

# Xuanyong Liu

## List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

208 papers	8,789 citations	50 h-index	84 g-index
219 ext. papers	10,450 ext. citations	8.2 avg, IF	6.47 L-index

#	Paper	IF	Citations
208	Antibacterial activity of large-area monolayer graphene film manipulated by charge transfer. <i>Scientific Reports</i> , <b>2014</b> , 4, 4359	4.9	281
207	Mechanism of apatite formation on wollastonite coatings in simulated body fluids. <i>Biomaterials</i> , <b>2004</b> , 25, 1755-61	15.6	280
206	Synergistic effects of dual Zn/Ag ion implantation in osteogenic activity and antibacterial ability of titanium. <i>Biomaterials</i> , <b>2014</b> , 35, 7699-713	15.6	276
205	Biological actions of silver nanoparticles embedded in titanium controlled by micro-galvanic effects. <i>Biomaterials</i> , <b>2011</b> , 32, 693-705	15.6	271
204	The synergistic effect of hierarchical micro/nano-topography and bioactive ions for enhanced osseointegration. <i>Biomaterials</i> , <b>2013</b> , 34, 3184-95	15.6	238
203	Osteogenic activity and antibacterial effects on titanium surfaces modified with Zn-incorporated nanotube arrays. <i>Biomaterials</i> , <b>2013</b> , 34, 3467-78	15.6	233
202	Surface nano-functionalization of biomaterials. <i>Materials Science and Engineering Reports</i> , <b>2010</b> , 70, 275-302	30.2	213
201	In vivo evaluation of plasma-sprayed wollastonite coating. <i>Biomaterials</i> , <b>2005</b> , 26, 3455-60	15.6	194
200	Apatite formed on the surface of plasma-sprayed wollastonite coating immersed in simulated body fluid. <i>Biomaterials</i> , <b>2001</b> , 22, 2007-12	15.6	193
199	Stimulation of bone growth following zinc incorporation into biomaterials. <i>Biomaterials</i> , <b>2014</b> , 35, 6882-93	15.6	191
198	In vitro and in vivo anti-biofilm effects of silver nanoparticles immobilized on titanium. <i>Biomaterials</i> , <b>2014</b> , 35, 9114-25	15.6	173
197	Osteogenic activity and antibacterial effect of zinc ion implanted titanium. <i>Colloids and Surfaces B: Biointerfaces</i> , <b>2014</b> , 117, 158-65	6	161
196	Enhanced osteointegration on tantalum-implanted polyetheretherketone surface with bone-like elastic modulus. <i>Biomaterials</i> , <b>2015</b> , 51, 173-183	15.6	152
195	Multifunctions of dual Zn/Mg ion co-implanted titanium on osteogenesis, angiogenesis and bacteria inhibition for dental implants. <i>Acta Biomaterialia</i> , <b>2017</b> , 49, 590-603	10.8	146
194	Influence of sulfur content on bone formation and antibacterial ability of sulfonated PEEK. <i>Biomaterials</i> , <b>2016</b> , 83, 115-26	15.6	127
193	Enhanced Corrosion Resistance and Biocompatibility of Magnesium Alloy by Mg-Al-Layered Double Hydroxide. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2016</b> , 8, 35033-35044	9.5	124
192	Surface modification of biodegradable magnesium and its alloys for biomedical applications. <i>International Journal of Energy Production and Management</i> , <b>2015</b> , 2, 135-51	5.3	108

191	Bioactive calcium silicate ceramics and coatings. <i>Biomedicine and Pharmacotherapy</i> , <b>2008</b> , 62, 526-9	7.5	107
190	Electron storage mediated dark antibacterial action of bound silver nanoparticles: smaller is not always better. <i>Acta Biomaterialia</i> , <b>2013</b> , 9, 5100-10	10.8	102
189	Plasma-treated nanostructured TiO(2) surface supporting biomimetic growth of apatite. <i>Biomaterials</i> , <b>2005</b> , 26, 6143-50	15.6	102
188	A strontium-incorporated nanoporous titanium implant surface for rapid osseointegration. <i>Nanoscale</i> , <b>2016</b> , 8, 5291-301	7.7	100
187	Enhanced Osseointegration of Hierarchical Micro/Nanotopographic Titanium Fabricated by Microarc Oxidation and Electrochemical Treatment. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2016</b> , 8, 3840-52	8.5	99
186	Surface modification of biomaterials using plasma immersion ion implantation and deposition. <i>Interface Focus</i> , <b>2012</b> , 2, 325-36	3.9	96
185	Bioactivity and cytocompatibility of zirconia (ZrO(2)) films fabricated by cathodic arc deposition. <i>Biomaterials</i> , <b>2006</b> , 27, 3904-11	15.6	92
184	Plasma sprayed wollastonite/TiO2 composite coatings on titanium alloys. <i>Biomaterials</i> , <b>2002</b> , 23, 4065-77	15.6	92
183	Improvement of surface bioactivity on titanium by water and hydrogen plasma immersion ion implantation. <i>Biomaterials</i> , <b>2005</b> , 26, 6129-35	15.6	88
182	Antibacterial Surface Design of Titanium-Based Biomaterials for Enhanced Bacteria-Killing and Cell-Assisting Functions Against Periprosthetic Joint Infection. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2016</b> , 8, 11162-78	9.5	83
181	Surface thermal oxidation on titanium implants to enhance osteogenic activity and in vivo osseointegration. <i>Scientific Reports</i> , <b>2016</b> , 6, 31769	4.9	78
180	Zn/Ag micro-galvanic couples formed on titanium and osseointegration effects in the presence of <i>S. aureus</i> . <i>Biomaterials</i> , <b>2015</b> , 65, 22-31	15.6	76
179	UV-irradiation-induced bioactivity on TiO2 coatings with nanostructural surface. <i>Acta Biomaterialia</i> , <b>2008</b> , 4, 544-52	10.8	73
178	Calcium Plasma Implanted Titanium Surface with Hierarchical Microstructure for Improving the Bone Formation. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2015</b> , 7, 13053-61	9.5	72
177	Silver-nanoparticles-modified biomaterial surface resistant to staphylococcus: new insight into the antimicrobial action of silver. <i>Scientific Reports</i> , <b>2016</b> , 6, 32699	4.9	68
176	Selective responses of human gingival fibroblasts and bacteria on carbon fiber reinforced polyetheretherketone with multilevel nanostructured TiO2. <i>Biomaterials</i> , <b>2016</b> , 83, 207-18	15.6	66
175	Multilevel surface engineering of nanostructured TiO2 on carbon-fiber-reinforced polyetheretherketone. <i>Biomaterials</i> , <b>2014</b> , 35, 5731-40	15.6	64
174	Antimicrobial activity and cytocompatibility of Ag plasma-modified hierarchical TiO2 film on titanium surface. <i>Colloids and Surfaces B: Biointerfaces</i> , <b>2014</b> , 113, 134-45	6	64

