Implant biomaterials: A comprehensive review

World Journal of Clinical Cases
3, 52
DOI: 10.12998/wjcc.v3.i1.52

Citation Report

#	Article	IF	Citations
1	Physical vapour deposition of zirconia on titanium: fabrication, characterization and interaction with human osteoblast cells. Journal of Materials Science: Materials in Medicine, 2015, 26, 267.	1.7	6
2	Realising the potential of graphene-based materials for biosurfaces â€“ A future perspective. Biosurface and Biotribology, 2015, 1, 229-248.	0.6	55
3	The Influence of Titanium Dioxide on Diamond-Like Carbon Biocompatibility for Dental Applications. Journal of Nanomaterials, 2016, 2016, 1-7.	1.5	11
4	Understanding dental implants. , 2016, , 27-47.		1
5	Biomedical Applications of Biodegradable Polyesters. Polymers, 2016, 8, 20.	2.0	363
6	Biomimetic Scaffold with Aligned Microporosity Designed for Dentin Regeneration. Frontiers in Bioengineering and Biotechnology, 2016, 4, 48.	2.0	20
7	Biocompatibility of Subcutaneously Implanted Plant-Derived Cellulose Biomaterials. PLoS ONE, 2016, 11, e0157894.	1.1	164
8	Theoretical understanding of bio-interfaces/bio-surfaces by simulation: A mini review. Biosurface and Biotribology, 2016, 2, 151-161.	0.6	3
9	Temporal Control of Osteoblast Cell Growth and Behavior Dictated by Nanotopography and Shear Stress. IEEE Transactions on Nanobioscience, 2016, 15, 704-712.	2.2	5
10	Titanium dental implant surfaces obtained by anodic spark deposition â€“ From the past to the future. Materials Science and Engineering C, 2016, 69, 1429-1441.	3.8	53
11	In vitro performance of one- and two-piece zirconia implant systems for anterior application. Journal of Dentistry, 2016, 53, 94-101.	1.7	27
12	Production of Magnetic Nanoâ€bioconjugates via Ball Milling of Commercial Boron Powder with Biomolecules. Zeitschrift Fur Anorganische Und Allgemeine Chemie, 2016, 642, 828-832.	0.6	8
13	Surface micro- and nano-texturing of stainless steel by femtosecond laser for the control of cell migration. Scientific Reports, 2016, 6, 36296.	1.6	94
14	Current Trends in 3D Printing, Bioprosthetics, and Tissue Engineering in Plastic and Reconstructive Surgery. Current Surgery Reports, 2016, 4, 1.	0.4	14
15	Impact of surface porosity and topography on the mechanical behavior of high strength biomedical polymers. Journal of the Mechanical Behavior of Biomedical Materials, 2016, 59, 459-473.	1.5	31
16	Biocompatibility and Degradation of a Low Elastic Modulus Ti-35Nb-3Zr Alloy: Nanosurface Engineering for Enhanced Degradation Resistance. ACS Biomaterials Science and Engineering, 2017, 3, 509-517.	2.6	17
17	Fabrication and study of double sintered TiNi-based porous alloys. Smart Materials and Structures, 2017, 26, 057001.	1.8	6
18	In vitro biological outcome of laser application for modification or processing of titanium dental implants. Lasers in Medical Science, 2017, 32, 1197-1206.	1.0	20

#	Article	IF	Citations
19	Nanomaterials as Implantable Sensors. , 2017, , 123-139.		4
20	Current and emerging applications of 3D printing in medicine. Biofabrication, 2017, 9, 024102.	3.7	390
21	Radiologic Guide to Orthopedic Devices and Miscellaneous Foreign Bodies: An Introduction. , 0, , 1-6.		0
22	Biomaterials: An Overview. , 0, , 7-18.		0
23	Surface Modification of Metallic Biomaterials for Better Tribological Properties: A Review. Arabian Journal for Science and Engineering, 2017, 42, 4493-4512.	1.7	43
24	Engineered Paperâ€Based Cell Culture Platforms. Advanced Healthcare Materials, 2017, 6, 1700619.	3.9	44
25	In situ synthesis of osteoconductive biphasic ceramic coatings on Ti6Al4V substrate by laser-microwave hybridization. Surface and Coatings Technology, 2017, 330, 92-101.	2.2	10
26	Surface Modification of Poly(dimethylsiloxane) with Polydopamine and Hyaluronic Acid To Enhance Hemocompatibility for Potential Applications in Medical Implants or Devices. ACS Applied Materials & Interfaces, 2017, 9, 33632-33644.	4.0	85
28	Nanotechnology, nanosurfaces and silicone gel breast implants: current aspects. Case Reports in Plastic Surgery & Hand Surgery, 2017, 4, 99-113.	0.1	60
29	Plasma assisted surface treatments of biomaterials. Biophysical Chemistry, 2017, 229, 151-164.	1.5	37
31	Nanotechnology for Reducing Orthopedic Implant Infections: Synthesis, Characterization, and Properties. , 2017, , 31-62.		1
32	Introductory Chapter: The Prominence of Thin Film Science in Technological Scale. , 2017, , .		0
33	Ti-SLActive and TiZr-SLActive Dental Implant Surfaces Promote Fast Osteoblast Differentiation. Coatings, 2017, 7, 102.	1.2	9
34	Metallic Biomaterials: Current Challenges and Opportunities. Materials, 2017, 10, 884.	1.3	410
35	Antimicrobial and Osseointegration Properties of Nanostructured Titanium Orthopaedic Implants. Materials, 2017, 10, 1302.	1.3	90
36	The role of nanomedicine, nanotechnology, and nanostructures on oral bone healing, modeling, and remodeling. , 2017, , 777-832.		6
37	SEM Analysis of Surface Impact on Biofilm Antibiotic Treatment. Scanning, 2017, 2017, 1-7.	0.7	71
38	Biomedical applications of polyolefins. , 2017, , 517-538.		13

#	Article	IF	Citations
39	Microstructure and Mechanical Properties of Ti-12Mo-8Nb Alloy Hot Swaged and Treated for Orthopedic Applications. Materials Research, 2017, 20, 526-531.	0.6	13
40	Numerical modeling and prediction of mechanical properties of ceramic composite. Journal of Physics: Conference Series, 2017, 919, 012013.	0.3	5
41	Electrically Conductive Scaffold to Modulate and Deliver Stem Cells. Journal of Visualized Experiments, 2018, , .	0.2	7
42	A review of nanostructured surfaces and materials for dental implants: surface coating, patterning and functionalization for improved performance. Biomaterials Science, 2018, 6, 1312-1338.	2.6	149
43	In vitro and in vivo evaluation of novel biodegradable Mgâ€Agâ€Y alloys for use as resorbable bone fixation implant. Journal of Biomedical Materials Research - Part A, 2018, 106, 2059-2069.	2.1	15
44	Amorphous polyphosphate, a smart bioinspired nano-/bio-material for bone and cartilage regeneration: towards a new paradigm in tissue engineering. Journal of Materials Chemistry B, 2018, 6, 2385-2412.	2.9	81
45	Potential anti-cancer and anti-Candida activity of Zn-derived foams. Journal of Materials Chemistry B, 2018, 6, 2821-2830.	2.9	5
46	Fabrication of alumina-titanium composites by spark plasma sintering and their mechanical properties. Journal of Alloys and Compounds, 2018, 744, 759-768.	2.8	36
47	Hydroxyapatite Nanocrystal Deposited Titanium Dioxide Nanotubes Loaded with Antibiotics for Combining Biocompatibility and Antibacterial Properties. MRS Advances, 2018, 3, 1703-1709.	0.5	4
48	Evaluation of TiNi-based wire mesh implant for abdominal wall defect management. Biomedical Physics and Engineering Express, 2018, 4, 027010.	0.6	9
49	Damage mechanisms in bioactive glass matrix composites under uniaxial compression. Journal of the Mechanical Behavior of Biomedical Materials, 2018, 79, 264-272.	1.5	4
50	Modeling knee joint endoprosthesis mode of deformation. IOP Conference Series: Materials Science and Engineering, 2018, 327, 042120.	0.3	0
51	Polymeric materials and films in dentistry: An overview. Journal of Advanced Research, 2018, 14, 25-34.	4.4	131
52	Random and oriented electrospun fibers based on a multicomponent, in situ clickable elastin-like recombinamer system for dermal tissue engineering. Acta Biomaterialia, 2018, 72, 137-149.	4.1	33
53	Advances in Multiscale Characterization Techniques of Bone and Biomaterials Interfaces. ACS Biomaterials Science and Engineering, 2018, 4, 3678-3690.	2.6	17
54	Development of next generation cardiovascular therapeutics through bioâ€assisted nanotechnology. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2018, 106, 2072-2083.	1.6	21
55	Surface modification of metallic biomaterials for enhanced functionality: a review. Materials Technology, 2018, 33, 93-105.	1.5	81
56	Nano- and micro-materials in the treatment of internal bleeding and uncontrolled hemorrhage. Nanomedicine: Nanotechnology, Biology, and Medicine, 2018, 14, 507-519.	1.7	37

#	Article	IF	Citations
57	Chitosan/collagen blends with inorganic and organic additiveâ€"A review. Advances in Polymer Technology, 2018, 37, 2367-2376.	0.8	22
58	Investigation on hydroxyapatite coatings formation on titanium surface. IOP Conference Series: Materials Science and Engineering, 0, 444, 032007.	0.3	3
59	Optimization total deformation of knee implants made Ti6Al4V material. MATEC Web of Conferences, 2018, 204, 07014.	0.1	1
60	Facile synthesis of novel calcium silicate hydrated-nylon 6/66 nanocomposites by solution mixing method. RSC Advances, 2018, 8, 41818-41827.	1.7	17
61	Gentamicin-Loaded Bioactive Hydroxyapatite/Chitosan Composite Coating Electrodeposited on Titanium. ACS Biomaterials Science and Engineering, 2018, 4, 3994-4007.	2.6	58
62	A retrospective study on titanium sensitivity: Patch test materials and manifestations. Contact Dermatitis, 2018, 79, 85-90.	0.8	33
63	Improved bioactivity of GUMMETAL^{Â®}, Ti₅₉Nb₃₆Ta₂Zr₃O_{0.3}, via formation of nanostructured surfaces. Journal of Tissue Engineering, 2018, 9, 204173141877417.	2.3	11
64	A quantitative experimental phantom study on MRI image uniformity. Dentomaxillofacial Radiology, 2018, 47, 20180077.	1.3	4
65	Various Biomaterials and Techniques for Improving Antibacterial Response. ACS Applied Bio Materials, 2018, 1, 3-20.	2.3	91
66	Robust Thin Film Surface with a Selective Antibacterial Property Enabled via a Cross-Linked Ionic Polymer Coating for Infection-Resistant Medical Applications. ACS Biomaterials Science and Engineering, 2018, 4, 2614-2622.	2.6	31
67	The current considerations in the fabrication of implant prostheses and the state of prosthetic complications: A survey among the dental technicians. Saudi Dental Journal, 2018, 30, 299-305.	0.5	3
68	Osteoinductive 3D scaffolds prepared by blend centrifugal spinning for long-term delivery of osteogenic supplements. RSC Advances, 2018, 8, 21889-21904.	1.7	12
69	Laser Surface Melting of AISI 316L Stainless Steel for Bio-implant Application. Proceedings of the National Academy of Sciences India Section A - Physical Sciences, 2018, 88, 387-403.	0.8	20
70	Impact of surface topography and coating on osteogenesis and bacterial attachment on titanium implants. Journal of Tissue Engineering, 2018, 9, 204173141879069.	2.3	139
71	Orthopedical and biomedical applications of titanium and zirconium metals. , 2018, , 211-241.		7
72	Surface modification of metallic bone implantsâ€"Polymer and polymer-assisted coating for bone in-growth. , 2018, , 299-321.		8
73	Life cycle assessment of metallic biomaterials. , 2018, , 411-423.		3
74	Nanostructured biocompatible ceramics and glass-ceramics. , 2018, , 97-118.		2

