on titanium via changing Zn <sup>2+</sup> concentration in phosphate solution for enhanced osteogenic activity. Surface and Coatings Technology, 2022, 433, 128143.	2.2	4
1092	Improvement of biological and corrosion behavior of 316 L stainless steel using PDMS-Ag doped Willemite nanocomposite coating. Progress in Organic Coatings, 2022, 165, 106733.	1.9	8
1093	Effect of grain boundary character on isothermal phase transformation and mechanical properties of Co-Cr-Mo alloy fabricated by selective laser melting. Journal of Alloys and Compounds, 2022, 903, 163904.	2.8	2
1094	NiTi laser textured implants with improved in vivo osseointegration: An experimental study in rats. Journal of Materials Science and Technology, 2022, 114, 120-130.	5.6	10
1095	Improvement of wear resistance of low-cost powder metallurgy $\beta$ -titanium alloys for biomedical applications. Surface and Coatings Technology, 2022, 434, 128207.	2.2	19
1096	Angiogenesis, Osseointegration, and Antibacterial Applications of Polyelectrolyte Multilayer Coatings Incorporated With Silver/Strontium Containing Mesoporous Bioactive Glass on 316L Stainless Steel. Frontiers in Bioengineering and Biotechnology, 2022, 10, 818137.	2.0	17
1097	Bioceramic coatings on metallic implants: An overview. Ceramics International, 2022, 48, 8987-9005.	2.3	62
1098	Production, Mechanical Properties and Biomedical Characterization of ZrTi-Based Bulk Metallic Glasses in Comparison with 316L Stainless Steel and Ti6Al4V Alloy. Materials, 2022, 15, 252.	1.3	11

#	ARTICLE	IF	CITATIONS
1099	Investigation of Ti-13Nb-13Zr Alloy Powder Properties and Optimization of the L-PBF Process. SSRN Electronic Journal, 0, , .	0.4	0
1100	Investigations on Microstructure and Properties of Ti-Nb-Zr Medium-Entropy Alloys for Metallic Biomaterials. SSRN Electronic Journal, 0, , .	0.4	0
1101	Bioactive surface modifications through thermally sprayed hydroxyapatite composite coatings: a review of selective reinforcements. Biomaterials Science, 2022, 10, 2484-2523.	2.6	22
1103	A New Toxic-Free Ti <sub>40</sub> Zr <sub>10</sub> Co <sub>36</sub> Pd <sub>14</sub> Metallic Glass with Good Biocompatibility and Surface Behavior Comparable to Ti-6Al-4V. SSRN Electronic Journal, 0, , .	0.4	0
1104	Surface integrity of ball burnished bioresorbable magnesium alloy. Advances in Manufacturing, 2023, 11, 342-362.	3.2	3
1105	Microstructure, mechanical properties, and cytotoxicity of low Young's modulus Ti-Nb-Fe-Sn alloys. Journal of Materials Science, 2022, 57, 5634-5644.	1.7	6
1106	Electrochemical Corrosion Behaviour Analysis of Mg-Alloys Used for Orthopaedics and Vascular Implants. IOP Conference Series: Materials Science and Engineering, 2022, 1225, 012063.	0.3	1
1107	Microstructure and Mechanical Properties of Ti-Ta Composites Prepared Through Cold Spray Additive Manufacturing. Acta Metallurgica Sinica (English Letters), 2022, 35, 1465-1476.	1.5	3
1108	Promises of Functionally Graded Material in Bone Regeneration: Current Trends, Properties, and Challenges. ACS Biomaterials Science and Engineering, 2022, 8, 1001-1027.	2.6	9
1109	Mechanical Characterization and In Vitro Assay of Biocompatible Titanium Alloys. Micromachines, 2022, 13, 430.	1.4	16
1110	Microstructure, Mechanical Properties, and Cytotoxicity of $\beta$ -Type Ti-Nb-Cr Alloys Designed by Electron Parameter. Journal of Materials Engineering and Performance, 0, , 1.	1.2	1
1111	Influence of Copper on the Microstructural, Mechanical, and Biological Properties of Commercially Pure Zn-Based Alloys for a Potential Biodegradable Implant. ACS Biomaterials Science and Engineering, 2022, 8, 1443-1463.	2.6	10
1112	A tribocorrosion appraisal of a dual layer PVD coated CoCrMo alloy tribopair. Surface and Coatings Technology, 2022, 442, 128341.	2.2	7
1113	The effect of solution and aging treatments on the microstructure and mechanical properties of a selective laser melted CoCrMo alloy. Journal of Materials Science, 2022, 57, 6445-6459.	1.7	5
1114	Inkjet-Printed Phospholipid Bilayers on Titanium Oxide Surfaces: Towards Functional Membrane Biointerfaces. Membranes, 2022, 12, 361.	1.4	7
1115	Colorimetric photonic tongue for metal ions screening. Matter, 2022, 5, 1590-1602.	5.0	8
1116	Effect of Cobalt-Chromium-Molybdenum Implant Surface Modifications on Biofilm Development of <i>S. aureus</i> and <i>S. epidermidis</i> . Frontiers in Cellular and Infection Microbiology, 2022, 12, 837124.	1.8	1
1117	Effect of welding current on the microstructure, residual stresses, mechanical properties and nano-mechanical behaviour of P-TiC welded TiNi binary shape-memory alloy. Proceedings of the Institution of Mechanical Engineers, Part L: Journal of Materials: Design and Applications, 2022, 236, 1829-1841.	0.7	2

#	ARTICLE	IF	CITATIONS
1118	Microstructure and Antimicrobial Properties of Zr-Cu-Ti Thin-Film Metallic Glass Deposited Using High-Power Impulse Magnetron Sputtering. <i>Materials</i> , 2022, 15, 2461.	1.3	4
1119	Investigation of Ti-13Nb-13Zr alloy powder properties and development of the L-PBF process. <i>Materials and Design</i> , 2022, 217, 110546.	3.3	3
1120	Ti-Zr-Hf-Nb-Ta-Sn high-entropy alloys with good properties as potential biomaterials. <i>Rare Metals</i> , 2022, 41, 2305-2315.	3.6	9
1121	Production and Characterization of the Third-Generation Oxide Nanotubes on Ti-13Zr-13Nb Alloy. <i>Materials</i> , 2022, 15, 2321.	1.3	4
1122	Tin dioxide in terms of physical properties on steel AISI 316 LVM. <i>Materialwissenschaft Und Werkstofftechnik</i> , 2022, 53, 517-525.	0.5	1
1123	The role of rare earth elements in bone tissue engineering scaffolds - A review. <i>Composites Part B: Engineering</i> , 2022, 235, 109758.	5.9	27
1124	Surface modification of bio degradable materials through PMEDM - A research perspective. <i>Materials Today: Proceedings</i> , 2022, , .	0.9	1
1125	Electrostatic self-assembly approach in the deposition of bio-functional chitosan-based layers enriched with caffeic acid on Ti-6Al-7Nb alloys by alternate immersion. , 2022, 136, 212791.		7
1126	Effectiveness of Direct Laser Interference Patterning and Peptide Immobilization on Endothelial Cell Migration for Cardio-Vascular Applications: An In Vitro Study. <i>Nanomaterials</i> , 2022, 12, 1217.	1.9	6
1127	In-vitro viability of laser clad Fe-based metallic glass as a promising bioactive material for improved osseointegration of orthopedic implants. <i>Medical Engineering and Physics</i> , 2022, 102, 103782.	0.8	7
1128	Plasma electrolytic oxidation up to four-steps performed on niobium and Nb-Ti alloys. <i>Surface and Coatings Technology</i> , 2022, 438, 128369.	2.2	6
1129	An insight into the effect surface morphology, processing, and lubricating conditions on tribological properties of Ti6Al4V and UHMWPE pairs. <i>Tribology International</i> , 2022, 170, 107504.	3.0	9
1130	The influence of porous structure on the corrosion behavior and biocompatibility of bulk Ti-based metallic glass. <i>Journal of Alloys and Compounds</i> , 2022, 906, 164326.	2.8	10
1131	Surface modification of titanium substrate via combining photothermal therapy and quorum-sensing-inhibition strategy for improving osseointegration and treating biofilm-associated bacterial infection. <i>Bioactive Materials</i> , 2022, 18, 228-241.	8.6	41
1132	A Tribological and Ion Released Research of Ti-Materials for Medical Devices. <i>Materials</i> , 2022, 15, 131.	1.3	4
1133	The detailed corrosion performance of bioresorbable Mg-0.8Ca alloy in physiological solutions. <i>Journal of Magnesium and Alloys</i> , 2022, 10, 1326-1350.	5.5	40
1134	Zinc-Magnesium alloy as a degradable bone plate. , 2021, , .		0
1135	Assessment of the Effects of Si Addition to a New TiMoZrTa System. <i>Materials</i> , 2021, 14, 7610.	1.3	20