173	Antibacterial property, angiogenic and osteogenic activity of Cu-incorporated TiO coating. <i>Journal of Materials Chemistry B</i> , <b>2014</b> , 2, 6738-6748	7.3	62
172	Effects of a hybrid micro/nanorod topography-modified titanium implant on adhesion and osteogenic differentiation in rat bone marrow mesenchymal stem cells. <i>International Journal of Nanomedicine</i> , <b>2013</b> , 8, 257-65	7.3	62
171	Plasma-sprayed CaTiSiO <sub>5</sub> ceramic coating on Ti-6Al-4V with excellent bonding strength, stability and cellular bioactivity. <i>Journal of the Royal Society Interface</i> , <b>2009</b> , 6, 159-68	4.1	62
170	Balancing the Osteogenic and Antibacterial Properties of Titanium by Codoping of Mg and Ag: An in Vitro and in Vivo Study. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2015</b> , 7, 17826-36	9.5	58
169	Antimicrobial and osteogenic properties of silver-ion-implanted stainless steel. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2015</b> , 7, 10785-94	9.5	58
168	Enhanced Bioactivity and Bacteriostasis of Surface Fluorinated Polyetheretherketone. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2017</b> , 9, 16824-16833	9.5	57
167	Biofunctionalization of a titanium surface with a nano-sawtooth structure regulates the behavior of rat bone marrow mesenchymal stem cells. <i>International Journal of Nanomedicine</i> , <b>2012</b> , 7, 4459-72	7.3	56
166	Plasmonic gold nanoparticles modified titania nanotubes for antibacterial application. <i>Applied Physics Letters</i> , <b>2014</b> , 104, 261110	3.4	55
165	Layer-Number Dependent Antibacterial and Osteogenic Behaviors of Graphene Oxide Electrophoretic Deposited on Titanium. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2017</b> , 9, 12253-12263	9.5	54
164	Oxidative stress-mediated selective antimicrobial ability of nano-VO <sub>2</sub> against Gram-positive bacteria for environmental and biomedical applications. <i>Nanoscale</i> , <b>2016</b> , 8, 11907-23	7.7	54
163	Effect of Local Alkaline Microenvironment on the Behaviors of Bacteria and Osteogenic Cells. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2018</b> , 10, 42018-42029	9.5	54
162	In vitro and in vivo responses of macrophages to magnesium-doped titanium. <i>Scientific Reports</i> , <b>2017</b> , 7, 42707	4.9	52
161	Butyrate-inserted NiTi layered double hydroxide film for H <sub>2</sub> O <sub>2</sub> -mediated tumor and bacteria killing. <i>Materials Today</i> , <b>2017</b> , 20, 238-257	21.8	52
160	Morphology of apatite formed on surface of wollastonite coating soaked in simulate body fluid. <i>Materials Letters</i> , <b>2002</b> , 57, 652-655	3.3	52
159	Antimicrobial and osteogenic effect of Ag-implanted titanium with a nanostructured surface. <i>International Journal of Nanomedicine</i> , <b>2012</b> , 7, 875-84	7.3	51
158	Sealing the Pores of PEO Coating with Mg-Al Layered Double Hydroxide: Enhanced Corrosion Resistance, Cytocompatibility and Drug Delivery Ability. <i>Scientific Reports</i> , <b>2017</b> , 7, 8167	4.9	49
157	CVD Growth of Graphene on NiTi Alloy for Enhanced Biological Activity. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2015</b> , 7, 19876-81	9.5	48
156	Antibacterial activity and cytocompatibility of titanium oxide coating modified by iron ion implantation. <i>Acta Biomaterialia</i> , <b>2014</b> , 10, 4505-17	10.8	48