#	Article	IF	Citations
75	Application of quality by design for 3D printed bone prostheses and scaffolds. PLoS ONE, 2018, 13, e0195291.	1.1	53
76	Biodegradable Poly(l-lactic acid) (PLLA) Coatings Fabricated from Nonsolvent Induced Phase Separation for Improving Corrosion Resistance of Magnesium Rods in Biological Fluids. Langmuir, 2018, 34, 10684-10693.	1.6	17
77	Nano- and Micro-Patterning of Gold Nanoparticles on PEG- Based Hydrogels for Controlling Cell Adhesion. , 0, , .		1
78	Applications and challenges of using 3D printed implants for the treatment of birth defects. Birth Defects Research, 2018, 110, 1065-1081.	0.8	6
79	Nanofibrous scaffolds for biomedical applications. Nanoscale, 2018, 10, 12228-12255.	2.8	65
80	Modification of titanium surface via Ag-, Sr- and Si-containing micro-arc calcium phosphate coating. Bioactive Materials, 2019, 4, 224-235.	8.6	61
81	The Influence of Nitrogen Absorption on Microstructure, Properties and Cytotoxicity Assessment of 316L Stainless Steel Alloy Reinforced with Boron and Niobium. Processes, 2019, 7, 506.	1.3	16
82	Microstructural, mechanical and electrochemical characterization of TiZrTaHfNb and Ti1.5ZrTa0.5Hf0.5Nb0.5 refractory high-entropy alloys for biomedical applications. Intermetallics, 2019, 113, 106572.	1.8	111
83	Effect of reinforcing S53P4 bioactive glass on physio-mechanical and biological properties of Ti â€“8Nbâ€“2Fe alloy. Ceramics International, 2019, 45, 21810-21818.	2.3	5
84	Investigations of surface integrity, bio-activity and performance characteristics during wire-electrical discharge machining of Ti-6Al-7Nb biomedical alloy. Materials Research Express, 2019, 6, 096568.	0.8	14
85	3-D printed Ti-6Al-4V scaffolds for supporting osteoblast and restricting bacterial functions without using drugs: Predictive equations and experiments. Acta Biomaterialia, 2019, 96, 662-673.	4.1	29
86	Chitosan-Based Biocomposite Scaffolds and Hydrogels for Bone Tissue Regeneration. Springer Series in Biomaterials Science and Engineering, 2019, , 413-442.	0.7	4
87	The Role of Orientation of Surface Bound Dihydropyrrol-2-ones (DHP) on Biological Activity. Molecules, 2019, 24, 2676.	1.7	5
88	Biocompatibility and Clinical Application of Porous TiNi Alloys Made by Self-Propagating High-Temperature Synthesis (SHS). Materials, 2019, 12, 2405.	1.3	39
89	Development of 1-propanethiol-based thiol-rich plasma polymerized coatings using a medium pressure dielectric barrier discharge. Applied Surface Science, 2019, 495, 143484.	3.1	3
90	Covalent conjugation of bioactive peptides to graphene oxide for biomedical applications. Biomaterials Science, 2019, 7, 3876-3885.	2.6	46
91	Chitosan in Surface Modification for Bone Tissue Engineering Applications. Biotechnology Journal, 2019, 14, e1900171.	1.8	39
92	Post treatments effect on TiZr nanostructures fabricated via anodizing. Journal of Materials Research and Technology, 2019, 8, 5802-5812.	2.6	9

#	Article	IF	Citations
93	Method for translating 3D bone defects into personalized implants made by Additive Manufacturing. Materials Today: Proceedings, 2019, 19, 1032-1040.	0.9	6
94	Improving surface integrity aspects of AISI 316L in the context of bioimplant applications. International Journal of Advanced Manufacturing Technology, 2019, 105, 2857-2867.	1.5	13
95	Electrochemical characterization of ZnMg-Ca biodegradable alloy. Materials Today: Proceedings, 2019, 19, 1026-1031.	0.9	0
96	Implantable Highly Compliant Devices for Heating of Internal Organs: Toward Cancer Treatment. Advanced Engineering Materials, 2019, 21, 1900407.	1.6	3
97	Permanent Implantable Medical Devices in Exotic Pet Medicine. Veterinary Clinics of North America - Exotic Animal Practice, 2019, 22, 521-538.	0.4	1
98	Addressing the dose perturbation of metallic implant in spinal Stereotactic Body Radiotherapy (SBRT). Journal of Physics: Conference Series, 2019, 1248, 012040.	0.3	1
99	Magnesium Silicate Bioceramics for Bone Regeneration: A Review. Journal of the Indian Institute of Science, 2019, 99, 261-288.	0.9	20
100	Structural design optimization of knee replacement implants for Additive Manufacturing. Procedia Manufacturing, 2019, 34, 574-583.	1.9	17
101	Mg-3Zn/HA Biodegradable Composites Synthesized via Spark Plasma Sintering for Temporary Orthopedic Implants. Journal of Materials Engineering and Performance, 2019, 28, 5702-5715.	1.2	22
102	Multiscale Simulations of Graphite-Capped Polyethylene Melts: Brownian Dynamics/Kinetic Monte Carlo Compared to Atomistic Calculations and Experiment. Macromolecules, 2019, 52, 7503-7523.	2.2	17
103	Microneedle-based drug delivery: materials of construction. Journal of Chemical Sciences, 2019, 131, 1.	0.7	73
104	Bioactive glass coatings on metallic implants for biomedical applications. Bioactive Materials, 2019, 4, 261-270.	8.6	130
105	Magnesium Based Biodegradable Metallic Implant Materials: Corrosion Control and Evaluation of Surface Coatings. Innovations in Corrosion and Materials Science, 2019, 9, 3-27.	0.2	1
106	The influence of alloying and fabrication techniques on the mechanical properties, biodegradability and biocompatibility of zinc: A comprehensive review. Acta Biomaterialia, 2019, 87, 1-40.	4.1	336
107	Microstructural, mechanical and biological properties of hydroxyapatite - CaZrO3 biocomposites. Ceramics International, 2019, 45, 8195-8203.	2.3	18
108	Effect of Thermo-Mechanical Treatments on the Microstructure and Mechanical Properties of the Metastable Î²-type Ti-35Nb-7Zr-5Ta Alloy. Materials Research, 2019, 22, .	0.6	9
109	Metallic biomaterialsâ€"A review. , 2019, , 83-99.		17
110	Current Research Perspectives of Orthopedic Implant Materials. , 2019, , 337-374.		2

#	Article	IF	Citations
111	Magnesium matrix nanocomposites for orthopedic applications: A review from mechanical, corrosion, and biological perspectives. Acta Biomaterialia, 2019, 96, 1-19.	4.1	113
112	Biomaterials for craniofacial tissue engineering and regenerative dentistry. , 2019, , 643-674.		3
113	Gelatin methacryloyl (GelMA)-based biomaterials for bone regeneration. RSC Advances, 2019, 9, 17737-17744.	1.7	64
114	A comparative study on surface strengthening characterisation and residual stresses of dental alloys using laser shock peening. International Journal of Ambient Energy, 2021, 42, 1740-1745.	1.4	61
115	Optimization of the bio-mechanical properties of Tiâ€“8Siâ€“2Mn alloy by 1393B3 bioactive glass reinforcement. Materials Research Express, 2019, 6, 075401.	0.8	4
116	Fabrication of micropit structures on Ti6Al4V alloy using fluoride-free anodization for orthopedic applications. Journal of Materials Research, 2019, 34, 1084-1092.	1.2	1
117	Bioresorbable Electronic Implants: History, Materials, Fabrication, Devices, and Clinical Applications. Advanced Healthcare Materials, 2019, 8, e1801660.	3.9	86
118	Biological and Physicochemical Assessment of Middle Ear Prosthesis. Polymers, 2019, 11, 79.	2.0	7
119	Magnesium-based composites and alloys for medical applications: A review of mechanical and corrosion properties. Journal of Alloys and Compounds, 2019, 792, 1162-1190.	2.8	184
120	3D Printing Custom Bioactive and Absorbable Surgical Screws, Pins, and Bone Plates for Localized Drug Delivery. Journal of Functional Biomaterials, 2019, 10, 17.	1.8	58
121	Potential ecotoxicological effects of antimicrobial surface coatings: a literature survey backed up by analysis of market reports. PeerJ, 2019, 7, e6315.	0.9	42
122	A Study of the Biomechanical Behavior of the Implantation Method of Inverted Shoulder Prosthesis (BIOâ€“RSA) under Different Abduction Movements. Bioengineering, 2019, 6, 19.	1.6	2
123	Micro-Patterning of PEG-Based Hydrogels With Gold Nanoparticles Using a Reactive Micro-Contact-Printing Approach. Frontiers in Chemistry, 2018, 6, 667.	1.8	21
124	Screw Track Osteolysis in the Cementless Total Knee Replacement Design. Journal of Arthroplasty, 2019, 34, 965-973.	1.5	10
125	Plant-derived resorbable polymers in tissue engineering. , 2019, , 19-40.		3
126	Corrosion resistance of coupled sandblasted, largeâ€grit, acidâ€etched (SLA) and anodized Ti implant surfaces in synthetic saliva. Clinical and Experimental Dental Research, 2019, 5, 452-459.	0.8	5
127	Evolution of BioMaterials for Dental Implants and Futuristic Developments. , 2019, , .		0
128	Applying Baghdadite/PCL/Chitosan Nanocomposite Coating on AZ91 Magnesium Alloy to Improve Corrosion Behavior, Bioactivity, and Biodegradability. Coatings, 2019, 9, 789.	1.2	22