#	ARTICLE	IF	CITATIONS
1136	A Ru/RuO <sub>2</sub> -Doped TiO <sub>2</sub> Nanotubes as pH Sensors for Biomedical Applications: The Effect of the Amount and Oxidation of Deposited Ru on the Electrochemical Response. <i>Materials</i> , 2021, 14, 7912.	1.3	3
1137	Effectiveness of laddered embossed structure in a locking compression plate for biodegradable orthopaedic implants. <i>Journal of Biomaterials Applications</i> , 2022, 36, 1213-1230.	1.2	3
1138	Wear studies on plasma-sprayed pure and reinforced hydroxyapatite coatings. <i>Materials Today: Proceedings</i> , 2022, 60, 1731-1735.	0.9	4
1139	Protein absorption on titanium surfaces treated with a high-power laser: A systematic review. <i>Journal of Prosthetic Dentistry</i> , 2024, 131, 591-597.	1.1	4
1140	Design, Simulation and Performance Research of New Biomaterial Mg <sub>30</sub> Zn <sub>30</sub> Sn <sub>30</sub> Sr <sub>5</sub> Bi <sub>5</sub> . <i>Coatings</i> , 2022, 12, 531.	1.2	3
1141	Personalized 3D printed bone scaffolds: A review. <i>Acta Biomaterialia</i> , 2023, 156, 110-124.	4.1	57
1142	Defects induced through rapid solidification in a Co-20 Cr alloy. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2022, 844, 143161.	2.6	2
1143	Electrodeposition of Calcium Phosphate Coatings on Metallic Substrates for Bone Implant Applications: A Review. <i>Coatings</i> , 2022, 12, 539.	1.2	22
1144	Investigations on microstructure and properties of Ti-Nb-Zr medium-entropy alloys for metallic biomaterials. <i>Intermetallics</i> , 2022, 145, 107568.	1.8	11
1145	A Novel Two-Stage Strengthening and Toughening Behavior of Sic Fiber Reinforced Porous Ti-Nb Based Smas Composites. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
1146	Novel Porous $\beta$ -Tcp/Mg-Zn Scaffolds with Suitable Mechanical Properties and Corrosion Resistance Designed Via Statistical Optimization and Function Modelling. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
1147	Study of the Structure, Mechanical Characteristics, and Antibacterial Properties of Corrosion-Resistant Steel Alloyed with Silver and Titanium. <i>Doklady Chemistry</i> , 2022, 502, 37-44.	0.2	10
1148	PERFORMANCE OF THERMALLY SPRAYED HYDROXYAPATITE COATINGS FOR BIOMEDICAL IMPLANTS: A COMPREHENSIVE REVIEW. <i>Surface Review and Letters</i> , 2023, 30, .	0.5	8
1149	Ultrafine-grained Nb-Cu immiscible alloy implants for hard tissue repair: Fabrication, characterization, and in vitro and in vivo evaluation. <i>Journal of Materials Science and Technology</i> , 2022, 127, 214-224.	5.6	3
1150	Aleaciones metálicas para aplicaciones ortopédicas: una revisión sobre su respuesta al estrés fisiológico y a los procesos de corrosión. <i>Revista Politécnica</i> , 2022, 18, 24-39.	0.0	0
1151	Effect of Sn on microstructure and properties of Ti-Zr-Nb-Sn medium-entropy alloys (MEAs). <i>Journal of Materials Research</i> , 2022, 37, 1762-1770.	1.2	1
1153	Ti <sub>6</sub> Al <sub>7</sub> Nb-TiB nanocomposites for ortho-implant applications. <i>Journal of Materials Research</i> , 2022, 37, 2525-2535.	1.2	2
1154	Anisotropy of Additively Manufactured Co-28Cr-6Mo Influences Mechanical Properties and Biomedical Performance. <i>ACS Applied Materials &amp; Interfaces</i> , 2022, 14, 21906-21915.	4.0	2

#	ARTICLE	IF	CITATIONS
1155	Superior in vitro biocompatibility in NbTaTiVZr(O) high-entropy metallic glass coatings for biomedical applications. <i>Applied Surface Science</i> , 2022, 596, 153615.	3.1	23
1156	A biodegradable Fe/Zn-3Cu composite with requisite properties for orthopedic applications. <i>Acta Biomaterialia</i> , 2022, 146, 506-521.	4.1	12
1157	Flexible and Tough Superelastic Co-Cr Alloys for Biomedical Applications. <i>Advanced Materials</i> , 2022, 34, e2202305.	11.1	11
1158	Review on Grain Refinement of Metallic Materials to Regulate Cellular Behavior. <i>Metals</i> , 2022, 12, 829.	1.0	1
1160	Current status and future potential of wear-resistant coatings and articulating surfaces for hip and knee implants. <i>Materials Today Bio</i> , 2022, 15, 100270.	2.6	27
1161	Investigation on the effect of scanning strategy on the corrosion properties of gum metal produced using selective laser melting. <i>Materials Characterization</i> , 2022, 189, 111929.	1.9	5
1162	Comparison of the Properties of Additively Manufactured 316L Stainless Steel for Orthopedic Applications: A Review. , 2023, 01, .		1
1163	Pitting behavior of 316L stainless steel in direct culture with mesenchymal stem cells. <i>Corrosion Science</i> , 2022, 204, 110380.	3.0	5
1164	Progress in manufacturing and processing of degradable Fe-based implants: a review. <i>Progress in Biomaterials</i> , 2022, 11, 163-191.	1.8	19
1165	Open-porous magnesium-based scaffolds withstand in vitro corrosion under cyclic loading: A mechanistic study. <i>Bioactive Materials</i> , 2023, 19, 406-417.	8.6	4
1166	Investigation of in-vitro biocompatibility and in-vivo biodegradability of AM series Mg alloys. <i>Materials Technology</i> , 2022, 37, 2819-2831.	1.5	10
1167	Studies on Microstructure, Mechanical Properties, and Corrosion Behavior, of Partially Open-Cell Magnesium Foam through Powder Metallurgy Route. <i>Journal of Materials Engineering and Performance</i> , 0, , .	1.2	1
1168	A Review on Biomaterials for Orthopaedic Surgery and Traumatology: From Past to Present. <i>Materials</i> , 2022, 15, 3622.	1.3	45
1169	Novel Zn-2Cu-0.2Mn-xLi (x=0, 0.1 and 0.38) alloys developed for potential biodegradable implant applications. <i>Journal of Alloys and Compounds</i> , 2022, 916, 165478.	2.8	18
1170	Additive Manufacturing and Characterisation of Biomedical Materials. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
1171	From Bio-Inertness to Osseointegration and Antibacterial Activity: A One-Step Micro-Arc Oxidation Approach for Multifunctional Ti Implants Fabricated by Additive Manufacturing. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
1172	Surface modification of hydroxyapatite nanoparticles for bone regeneration by controlling their surface hydration and protein adsorption states. <i>Dalton Transactions</i> , 2022, 51, 9572-9583.	1.6	5
1173	Enhanced mechanical properties of an Mg-Zn-Ca alloy via high pressure torsion and annealing for use in bone implantation. <i>Revista Materia</i> , 2022, 27, .	0.1	1