155	Layered double hydroxide/poly-dopamine composite coating with surface heparinization on Mg alloys: improved anticorrosion, endothelialization and hemocompatibility. <i>Biomaterials Science</i> , <b>2018</b> , 6, 1846-1858	7.4	47
154	Immunomodulatory Effects of Calcium and Strontium Co-Doped Titanium Oxides on Osteogenesis. <i>Frontiers in Immunology</i> , <b>2017</b> , 8, 1196	8.4	46
153	PEO/Mg-Zn-Al LDH Composite Coating on Mg Alloy as a Zn/Mg Ion-Release Platform with Multifunctions: Enhanced Corrosion Resistance, Osteogenic, and Antibacterial Activities. <i>ACS Biomaterials Science and Engineering</i> , <b>2018</b> , 4, 4112-4121	5.5	46
152	Osteogenesis Catalyzed by Titanium-Supported Silver Nanoparticles. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2017</b> , 9, 5149-5157	9.5	45
151	Hierarchical micro/nanostructured titanium with balanced actions to bacterial and mammalian cells for dental implants. <i>International Journal of Nanomedicine</i> , <b>2015</b> , 10, 6659-74	7.3	45
150	Plasma surface modification of titanium for hard tissue replacements. <i>Surface and Coatings Technology</i> , <b>2004</b> , 186, 227-233	4.4	45
149	Enhanced apatite-forming ability and cytocompatibility of porous and nanostructured TiO <sub>2</sub> /CaSiO <sub>3</sub> coating on titanium. <i>Colloids and Surfaces B: Biointerfaces</i> , <b>2013</b> , 101, 83-90	6	44
148	Acid-induced bioactive titania surface. <i>Journal of Biomedical Materials Research - Part A</i> , <b>2005</b> , 75, 888-945	5.4	43
147	M2 macrophages contribute to osteogenesis and angiogenesis on nanotubular TiO surfaces. <i>Journal of Materials Chemistry B</i> , <b>2017</b> , 5, 3364-3376	7.3	42
146	In vitro degradation behavior and cytocompatibility of biodegradable AZ31 alloy with PEO/HT composite coating. <i>Colloids and Surfaces B: Biointerfaces</i> , <b>2015</b> , 128, 44-54	6	42
145	Multifunctional Mn-containing titania coatings with enhanced corrosion resistance, osteogenesis and antibacterial activity. <i>Journal of Materials Chemistry B</i> , <b>2014</b> , 2, 5397-5408	7.3	42
144	Proliferation and gene expression of osteoblasts cultured in DMEM containing the ionic products of dicalcium silicate coating. <i>Biomedicine and Pharmacotherapy</i> , <b>2009</b> , 63, 650-7	7.5	42
143	Enhanced osteoblast responses to poly ether ether ketone surface modified by water plasma immersion ion implantation. <i>Colloids and Surfaces B: Biointerfaces</i> , <b>2014</b> , 117, 89-97	6	41
142	Hemocompatibility and selective cell fate of polydopamine-assisted heparinized PEO/PLLA composite coating on biodegradable AZ31 alloy. <i>Colloids and Surfaces B: Biointerfaces</i> , <b>2014</b> , 121, 451-60 <sup>6</sup>	6	40
141	Silicon-Doped Titanium Dioxide Nanotubes Promoted Bone Formation on Titanium Implants. <i>International Journal of Molecular Sciences</i> , <b>2016</b> , 17, 292	6.3	40
140	Multifunctional sulfonated polyetheretherketone coating with beta-defensin-14 for yielding durable and broad-spectrum antibacterial activity and osseointegration. <i>Acta Biomaterialia</i> , <b>2019</b> , 86, 323-337	10.8	40
139	Protection of magnesium alloys: From physical barrier coating to smart self-healing coating. <i>Journal of Alloys and Compounds</i> , <b>2021</b> , 853, 157010	5.7	40
138	How Oxygen-Containing Groups on Graphene Influence the Antibacterial Behaviors. <i>Advanced Materials Interfaces</i> , <b>2017</b> , 4, 1700228	4.6	39