#	Article	IF	Citations
129	Synergistically enhanced osteoconductivity and anti-inflammation of PLGA/Î²-TCP/Mg(OH)2 composite for orthopedic applications. Materials Science and Engineering C, 2019, 94, 65-75.	3.8	34
130	Ecological footprint of biomaterials for implant dentistry: is the metal-free practice an eco-friendly shift?. Journal of Cleaner Production, 2019, 213, 723-732.	4.6	9
131	Effects of deformation twinning on the mechanical properties of biodegradable Zn-Mg alloys. Bioactive Materials, 2019, 4, 8-16.	8.6	70
132	Optimization of SLM process parameters for Ti6Al4V medical implants. Rapid Prototyping Journal, 2019, 25, 433-447.	1.6	90
133	Akermanite-based coatings grown by pulsed laser deposition for metallic implants employed in orthopaedics. Surface and Coatings Technology, 2019, 357, 1015-1026.	2.2	26
134	A critical evaluation of tribological interaction for restorative materials in dentistry. International Journal of Polymeric Materials and Polymeric Biomaterials, 2019, 68, 1005-1019.	1.8	9
135	Maximizing Data Transmission Rate for Implantable Devices Over a Single Inductive Link: Methodological Review. IEEE Reviews in Biomedical Engineering, 2019, 12, 72-87.	13.1	39
136	Design and fabrication of a hybrid alginate hydrogel/poly(Îµâ€caprolactone) mold for auricular cartilage reconstruction. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2019, 107, 1711-1721.	1.6	38
137	Plasma Assisted Polymer Synthesis and Processing. , 2019, , 67-93.		7
138	The Photoactivity and Electrochemical Behavior of Porous Titania (TiO2) in Simulated Saliva for Dental Implant Application. Silicon, 2019, 11, 2353-2363.	1.8	1
139	Short-term exposure to titanium, aluminum and niobium (Ti-6Al-4Nb) alloy powder can disturb the serum low-density lipoprotein concentrations and antioxidant profile in vital organs but not the behavior of male albino mice. Drug and Chemical Toxicology, 2020, 43, 298-306.	1.2	7
140	Biocompatibility of (Ba,Ca)(Zr,Ti)O₃ piezoelectric ceramics for bone replacement materials. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2020, 108, 1295-1303.	1.6	29
141	Material Design and Surface Engineering for Bio-implants. Jom, 2020, 72, 684-696.	0.9	21
142	Materials evolution of bone plates for internal fixation of bone fractures: A review. Journal of Materials Science and Technology, 2020, 36, 190-208.	5.6	133
143	Magnetic resonance imaging (MRI) compatible ZrX (Xâ€¯=â€¯Hf, Mo and Ru) alloys with enhanced mechanical properties as alternative biomedical applications. Scripta Materialia, 2020, 178, 82-85.	2.6	2
144	Versatile bioactive and antibacterial coating system based on silica, gentamicin, and chitosan: Improving early stage performance of titanium implants. Surface and Coatings Technology, 2020, 381, 125138.	2.2	70
145	Role of implants surface modification in osseointegration: A systematic review. Journal of Biomedical Materials Research - Part A, 2020, 108, 470-484.	2.1	151
146	Preparation and characterization of chemically TEMPO-oxidized and mechanically disintegrated sacchachitin nanofibers (SCNF) for enhanced diabetic wound healing. Carbohydrate Polymers, 2020, 229, 115507.	5.1	23

#	Article	IF	Citations
147	Tribological Performance and Electrochemical Behavior of Tiâ€29Nbâ€14Taâ€4.5Zr Alloy in Simulated Physiological Solution. Advanced Engineering Materials, 2020, 22, 1900758.	1.6	5
148	Mesoporous titania coatings with carboxylated pores for complexation and slow delivery of strontium for osteogenic induction. Applied Surface Science, 2020, 510, 145172.	3.1	7
149	IntÃ©rÃªts dâ€™inclure la dÃ©termination dâ€™Ã©lÃ©ments inorganiques Ã la nomenclature des actes de biologie mÃ©dicale. Toxicologie Analytique Et Clinique, 2020, 32, 33-61.	0.1	0
150	Proteins, peptides and peptidomimetics as active agents in implant surface functionalization. Advances in Colloid and Interface Science, 2020, 276, 102083.	7.0	33
151	Biosensors Based on Mechanical and Electrical Detection Techniques. Sensors, 2020, 20, 5605.	2.1	55
152	The Application of Dualâ€Layer, Musselâ€Inspired, Antifouling Polyglycerolâ€Based Coatings in Ventricular Assist Devices. Advanced Materials Interfaces, 2020, 7, 2000272.	1.9	8
153	Development of Bioimplants with 2D, 3D, and 4D Additive Manufacturing Materials. Engineering, 2020, 6, 1232-1243.	3.2	41
154	Engineering nanoparticles to overcome immunological barriers for enhanced drug delivery. Engineered Regeneration, 2020, 1, 35-50.	3.0	35
155	Comprehensive Survey on Nanobiomaterials for Bone Tissue Engineering Applications. Nanomaterials, 2020, 10, 2019.	1.9	34
156	Tribological and mechanical behaviour of 45S5 BioglassÂ®-based compositions containing alumina and strontium. Ceramics International, 2020, 46, 24347-24354.	2.3	13
157	Powder mixed-EDM for potential biomedical applications: A critical review. Materials and Manufacturing Processes, 2020, 35, 1789-1811.	2.7	73
158	3D printable biomaterials for orthopedic implants: Solution for sustainable and circular economy. Resources Policy, 2020, 68, 101767.	4.2	45
159	Titanium salts tested in reconstructed human skin with integrated <scp>MUTZ</scp>â€3â€derived Langerhans cells show an irritant rather than a sensitizing potential. Contact Dermatitis, 2020, 83, 337-346.	0.8	9
160	Photoencapsulated-BMP2 in visible light-cured thiol-acrylate hydrogels for craniofacial bone tissue engineering. Regenerative Medicine, 2020, 15, 2099-2113.	0.8	4
161	Research Progress of Titanium-Based High Entropy Alloy: Methods, Properties, and Applications. Frontiers in Bioengineering and Biotechnology, 2020, 8, 603522.	2.0	41
162	Biomedical Implants for Regenerative Therapies. , 2020, , .		2
163	Introduction to biomedical manufacturing. , 2020, , 3-29.		2
164	Influence of Three Dental Implant Surfaces on Cell Viability and Bone Behavior. An In Vitro and a Histometric Study in a Rabbit Model. Applied Sciences (Switzerland), 2020, 10, 4790.	1.3	3

#	Article	IF	Citations
165	Effect of Multiwalled Carbon Nanotubes (MWCNTs) on the Micro-Hardness and Corrosion Behaviour Mg-Zn Alloy Prepared by Powder Metallurgy. Materials Science Forum, 0, 1000, 115-122.	0.3	3
166	Bioactive glass coated dental implants. , 2020, , 93-115.		1
167	Exploring Macroporosity of Additively Manufactured Titanium Metamaterials for Bone Regeneration with Quality by Design: A Systematic Literature Review. Materials, 2020, 13, 4794.	1.3	22
168	Repositioning Natural Antioxidants for Therapeutic Applications in Tissue Engineering. Bioengineering, 2020, 7, 104.	1.6	37
169	Protein adsorption, cell viability and corrosion properties of Ti6Al4V alloy treated by plasma oxidation and anodic oxidation. International Journal of Minerals, Metallurgy and Materials, 2020, 27, 1269-1280.	2.4	14
170	The Biomaterials of Total Shoulder Arthroplasty. JBJS Reviews, 2020, 8, e19.00212-e19.00212.	0.8	6
171	Electrochemical Deposition of Nanostructured Hydroxyapatite Coating on Titanium with Enhanced Early Stage Osteogenic Activity and Osseointegration . International Journal of Nanomedicine, 2020, Volume 15, 6605-6618.	3.3	43
172	A Comprehensive Review of Bioactive Glass Coatings: State of the Art, Challenges and Future Perspectives. Coatings, 2020, 10, 757.	1.2	62
173	Fibroblast-Like-Synoviocytes Mediate Secretion of Pro-Inflammatory Cytokines via ERK and JNK MAPKs in Ti-Particle-Induced Osteolysis. Materials, 2020, 13, 3628.	1.3	10
174	Biocompatible SWCNT Conductive Composites for Biomedical Applications. Nanomaterials, 2020, 10, 2492.	1.9	15
175	Synthetic Polymeric Materials for Bone Replacement. Journal of Composites Science, 2020, 4, 191.	1.4	32
176	Bone and Cartilage Interfaces With Orthopedic Implants: A Literature Review. Frontiers in Surgery, 2020, 7, 601244.	0.6	30
177	Structural and Biomedical Properties of Common Additively Manufactured Biomaterials: A Concise Review. Metals, 2020, 10, 1677.	1.0	24
178	Adverse Reaction to Zirconia in a Modern Total Hip Arthroplasty with Ceramic Head. Arthroplasty Today, 2020, 6, 612-616.e1.	0.8	8
179	Synthesis and characterization of porous zirconia parts by nonaqueous electrophoretic deposition technique. IOP Conference Series: Materials Science and Engineering, 2020, 881, 012088.	0.3	0
180	Strontium-Substituted Bioactive Glass-Ceramic Films for Tissue Engineering. Boletin De La Sociedad Espanola De Ceramica Y Vidrio, 2022, 61, 184-190.	0.9	6
181	Thin Film Metallization Stacks Serve as Reliable Conductors on Ceramic-Based Substrates for Active Implants. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2020, 10, 1803-1813.	1.4	6
182	Comparing electrochemical behavior of applied CrN/TiN nanoscale multilayer and TiN single-layer coatings deposited by CAE-PVD method. Journal of Asian Ceramic Societies, 2020, 8, 510-518.	1.0	30