#	ARTICLE	IF	CITATIONS
1174	Effect of Implantation of Argon and Oxygen Ions on the Physicochemical Properties and Corrosion and Electrochemical Behavior of 14Cr17Ni2 Chromium–Nickel Steel. <i>Inorganic Materials: Applied Research</i> , 2022, 13, 666-673.	0.1	1
1175	Approach to the Fatigue and Cellular Behavior of Superficially Modified Porous Titanium Dental Implants. <i>Materials</i> , 2022, 15, 3903.	1.3	3
1176	Phototethering of Collagen onto Polyetheretherketone Surfaces to Enhance Osteoblastic and Endothelial Performance. <i>Macromolecular Bioscience</i> , 2022, 22, .	2.1	2
1177	Improved Tribocorrosion Behavior Obtained by In-Situ Precipitation of Ti <sub>2</sub> C in Ti-Nb Alloy. <i>Metals</i> , 2022, 12, 908.	1.0	5
1178	A Critical Review of Additive Manufacturing Techniques and Associated Biomaterials Used in Bone Tissue Engineering. <i>Polymers</i> , 2022, 14, 2117.	2.0	25
1179	Biodegradable Iron and Porous Iron: Mechanical Properties, Degradation Behaviour, Manufacturing Routes and Biomedical Applications. <i>Journal of Functional Biomaterials</i> , 2022, 13, 72.	1.8	15
1180	Ti–Ta dental alloys and a way to improve gingival aesthetic in contact with the implant. <i>Materials Chemistry and Physics</i> , 2022, 287, 126343.	2.0	4
1181	In-Vitro Wear and Corrosion Properties of Cr Added Refractory Ti-Mo-Nb-Ta-W High Entropy Alloys. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
1182	Effect of Subsequent Heat Treatment on Nano-Tribological Behavior of the Co-Cr Medical Alloy Fabricated by Selective Laser Melting. <i>Journal of Materials Engineering and Performance</i> , 0, , .	1.2	1
1183	Microstructure evolution and joining strength of diamond brazed on Ti-6Al-4V substrates using Ti-free eutectic Ag-Cu filler alloy. <i>Diamond and Related Materials</i> , 2022, 127, 109198.	1.8	7
1184	Biodegradable Zn-Cu-Fe Alloy as a Promising Material for Craniomaxillofacial Implants: An in vitro Investigation into Degradation Behavior, Cytotoxicity, and Hemocompatibility. <i>Frontiers in Chemistry</i> , 0, 10, .	1.8	10
1185	Current Status and Outlook of Temporary Implants (Magnesium/Zinc) in Cardiovascular Applications. <i>Metals</i> , 2022, 12, 999.	1.0	11
1186	Effects of heat treatment on the corrosion behavior and mechanical properties of biodegradable Mg alloys. <i>Journal of Magnesium and Alloys</i> , 2022, 10, 1737-1785.	5.5	45
1187	Anodic growth and pre-calcification on $\hat{1}^2$ -Ti-40Nb alloy: Effects on elastic modulus, electrochemical properties, and bioactivity. <i>Ceramics International</i> , 2022, 48, 27575-27589.	2.3	7
1188	Simultaneous enhancement of anti-friction and wear resistance performances via porous substrate and FeCoNiTiAl high entropy alloy coating of artificial joint materials. <i>Journal of Materials Research and Technology</i> , 2022, 19, 2907-2915.	2.6	5
1189	Mechanical Properties of Ti6Al4V Fabricated by Laser Powder Bed Fusion: A Review Focused on the Processing and Microstructural Parameters Influence on the Final Properties. <i>Metals</i> , 2022, 12, 986.	1.0	20
1190	Fatigue of titanium alloy Ti6Al4V with diamond structure obtained by Laser Power Bed Fusion method. <i>International Journal of Fatigue</i> , 2022, 163, 107079.	2.8	2
1191	Microstructure, mechanical strength, chemical resistance, and antibacterial behavior of Ti–5Cu–xNb biomedical alloy. <i>Biomedical Materials (Bristol)</i> , 2022, 17, 045022.	1.7	4

#	ARTICLE	IF	CITATIONS
1192	Plasma Electrolytic Polishing—An Ecological Way for Increased Corrosion Resistance in Austenitic Stainless Steels. <i>Materials</i> , 2022, 15, 4223.	1.3	4
1193	Simulating In Vitro the Bone Healing Potential of a Degradable and Tailored Multifunctional Mg-Based Alloy Platform. <i>Bioengineering</i> , 2022, 9, 255.	1.6	3
1194	Formation of insoluble silver-phases in an iron-manganese matrix for bioresorbable implants using varying laser beam melting strategies. <i>Journal of Materials Research and Technology</i> , 2022, 19, 2369-2387.	2.6	3
1195	Mechanical properties and corrosion resistance of large-size biodegradable Ca—Mg—Zn bulk metallic glasses fabricated via powder metallurgy. <i>Intermetallics</i> , 2022, 148, 107633.	1.8	5
1196	Biomimetic and Antibacterial Composite for Orthopedic Implants. , 2022, 11, 120-145.		0
1197	Surface Modification of Cu Nanoparticles Coated Commercial Titanium in the Presence of Tryptophan: Comprehensive Electrochemical and Spectroscopic Investigations. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
1198	An update on biomaterials as microneedle matrixes for biomedical applications. <i>Journal of Materials Chemistry B</i> , 2022, 10, 6059-6077.	2.9	12
1199	Ion Implantation of <sup>109</sup> Ag Stable Isotope as a Tracer in Ss316l Biomedical Implant for Failure Detection. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
1200	Î² duplex phase Ti—Zr—Nb—Ag alloys with impressive mechanical properties, excellent antibacterial and good biocompatibility. <i>Journal of Materials Research and Technology</i> , 2022, 19, 5008-5016.	2.6	8
1201	Advanced Biomaterials and Coatings. <i>Coatings</i> , 2022, 12, 965.	1.2	3
1202	Multi-response optimisation of micro-EDM drilling of Ti-5.6Al-3.6V using grey-fuzzy logic based approach. <i>Advances in Materials and Processing Technologies</i> , 2024, 10, 52-63.	0.8	2
1203	Characteristic variation of pulsed anodized NiTi surface by the adjustment of voltage—applied state. <i>Surface and Interface Analysis</i> , 2022, 54, 1070-1077.	0.8	4
1204	A lightweight strain glass alloy showing nearly temperature-independent low modulus and high strength. <i>Nature Materials</i> , 2022, 21, 1003-1007.	13.3	18
1205	Microstructure, phase composition and hardness of Ti—Au cladding deposited on Ti—6Al—4V substrate by electron beam powder bed fusion method. <i>Vacuum</i> , 2022, 203, 111289.	1.6	4
1206	Thermal based surface modification techniques for enhancing the corrosion and wear resistance of metallic implants: A review. <i>Vacuum</i> , 2022, 203, 111298.	1.6	25
1207	Chitosan@Puerarin hydrogel for accelerated wound healing in diabetic subjects by miR-29ab1 mediated inflammatory axis suppression. <i>Bioactive Materials</i> , 2023, 19, 653-665.	8.6	27
1208	Blending with transition metals improves bioresorbable zinc as better medical implants. <i>Bioactive Materials</i> , 2023, 20, 243-258.	8.6	7
1209	The Influence of Laser Power and Scan Speed on the Dimensional Accuracy of Ti6Al4V Thin-Walled Parts Manufactured by Selective Laser Melting. <i>Metals</i> , 2022, 12, 1226.	1.0	4