- 137 In vitro degradation, hemolysis, and cytocompatibility of PEO/PLLA composite coating on biodegradable AZ31 alloy. *Journal of Biomedical Materials Research - Part B Applied Biomaterials*, **2015**, 103, 342-54 3.5 39
- 136 Activating titanium oxide coatings for orthopedic implants. *Surface and Coatings Technology*, **2013**, 233, 57-64 4.4 39
- 135 Biomimetic growth of apatite on hydrogen-implanted silicon. *Biomaterials*, **2004**, 25, 5575-81 15.6 39
- 134 Characterization of plasma sprayed wollastonite powder and coatings. *Surface and Coatings Technology*, **2002**, 153, 173-177 4.4 39
- 133 Alkali-treated titanium selectively regulating biological behaviors of bacteria, cancer cells and mesenchymal stem cells. *Journal of Colloid and Interface Science*, **2014**, 436, 160-70 9.3 38
- 132 Tantalum implanted entangled porous titanium promotes surface osseointegration and bone ingrowth. *Scientific Reports*, **2016**, 6, 26248 4.9 37
- 131 Enhanced bioactivity and bacteriostasis effect of TiO<sub>2</sub> nanofilms with favorable biomimetic architectures on titanium surface. *RSC Advances*, **2013**, 3, 11214 3.7 36
- 130 Dose-response relationships between copper and its biocompatibility/antibacterial activities. *Journal of Trace Elements in Medicine and Biology*, **2019**, 55, 127-135 4.1 35
- 129 Cytocompatibility and antibacterial activity of titania nanotubes incorporated with gold nanoparticles. *Colloids and Surfaces B: Biointerfaces*, **2016**, 145, 597-606 6 35
- 128 Antibacterial ability and hemocompatibility of graphene functionalized germanium. *Scientific Reports*, **2016**, 6, 37474 4.9 35
- 127 Mn-containing titanium surface with favorable osteogenic and antimicrobial functions synthesized by PIII&D. *Colloids and Surfaces B: Biointerfaces*, **2017**, 152, 376-384 6 34
- 126 Nanostructural Surfaces with Different Elastic Moduli Regulate the Immune Response by Stretching Macrophages. *Nano Letters*, **2019**, 19, 3480-3489 11.5 34
- 125 Microstructure and properties of Ag/N dual ions implanted titanium. *Surface and Coatings Technology*, **2011**, 205, 5430-5436 4.4 34
- 124 Minocycline hydrochloride loaded on titanium by graphene oxide: an excellent antibacterial platform with the synergistic effect of contact-killing and release-killing. *Biomaterials Science*, **2018**, 6, 304-313 7.4 34
- 123 Combination types between graphene oxide and substrate affect the antibacterial activity. *Bioactive Materials*, **2018**, 3, 341-346 16.7 34
- 122 Selective Tumor Cell Inhibition Effect of Ni-Ti Layered Double Hydroxides Thin Films Driven by the Reversed pH Gradients of Tumor Cells. *ACS Applied Materials & Interfaces*, **2015**, 7, 7843-54 9.5 33
- 121 Bifunctional galvanics mediated selective toxicity on titanium. *Materials Horizons*, **2018**, 5, 264-267 14.4 33
- 120 In vitro bioactivity and phase stability of plasma-sprayed nanostructured 3Y-TZP coatings. *Acta Biomaterialia*, **2009**, 5, 2270-8 10.8 33

119	Peroxidase-Like Activity of Ethylene Diamine Tetraacetic Acid and Its Application for Ultrasensitive Detection of Tumor Biomarkers and Circular Tumor Cells. <i>Analytical Chemistry</i> , <b>2017</b> , 89, 666-672	7.8	32
118	Vacuum extraction enhances rhPDGF-BB immobilization on nanotubes to improve implant osseointegration in ovariectomized rats. <i>Nanomedicine: Nanotechnology, Biology, and Medicine</i> , <b>2014</b> , 10, 1809-18	6	32
117	Osteogenesis, angiogenesis and immune response of Mg-Al layered double hydroxide coating on pure Mg. <i>Bioactive Materials</i> , <b>2021</b> , 6, 91-105	16.7	32
116	Chemically regulated bioactive ion delivery platform on a titanium surface for sustained controlled release. <i>Journal of Materials Chemistry B</i> , <b>2014</b> , 2, 283-294	7.3	31
115	Strontium delivery on topographical titanium to enhance bioactivity and osseointegration in osteoporotic rats. <i>Journal of Materials Chemistry B</i> , <b>2015</b> , 3, 4790-4804	7.3	30
114	Reactivity of plasma-sprayed wollastonite coating in simulated body fluid. <i>Journal of Biomedical Materials Research Part B</i> , <b>2002</b> , 59, 259-64		29
113	Dissolution and mineralization of plasma-sprayed wollastonite coatings with different crystallinity. <i>Surface and Coatings Technology</i> , <b>2005</b> , 200, 2420-2427	4.4	29
112	Plasma-sprayed wollastonite 2M/ZrO <sub>2</sub> composite coating. <i>Surface and Coatings Technology</i> , <b>2003</b> , 172, 270-278	4.4	28
111	Antibacterial activity, osteogenic and angiogenic behaviors of copper-bearing titanium synthesized by PIII&D. <i>Journal of Materials Chemistry B</i> , <b>2016</b> , 4, 1296-1309	7.3	28
110	In Vitro and in Vivo Evaluation of Silicate-Coated Polyetheretherketone Fabricated by Electron Beam Evaporation. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2016</b> , 8, 13197-206	9.5	28
109	Controllable and durable release of BMP-2-loaded 3D porous sulfonated polyetheretherketone (PEEK) for osteogenic activity enhancement. <i>Colloids and Surfaces B: Biointerfaces</i> , <b>2018</b> , 171, 668-674	6	27
108	Plasma-Sprayed Ceramic Coatings for Osseointegration. <i>International Journal of Applied Ceramic Technology</i> , <b>2013</b> , 10, 1-10	2	27
107	Enhanced osteogenic activity of poly ether ether ketone using calcium plasma immersion ion implantation. <i>Colloids and Surfaces B: Biointerfaces</i> , <b>2016</b> , 142, 192-198	6	26
106	Light-induced bioactive TiO <sub>2</sub> surface. <i>Applied Physics Letters</i> , <b>2006</b> , 88, 013905	3.4	26
105	Nucleation and growth of calcium phosphate on Ca-implanted titanium surface. <i>Surface Science</i> , <b>2006</b> , 600, 651-656	1.8	25
104	Bioconductivity and mechanical properties of plasma-sprayed dicalcium silicate/zirconia composite coating. <i>Materials Science and Engineering C</i> , <b>2005</b> , 25, 509-515	8.3	25
103	Early apatite deposition and osteoblast growth on plasma-sprayed dicalcium silicate coating. <i>Journal of Biomedical Materials Research - Part A</i> , <b>2005</b> , 74, 356-65	5.4	25
102	Dual ions implantation of zirconium and nitrogen into magnesium alloys for enhanced corrosion resistance, antimicrobial activity and biocompatibility. <i>Colloids and Surfaces B: Biointerfaces</i> , <b>2016</b> , 148, 200-210	6	25