#	Article	IF	Citations
183	Surface Comparison of Three Different Commercial Custom-Made Titanium Meshes Produced by SLM for Dental Applications. Materials, 2020, 13, 2177.	1.3	10
184	Development of AM Technologies for Metals in the Sector of Medical Implants. Metals, 2020, 10, 686.	1.0	51
185	Addressing the slow corrosion rate of biodegradable Fe-Mn: Current approaches and future trends. Current Opinion in Solid State and Materials Science, 2020, 24, 100822.	5.6	49
186	Bioactivity Behavior Evaluation of PCL-Chitosan-Nanobaghdadite Coating on AZ91 Magnesium Alloy in Simulated Body Fluid. Coatings, 2020, 10, 231.	1.2	14
187	Mechanical properties and corrosion resistance of cobalt-chrome alloy fabricated using additive manufacturing. Materials Today: Proceedings, 2020, 29, 196-201.	0.9	23
188	Determining the relative importance of titania nanotubes characteristics on bone implant surface performance: A quality by design study with a fuzzy approach. Materials Science and Engineering C, 2020, 114, 110995.	3.8	33
189	Optimization of Sintering Parameters of 316L Stainless Steel for In-Situ Nitrogen Absorption and Surface Nitriding Using Response Surface Methodology. Processes, 2020, 8, 297.	1.3	9
190	Metallic implants with properties and latest production techniques: a review. Advances in Materials and Processing Technologies, 2020, 6, 405-440.	0.8	46
191	Mixed hybrid bilayer lipid membranes on mechanically polished titanium surface. Biochimica Et Biophysica Acta - Biomembranes, 2020, 1862, 183232.	1.4	8
192	Design of dental implants at materials level: An overview. Journal of Biomedical Materials Research - Part A, 2020, 108, 1634-1661.	2.1	38
193	QCM-D Study of Time-Resolved Cell Adhesion and Detachment: Effect of Surface Free Energy on Eukaryotes and Prokaryotes. ACS Applied Materials & Interfaces, 2020, 12, 18258-18272.	4.0	43
194	Review on calciumâ€•and magnesiumâ€‘based silicates for bone tissue engineering applications. Journal of Biomedical Materials Research - Part A, 2020, 108, 1546-1562.	2.1	65
195	Implant surface modification strategies through antibacterial and bioactive components. , 2020, , 647-673.		5
196	A review on the properties of electrospun cellulose acetate and its application in drug delivery systems: A new perspective. Carbohydrate Research, 2020, 491, 107978.	1.1	118
197	Preparation and characterization of laterite steel for biomaterial application: A preliminary study. AIP Conference Proceedings, 2020, , .	0.3	0
198	Additively Manufactured Polyetheretherketone (PEEK) with Carbon Nanostructure Reinforcement for Biomedical Structural Applications. Advanced Engineering Materials, 2020, 22, 2000483.	1.6	39
199	In vitro corrosion resistance and cytocompatibility of minerals substituted apatite/biopolymers duplex coatings on anodized Ti for orthopedic implant applications. Arabian Journal of Chemistry, 2020, 13, 6312-6326.	2.3	13
200	Titanium Alloys for Dental Implants: A Review. Prosthesis, 2020, 2, 100-116.	1.1	218

#	Article	IF	Citations
201	High Entropy Alloys for Medical Applications. , 0, , .		4
202	Improving the Mechanical Strength of Dental Applications and Lattice Structures SLM Processed. Materials, 2020, 13, 905.	1.3	18
203	Optimized trapezoidal-shaped hip implant for total hip arthroplasty using finite element analysis. Cogent Engineering, 2020, 7, 1719575.	1.1	15
204	Biodegradable bone implants in orthopedic applications: a review. Biocybernetics and Biomedical Engineering, 2020, 40, 596-610.	3.3	104
205	ZnMg0.8Ca0.2 (wt%) biodegradable alloy â€“ The influence of thermal treatment and extrusion on microstructural and mechanical characteristics. Materials Characterization, 2020, 162, 110230.	1.9	21
206	Sustainable biomaterials and their applications: A short review. Materials Today: Proceedings, 2020, 30, 274-282.	0.9	62
207	Plasma electrolytic oxidation (PEO) treatment of zinc and its alloys: A review. Surfaces and Interfaces, 2020, 18, 100441.	1.5	41
208	Study of the stability under in vitro physiological conditions of surface silanized equimolar HfNbTaTiZr high-entropy alloy: A first step toward bio-implant applications. Surface and Coatings Technology, 2020, 385, 125374.	2.2	18
209	Titanium as an Instant Adhesive for Biological Soft Tissue. Advanced Materials Interfaces, 2020, 7, 1902089.	1.9	9
210	Mechanobiology, tissue development, and tissue engineering. , 2020, , 237-256.		3
211	Materials testing. , 2020, , 77-96.		1
212	Preliminary study of microstructure, mechanical properties and corrosion resistance of antibacterial Ti-15Zr-xCu alloy for dental application. Journal of Materials Science and Technology, 2020, 50, 31-43.	5.6	30
213	Interdigitated aluminium and titanium sensors for assessing epithelial barrier functionality by electric cell-substrate impedance spectroscopy (ECIS). Biomedical Microdevices, 2020, 22, 30.	1.4	4
214	Synthesis and characterization of 3D-printed functionally graded porous titanium alloy. Journal of Materials Science, 2020, 55, 9082-9094.	1.7	21
215	Photopolymerizable Biomaterials and Light-Based 3D Printing Strategies for Biomedical Applications. Chemical Reviews, 2020, 120, 10695-10743.	23.0	283
216	Mechanical and wear behaviour of polylactic acid matrix composites reinforced with crab-shell synthesized chitosan microparticles. Materials Today: Proceedings, 2021, 38, 999-1005.	0.9	12
217	Biodegradable magnesium alloy coated with TiO2/MgO two-layer composite via magnetic sputtering for orthopedic applications: A study on the surface characterization, corrosion, and biocompatibility. Ceramics International, 2021, 47, 6179-6186.	2.3	11
218	Recent research and progress of biodegradable zinc alloys and composites for biomedical applications: Biomechanical and biocorrosion perspectives. Bioactive Materials, 2021, 6, 836-879.	8.6	192

#	Article	IF	Citations
219	In vivo biocompatibility evaluation of Zn-0.05Mg-(0, 0.5, 1wt%)Ag implants in New Zealand rabbits. Materials Science and Engineering C, 2021, 119, 111435.	3.8	15
220	Developing a New Betaâ€Type of Tiâ€“Si/Sn Alloys for Targeted Orthopedic Therapeutics: Assessments of Biological Characteristics. Advanced Engineering Materials, 2021, 23, 2000430.	1.6	3
221	Implant Material Sciences. Dental Clinics of North America, 2021, 65, 81-88.	0.8	11
222	Surface functionalization of chitosan as a coating material for orthopaedic applications: A comprehensive review. Carbohydrate Polymers, 2021, 255, 117487.	5.1	58
223	EDM performance characteristics and electrochemical corrosion analysis of Co-Cr alloy and duplex stainless steel: A comparative study. Proceedings of the Institution of Mechanical Engineers, Part E: Journal of Process Mechanical Engineering, 2021, 235, 812-823.	1.4	13
224	Three-dimensional (3D) synthetic printing for the manufacture of non-biodegradable models, tools and implants used in surgery: a review of current methods. Journal of Medical Engineering and Technology, 2021, 45, 14-21.	0.8	16
225	Growing vertical aligned mesoporous silica thin film on nanoporous substrate for enhanced degradation, drug delivery and bioactivity. Bioactive Materials, 2021, 6, 1452-1463.	8.6	24
226	3D printed composite materials for craniofacial implants: current concepts, challenges and future directions. International Journal of Advanced Manufacturing Technology, 2021, 112, 635-653.	1.5	24
227	A novel 3D vascular assay for evaluating angiogenesis across porous membranes. Biomaterials, 2021, 268, 120592.	5.7	14
228	Surface alteration of biomedical alloys by electrical discharge treatment for enhancing the electrochemical corrosion, tribological and biological performances. Surface and Coatings Technology, 2021, 405, 126583.	2.2	21
229	Evaluation of surface modification techniques on the ability of apatite formation and corrosion behavior in synthetic body fluid: An in vitro study. Surfaces and Interfaces, 2021, 22, 100866.	1.5	15
230	Biodegradable metals for bone fracture repair in animal models: a systematic review. International Journal of Energy Production and Management, 2021, 8, rbaa047.	1.9	27
231	Preliminary tribocorrosion evaluation of bio-functionalized Ti doped with Ca-P-Sr. Materials Letters, 2021, 283, 128775.	1.3	7
232	Ionic strength controls long-term cell-surface interactions â€“ A QCM-D study of S. cerevisiae adhesion, retention and detachment. Journal of Colloid and Interface Science, 2021, 585, 583-595.	5.0	12
233	Biomimetic strategies for fabricating musculoskeletal tissue scaffolds: a review. International Journal of Advanced Manufacturing Technology, 2021, 112, 1211-1229.	1.5	7
234	Biodegradable Metal Matrix Composites for Orthopedic Implant Applications: A Review. Lecture Notes in Mechanical Engineering, 2021, , 557-565.	0.3	5
235	Applications of Additive Manufacturing. Springer Series in Advanced Manufacturing, 2021, , 201-226.	0.2	4
237	Prospect of Metal Ceramic (Titanium-Wollastonite) Composite as Permanent Bone Implants: A Narrative Review. Materials, 2021, 14, 277.	1.3	10

#	Article	IF	Citations
238	An investigation on classification and characterization of bio materials and additive manufacturing techniques for bioimplants. Materials Today: Proceedings, 2021, 44, 2061-2068.	0.9	37
239	Biomechanical Properties of Orthopedic and Dental Implants. , 2021, , 506-518.		1
240	Biodegradable composite materials for orthopedic implant: A review. AIP Conference Proceedings, 2021, , .	0.3	0
241	A comparative morphological study of titanium dioxide surface layer dental implants. Open Chemistry, 2021, 19, 189-198.	1.0	4
242	Improved antibacterial and cellular response of electrets and piezobioceramics. Journal of Biomaterials Applications, 2021, 36, 441-459.	1.2	6
243	Chitosan-Human Bone Composite Granulates for Guided Bone Regeneration. International Journal of Molecular Sciences, 2021, 22, 2324.	1.8	13
244	Chemical and structural analyze of experimental biodegradable ZnMgY alloy. IOP Conference Series: Materials Science and Engineering, 2021, 1037, 012034.	0.3	1
245	Assessment of Ion Release for Ni-Cr Dental Alloy with Monolithic and Multilayer Coatings in Different pH Level. Surfaces and Interfaces, 2021, 22, 100904.	1.5	5
246	The Influence of Various Preparation Parameters on the Histological Image of Bone Tissue during Implant Bed Preparationâ€"An In Vitro Study. Applied Sciences (Switzerland), 2021, 11, 1916.	1.3	3
247	Bio-based Materials for Microwave Devices: A Review. Journal of Electronic Materials, 2021, 50, 1893-1921.	1.0	8
248	Tribological properties of SS 304 and Ti6Al4V using four reciprocating geometries. Nanomaterials and Energy, 2021, 10, 79-90.	0.1	4
249	Multifunctional natural polymer-based metallic implant surface modifications. Biointerphases, 2021, 16, 020803.	0.6	4
250	Polymer blends and polymer composites for cardiovascular implants. European Polymer Journal, 2021, 146, 110249.	2.6	64
251	Effect of Thermomechanical Treatment on Functional Properties of Biodegradable Fe-30Mn-5Si Shape Memory Alloy. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2021, 52, 2024-2032.	1.1	15
252	Factors Controlling the Synthesis of Porous Ti-Based Biomedical Alloys by Electrochemical Deoxidation in Molten Salts. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2021, 52, 1590-1602.	1.0	0
253	Bioactive glass-biopolymersâ€'gold nanoparticle based composites for tissue engineering applications. Materials Science and Engineering C, 2021, 123, 112006.	3.8	16
254	Osseointegration of Hafnium when Compared to Titanium - A Structured Review. Open Dentistry Journal, 2021, 15, 137-144.	0.2	5
255	Improved Mechanical Properties of Ultra-High Shear Force Mixed Reduced Graphene Oxide/Hydroxyapatite Nanocomposite Produced Using Spark Plasma Sintering. Nanomaterials, 2021, 11, 986.	1.9	6