#	ARTICLE	IF	CITATIONS
1210	From bio-inertness to osseointegration and antibacterial activity: A one-step micro-arc oxidation approach for multifunctional Ti implants fabricated by additive manufacturing. <i>Materials and Design</i> , 2022, 221, 110962.	3.3	10
1211	Influence of surface finishing and heat treatments on the corrosion resistance of LPBF-produced Ti-6Al-4V alloy for biomedical applications. <i>Journal of Materials Processing Technology</i> , 2022, 308, 117730.	3.1	11
1212	Static Immersion Tests of Corrosion-Resistant Steel Alloyed with Silver and Titanium: Ion Outflow. <i>Russian Metallurgy (Metally)</i> , 2022, 2022, 746-752.	0.1	0
1213	Microstructure, Mechanical Properties, and In Vitro Studies of Porous Titanium Obtained by Spark Plasma Sintering. <i>Transactions of the Indian Institute of Metals</i> , 0, , .	0.7	0
1214	Preparation, characterization, and biocompatibility of chondroitin sulfate-based sol-gel coatings and investigation of their effects on osseointegration improvement. <i>International Journal of Polymeric Materials and Polymeric Biomaterials</i> , 0, , 1-19.	1.8	0
1215	Solidification Analysis, Microhardness, and Corrosion Resistance of a Cast Hip Prosthesis in ASTM F745 Austenitic Stainless Steel. <i>Journal of Materials Engineering and Performance</i> , 2023, 32, 1065-1075.	1.2	1
1216	Advanced Zinc-Magnesium Alloys Prepared by Mechanical Alloying and Spark Plasma Sintering. <i>Materials</i> , 2022, 15, 5272.	1.3	12
1217	Corrosion Assessment of Zr2.5Nb Alloy in Ringer's Solution by Electrochemical Methods. <i>Applied Sciences (Switzerland)</i> , 2022, 12, 7976.	1.3	2
1218	Finite Element Assessment of a Hybrid Proposal for Hip Stem, from a Standardized Base and Different Activities. <i>Applied Sciences (Switzerland)</i> , 2022, 12, 7963.	1.3	2
1220	Effects of magnesium on microstructure, properties and degradation behaviors of zinc-based alloys prepared by selective laser melting. <i>Materials Research Express</i> , 2022, 9, 086511.	0.8	6
1221	Electroless Deposits of ZnO and Hybrid ZnO/Ag Nanoparticles on Mg-Ca0.3 Alloy Surface: Multiscale Characterization. <i>Coatings</i> , 2022, 12, 1109.	1.2	2
1222	Adjustment of AgCaLa Phases in a FeMn Matrix via LBM for Implants with Adapted Degradation. <i>Crystals</i> , 2022, 12, 1146.	1.0	1
1223	Low cost porous Ti-6Al-4V structures by additive manufacturing for orthopaedic applications. <i>Materials Today: Proceedings</i> , 2022, 67, 398-403.	0.9	1
1224	Advances in coatings on Mg alloys and their anti-microbial activity for implant applications. <i>Arabian Journal of Chemistry</i> , 2022, 15, 104214.	2.3	5
1225	A novel heat treatment of the additively manufactured Co28Cr6Mo biomedical alloy and its effects on hardness, microstructure and sliding wear behavior. <i>Progress in Additive Manufacturing</i> , 2023, 8, 313-329.	2.5	4
1227	Recent advances in bio-medical implants; mechanical properties, surface modifications and applications. <i>Engineering Research Express</i> , 2022, 4, 032003.	0.8	6
1228	Effect of polyvinyl alcohol concentration on biomedical application of chitosan/bioactive glass composite coated on AZ91D magnesium alloy. <i>Materials Chemistry and Physics</i> , 2022, 291, 126650.	2.0	22
1229	Significance of Alloying Elements on the Mechanical Characteristics of Mg-Based Materials for Biomedical Applications. <i>Crystals</i> , 2022, 12, 1138.	1.0	50

#	ARTICLE	IF	CITATIONS
1230	Synthesis, Characterization and Antimicrobial Studies of Ti-40Nb-10Ag Implant Biomaterials. <i>Metals</i> , 2022, 12, 1391.	1.0	3
1231	Investigation of corrosion and tribocorrosion behavior of boron doped and graphene oxide doped TiO <sub>2</sub> nanotubes produced on Cp-Ti. <i>Materials Today Communications</i> , 2022, 32, 104182.	0.9	5
1232	Contribution to the Microstructural Study of a Composite Material Based on Carbon Fibers for Use in Orthopedic Prostheses. <i>Journal of Biomimetics, Biomaterials and Biomedical Engineering</i> , 0, 58, 13-23.	0.5	0
1233	Biodegradable Bone Implants as a New Hope to Reduce Device-Associated Infectionsâ€”A Systematic Review. <i>Bioengineering</i> , 2022, 9, 409.	1.6	9
1234	Identification and development of a new local corrosion mechanism in a Laser Engineered Net Shaped (LENS) biomedical Co-Cr-Mo alloy in Hankâ€™s solution. <i>Corrosion Science</i> , 2022, 207, 110599.	3.0	6
1235	Experimental analysis of the multiaxial failure stress locus of commercially pure titanium at low and high rates of strain. <i>International Journal of Impact Engineering</i> , 2022, 170, 104341.	2.4	9
1236	Review on computational modeling for the property, process, product and performance (PPPP) characteristics of additively manufactured porous magnesium implants. <i>Bioprinting</i> , 2022, 28, e00236.	2.9	22
1237	Controllable phases evolution and properties of zinc-phosphate/strontiumâ€™zinc-phosphate composite conversion coatings on Ti: Effect of temperature. <i>Surface and Coatings Technology</i> , 2022, 447, 128885.	2.2	8
1238	Passive film formation on the new biocompatible non-equiatomicTi <sub>21</sub> Nb <sub>24</sub> Mo <sub>23</sub> Hf <sub>17</sub> Ta <sub>15</sub> high entropy alloy before and after resting in simulated body fluid. <i>Corrosion Science</i> , 2022, 207, 110607.	3.0	6
1239	Effect of tantalum interlayer on hydroxyapatite biointerface for orthopedic applications. <i>Surface and Coatings Technology</i> , 2022, 447, 128882.	2.2	5
1240	Evaluation of mechanical properties and in vitro biocompatibility of TiZrTaNbHf refractory high-entropy alloy film as an alternative coating for TiO <sub>2</sub> layer on NiTi alloy. <i>Surface and Coatings Technology</i> , 2022, 448, 128918.	2.2	4
1241	Functionally graded oxygen-containing coating on CP-titanium for bio-applications: characterization, biocompatibility and tribocorrosion behavior. <i>Journal of Materials Research and Technology</i> , 2022, 21, 104-120.	2.6	5
1242	Composition optimization of PLA/PPC/HNT nanocomposites for mandibular fixation plate using single-factor experimental design. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2022, 135, 105423.	1.5	2
1243	Optimization of a thermomechanical treatment of superelastic Ti-Zr-Nb alloys for the production of bar stock for orthopedic implants. <i>Journal of Alloys and Compounds</i> , 2022, 928, 167143.	2.8	12
1244	Microstructure evolution, deformation mechanism, and mechanical properties of biomedical TiZrNb medium entropy alloy processed using equal channel angular pressing. <i>Intermetallics</i> , 2022, 151, 107725.	1.8	2
1245	A comprehensive review of magnesium-based alloys and composites processed by cyclic extrusion compression and the related techniques. <i>Progress in Materials Science</i> , 2023, 131, 101016.	16.0	52
1246	Mechanical and Corrosion Properties of Biomedical Ti-Zr-Nbx-Ta-Mo Medium Entropy Alloys. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
1247	Chemical Oxidation of Ti-6al-4v and Nitinol in the Presence of Hydrogen Peroxide. Characterization and Evaluation of the Corrosion Protection. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0