101	Enhanced physicochemical and biological properties of C/Cu dual ions implanted medical titanium. <i>Bioactive Materials</i> , <b>2020</b> , 5, 377-386	16.7	24
100	Ag-plasma modification enhances bone apposition around titanium dental implants: an animal study in Labrador dogs. <i>International Journal of Nanomedicine</i> , <b>2015</b> , 10, 653-64	7.3	24
99	Assembled gold nanorods for the photothermal killing of bacteria. <i>Colloids and Surfaces B: Biointerfaces</i> , <b>2019</b> , 173, 833-841	6	24
98	Regulating the local pH level of titanium via Mg-Fe layered double hydroxides films for enhanced osteogenesis. <i>Biomaterials Science</i> , <b>2018</b> , 6, 1227-1237	7.4	23
97	Existence, release, and antibacterial actions of silver nanoparticles on Ag-PIII TiO <sub>2</sub> films with different nanotopographies. <i>International Journal of Nanomedicine</i> , <b>2014</b> , 9, 3389-402	7.3	23
96	Regulation of extracellular bioactive cations in bone tissue microenvironment induces favorable osteoimmune conditions to accelerate bone regeneration. <i>Bioactive Materials</i> , <b>2021</b> , 6, 2315-2330	16.7	23
95	Smart release of doxorubicin loaded on polyetheretherketone (PEEK) surface with 3D porous structure. <i>Colloids and Surfaces B: Biointerfaces</i> , <b>2018</b> , 163, 175-183	6	22
94	Spacing-Dependent Antimicrobial Efficacy of Immobilized Silver Nanoparticles. <i>Journal of Physical Chemistry Letters</i> , <b>2014</b> , 5, 743-8	6.4	22
93	Three-dimensional porous graphene nanosheets synthesized on the titanium surface for osteogenic differentiation of rat bone mesenchymal stem cells. <i>Carbon</i> , <b>2017</b> , 125, 227-235	10.4	22
92	NIR-Triggered Crystal Phase Transformation of NiTi-Layered Double Hydroxides Films for Localized Chemothermal Tumor Therapy. <i>Advanced Science</i> , <b>2018</b> , 5, 1700782	13.6	21
91	A surface-engineered multifunctional TiO <sub>2</sub> based nano-layer simultaneously elevates the corrosion resistance, osteoconductivity and antimicrobial property of a magnesium alloy. <i>Acta Biomaterialia</i> , <b>2019</b> , 99, 495-513	10.8	20
90	Selective biofunctional modification of titanium implants for osteogenic and antibacterial applications. <i>Journal of Materials Chemistry B</i> , <b>2014</b> , 2, 7475-7487	7.3	20
89	A facile and universal strategy to endow implant materials with antibacterial ability via alkalinity disturbing bacterial respiration. <i>Biomaterials Science</i> , <b>2020</b> , 8, 1815-1829	7.4	20
88	Antibacterial ability, cytocompatibility and hemocompatibility of fluorinated graphene. <i>Colloids and Surfaces B: Biointerfaces</i> , <b>2019</b> , 173, 681-688	6	20
87	In-situ growth of layered double hydroxide films on biomedical magnesium alloy by transforming metal oxyhydroxide. <i>Applied Surface Science</i> , <b>2019</b> , 496, 143690	6.7	19
86	Bioconductivity of plasma sprayed dicalcium silicate/titanium composite coatings on Ti6Al4V alloy. <i>Surface and Coatings Technology</i> , <b>2005</b> , 199, 105-111	4.4	19
85	Poly(styrenesulfonate)-Modified Ni-Ti Layered Double Hydroxide Film: A Smart Drug-Eluting Platform. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2016</b> , 8, 24491-501	9.5	19
84	Bioactivity and cytocompatibility of plasma-sprayed titania coating treated by sulfuric acid treatment. <i>Surface and Coatings Technology</i> , <b>2008</b> , 202, 3221-3226	4.4	18