#	Article	IF	Citations
256	Biofilm Formation on Dental Implant Biomaterials by Staphylococcus aureus Strains Isolated from Patients with Cystic Fibrosis. Materials, 2021, 14, 2030.	1.3	26
257	Barium titanate-based bilayer functional coatings on Ti alloy biomedical implants. Journal of the European Ceramic Society, 2021, 41, 2918-2922.	2.8	6
258	The Impact of Dental Implant Surface Modifications on Osseointegration and Biofilm Formation. Journal of Clinical Medicine, 2021, 10, 1641.	1.0	119
259	Attachment and Growth of Fibroblast Cells on Poly (2-Methoxyethyl Acrylate) Analog Polymers as Coating Materials. Coatings, 2021, 11, 461.	1.2	6
260	Streptococcus mutans biofilms induce metabolite-mediated corrosion of 316 L stainless steel in a simulated oral environment. Corrosion Science, 2021, 182, 109286.	3.0	16
261	Development of multifunctional Si-Ca-PEG-nAg solâ€“gel implant coatings from calcium-2-ethoxyethoxide. Journal of Coatings Technology Research, 2021, 18, 1177-1189.	1.2	1
262	Bioactive glass coatings obtained by thermal spray: Current status and future challenges. Boletin De La Sociedad Espanola De Ceramica Y Vidrio, 2022, 61, 516-530.	0.9	9
263	Biocompatibility of platinum-based bulk metallic glass in orthopedic applications. Biomedical Materials (Bristol), 2021, 16, 045018.	1.7	8
264	Evaluation of the Antimicrobial Efficacy of Different Types of Photodynamic Therapy on the Main Pathogenic Bacteria of Peri-Implantitis. , 0, , .		1
265	Photodynamic Therapy for Biomodulation and Disinfection in Implant Dentistry: Is It Feasible and Effective?. Photochemistry and Photobiology, 2021, 97, 916-929.	1.3	10
266	Effects of Titanium Corrosion Products on In Vivo Biological Response: A Basis for the Understanding of Osseointegration Failures Mechanisms. Frontiers in Materials, 2021, 8, .	1.2	15
267	Synthesis, Surface Nitriding and Characterization of Ti-Nb Modified 316L Stainless Steel Alloy Using Powder Metallurgy. Materials, 2021, 14, 3270.	1.3	6
268	Titanium mesh-reinforced calcium sulfate for structural bone grafts. Journal of the Mechanical Behavior of Biomedical Materials, 2021, 118, 104461.	1.5	11
269	Mechanical Properties and Corrosion Resistance of TiAl6V4 Alloy Produced with SLM Technique and Used for Customized Mesh in Bone Augmentations. Applied Sciences (Switzerland), 2021, 11, 5622.	1.3	8
270	Nanostructured Zirconiumâ€Oxide Bioceramic Coatings Derived from the Anodized Al/Zr Metal Layers. Advanced Materials Interfaces, 2021, 8, 2100256.	1.9	7
271	Biomimetic Calcium Phosphate Coatings for Bioactivation of Titanium Implant Surfaces: Methodological Approach and In Vitro Evaluation of Biocompatibility. Materials, 2021, 14, 3516.	1.3	17
272	Development of biocompatible coating on Ti6Al4V implant materials using chitosan extracted from shellfish waste. Materials Today: Proceedings, 2021, 47, 5209-5216.	0.9	4
273	Mechanical and corrosion properties of graphene nanoplateletâ€“reinforced Mgâ€“Zr and Mgâ€“Zrâ€“Zn matrix nanocomposites for biomedical applications. Journal of Magnesium and Alloys, 2022, 10, 458-477.	5.5	33

#	Article	IF	Citations
274	In Vivo Imaging of Biodegradable Implants and Related Tissue Biomarkers. Polymers, 2021, 13, 2348.	2.0	5
275	Fatigue properties of hollow zirconia implants. Dental Materials Journal, 2021, 40, 885-893.	0.8	0
276	Assessment of biocompatibility of novel TiTaHf-based high entropy alloys for utility in orthopedic implants. Materials Chemistry and Physics, 2021, 266, 124573.	2.0	19
277	Parametric Study on Stainless Steel 316L by Die Sinking EDM for Biomedical Application. Lecture Notes on Multidisciplinary Industrial Engineering, 2022, , 215-230.	0.4	3
278	Laser surface treatment on Yttriaâ€stabilized zirconia dental implants: Influence on cell behavior. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2022, 110, 249-258.	1.6	4
279	Most commonly used metallic biomaterials for plasma sprayed hydroxyapatite coatings. IOP Conference Series: Materials Science and Engineering, 2021, 1168, 012013.	0.3	1
280	Tuning the Biointerface: Low-Temperature Surface Modification Strategies for Orthopedic Implants to Enhance Osteogenic and Antimicrobial Activity. ACS Applied Bio Materials, 2021, 4, 6619-6629.	2.3	11
281	Corrosion of Dental Alloys Used for Mini Implants in Simulated Oral Environment. International Journal of Electrochemical Science, 0, , ArticleID:21085.	0.5	3
282	Poly (L-lactic acid) coatings on 316 SS substrates for biomedical devices: The impact of surface silanization. Progress in Organic Coatings, 2021, 157, 106289.	1.9	7
283	Surface characterization of bioceramic coatings on Zr and its alloys using plasma electrolytic oxidation (PEO): A review. Surfaces and Interfaces, 2021, 25, 101283.	1.5	27
284	Phosphate-based geopolymers: a critical review. Polymer Bulletin, 2022, 79, 6827-6855.	1.7	15
285	Nanohydroxyapatite, Nanosilicate-Reinforced Injectable, and Biomimetic Gelatin-Methacryloyl Hydrogel for Bone Tissue Engineering. International Journal of Nanomedicine, 2021, Volume 16, 5603-5619.	3.3	30
286	In Vitro Biocompatibility Evaluation of a New Co-Cr-B Alloy with Potential Biomedical Application. Metals, 2021, 11, 1267.	1.0	7
287	Investigation into Effect of Natural Shellac on the Bonding Strength of Magnesium Substituted Hydroxyapatite Coatings Developed on Ti6Al4V Substrates. Coatings, 2021, 11, 933.	1.2	7
288	Research on the biomechanical behavior of dental implants. IOP Conference Series: Materials Science and Engineering, 2021, 1169, 012042.	0.3	0
289	Three-Dimensional Printing of Innovative Intramedullary Pin Profiles with Direct Metal Laser Sintering. Journal of Materials Engineering and Performance, 2022, 31, 240-253.	1.2	31
290	Chitosan-hydroxyapatite-MWCNTs nanocomposite patch for bone tissue engineering applications. Materials Today Communications, 2021, 28, 102615.	0.9	14
291	Bioactivity and Biocompatibility Properties of Sustainable Wollastonite Bioceramics from Rice Husk Ash/Rice Straw Ash: A Review. Materials, 2021, 14, 5193.	1.3	16

#	Article	IF	Citations
292	Synthesis of biocompatible high-entropy alloy TiNbZrTaHf by high-pressure torsion. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2021, 825, 141869.	2.6	27
293	pH-responsive d-leucine functional multilayer films with antibacterial and anti-adhesion synergistic properties. Materials Today Communications, 2021, 28, 102691.	0.9	3
294	Computational exploration of biomedical HfNbTaTiZr and Hf_{0.5}Nb_{0.5}Ta_{0.5}Ti_{1.5}Zr refractory high-entropy alloys. Materials Research Express, 2021, 8, 096534.	0.8	8
295	Strengthening and deformation mechanism of selective laser-melted high-concentration nitrogen solute Î±-Ti materials with heterogeneous microstructures via heat treatment. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2021, 826, 141935.	2.6	6
296	Mechanical properties and in vitro cytocompatibility of dense and porous Tiâ€“6Alâ€“4V ELI manufactured by selective laser melting technology for biomedical applications. Journal of the Mechanical Behavior of Biomedical Materials, 2021, 123, 104712.	1.5	27
297	Metallic biomaterials. , 2022, , 31-55.		1
298	Comparative Analysis of Femur Boneâ€™s Compatible Materials by Finite Element Analysis (FEA) Tool. Lecture Notes in Mechanical Engineering, 2021, , 507-516.	0.3	1
299	Coatings on orthopedic implants to overcome present problems and challenges: A focused review. Materials Today: Proceedings, 2021, 45, 5269-5276.	0.9	17
300	A detailed study on electrochemical performance and cell viability of nano-YSZ-coated 316L SS sample for dental applications. Journal of Materials Research, 2021, 36, 547-555.	1.2	0
301	Priortizing Barriers of Dental Implants for Patients Attending OPD. , 2021, , 531-541.		0
303	Comparative antibacterial activity of 2D materials coated on porous-titania. Journal of Materials Chemistry B, 2021, 9, 6412-6424.	2.9	10
304	Labeling Microglia with Genetically Encoded Calcium Indicators. Methods in Molecular Biology, 2019, 2034, 243-265.	0.4	2
305	Peri-implant Disease. , 2020, , 113-138.		2
306	Biomaterials: Characteristics and Properties. Topics in Mining, Metallurgy and Materials Engineering, 2017, , 5-15.	1.4	9
307	Biomaterials and Fabrication Methods of Scaffolds for Tissue Engineering Applications. Materials Horizons, 2020, , 167-186.	0.3	6
308	Biomaterials for on-chip organ systems. , 2020, , 669-707.		5
309	Additively Manufactured Ti6Al4V-Si-Hydroxyapatite composites for articulating surfaces of load-bearing implants. Additive Manufacturing, 2020, 34, 101241.	1.7	17
310	Injectable polymer/nanomaterial composites for the fabrication of three-dimensional biomaterial scaffolds. Biomedical Materials (Bristol), 2020, 15, 045021.	1.7	6