#	ARTICLE	IF	CITATIONS
1248	A review of metal injection molding of metallic biomedical product criteria. AIP Conference Proceedings, 2022, , .	0.3	0
1249	Optimization of a Thermomechanical Treatment of Superelastic Ti-Zr-Nb Alloys for the Production of Bar Stock for Orthopedic Implants. SSRN Electronic Journal, 0, , .	0.4	0
1250	Applications of Biodegradable Magnesium-Based Materials in Reconstructive Oral and Maxillofacial Surgery: A Review. Molecules, 2022, 27, 5529.	1.7	14
1251	Surface Modification of Ti-30Ta Alloy by Deposition of P(VDF-TrFE)/BaTiO <sub>3</sub> Coating for Biomedical Applications. Metals, 2022, 12, 1409.	1.0	1
1252	Bone Regeneration with 3D-Printed Hybrid Bone Scaffolds in a Canine Radial Bone Defect Model. Tissue Engineering and Regenerative Medicine, 2022, 19, 1337-1347.	1.6	4
1253	Progress in partially degradable titanium-magnesium composites used as biomedical implants. Frontiers in Bioengineering and Biotechnology, 0, 10, .	2.0	4
1254	Progress of laser surface treatment on magnesium alloy. Frontiers in Chemistry, 0, 10, .	1.8	2
1255	In vivo evaluation of osseointegration ability of sintered bionic trabecular porous titanium alloy as artificial hip prosthesis. Frontiers in Bioengineering and Biotechnology, 0, 10, .	2.0	3
1256	An Extracellular Matrix-like Surface for Zn Alloy to Enhance Bone Regeneration. ACS Applied Materials & Interfaces, 2022, 14, 43955-43964.	4.0	6
1257	Effect of Nb Addition on the Phase Stability, Microstructure, and Mechanical Properties of Powder Metallurgy Ti-5Fe-xNb Alloys. Metals, 2022, 12, 1528.	1.0	1
1258	Influence of Laser Modification on the Surface Character of Biomaterials: Titanium and Its Alloys—A Review. Coatings, 2022, 12, 1371.	1.2	5
1259	Zinc-doped ferric oxyhydroxide nano-layer enhances the bactericidal activity and osseointegration of a magnesium alloy through augmenting the formation of neutrophil extracellular traps. Acta Biomaterialia, 2022, 152, 575-592.	4.1	12
1260	Modification of Iron with Degradable Silver Phases Processed via Laser Beam Melting for Implants with Adapted Degradation Rate. Advanced Engineering Materials, 2023, 25, .	1.6	2
1261	Advancements in polymer composites as a pertinent biomaterial for hard tissue applications — A review. Materials Today: Proceedings, 2022, 69, 344-348.	0.9	1
1262	Effect of Substrates Performance on the Microstructure and Properties of Phosphate Chemical Conversion Coatings on Metal Surfaces. Molecules, 2022, 27, 6434.	1.7	6
1263	A Novel Method for the Synthesis of X-ray Imaging Degradable Polymers. European Polymer Journal, 2022, , 111615.	2.6	0
1264	Implantation of heat treatment Ti6Al4V alloys in femoral bone of Wistar rats. Journal of Materials Science: Materials in Medicine, 2022, 33, .	1.7	1
1265	The clinical and translational prospects of microneedle devices, with a focus on insulin therapy for diabetes mellitus as a case study. International Journal of Pharmaceutics, 2022, 628, 122234.	2.6	10

#	ARTICLE	IF	CITATIONS
1266	Design and Development of Heterogeneous Porous Scaffold—A Review. Lecture Notes in Mechanical Engineering, 2023, , 695-704.	0.3	0
1267	Materials and Biomedical Applications of Implantable Electronic Devices. Advanced Materials Technologies, 2023, 8, .	3.0	6
1268	Ion implantation of <sup>109</sup> Ag stable isotope as a tracer in SS316L biomedical implant for failure detection. Materials Today Communications, 2022, 33, 104563.	0.9	1
1269	A review on <i>in vitro</i> / <i>in vivo</i> response of additively manufactured Ti-6Al-4V alloy. Journal of Materials Chemistry B, 2022, 10, 9479-9534.	2.9	9
1270	Analytical review on the biocompatibility of surface-treated Ti-alloys for joint replacement applications. Expert Review of Medical Devices, 2022, 19, 699-719.	1.4	9
1271	Effect of extrusion parameters on degradation of magnesium alloys for bioimplant applications: A review. Transactions of Nonferrous Metals Society of China, 2022, 32, 2787-2813.	1.7	6
1272	The Role of Microparticles of $\beta$ -TCP and Wollastonite in the Creation of Biocoatings on Mg <sub>0.8</sub> Ca Alloy. Metals, 2022, 12, 1647.	1.0	2
1273	Additive Manufacturing of Medical Devices. , 2022, , 416-433.		0
1274	Outstanding Bio-Tribological Performance Induced by the Synergistic Effect of 2D Diamond Nanosheet Coating and Silk Fibroin. ACS Applied Materials & Interfaces, 2022, 14, 48091-48105.	4.0	7
1275	Microstructure, Mechanical and Superelastic Properties of Ti-Zr-Nb Alloy for Biomedical Application Subjected to Equal Channel Angular Pressing and Annealing. Metals, 2022, 12, 1672.	1.0	1
1276	INVESTIGATION OF THE STRUCTURAL AND MECHANICAL PROPERTIES OF TiN, NbN, and VN COATING DEPOSITION ON THE Co-Cr-Mo ALLOY BY MAGNETRON SPUTTERING. International Journal of Innovative Engineering Applications, 0, , .	0.1	0
1277	Corrosion behavior of severely plastically deformed Mg and Mg alloys. Journal of Magnesium and Alloys, 2022, 10, 2607-2648.	5.5	45
1278	Progress on Medical Implant: A Review and Prospects. Journal of Bionic Engineering, 2023, 20, 470-494.	2.7	11
1279	Effect of MWCNTs addition on structural, mechanical, and bio properties of electrophoretically deposited HA-Ta <sub>2</sub> O <sub>5</sub> coating on NiTi. Surface and Coatings Technology, 2022, 450, 129006.	2.2	1
1280	FeMn with Phases of a Degradable Ag Alloy for Residue-Free and Adapted Bioresorbability. Journal of Functional Biomaterials, 2022, 13, 185.	1.8	3
1281	Microstructure and Strength Properties of the Mg-Zn-Ca-Er Alloy Produced by Spark Plasma Sintering (SPS) Method. Advanced Structured Materials, 2023, , 3-14.	0.3	0
1282	Biomaterials in Orthopedic Devices: Current Issues and Future Perspectives. Coatings, 2022, 12, 1544.	1.2	23
1283	NiTi/PMMA Biocomposite: in Situ Polymerization, Microstructure and Mechanical Property. Transactions of the Indian Institute of Metals, 0, , .	0.7	1

#	ARTICLE	IF	CITATIONS
1284	Toxicity and Biocompatibility of Liquid Metals. <i>Advanced Healthcare Materials</i> , 2023, 12, .	3.9	44
1285	Self-assembled hybrid silane/ZnO coatings for corrosion protection of resorbable magnesium alloy. <i>International Journal of Adhesion and Adhesives</i> , 2023, 120, 103281.	1.4	4
1286	Antibacterial Surface Treatment for Metallic Material Applied to Medical Devices Antibacterial Functionalization via Fabrication of Nanopillars. <i>Materia Japan</i> , 2022, 61, 755-759.	0.1	1
1287	Influence of Scanning Velocity on a CoCrMoW Alloy Built via Selective Laser Melting: Microstructure, Mechanical, and Tribological Properties. <i>Journal of Materials Engineering and Performance</i> , 2023, 32, 6717-6724.	1.2	3
1288	Refractory high-entropy alloys: A focused review of preparation methods and properties. <i>Journal of Materials Science and Technology</i> , 2023, 142, 196-215.	5.6	59
1289	Effect of Mn content on the microstructure and mechanical properties of as-extruded Zn-0.2Mg-Mn (wt%) alloys. <i>Materials Characterization</i> , 2022, 194, 112400.	1.9	3
1290	High-throughput characterization of elastic moduli of Ti-Nb-Zr-O biomedical alloys fabricated by field-assisted sintering technique. <i>Journal of Alloys and Compounds</i> , 2023, 932, 167656.	2.8	5
1291	Surface modification of Cu nanoparticles coated commercial titanium in the presence of tryptophan: Comprehensive electrochemical and spectroscopic investigations. <i>Applied Surface Science</i> , 2023, 608, 155138.	3.1	3
1292	Recent Developments of Bioactive Glass Electrophoretically Coated Cobalt-Chromium Metallic Implants. <i>Johnson Matthey Technology Review</i> , 2024, 68, 161-180.	0.5	1
1293	Emerging polymeric material strategies for cartilage repair. <i>Journal of Materials Chemistry B</i> , 0, , .	2.9	2
1294	Formation of a protective oxide layer with enhanced wear and corrosion resistance by heating the TiZrHfNbFe0.5 refractory multi-principal element alloy at 1,000 Å°C. <i>Scripta Materialia</i> , 2023, 225, 115165.	2.6	3
1295	Effect of Nb content on the microstructure and corrosion resistance of FeCoCrNiNb <sub>x</sub> high-entropy alloys in chloride ion environment. <i>Journal of Alloys and Compounds</i> , 2023, 935, 168013.	2.8	23
1296	Recent advances for liquid metals: Synthesis, modification and bio-applications. <i>Journal of Materials Science and Technology</i> , 2023, 143, 153-168.	5.6	6
1297	Preparation and Investigation of Spherical Powder Made from Corrosion-Resistant 316L Steel with the Addition of 0.2% and 0.5% Ag. <i>Materials</i> , 2022, 15, 7887.	1.3	6
1298	Tribocorrosion and corrosion behavior of double borided layers formed on Ti-6Al-4V alloy: An approach for applications to bio-implants. <i>Corrosion Science</i> , 2023, 210, 110824.	3.0	9
1299	Effect of Heat Treatment on Some Titanium Alloys Used as Biomaterials. <i>Applied Sciences (Switzerland)</i> , 2022, 12, 11241.	1.3	10
1300	Review on Biocompatibility and Prospect Biomedical Applications of Novel Functional Metallic Glasses. <i>Journal of Functional Biomaterials</i> , 2022, 13, 245.	1.8	6
1301	Powder bed fusion manufacturing of beta-type titanium alloys for biomedical implant applications: A review. <i>Journal of Alloys and Compounds</i> , 2023, 936, 168099.	2.8	26