83	Molybdenum disulfide (MoS <sub>2</sub> ) nanosheets vertically coated on titanium for disinfection in the dark. <i>Arabian Journal of Chemistry</i> , <b>2020</b> , 13, 1612-1623	5.9	18
82	The prospect of layered double hydroxide as bone implants: A study of mechanical properties, cytocompatibility and antibacterial activity. <i>Applied Clay Science</i> , <b>2018</b> , 165, 179-187	5.2	17
81	Self-adjusting antibacterial properties of Ag-incorporated nanotubes on micro-nanostructured Ti surfaces. <i>Biomaterials Science</i> , <b>2019</b> , 7, 4075-4087	7.4	16
80	Co-implantation of magnesium and zinc ions into titanium regulates the behaviors of human gingival fibroblasts. <i>Bioactive Materials</i> , <b>2021</b> , 6, 64-74	16.7	16
79	Enhanced tendon to bone healing in rotator cuff tear by PLLA/CPS composite films prepared by a simple melt-pressing method: An in vitro and in vivo study. <i>Composites Part B: Engineering</i> , <b>2019</b> , 165, 526-536	10	15
78	Nano-thick calcium oxide armed titanium: boosts bone cells against methicillin-resistant <i>Staphylococcus aureus</i> . <i>Scientific Reports</i> , <b>2016</b> , 6, 21761	4.9	15
77	Sodium butyrate-modified sulfonated polyetheretherketone modulates macrophage behavior and shows enhanced antibacterial and osteogenic functions during implant-associated infections. <i>Journal of Materials Chemistry B</i> , <b>2019</b> , 7, 5541-5553	7.3	15
76	Bioactive titanium-particle-containing dicalcium silicate coating. <i>Surface and Coatings Technology</i> , <b>2005</b> , 200, 1950-1953	4.4	15
75	Antibacterial activity of an NIR-induced Zn ion release film. <i>Journal of Materials Chemistry B</i> , <b>2020</b> , 8, 406-415	7.3	15
74	ZnO@ZnS nanorod-array coated titanium: Good to fibroblasts but bad to bacteria. <i>Journal of Colloid and Interface Science</i> , <b>2020</b> , 579, 50-60	9.3	14
73	Graphene oxide as a dual Zn/Mg ion carrier and release platform: enhanced osteogenic activity and antibacterial properties. <i>Journal of Materials Chemistry B</i> , <b>2018</b> , 6, 2004-2012	7.3	14
72	Achieving stem cell imaging and osteogenic differentiation by using nitrogen doped graphene quantum dots. <i>Journal of Materials Science: Materials in Medicine</i> , <b>2018</b> , 29, 85	4.5	14
71	Hydrogen plasma surface activation of silicon for biomedical applications. <i>New Biotechnology</i> , <b>2007</b> , 24, 113-7		14
70	Synergistic effects of immunoregulation and osteoinduction of ds-block elements on titanium surface. <i>Bioactive Materials</i> , <b>2021</b> , 6, 191-207	16.7	14
69	Proliferation and differentiation of osteoblastic cells on silicon-doped TiO <sub>2</sub> film deposited by cathodic arc. <i>Biomedicine and Pharmacotherapy</i> , <b>2012</b> , 66, 633-41	7.5	13
68	Antimicrobial activity of tantalum oxide coatings decorated with Ag nanoparticles. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , <b>2016</b> , 34, 04C102	2.9	13
67	Sequential activation of heterogeneous macrophage phenotypes is essential for biomaterials-induced bone regeneration. <i>Biomaterials</i> , <b>2021</b> , 276, 121038	15.6	13
66	Pravastatin regulates host foreign-body reaction to polyetheretherketone implants via miR-29ab1-mediated SLIT3 upregulation. <i>Biomaterials</i> , <b>2019</b> , 203, 12-22	15.6	12

65	Graphene film-functionalized germanium as a chemically stable, electrically conductive, and biologically active substrate. <i>Journal of Materials Chemistry B</i> , <b>2015</b> , 3, 1544-1555	7.3	12
64	Betal effectInspired superhydrophobic and highly adhesive coating on magnesium with enhanced corrosion resistance and biocompatibility. <i>Science China Materials</i> , <b>2018</b> , 61, 629-642	7.1	12
63	Recent progress in superhydrophobic coating on Mg alloys: A general review. <i>Journal of Magnesium and Alloys</i> , <b>2021</b> , 9, 1471-1486	8.8	12
62	Improved in vitro angiogenic behavior of human umbilical vein endothelial cells with oxidized polydopamine coating. <i>Colloids and Surfaces B: Biointerfaces</i> , <b>2020</b> , 194, 111176	6	11
61	rBMSC and bacterial responses to isoelastic carbon fiber-reinforced poly(ether-ether-ketone) modified by zirconium implantation. <i>Journal of Materials Chemistry B</i> , <b>2016</b> , 4, 96-104	7.3	11
60	Synergistic Effects of N/Cu Dual Ions Implantation on Stimulating Antibacterial Ability and Angiogenic Activity of Titanium. <i>ACS Biomaterials Science and Engineering</i> , <b>2018</b> , 4, 3185-3193	5.5	11
59	Si-doped porous TiO coatings enhanced in vitro angiogenic behavior of human umbilical vein endothelial cells. <i>Colloids and Surfaces B: Biointerfaces</i> , <b>2017</b> , 159, 493-500	6	11
58	Cellular responses to titanium successively treated by magnesium and silver PIII&D. <i>Surface and Coatings Technology</i> , <b>2014</b> , 256, 9-14	4.4	11
57	Enhanced corrosion resistance and biocompatibility of magnesium alloy by hydroxyapatite/graphene oxide bilayer coating. <i>Materials Letters</i> , <b>2020</b> , 264, 127322	3.3	11
56	Minocycline hydrochloride-loaded graphene oxide films on implant abutments for peri-implantitis treatment in beagle dogs. <i>Journal of Periodontology</i> , <b>2020</b> , 91, 792-799	4.6	11
55	Band Gap Engineering of Titania Film through Cobalt Regulation for Oxidative Damage of Bacterial Respiration and Viability. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2017</b> , 9, 27475-27490	9.5	10
54	A tailored positively-charged hydrophobic surface reduces the risk of implant associated infections. <i>Acta Biomaterialia</i> , <b>2020</b> , 114, 421-430	10.8	10
53	Biocompatibility and bone regeneration of PEO/Mg-Al LDH-coated pure Mg: an in vitro and in vivo study. <i>Science China Materials</i> , <b>2021</b> , 64, 460-473	7.1	10
52	Synergistic effects of titania nanotubes and silicon to enhance the osteogenic activity. <i>Colloids and Surfaces B: Biointerfaces</i> , <b>2018</b> , 171, 419-426	6	9
51	Regulation of Ce (III) / Ce (IV) ratio of cerium oxide for antibacterial application. <i>IScience</i> , <b>2021</b> , 24, 102226	10.1	9
50	Corrosion Behavior and Biocompatibility of Diamond-like Carbon-Coated Zinc: An In Vitro Study. <i>ACS Omega</i> , <b>2021</b> , 6, 9843-9851	3.9	9
49	Enhanced osteogenic and selective antibacterial activities on micro-/nano-structured carbon fiber reinforced polyetheretherketone. <i>Journal of Materials Chemistry B</i> , <b>2016</b> , 4, 2944-2953	7.3	9
48	Multi-scale hybrid modified coatings on titanium implants for non-cytotoxicity and antibacterial properties. <i>Nanoscale</i> , <b>2021</b> , 13, 10587-10599	7.7	9