#	Article	IF	Citations
311	Biomimetic hierarchical micro/nano texturing of TiAlV alloys by femtosecond laser processing for the control of cell adhesion and migration. Physical Review Materials, 2020, 4, .	0.9	15
312	METALS USED IN MAXILLOFACIAL SURGERY. ORAL and Implantology, 2016, 9, 107.	0.3	29
313	Biocompatible materials of pulsatile and rotary blood pumps: A brief review. Reviews on Advanced Materials Science, 2020, 59, 322-339.	1.4	13
314	Bioactive-Enhanced Polyetheretherketone Dental Implant Materials: Mechanical Characterization and Cellular Responses. Journal of Oral Implantology, 2021, 47, 9-17.	0.4	14
315	Gingival fibroblasts behavior on bioactive zirconia and titanium dental implant surfaces produced by a functionally graded technique. Journal of Applied Oral Science, 2020, 28, e20200100.	0.7	7
317	Obtaining of Biologically Soluble Membranes Based on Polymeric Nanofibres and Hydroxyapatite of Calcium. Eurasian Chemico-Technological Journal, 2018, 20, 119.	0.3	8
318	Application of adult mesenchymal stem cells in bone and vascular tissue engineering. Physiological Research, 2018, 67, 831-850.	0.4	25
319	The Impact of Biomaterial Cell Contact on the Immunopeptidome. Frontiers in Bioengineering and Biotechnology, 2020, 8, 571294.	2.0	5
320	Biomechanical Properties of Orthopedic and Dental Implants. Advances in Mechatronics and Mechanical Engineering, 2019, , 1-13.	1.0	10
321	Surface characteristics and bioactivity of zirconia (Y-TZP) with different surface treatments. Journal of Pharmacy and Bioallied Sciences, 2020, 12, 114.	0.2	4
322	Review of metallic biomaterials in dental applications. Journal of Pharmacy and Bioallied Sciences, 2020, 12, 14.	0.2	17
323	Descriptive retrospective study analyzing relevant factors related to dental implant failure. Medicina Oral, Patologia Oral Y Cirugia Bucal, 2019, 24, 0-0.	0.7	23
324	Investigations into Ti-Based Metallic Alloys for Biomedical Purposes. Metals, 2021, 11, 1626.	1.0	7
327	Evolution of implant biomaterials: A literature review. Journal of Indian Academy of Dental Specialist Researchers, 2017, 4, 65.	0.0	1
328	Study of the Vickers hardness and corrosion behavior of experimental Ti-Mo alloy in dental office bleaching agents. Archives of Health Investigation, 2017, 6, .	0.0	1
329	THE EFFECT OF ATMOSPHERIC PLASMA-SPRAYED PEEK IMPLANTS ON OSSEOINTEGRATION. Egyptian Dental Journal, 2018, 64, 733-744.	0.1	2
332	Analysis of Bone Wedge Dimensions Selection Methods in High Tibial Osteotomy. Advances in Materials Science, 2019, 19, 15-27.	0.4	0
333	Corrosion of metallic biomaterials. , 2020, , 469-515.		4

#	Article	IF	Citations
334	A Survey and Analysis to Find Dental Implant Issues in India. Advances in Healthcare Information Systems and Administration Book Series, 2020, , 263-282.	0.2	0
336	Tribological Studies of Different Bioimplant Materials for Orthopaedic Application. ASM Science Journal, 0, 13, 1-8.	0.2	1
337	Chemically modified mRNA beyond COVID-19: Potential preventive and therapeutic applications for targeting chronic diseases. Biomedicine and Pharmacotherapy, 2022, 145, 112385.	2.5	14
338	Modelling and evaluation of meshed implant for cranial reconstruction. International Journal of Advanced Manufacturing Technology, 2022, 118, 1967-1985.	1.5	9
339	MgF2- containing glasses as a coating for titanium dental implant. I- Glass powder. Journal of the Mechanical Behavior of Biomedical Materials, 2022, 125, 104948.	1.5	5
340	Biomaterials in implantology: A review. IP Annals of Prosthodontics and Restorative Dentistry, 2020, 4, 111-113.	0.2	1
341	Chitosan as a biomaterial for implantable drug delivery. , 2022, , 133-158.		0
342	Developments in Metallic Biomaterials and Surface Coatings for Various Biomedical Applications. Lecture Notes in Mechanical Engineering, 2020, , 197-206.	0.3	4
343	Nanoscaffolds for neural regenerative medicine. , 2020, , 47-88.		4
344	Priortizing Barriers of Dental Implants for Patients Attending OPD. Advances in Hospitality, Tourism and the Services Industry, 2020, , 38-51.	0.2	0
345	Mechanical properties and corrosion behavior of novel Î²-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
346	Histological examination and evaluation of biocompatibility of 3-D printed implants in the experiment.. Morphologia, 2020, 14, 35-41.	0.1	0
347	Evaluation of Primary Stability in Immediate Non Submerged Root Analogue Zirconium Implants: A Preliminary Study. Egyptian Dental Journal, 2020, 66, 1509-1518.	0.1	0
348	Local and Systemic Changes Associated with Long-term, Percutaneous, Static Implantation of Titanium Alloys in Rhesus Macaques (). Comparative Medicine, 2017, 67, 165-175.	0.4	9
349	Biomimetic Approaches for the Design and Fabrication of Bone-to-Soft Tissue Interfaces. ACS Biomaterials Science and Engineering, 2023, 9, 3810-3831.	2.6	21
350	Allergic Sensitization to Nickel and Implanted Metal Devices. Dermatitis, 2021, Publish Ahead of Print, .	0.8	2
351	Corrosion and Biocompatibility of Pure Zn with a Micro-Arc-Oxidized Layer Coated with Calcium Phosphate. Coatings, 2021, 11, 1425.	1.2	8
352	A Review on Development of Bio-Inspired Implants Using 3D Printing. Biomimetics, 2021, 6, 65.	1.5	38

#	Article	IF	Citations
353	Solid solubility and charge compensation/exchange mechanisms in Ga- or Mn-Doped CeO2 thin films on 3D printed biomedical titanium alloy. Materials Chemistry and Physics, 2021, 277, 125483.	2.0	3
354	Biomimetic Deposition of Hydroxyapatite Layer on Titanium Alloys. Micromachines, 2021, 12, 1447.	1.4	24
355	Direct monitoring of single-cell response to biomaterials by Raman spectroscopy. Journal of Materials Science: Materials in Medicine, 2021, 32, 148.	1.7	1
356	Duty cycle influence on the corrosion behavior of coatings created by plasma electrolytic oxidation on AZ31B magnesium alloy in simulated body fluid. Corrosion Communications, 2021, 3, 62-70.	2.7	11
357	Clinical versus Dental Laboratory Survey Regarding Modern Fixed Implant Supported Prosthetic in Romania. Applied Sciences (Switzerland), 2022, 12, 472.	1.3	1
358	A Finite Element Investigation on the Design of Mechanically Compatible Functionally Graded Orthopaedic Plate for Diaphyseal Tibia Transverse Fracture. Composites Part C: Open Access, 2022, 7, 100228.	1.5	5
359	Manufacturing and Characterization of Tantalum Microplasma Coatings for Biomedical Application. , 2020, , .		2
360	ADDITIVE MANUFACTURING PARAMETERS OPTIMIZATION OF Ti6AL4V ELI FOR MEDICAL IMPLANTS. Surface Review and Letters, 2022, 29, .	0.5	2
361	Influence of Molybdenum on the Microstructure, Mechanical Properties and Corrosion Resistance of Ti20Ta20Nb20(ZrHf)20â^'xMox (Where: x = 0, 5, 10, 15, 20) High Entropy Alloys. Materials, 2022, 15, 393.	1.3	11
362	Recent Advances in Synthetic and Natural Biomaterialsâ€Based Therapy for Bone Defects. Macromolecular Bioscience, 2022, 22, e2100383.	2.1	14
363	Development of Bioglass/PEEK Composite Coating by Cold Gas Spray for Orthopedic Implants. Journal of Thermal Spray Technology, 2022, 31, 186-196.	1.6	11
364	Tribocorrosion Behavior of NiTi Biomedical Alloy Processed by an Additive Manufacturing Laser Beam Directed Energy Deposition Technique. Materials, 2022, 15, 691.	1.3	8
365	Reaction Sintering of Biocompatible Al2O3â€“hBN Ceramics. ACS Omega, 2022, 7, 2205-2209.	1.6	3
366	Relevant Aspects of Piranha Passivation in Ti6Al4V Alloy Dental Meshes. Coatings, 2022, 12, 154.	1.2	5
367	Physical characterization and biological tests of bioactive titanium surfaces prepared by short-time micro-arc oxidation in green electrolyte. Materials Research Express, 2022, 9, 025401.	0.8	4
368	Harnessing elastic anisotropy to achieve low-modulus refractory high-entropy alloys for biomedical applications. Materials and Design, 2022, 215, 110430.	3.3	16
369	Tripolar Electrode Electrochemical Impedance Spectroscopy for Endoscopic Devices toward Early Colorectal Tumor Detection. ACS Sensors, 2022, 7, 632-640.	4.0	6
370	Evaluation of the effect of field sizes on radiation dose in the presence of metal materials using Monte Carlo simulation. Applied Radiation and Isotopes, 2022, 182, 110143.	0.7	2