#	ARTICLE	IF	CITATIONS
1302	Plain metallic biomaterials: opportunities and challenges. <i>International Journal of Energy Production and Management</i> , 2023, 10, .	1.9	5
1303	The effect of pulsed electron irradiation on the structure, phase composition, adhesion and corrosion properties of calcium phosphate coating on Mg <sub>0.8</sub> Ca alloy. <i>Materials Chemistry and Physics</i> , 2023, 294, 126996.	2.0	10
1304	Influence of processing parameters on dehydrogenation of TiH <sub>2</sub> in the preparation of Ti–Nb: A review. <i>Heliyon</i> , 2022, , e11602.	1.4	2
1305	Sinter–Based Additive Manufacturing of Graded Porous Titanium Scaffolds by Multi–inks 3D Extrusion. <i>Advanced Engineering Materials</i> , 2023, 25, .	1.6	4
1306	Effect of pressure on the structure and properties of biomedical porous zinc fabricated by protein foaming route. <i>Materials Letters</i> , 2022, , 133517.	1.3	0
1307	Experimental analysis and predictive modelling of Ti6Al4V laser surface texturing for biomedical applications. <i>Surfaces and Interfaces</i> , 2022, 35, 102466.	1.5	4
1308	In Silico ADME and Toxicity Prediction of Benzimidazole Derivatives and Its Cobalt Coordination Compounds. <i>Synthesis, Characterization and Crystal Structure. Molecules</i> , 2022, 27, 8011.	1.7	0
1309	Knee Prosthesis Biomaterial Selection by Using MCDM Solver. <i>Advanced Technologies &amp; Materials</i> , 2021, 46, 37-41.	0.1	0
1310	Microstructure and bending properties of solution-treated Ti-Mo binary alloys for biomedical applications. <i>MATEC Web of Conferences</i> , 2022, 370, 03014.	0.1	0
1311	Microneedle arrays for cutaneous and transcutaneous drug delivery, disease diagnosis, and cosmetic aid. <i>Journal of Drug Delivery Science and Technology</i> , 2023, 79, 104058.	1.4	2
1312	Fabrication and growth mechanism of multilayered hydroxyapatite/organic composite coatings on the WE43 magnesium alloy. <i>Surface and Coatings Technology</i> , 2023, 452, 129125.	2.2	6
1313	Enhancing the corrosion behavior of Ti–6Al–4V and Nitinol alloys by simple chemical oxidation in H <sub>2</sub> O <sub>2</sub> . <i>Materials Chemistry and Physics</i> , 2023, 295, 127069.	2.0	3
1314	Determination of Johnson-Cook plasticity model parameters for CoCrMo alloy. <i>Materials Today Communications</i> , 2023, 34, 105128.	0.9	1
1315	Effect of post coating processing on the morphological and mechanical properties of plasma Spray-reinforced hydroxyapatite coating. <i>Materials Today: Proceedings</i> , 2022, 68, 1180-1186.	0.9	2
1316	Performance of PEO/Polymer Coatings on the Biodegradability, Antibacterial Effect and Biocompatibility of Mg-Based Materials. <i>Journal of Functional Biomaterials</i> , 2022, 13, 267.	1.8	18
1317	Comparison of In-Vitro Corrosion Behavior for Polished and WEDM Machined ZM21 Magnesium Alloy Used as Biodegradable Orthopedic Implants. <i>Lecture Notes in Mechanical Engineering</i> , 2023, , 115-130.	0.3	0
1318	Comparative Investigation of the Influence of Ultrafine-Grained State on Deformation and Temperature Behavior and Microstructure Formed during Quasi-Static Tension of Pure Titanium and Ti-45Nb Alloy by Means of Infrared Thermography. <i>Materials</i> , 2022, 15, 8480.	1.3	3
1319	Effect of Cooling and Annealing Conditions on the Microstructure, Mechanical and Superelastic Behavior of a Rotary Forged Ti–18Zr–15Nb (at. %) Bar Stock for Spinal Implants. <i>Journal of Functional Biomaterials</i> , 2022, 13, 259.	1.8	7

#	ARTICLE	IF	CITATIONS
1320	Mechanical, Corrosion, and Wear Properties of TiZrTaNbSn Biomedical High-Entropy Alloys. <i>Coatings</i> , 2022, 12, 1795.	1.2	2
1321	Special Feature: Permanent and Long-Term Biodegradable Biomaterials. <i>Applied Sciences (Switzerland)</i> , 2022, 12, 12874.	1.3	0
1322	Bi-continuous Mg-Ti interpenetrating-phase composite as a partially degradable and bioactive implant material. <i>Journal of Materials Science and Technology</i> , 2023, 146, 211-220.	5.6	7
1323	Cytocompatibility and osteogenic activity of Ta-Ti-O nanotubes anodically grown on Ti6Al4V alloy. <i>Applied Surface Science</i> , 2023, 614, 156165.	3.1	4
1324	“Gingival Soft Tissue Integrative” Lithium Disilicate Glass-Ceramics with High Mechanical Properties and Sustained-Release Lithium Ions. <i>ACS Applied Materials &amp; Interfaces</i> , 2022, 14, 54572-54586.	4.0	1
1325	Processing and Characterization of a New Quaternary Alloy Ti10Mo8Nb6Zr for Potential Biomedical Applications. <i>Materials</i> , 2022, 15, 8636.	1.3	4
1326	Recent Progress in Photodynamic Immunotherapy with Metal-Based Photosensitizers. <i>Small Methods</i> , 2023, 7, .	4.6	13
1327	Surface modification during hydroxyapatite powder mixed electric discharge machining of metallic biomaterials: a review. <i>Surface Engineering</i> , 2022, 38, 680-706.	1.1	10
1328	A review on $\beta$ -Ti alloys for biomedical applications: The influence of alloy composition and thermomechanical processing on mechanical properties, phase composition, and microstructure. <i>Proceedings of the Institution of Mechanical Engineers, Part L: Journal of Materials: Design and Applications</i> , 2023, 237, 1251-1294.	0.7	2
1329	Ni-Cr Alloys Assessment for Dental Implants Suitability. <i>Applied Sciences (Switzerland)</i> , 2022, 12, 12814.	1.3	5
1330	Magnesium alloys for orthopedic applications: A review on the mechanisms driving bone healing. <i>Journal of Magnesium and Alloys</i> , 2022, 10, 3327-3353.	5.5	21
1331	Latest Developments and Insights of Orthopedic Implants in Biomaterials Using Additive Manufacturing Technologies. <i>Journal of Manufacturing and Materials Processing</i> , 2022, 6, 162.	1.0	4
1332	Metallic Dental Implants Wear Mechanisms, Materials, and Manufacturing Processes: A Literature Review. <i>Materials</i> , 2023, 16, 161.	1.3	11
1333	Additive manufacturing of biodegradable magnesium-based materials: Design strategies, properties, and biomedical applications. <i>Journal of Magnesium and Alloys</i> , 2023, 11, 801-839.	5.5	22
1334	The Application of Biomaterials in Spinal Cord Injury. <i>International Journal of Molecular Sciences</i> , 2023, 24, 816.	1.8	9
1335	Novel Method for the Production of Titanium Foams to Reduce Stress Shielding in Implants. <i>ACS Omega</i> , 2023, 8, 1876-1884.	1.6	6
1336	The optimal design of 3D-printed lattice bone plate by considering fracture healing mechanism. <i>International Journal for Numerical Methods in Biomedical Engineering</i> , 2023, 39, .	1.0	2
1337	In Situ and Ex Situ Raman Studies of Cysteine™s Behavior on a Titanium Surface in Buffer Solution. <i>Coatings</i> , 2023, 13, 175.	1.2	1