47	A Novel Stimuli-Responsive Injectable Antibacterial Hydrogel to Achieve Synergetic Photothermal/Gene-Targeted Therapy towards Uveal Melanoma. <i>Advanced Science</i> , <b>2021</b> , 8, e2004721	13.6	9
46	Nano Textured PEEK Surface for Enhanced Osseointegration. <i>ACS Biomaterials Science and Engineering</i> , <b>2019</b> , 5, 1279-1289	5.5	8
45	Cytocompatibility of Si-incorporated TiO <sub>2</sub> nanopores films. <i>Colloids and Surfaces B: Biointerfaces</i> , <b>2015</b> , 133, 214-20	6	8
44	Vacuum-plasma-sprayed silicon coatings for biomedical application. <i>Materials Science and Engineering C</i> , <b>2008</b> , 28, 1132-1137	8.3	8
43	Surface alloyed TiZr layer constructed on titanium by Zr ion implantation for improving physicochemical and osteogenic properties. <i>Progress in Natural Science: Materials International</i> , <b>2020</b> , 30, 635-641	3.6	8
42	Regulating corrosion reactions to enhance the anti-corrosion and self-healing abilities of PEO coating on magnesium. <i>Corrosion Science</i> , <b>2021</b> , 192, 109840	6.8	8
41	Corrosion Motivated ROS Generation Helps Endow Titanium with Broad-Spectrum Antibacterial Abilities. <i>Advanced Materials Interfaces</i> , <b>2019</b> , 6, 1900514	4.6	7
40	Biomedical Implants with Charge-Transfer Monitoring and Regulating Abilities. <i>Advanced Science</i> , <b>2021</b> , 8, e2004393	13.6	7
39	Schottky barrier dependent antimicrobial efficacy of silver nanoparticles. <i>Materials Letters</i> , <b>2016</b> , 179, 1-4	3.3	7
38	Why does nitrogen-doped graphene oxide lose the antibacterial activity?. <i>Journal of Materials Science and Technology</i> , <b>2021</b> , 62, 44-51	9.1	7
37	Micro- and Nanohemispherical 3D Imprints Modulate the Osteogenic Differentiation and Mineralization Tendency of Bone Cells. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2019</b> , 11, 35513-35524	9.5	6
36	Enhanced osteogenic activity and bacteriostatic effect of TiO <sub>2</sub> coatings via hydrogen ion implantation. <i>Materials Letters</i> , <b>2019</b> , 253, 95-98	3.3	6
35	Gold/SH-functionalized nanographene oxide/polyamidamine/poly(ethylene glycol) nanocomposites for enhanced non-enzymatic hydrogen peroxide detection. <i>Biomaterials Science</i> , <b>2020</b> , 8, 6037-6044	7.4	6
34	Antimicrobial and osteogenic properties of iron-doped titanium. <i>RSC Advances</i> , <b>2016</b> , 6, 46495-46507	3.7	6
33	Minocycline hydrochloride loaded graphene oxide enables enhanced osteogenic activity in the presence of Gram-positive bacteria, Staphylococcus aureus. <i>Journal of Materials Chemistry B</i> , <b>2019</b> , 7, 3590-3598	7.3	5
32	Nanoporous SiO <sub>2</sub> /TiO <sub>2</sub> composite coating for orthopedic application. <i>Materials Letters</i> , <b>2015</b> , 152, 53-56	5.3	5
31	Influence of implantation voltage on the biological properties of zinc-implanted titanium. <i>Surface and Coatings Technology</i> , <b>2017</b> , 312, 75-80	4.4	5
30	A lithium-doped surface inspires immunomodulatory functions for enhanced osteointegration through PI3K/AKT signaling axis regulation. <i>Biomaterials Science</i> , <b>2021</b> , 9, 8202-8220	7.4	5