#	Article	IF	Citations
371	Biomaterials in Gene Delivery. , 2022, , 129-148.		2
372	Metallic Biomaterials for Medical and Dental Prosthetic Applications. , 2022, , 503-522.		11
373	Latest Trends in Surface Modification for Dental Implantology: Innovative Developments and Analytical Applications. Pharmaceutics, 2022, 14, 455.	2.0	27
374	Effect of plasma sheath with secondary electron emission on the Ti N chemical bond formation in titanium dental implantation. Materials Today: Proceedings, 2022, , .	0.9	0
375	Finite element analysis of knee joint implant for varying bio material using ANSYS. Materials Today: Proceedings, 2022, 59, 941-950.	0.9	2
376	A review of current challenges and prospects of magnesium and its alloy for bone implant applications. Progress in Biomaterials, 2022, 11, 1-26.	1.8	53
377	Reviewâ€"A Conceptual Analysis on Ceramic Materials Used for Dental Practices: Manufacturing Techniques and Microstructure. ECS Journal of Solid State Science and Technology, 2022, 11, 053005.	0.9	2
378	Novel Dental Implants with Herbal Composites: A Review. Dentistry, 0, , .	0.0	0
379	Physical characterization of therapeutic proton delivery through common dental materials. Medical Physics, 2022, 49, 2904-2913.	1.6	4
380	Review of different material and surface modification techniques for dental implants. Materials Today: Proceedings, 2022, 60, 2245-2249.	0.9	4
381	ZrO₂/ZnO/TiO₂ Nanocomposite Coatings on Stainless Steel for Improved Corrosion Resistance, Biocompatibility, and Antimicrobial Activity. ACS Applied Materials & Interfaces, 2022, 14, 13801-13811.	4.0	21
382	A novel apatite-inspired Sr5(PO4)2SiO4 plasma-sprayed coating on Ti alloy promoting biomineralization, osteogenesis and angiogenesis. Ceramics International, 2022, 48, 10979-10989.	2.3	6
383	Biomaterial strategies for the application of reproductive tissue engineering. Bioactive Materials, 2022, 14, 86-96.	8.6	14
384	INCREASING THE COST-EFFECTIVENESS OF IN VITRO RESEARCH THROUGH THE USE OF TITANIUM IN THE DEVICE FOR MEASURING THE ELECTRICAL PARAMETERS OF CELLS. Informatyka Automatyka Pomiary W Gospodarce I Ochronie Åšrodowiska, 2021, 11, 62-66.	0.2	1
385	Development of Electrochemical Surface Treatment to Visualize Critical Corrosion-Inducing Inclusions of Zr in Chloride Environments. Journal of the Electrochemical Society, 2021, 168, 121505.	1.3	1
386	Analytical Techniques for the Characterization of Bioactive Coatings for Orthopaedic Implants. Biomedicines, 2021, 9, 1936.	1.4	15
387	Conductive Scaffolds for Bone Tissue Engineering: Current State and Future Outlook. Journal of Functional Biomaterials, 2022, 13, 1.	1.8	39
388	Microstructure and Mechanical Properties of Modified 316L Stainless Steel Alloy for Biomedical Applications Using Powder Metallurgy. Materials, 2022, 15, 2822.	1.3	15

#	Article	IF	Citations
389	Nanofiber Polymers for Coating Titanium-Based Biomedical Implants. Fibers, 2022, 10, 36.	1.8	8
392	Putative role of prosthetic dental implants in the development of cardiac sarcoidosis: A case-control study. Sarcoidosis Vasculitis and Diffuse Lung Diseases, 2021, 38, e2021023.	0.2	0
393	Effects of Titanium Implant Surface Topology on Bone Cell Attachment and Proliferation in vitro. Medical Devices: Evidence and Research, 2022, Volume 15, 103-119.	0.4	9
394	Titanium Dental Implants: An Overview of Applied Nanobiotechnology to Improve Biocompatibility and Prevent Infections. Materials, 2022, 15, 3150.	1.3	35
395	Aleaciones metÃ¡licas para aplicaciones ortopÃ©dicas: una revisiÃ³n sobre su respuesta al estrÃ©s fisiolÃ³gico y a los procesos de corrosiÃ³n. Revista PolitÃ©cnica, 2022, 18, 24-39.	0.0	0
396	Breast Implant-Associated Immunological Disorders. Journal of Immunology Research, 2022, 2022, 1-13.	0.9	10
397	Selection and preparation strategies of Mg-alloys and other biodegradable materials for orthopaedic applications: A review. Materials Today Communications, 2022, 31, 103658.	0.9	10
398	Recent progress in development and applications of biomaterials. Materials Today: Proceedings, 2022, 62, 385-391.	0.9	6
399	Utilization of Polymethyl Methacrylate and Hydroxyapatite Composite as Biomaterial Candidate for Porous Trabecular Dental Implant Fixture Development: A Narrative Review. Research Journal of Pharmacy and Technology, 2022, , 1863-1869.	0.2	3
400	Applications of some biopolymeric materials as medical implants: An overview. Materials Today: Proceedings, 2022, , .	0.9	2
401	The Main Bacterial Communities Identified in the Sites Affected by Periimplantitis: A Systematic Review. Microorganisms, 2022, 10, 1232.	1.6	6
402	Surface coating and wettability study of PDMS-based composites: Effect on contact angle and cell-surface interaction. MRS Advances, 2022, 7, 656-662.	0.5	1
403	Biomimetic Implant Surfaces and Their Role in Biological Integrationâ€"A Concise Review. Biomimetics, 2022, 7, 74.	1.5	13
404	Current trends, applications, and challenges of coatings on additive manufacturing based biopolymers: A state of art review. Polymer Composites, 2022, 43, 6749-6781.	2.3	23
405	Biomimetic and Antibacterial Composite for Orthopedic Implants. , 2022, 11, 120-145.		0
406	3D Printing in Preparation of Titanium Alloy Artificial Bone. Hans Journal of Biomedicine, 2022, 12, 229-240.	0.0	0
407	Electrospinning and Three-Dimensional (3D) Printing for Biofabrication. , 2022, , 555-604.		5
408	An update on biomaterials as microneedle matrixes for biomedical applications. Journal of Materials Chemistry B, 2022, 10, 6059-6077.	2.9	12

#	Article	IF	Citations
409	Biomechanical evaluations of the long-term stability of dental implant using finite element modeling method: a systematic review. Journal of Advanced Prosthodontics, 2022, 14, 182.	1.1	5
410	Development of Ultrafineâ€“Grained and Nanostructured Bioinert Alloys Based on Titanium, Zirconium and Niobium and Their Microstructure, Mechanical and Biological Properties. Metals, 2022, 12, 1136.	1.0	9
411	Parametric analysis to explore the viability of cold spray additive manufacturing to print SS316L parts for biomedical application. Journal of the Brazilian Society of Mechanical Sciences and Engineering, 2022, 44, .	0.8	1
412	Corrosion Resistance of 3D Printed Ti6Al4V Gyroid Lattices with Varying Porosity. Materials, 2022, 15, 4805.	1.3	7
413	Recent advances in silicate-based crystalline bioceramics for orthopedic applications: a review. Journal of Materials Science, 2022, 57, 13109-13151.	1.7	13
414	Potential tribological and antibacterial benefits of pulsed laser-deposited zirconia thin film on Ti6Al4V bio-alloy. Applied Physics A: Materials Science and Processing, 2022, 128, .	1.1	2
415	Calcium phosphate conversion technique: A versatile route to develop corrosion resistant hydroxyapatite coating over Mg/Mg alloys based implants. Journal of Magnesium and Alloys, 2022, 10, 1821-1845.	5.5	15
416	Electrochemical and electrophoretic coatings of medical implants by nanomaterials. Journal of Solid State Electrochemistry, 2022, 26, 1871-1896.	1.2	9
417	Polymerâ€“Metal Composite Healthcare Materials: From Nano to Device Scale. Journal of Composites Science, 2022, 6, 218.	1.4	4
418	Secondary amine pendent Î²-peptide polymers realizing antimicrobial surfaces to prevent bacterial infection of implants. Applied Materials Today, 2022, 29, 101599.	2.3	1
419	In-Vitro Phenotypic Response of Human Osteoblasts to Different Degrees of Titanium Surface Roughness. Dentistry Journal, 2022, 10, 140.	0.9	4
420	Dental implant biomaterials. International Journal of Health Sciences, 0, , 1140-1152.	0.0	0
421	Evaluation of hardness and elasticity of thermo-mechanically processed low modulus Ti alloys for dental application. Materials Today: Proceedings, 2022, 66, 2856-2861.	0.9	0
422	Effect of Alumina Particles on the Osteogenic Ability of Osteoblasts. Journal of Functional Biomaterials, 2022, 13, 105.	1.8	4
423	Development and evaluation of hydroxytite-based anti-microbial surface coatings on polydopamine-treated porous 3D-printed Ti6Al4V alloys for overall biofunctionality. Proceedings of the Institution of Mechanical Engineers, Part E: Journal of Process Mechanical Engineering, 0, , 095440892211169.	1.4	0
424	Electrogalvanism in Oral Implantology: A Systematic Review. International Journal of Dentistry, 2022, 2022, 1-9.	0.5	7
425	Influence of Magnesium Content on the Physico-Chemical Properties of Hydroxyapatite Electrochemically Deposited on a Nanostructured Titanium Surface. Coatings, 2022, 12, 1097.	1.2	8
426	Corrosion behavior of new titanium alloys for medical applications. Materials Today: Proceedings, 2022, , .	0.9	1

#	Article	IF	Citations
427	Surface generation on titanium alloy through powder-mixed electric discharge machining with the focus on bioimplant applications. International Journal of Advanced Manufacturing Technology, 2022, 122, 1395-1411.	1.5	12
428	Implants with Sensing Capabilities. Chemical Reviews, 2022, 122, 16329-16363.	23.0	33
429	Effect of restoration material on marginal bone resorption around modified anatomic zirconia dental implants: A randomised controlled trial. Annals of Medicine and Surgery, 2022, 80, .	0.5	5
430	Engineering Surfaces with Immune Modulating Properties of Mucin Hydrogels. ACS Applied Materials & Interfaces, 0, , .	4.0	0
431	Wear reduction of orthopaedic implants through Cryogenic Thermal Cycling. Journal of the Mechanical Behavior of Biomedical Materials, 2022, , 105420.	1.5	0
432	Biodegradable Bone Implants as a New Hope to Reduce Device-Associated Infectionsâ€"A Systematic Review. Bioengineering, 2022, 9, 409.	1.6	9
433	Human osteoblasts response to different dental implant abutment materials: An in-vitro study. Dental Materials, 2022, 38, 1547-1557.	1.6	1
434	Graphite coatings for biomedical implants: A focus on anti-thrombosis and corrosion resistance properties. Materials Chemistry and Physics, 2022, 290, 126562.	2.0	6
435	Comparative analysis of hybrid MCDM methods in material selection for dental applications. Expert Systems With Applications, 2022, 209, 118268.	4.4	11
436	A review on fabrication of 3D printed biomaterials using optical methodologies for tissue engineering applications. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2022, 236, 1583-1594.	1.0	1
437	Electrophoretic deposition of hydroxyapatite/chitosan nanocomposites: the effect of dispersing agents on the coating properties. RSC Advances, 2022, 12, 27564-27581.	1.7	5
438	70 years of bilirubin sensing: towards the point-of-care bilirubin monitoring in cirrhosis and hyperbilirubinemia. Sensors & Diagnostics, 2022, 1, 932-954.	1.9	4
439	3D-Printed Metal Implants for Maxillofacial Restorations. , 2022, , 233-252.		0
440	A review on application of biomaterials for medical and dental implants. Proceedings of the Institution of Mechanical Engineers, Part L: Journal of Materials: Design and Applications, 2023, 237, 249-273.	0.7	9
441	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
442	Effect of Varying Ce Content on the Mechanical Properties and Corrosion Resistance of Low-Elastic-Modulus Mg-Zn-Ce Amorphous Alloys. Metals, 2022, 12, 1637.	1.0	0
444	Design and Characterization of New Ti-Zr-Nb-(Mn) Medium Entropy Alloys for Biomedical Applications. Key Engineering Materials, 0, 931, 35-40.	0.4	0
445	Viability and proliferation of A549 cell line on the surface of micro-, nano- and ultrananocrystalline diamond films grown by HFCVD with tailored gases. Functional Diamond, 2022, 2, 112-118.	1.7	0