#	ARTICLE	IF	CITATIONS
1338	Investigation on diffusion characteristics and mechanical properties of Ti-Zn system. Intermetallics, 2023, 154, 107794.	1.8	4
1339	Phase formation in the Ni-enriched zone below the surface oxide on NiTi. Intermetallics, 2023, 154, 107817.	1.8	0
1340	In-situ construction of the nanostructured TiO <sub>2</sub> /TiN composite films by induction heat treatment: Improved mechanical, corrosion, and biological properties. Applied Surface Science, 2023, 614, 156300.	3.1	0
1341	Infection-responsive long-term antibacterial bone plates for open fracture therapy. Bioactive Materials, 2023, 25, 1-12.	8.6	6
1342	Biyomalzeme Tâ¼rleri ve Biyouyumlu Metalik Elementler. Bilecik Åžeyh Edebali Ãœniversitesi Fen Bilimleri Dergisi, 0, , .	0.1	2
1343	Surface Modification Techniques for Metallic Biomedical Alloys: A Concise Review. Metals, 2023, 13, 82.	1.0	9
1344	Investigation of Antibacterial Properties of Corrosion-Resistant 316L Steel Alloyed with 0.2 wt.% and 0.5 wt.% Ag. Materials, 2023, 16, 319.	1.3	2
1345	Influence of the Glassy Fraction Surface of a ZrCoAlAg Ribbon Alloy on the Bioactive Response to Simulated Body Fluid and Its Effect on Cell Viability. Metals, 2023, 13, 55.	1.0	0
1346	Metals and Alloys Choice for Implants. Synthesis Lectures on Biomedical Engineering, 2023, , 23-48.	0.1	0
1347	State of the Art in Orthopaedic Implants. Synthesis Lectures on Biomedical Engineering, 2023, , 5-16.	0.1	0
1348	Mechanical Aspects of Implant Materials. Synthesis Lectures on Biomedical Engineering, 2023, , 93-180.	0.1	0
1349	Surface modifications of biodegradable AZ31 alloy after immersion in physiological solution. Surface and Interface Analysis, 2023, 55, 474-479.	0.8	4
1350	Application of Biocompatible Noble Metal Film Materials to Medical Implants: TiNi Surface Modification. Coatings, 2023, 13, 222.	1.2	4
1351	A review on various phases and alloy design methods of Î²-Ti alloys for biomedical applications. Proceedings of the Institution of Mechanical Engineers, Part L: Journal of Materials: Design and Applications, 2023, 237, 1497-1515.	0.7	0
1352	Influence of friction stir processing on microstructure, mechanical properties and corrosion behaviour of Mg-Zn-Dy alloy. Journal of Materials Science, 2023, 58, 2893-2914.	1.7	3
1353	Recent Development of Low-Cost Î²-Ti Alloys for Biomedical Applications: A Review. Metals, 2023, 13, 194.	1.0	11
1354	Comparative assessment of TiN thin films created by plasma deposition technique on the surface features of NiCr alloys for dental applications. Revista Materia, 2023, 28, .	0.1	1
1355	Microstructure and Mechanical Characteristics of Ti-Ta Alloys before and after NaOH Treatment and Their Behavior in Simulated Body Fluid. Materials, 2023, 16, 1943.	1.3	1



#	ARTICLE	IF	CITATIONS
1356	3D fracture study of cracked functionally graded biological materials by XIGA approach using BÃ©zier extraction of NURBS. <i>Theoretical and Applied Fracture Mechanics</i> , 2023, 124, 103818.	2.1	1
1357	Influence of scandium on mechanical properties, degradation behavior, and cytocompatibility of Zn-3Cu-0.4Li-xSc alloys for implant applications. <i>Materialia</i> , 2023, 28, 101768.	1.3	2
1358	Investigation of correlation of oxide layer surface morphology and magnesium degradation using a gas atmosphere dependent nanosecond laser processed model. <i>Vacuum</i> , 2023, 211, 111913.	1.6	2
1359	Orientation dependent the corrosion resistance of Ti15Mo prepared by selective laser melting. <i>Materials Today Communications</i> , 2023, 35, 105691.	0.9	1
1360	Investigating the tribological and corrosion behavior of Coâ€“Cr alloy as an implant material for orthodontic applications. <i>Wear</i> , 2023, 523, 204755.	1.5	1
1361	Antimicrobial activity of porous metal injection molded (MIM) 316L stainless steel by Zn, Cu and Ag electrodeposition. <i>Surfaces and Interfaces</i> , 2023, 38, 102778.	1.5	2
1362	Effects of bioinspired leaf vein structure on biological properties of UV laser patterned titanium alloy. <i>Surfaces and Interfaces</i> , 2023, 38, 102785.	1.5	0
1363	Study of the microstructure and wear properties of Ti-12Mo-6Zr-2Fe alloy fabricated via selective laser melting. <i>Materials Letters</i> , 2023, 342, 134325.	1.3	0
1364	Advanced surface engineering of titanium materials for biomedical applications: From static modification to dynamic responsive regulation. <i>Bioactive Materials</i> , 2023, 27, 15-57.	8.6	12
1365	A comprehensive review on surface post-treatments for freeform surfaces of bio-implants. <i>Journal of Materials Research and Technology</i> , 2023, 23, 4866-4908.	2.6	20
1366	Modifying Coatings for Medical Implants Made of Titanium Alloys. <i>Metals</i> , 2023, 13, 718.	1.0	9
1367	Surface modification of biomedical metals by double glow plasma surface alloying technology: A review of recent advances. <i>Journal of Materials Research and Technology</i> , 2023, 24, 3423-3452.	2.6	4
1368	In situ synchrotron study of sintering of gas-atomized Ti-6Al-4 V powders using concomitant micro-tomography and X-ray diffraction: Effect of particle size and interstitials on densification and phase transformation kinetics. <i>Acta Materialia</i> , 2023, 246, 118723.	3.8	3
1369	Research progress on the design and performance of porous titanium alloy bone implants. <i>Journal of Materials Research and Technology</i> , 2023, 23, 2626-2641.	2.6	28
1370	3D printed bioactive glasses porous scaffolds with high strength for the repair of long-bone segmental defects. <i>Composites Part B: Engineering</i> , 2023, 254, 110582.	5.9	7
1371	Influence of Anodizing Conditions on Biotribological and Micromechanical Properties of Tiâ€“13Zrâ€“13Nb Alloy. <i>Materials</i> , 2023, 16, 1237.	1.3	5
1372	Porous surface with fusion peptides embedded in strontium titanate nanotubes elevates osteogenic and antibacterial activity of additively manufactured titanium alloy. <i>Colloids and Surfaces B: Biointerfaces</i> , 2023, 224, 113188.	2.5	16
1373	Laser-based additive manufacturing of bulk metallic glasses: recent advances and future perspectives for biomedical applications. <i>Journal of Materials Research and Technology</i> , 2023, 23, 2956-2990.	2.6	15