29	Mg-Fe LDH sealed PEO coating on magnesium for biodegradation control, antibacteria and osteogenesis. <i>Journal of Materials Science and Technology</i> , <b>2022</b> , 105, 57-67	9.1	5
28	Antibacterial Property and Biocompatibility of Polypyrrole Films Treated by Oxygen Plasma Immersion Ion Implantation. <i>Advanced Materials Interfaces</i> , <b>2020</b> , 7, 2000057	4.6	4
27	Mechanism of apatite formation on silicon suboxide film prepared by pulsed metal vacuum arc deposition. <i>Materials Chemistry and Physics</i> , <b>2008</b> , 109, 342-346	4.4	4
26	Tailoring Time-varying Alkaline Microenvironment on Titanium for Sequential Anti-infection and Osseointegration. <i>Chemical Engineering Journal</i> , <b>2021</b> , 431, 133940	14.7	4
25	Regulating the Behavior of Human Gingival Fibroblasts by sp Domains in Reduced Graphene Oxide. <i>ACS Biomaterials Science and Engineering</i> , <b>2019</b> , 5, 6414-6424	5.5	3
24	Strontium ranelate incorporated 3D porous sulfonated PEEK simulating MC3T3-E1 cell differentiation. <i>International Journal of Energy Production and Management</i> , <b>2021</b> , 8, rbaa043	5.3	3
23	Tuning the surface potential to reprogram immune microenvironment for bone regeneration.. <i>Biomaterials</i> , <b>2022</b> , 282, 121408	15.6	3
22	Self-assembled ferric oxyhydroxide nanosheet on PEO-coated magnesium alloy with photocatalytic/photothermal antibacterial and enhanced osteogenesis activities. <i>Chemical Engineering Journal</i> , <b>2022</b> , 437, 135257	14.7	3
21	Hydroxyapatite composited PEEK with 3D porous surface enhances osteoblast differentiation through mediating NO by macrophage.. <i>International Journal of Energy Production and Management</i> , <b>2022</b> , 9, rbab076	5.3	3
20	An in vitro and in vivo comparison of Mg(OH)-, MgF- and HA-coated Mg in degradation and osteointegration. <i>Biomaterials Science</i> , <b>2020</b> , 8, 3320-3333	7.4	2
19	Nanoporous SiO <sub>2</sub> /TiO <sub>2</sub> coating with enhanced interfacial compatibility for orthopedic applications. <i>Applied Surface Science</i> , <b>2015</b> , 355, 999-1006	6.7	2
18	Black Mn-containing layered double hydroxide coated magnesium alloy for osteosarcoma therapy, bacteria killing, and bone regeneration.. <i>Bioactive Materials</i> , <b>2022</b> , 17, 394-405	16.7	2
17	In-situ growth of vertical graphene on titanium by PECVD for rapid sterilization under near-infrared light. <i>Carbon</i> , <b>2022</b> , 192, 209-218	10.4	2
16	Responses of rat bone marrow mesenchymal stem cells to graphene oxide films with different alkali treatment. <i>Journal of Materials Research and Technology</i> , <b>2019</b> , 8, 5344-5347	5.5	1
15	Durability of Titanium/Dicalcium Silicate Composite Coatings in Simulated Body Fluid. <i>Journal of Thermal Spray Technology</i> , <b>2007</b> , 16, 588-592	2.5	1
14	Constructing fluorine-doped Zr-MOF films on titanium for antibacteria, anti-inflammation, and osteogenesis.. <i>Materials Science and Engineering C</i> , <b>2022</b> , 112699	8.3	1
13	A tightly bonded reduced graphene oxide coating on magnesium alloy with photothermal effect for tumor therapy. <i>Journal of Magnesium and Alloys</i> , <b>2021</b> ,	8.8	1
12	Restoring the osteogenic activity of bacterial debris contaminated titanium by doping with magnesium. <i>RSC Advances</i> , <b>2016</b> , 6, 113395-113404	3.7	1

11	Cell-selective titanium oxide coatings mediated by coupling hafnium-doping and UV pre-illumination. <i>Arabian Journal of Chemistry</i> , <b>2020</b> , 13, 4210-4217	5.9	1
10	Thermo-sensitive hydrogel on anodized titanium surface to regulate immune response. <i>Surface and Coatings Technology</i> , <b>2021</b> , 405, 126624	4.4	1
9	Enhanced antioxidant capability and osteogenic property of medical titanium by cerium plasma immersion ion implantation. <i>Surfaces and Interfaces</i> , <b>2021</b> , 26, 101402	4.1	1
8	Preparation of PEG/ZIF-8@HF drug delivery system for melanoma treatment via oral administration.. <i>Drug Delivery</i> , <b>2022</b> , 29, 1075-1085	7	1
7	Mechanical Force Induced Self-Assembly of Chinese Herbal Hydrogel with Synergistic Effects of Antibacterial Activity and Immune Regulation for Wound Healing.. <i>Small</i> , <b>2022</b> , e2201766	11	1
6	Integration of a Metal-Organic Framework Film with a Tubular Whispering-Gallery-Mode Microcavity for Effective CO Sensing. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2021</b> , 13, 58104-58113	9.5	0
5	Au@Ag@Pt core-shell nanorods regulating Ag release behavior endow titanium antibacterial activity and biocompatibility. <i>Rare Metals</i> , 1	5.5	0
4	Micro-galvanic effects of silver-containing titanium implants regulate the immune responses via activating voltage-gated calcium channels in macrophages. <i>Chemical Engineering Journal</i> , <b>2022</b> , 428, 131068	14.7	0
3	ECI/PEI/PVA composite hydrogels with superior self-healing ability and antibacterial activity for wound healing. <i>Composites Part B: Engineering</i> , <b>2022</b> , 238, 109921	10	0
2	Comparison study of Mg(OH) <sub>2</sub> , Mg-Fe LDH, and FeOOH coatings on PEO-treated Mg alloy in anticorrosion and biocompatibility. <i>Applied Clay Science</i> , <b>2022</b> , 225, 106535	5.2	0
1	Interface effects on regulating the behaviors of human gingival fibroblasts on titanium by Zn-PHII. <i>Surface and Coatings Technology</i> , <b>2020</b> , 403, 126357	4.4	