#	Article	IF	Citations
446	A review onin vitro/in vivoresponse of additively manufactured Tiâ€“6Alâ€“4V alloy. Journal of Materials Chemistry B, 2022, 10, 9479-9534.	2.9	9
447	Preventing Peri-implantitis: The Quest for a Next Generation of Titanium Dental Implants. ACS Biomaterials Science and Engineering, 2022, 8, 4697-4737.	2.6	23
448	Two Gingival Cell Lines Response to Different Dental Implant Abutment Materials: An In Vitro Study. Dentistry Journal, 2022, 10, 192.	0.9	1
449	Detailed study on basic methodology of dental implant and surface modification techniques. IOP Conference Series: Materials Science and Engineering, 2022, 1259, 012046.	0.3	1
450	Finite Element Analysis of the Effect of Tightening Torque on the Connection Stability of a Two-Piece Zirconia Implant System. Advances in Materials Science and Engineering, 2022, 2022, 1-10.	1.0	1
451	A Review of Biomaterials Based on High-Entropy Alloys. Metals, 2022, 12, 1940.	1.0	11
452	In silico studies of magnesium-based implants: A review of the current stage and challenges. Journal of Magnesium and Alloys, 2022, 10, 2968-2996.	5.5	6
453	Magnesium-Based Nanocomposites: An Overview of Applications and Challenges. Powder Metallurgy and Metal Ceramics, 2022, 61, 205-220.	0.4	2
454	Implant surface modification as a basis of osseointegration: A narrative review. Journal of Dentistry Defence Section, 2022, 16, 139.	0.2	1
455	Performance of PEO/Polymer Coatings on the Biodegradability, Antibacterial Effect and Biocompatibility of Mg-Based Materials. Journal of Functional Biomaterials, 2022, 13, 267.	1.8	18
456	Evaluation of stress and strain on mandible caused using â€œAll-on-Fourâ€•system from PEEK in hybrid prosthesis: finite-element analysis. Odontology / the Society of the Nippon Dental University, 2023, 111, 618-629.	0.9	7
457	In Vivo Penetrating Microelectrodes for Brain Electrophysiology. Sensors, 2022, 22, 9085.	2.1	3
458	Bi-continuous Mg-Ti interpenetrating-phase composite as a partially degradable and bioactive implant material. Journal of Materials Science and Technology, 2023, 146, 211-220.	5.6	7
459	Surface modification during hydroxyapatite powder mixed electric discharge machining of metallic biomaterials: a review. Surface Engineering, 2022, 38, 680-706.	1.1	10
460	Science-based strategies of antibacterial coatings with bactericidal properties for biomedical and healthcare settings. Current Opinion in Biomedical Engineering, 2023, 25, 100442.	1.8	2
461	Metallic Dental Implants Wear Mechanisms, Materials, and Manufacturing Processes: A Literature Review. Materials, 2023, 16, 161.	1.3	11
463	Effects of Pore Size Parameters of Titanium Additively Manufactured Lattice Structures on the Osseointegration Process in Orthopedic Applications: A Comprehensive Review. Crystals, 2023, 13, 113.	1.0	5
464	Type-A Gelatin-Based Hydrogel Infiltration and Degradation in Titanium Foams as a Potential Method for Localised Drug Delivery. Polymers, 2023, 15, 275.	2.0	2

#	Article	IF	Citations
465	Recent advances in electrochemically surface treated titanium and its alloys for biomedical applications: A review of anodic and plasma electrolytic oxidation methods. Materials Today Communications, 2023, 34, 105425.	0.9	15
466	Bioinspired Polyethylene Glycol Coatings for Reduced Nanoparticleâ€“Protein Interactions. ACS Nano, 2023, 17, 955-965.	7.3	8
467	Multifunctional Coatings on Implant Materialsâ€”A Systematic Review of the Current Scenario. Coatings, 2023, 13, 69.	1.2	16
468	Metals Biotribology and Oral Microbiota Biocorrosion Mechanisms. Journal of Functional Biomaterials, 2023, 14, 14.	1.8	7
469	Update on design and biomechanics of cervical disc arthroplasty. Seminars in Spine Surgery, 2023, 35, 101009.	0.1	2
470	3D printed poly(lactic acid)-based nanocomposite scaffolds with bioactive coatings for tissue engineering applications. Journal of Materials Science, 2023, 58, 2740-2763.	1.7	7
471	Mechanical Aspects of Implant Materials. Synthesis Lectures on Biomedical Engineering, 2023, , 93-180.	0.1	0
472	Synthesis and sintering studies of hydroxyapatite derived from biogenic waste materials. AIP Conference Proceedings, 2023, , .	0.3	1
473	Exogenous Protein Delivery of Ionic Liquid-Mediated HMGB1 Coating on Titanium Implants. Langmuir, 2023, 39, 2204-2217.	1.6	2
474	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
475	Surface Characterization of TiTaNbCuZr Coated Films and Its Enhanced Mechanical, Bio-Corrosion and Biocompatibility. Metals and Materials International, 2023, 29, 2398-2409.	1.8	0
476	Antibiotic Use in Dental Implant Procedures: A Systematic Review and Meta-Analysis. Medicina (Lithuania), 2023, 59, 713.	0.8	1
477	Influences of the Ag content on microstructures and properties of Znâ€“3Mgâ€“xAg alloy by spark plasma sintering. Journal of Materials Research and Technology, 2023, 24, 595-607.	2.6	1
478	Enhanced grain growth and dielectric properties in aerosol deposited BaTiO3. Journal of the European Ceramic Society, 2023, 43, 4386-4394.	2.8	5
479	Electromyographic Evaluation of Muscle Activity in Patients Rehabilitated with Full Arch Fixed Implant-Supported Prostheses. Medicina (Lithuania), 2023, 59, 299.	0.8	1
481	Functionalized Cortical Boneâ€Inspired Composites Adapt to the Mechanical and Biological Properties of the Edentulous Area to Resist Fretting Wear. Advanced Science, 2023, 10, .	5.6	3
482	Characteristics of Hybrid Bioglass-Chitosan Coatings on the Plasma Activated PEEK Polymer. Molecules, 2023, 28, 1729.	1.7	7
483	Investigation of the effect of wear behaviour of 3D printed electric arc sprayed 316L SS coated PLA parts. Materials Today: Proceedings, 2023, , .	0.9	0

#	Article	IF	Citations
484	Synthesis of bio-nanocomposite coating (silver-multi wall carbon nano tubes) by electroless plating method. Materials Today: Proceedings, 2023, , .	0.9	0
485	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
486	Geopolymer Materials for Bone Tissue Applications: Recent Advances and Future Perspectives. Polymers, 2023, 15, 1087.	2.0	10
487	Characterization of Solâ€“Gel Combustion Derived Akermanite and Merwinite for its Antibacterial Activity and Osteogenic Differentiation of Mesenchymal Stem Cells. Silicon, 2023, 15, 4397-4408.	1.8	1
488	Polyacrylamideâ€based hydrogel coatings improve biocompatibility of implanted pump devices. Journal of Biomedical Materials Research - Part A, 2023, 111, 910-920.	2.1	6
489	Lipid Deposition Profiles Influence Foreign Body Responses. Advanced Materials, 2023, 35, .	11.1	5
490	A computational analysis of a novel therapeutic approach combining an advanced medicinal therapeutic device and a fracture fixation assembly for the treatment of osteoporotic fractures: Effects of physiological loading, interface conditions, and fracture fixation materials. Medical Engineering and Physics, 2023, 114, 103967.	0.8	1
491	Initial surface roughness influence on the generation of LIPSS on titanium and stainless steel and their effect on cell/bacteria viability. , 2023, , .		0
492	Biodegradable Materials for Tissue Engineering: Development, Classification and Current Applications. Journal of Functional Biomaterials, 2023, 14, 159.	1.8	7
493	The effect of common dental fixtures on treatment planning and delivery for head and neck intensity modulated proton therapy. Journal of Applied Clinical Medical Physics, 2023, 24, .	0.8	2
494	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
495	Exploring the Influence of Biologically Relevant Ions on the Corrosion Behavior of Biodegradable Zinc in Physiological Fluids. ACS Biomaterials Science and Engineering, 2023, 9, 2301-2316.	2.6	3
496	Bi-layered metal-ceramic component for dental implants by spark plasma sintering. Materials Letters, 2023, 344, 134403.	1.3	3
511	Surface modifications of biomaterials in different applied fields. RSC Advances, 2023, 13, 20495-20511.	1.7	11
522	Superfunctional high-entropy alloys and ceramics by severe plastic deformation. Rare Metals, 2023, 42, 3246-3268.	3.6	3
526	Overview of Mechanics of Porous Dental Implants. , 2024, , 599-607.		0
536	Biomaterials in Drug Delivery Systems. Studies in Mechanobiology, Tissue Engineering and Biomaterials, 2023, , 291-332.	0.7	0
540	Advancement in Biomaterials in the Form of Implants. Engineering Materials, 2023, , 281-322.	0.3	0

#	Article	IF	Citations
544	Interactions between microbial cells and titanium implant surfaces. Methods in Microbiology, 2024, , 125-171.	0.4	0
551	Emerging Functionally Graded Materials for Bio-implant Applicationsâ€"Design and Manufacturing. , 2024, , 137-146.		1
553	Biomaterials and Their Applications for Bone Regeneration. , 2024, , 172-190.		0
555	Effect of Laser Irradiation Mode on L-PBF Ti6Al4V Thin Sections. Minerals, Metals and Materials Series, 2024, , 273-289.	0.3	0
556	Chemical multiscale robotics for bacterial biofilm treatment. Chemical Society Reviews, 2024, 53, 2284-2299.	18.7	1
567	The effect of surface roughness on hydroxyapatite deposition on titanium alloys. AIP Conference Proceedings, 2024, , .	0.3	0