#	ARTICLE	IF	CITATIONS
1374	A Feasible Route to Produce 30MPa Adhesion Strength of Electrochemically Deposited Hydroxyapatite (HA) on Titanium (Ti6Al4V) Alloy. Transactions of the Indian Institute of Metals, 0, , .	0.7	0
1375	Biocompatibility. Synthesis Lectures on Biomedical Engineering, 2023, , 17-21.	0.1	0
1376	Attaining High Functional Performance in Biodegradable Mg-Alloys: An Overview of Challenges and Prospects for the Mg-Zn-Ca System. Materials, 2023, 16, 1324.	1.3	7
1377	The Calculated and Experimental Elastic Properties of Quenched Biocompatible Ti-Nb, Ti-Nb-Zr, Ti-Nb-Zr-Sn, and Ti-Nb-Zr-Sn-Ta Titanium Alloys. Physics of Metals and Metallography, 2022, 120, 3 1132-1138.	0.3	1
1378	Biomedical application of anodic nanomaterials. , 2023, , 395-441.		0
1379	High-strength/high-modulus polyvinyl alcohol fiber reinforced poly(amino acid)/hydroxyapatite composite for load-bearing orthopedics applications. Polymer Composites, 2023, 44, 2379-2395.	2.3	2
1380	Influence of fine-grained structure produced by groove pressing on the properties of pure Mg and commercial Zr41 alloy. Journal of Biomedical Materials Research - Part A, 2023, 111, 1161-1175.	2.1	0
1381	Tunability of mechanical and biodegradation properties of zinc-based biomaterial with calcium Micronutrient alloying. Journal of the Mechanical Behavior of Biomedical Materials, 2023, 140, 105724.	1.5	1
1382	Superplasticity of fine-grained magnesium alloys for biomedical applications: A comprehensive review. Current Opinion in Solid State and Materials Science, 2023, 27, 101058.	5.6	14
1383	Biomaterials for orthopedic applications and techniques to improve corrosion resistance and mechanical properties for magnesium alloy: a review. Journal of Materials Science, 2023, 58, 3879-3908.	1.7	11
1384	Experimental study of in-vitro bioanalysis and in-vivo living tissue biocompatibility of Mg-Zn alloys. Journal of Materials Research, 0, , .	1.2	1
1385	The enhancement of mechanical properties and uniform degradation of electrodeposited Fe-Zn alloys by multilayered design for biodegradable stent applications. Acta Biomaterialia, 2023, 161, 309-323.	4.1	4
1386	Nano-scale Surface Modification of Dental Implants: Fabrication. , 2023, , 83-116.		1
1387	Effects of alloying element on the mechanical behavior of Mg-MMCs: A review. Materials Today: Proceedings, 2023, , .	0.9	8
1388	Microstructure and Mechanical Properties of Co-Deposited Ti-Ni Films Prepared by Magnetron Sputtering. Coatings, 2023, 13, 524.	1.2	2
1389	Surface modification of hybrid composite multilayers spin cold spraying for biomedical duplex stainless steel. Heliyon, 2023, 9, e14103.	1.4	5
1390	A Review on Nano Ti-Based Oxides for Dark and Photocatalysis: From Photoinduced Processes to Bioimplant Applications. Nanomaterials, 2023, 13, 982.	1.9	7
1391	Investigation of spherical powder obtained by plasma spraying of wire from corrosion-resistant steel O3Kh17N10M2. Izvestiya Vysshikh Uchebnykh Zavedenij Chernaya Metallurgiya, 2023, 66, 80-85.	0.1	0

#	ARTICLE	IF	CITATIONS
1392	Hydrothermally synthesized titanium/hydroxyapatite as photoactive and antibacterial biomaterial. Heliyon, 2023, 9, e14434.	1.4	2
1393	The Effects of Hydroxyapatite on the Corrosion Behaviour of AZ Series Mg Alloys. , 2023, 18, 45-57.		0
1394	Using Applied Electrochemistry to Obtain Nanoporous TiO <sub>2</sub> Films on Ti6Al4V Implant Alloys and Their Preclinical In Vitro Characterization in Biological Solutions. Coatings, 2023, 13, 614.	1.2	1
1395	Production of WE43 magnesium alloy by powder metallurgy and the effect of glucose on wear resistance in biocorrosive wear. Biointerphases, 2023, 18, 021002.	0.6	0
1396	An Overview on the Effect of Severe Plastic Deformation on the Performance of Magnesium for Biomedical Applications. Materials, 2023, 16, 2401.	1.3	7
1397	Titanium Implant Alloy Modified by Electrochemically Deposited Functional Bioactive Calcium Phosphate Coatings. Coatings, 2023, 13, 640.	1.2	7
1398	Specific mechanical properties of highly porous Ti-Zr-Mo-Sn shape memory alloy for biomedical applications. Scripta Materialia, 2023, 231, 115433.	2.6	3
1399	Investigation of the Thermal Properties of Cu-based Shape Memory Alloy. Gazi Ãœniversitesi Fen Bilimleri Dergisi, 2023, 11, 210-221.	0.2	0
1400	Effect of oxidation at an elevated temperature on the evolution of phases, microstructure, and properties of the oxide films formed on the surface of TiZr. Scientific Reports, 2023, 13, .	1.6	0
1401	Craniofacial therapy: advanced local therapies from nano-engineered titanium implants to treat craniofacial conditions. International Journal of Oral Science, 2023, 15, .	3.6	7
1402	CNC Turning of an Additively Manufactured Complex Profile Ti6Al4V Component Considering the Effect of Layer Orientations. Processes, 2023, 11, 1031.	1.3	4
1403	A KINETIC STUDY OF THERMOCHEMICALLY BORIDED AISI 316L STAINLESS STEEL. , 2023, , 279-296.		0
1404	The synthesis, surface analysis, and cellular response of titania and titanium oxynitride nanotube arrays prepared on TiAl6V4 for potential biomedical applications. Journal of Materials Research and Technology, 2023, 24, 4074-4090.	2.6	2
1405	Corrosion Behavior of Nitrided Layer of Ti6Al4V Titanium Alloy by Hollow Cathodic Plasma Source Nitriding. Materials, 2023, 16, 2961.	1.3	6
1406	Compression and fatigue performance of Ti6Al4V materials with different uniform and gradient porous structures. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2023, 873, 145030.	2.6	6
1407	Aligned Ice Templated Biomaterial Strategies for the Musculoskeletal System. Advanced Healthcare Materials, 2023, 12, .	3.9	3
1408	Modeling of Severe Plastic Deformation by HSHPT of As-Cast Ti-Nb-Zr-Ta-Fe-O Gum Alloy for Orthopedic Implant. Materials, 2023, 16, 3188.	1.3	0
1420	Biomaterials Applied to Medical Devices and Pharmacy. , 2023, , 1-13.		0

#	ARTICLE	IF	CITATIONS
1423	Corrosion of Metals During Use in Arthroplasty. ACS Applied Bio Materials, 2023, 6, 2029-2042.	2.3	1
1425	Bioinspired Polymer Composite Implants. Engineering Materials, 2023, , 147-166.	0.3	0
1436	Influence of treatment temperature towards the S phase layer formation on medical grade ASTM F138 stainless steel. AIP Conference Proceedings, 2023, , .	0.3	0
1465	Additive manufacturing of metallic biomaterials: a concise review. Archives of Civil and Mechanical Engineering, 2023, 23, .	1.9	7
1470	Tribological behavior of porous Ti-56.07wt.% Ni shape memory alloys: Towards a sustainable biomaterials. AIP Conference Proceedings, 2023, , .	0.3	0
1476	Design and Performance Analysis of PLA-Based Spacer of Artificial Knee Joint Using FEA. Lecture Notes in Mechanical Engineering, 2023, , 15-24.	0.3	0
1493	Magnetic materials-based medical devices for diagnosis, surgery, and therapy. , 2023, , 27-80.		0
1502	Emerging Materials and Environment: A Brief Introduction. Challenges and Advances in Computational Chemistry and Physics, 2024, , 1-78.	0.6	0
1547	Study of the structure and phase composition of ingots of steel 316L modified with 0.2% and 0.5% Ag. AIP Conference Proceedings, 2023, , .	0.3	0
1548	Study of the structure and mechanical properties of 316L steel plates modified with 0.2% and 0.5% Ag. AIP Conference Proceedings, 2023, , .	0.3	0
1564	Antibacterial activities of plasma electrolytic oxidation coated magnesium alloys. AIP Conference Proceedings, 2023, , .	0.3	0
1576	Mechanical performance of metallic biomaterials. , 2024, , 113-126.		0
1588	Potentialities of nanosilver-based thin film coatings for medical device and implants. , 2024, , 101-123.		0
1589	Biomaterials and Their Applications for Bone Regeneration. , 2024, , 172-190.		0
1595	Design and fabrication of punch-die for magnesium miniplate implant. AIP Conference Proceedings, 2024, , .	0.3	0
1600	Corrosion inhibition of guaifensin drug for stainless steel 316L alloy in simulated body fluid. AIP Conference Proceedings, 2024, , .	0.3	0
1616	The influence of iron addition on microstructure and mechanical behavior Ti-6Mo-4Cr alloy. AIP Conference Proceedings, 2024, , .	0.3	0