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List of Publications by Year
in descending order

265 papers	11,635 citations	30047 54 h-index	36008 97 g-index
271 all docs	271 docs citations	271 times ranked	8503 citing authors

#	Article	IF	Citations
1	Degradable biomaterials based on magnesium corrosion. Current Opinion in Solid State and Materials Science, 2008, 12, 63-72.	5.6	1,537
2	Magnesium alloys as implant materials â€" Principles of property design for Mgâ€"RE alloysâ˜†. Acta Biomaterialia, 2010, 6, 1714-1725.	4.1	503
3	Evaluation of short-term effects of rare earth and other elements used in magnesium alloys on primary cells and cell linesâ˜†. Acta Biomaterialia, 2010, 6, 1834-1842.	4.1	496
4	Mg and Mg alloys: How comparable are in vitro and in vivo corrosion rates? A review. Acta Biomaterialia, 2015, 13, 16-31.	4.1	378
5	Measurement of the spin-dependent structure function g1(x) of the proton. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1994, 329, 399-406.	1.5	311
6	Spin asymmetriesA1and structure functionsg1of the proton and the deuteron from polarized high energy muon scattering. Physical Review D, 1998, 58, .	1.6	266
7	Spin structure of the proton from polarized inclusive deep-inelastic muon-proton scattering. Physical Review D, 1997, 56, 5330-5358.	1.6	233
8	Magnesium degradation under physiological conditions â€" Best practice. Bioactive Materials, 2018, 3, 174-185.	8.6	177
9	Chemical surface alteration of biodegradable magnesium exposed to corrosion media. Acta Biomaterialia, 2011, 7, 2704-2715.	4.1	174
10	Effects of extracellular magnesium extract on the proliferation and differentiation of human osteoblasts and osteoclasts in coculture. Acta Biomaterialia, 2015, 27, 294-304.	4.1	158
11	Interference of magnesium corrosion with tetrazolium-based cytotoxicity assaysâ˜†. Acta Biomaterialia, 2010, 6, 1813-1823.	4.1	150
12	A new measurement of the spin-dependent structure function g1(x) of the deuteron. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1995, 357, 248-254.	1.5	149
13	Polarised quark distributions in the nucleon from semi-inclusive spin asymmetries. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1998, 420, 180-190.	1.5	148
14	In vitro and in vivo comparison of binary Mg alloys and pure Mg. Materials Science and Engineering C, 2016, 61, 865-874.	3.8	122
15	Microstructure and mechanical behavior of metal injection molded Tiâ€"Nb binary alloys as biomedical material. Journal of the Mechanical Behavior of Biomedical Materials, 2013, 28, 171-182.	1.5	118
16	Next-to-leading order QCD analysis of the spin structure functiong1. Physical Review D, 1998, 58, .	1.6	117
17	Improved cytotoxicity testing of magnesium materials. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2011, 176, 830-834.	1.7	108
18	The role of individual components of simulated body fluid on the corrosion behavior of commercially pure Mg. Corrosion Science, 2019, 147, 81-93.	3.0	97

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19	Spin asymmetries for events with highpThadrons in DIS and an evaluation of the gluon polarization. Physical Review D, 2004, 70, .	1.6	96
20	Small-Angle Neutron and X-ray Scattering from Amphiphilic Stimuli-Responsive Diamond-Type Bicontinuous Cubic Phase. Journal of the American Chemical Society, 2007, 129, 13474-13479.	6.6	96
21	Effects of extracellular magnesium on the differentiation and function of human osteoclasts. Acta Biomaterialia, 2014, 10, 2843-2854.	4.1	96
22	Magnesium-based implants: a mini-review. Magnesium Research, 2014, 27, 142-154.	0.4	96
23	Polarisation of valence and non-strange sea quarks in the nucleon from semi-inclusive spin asymmetries. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1996, 369, 93-100.	1.5	95
24	Microstructure, mechanical and corrosion properties of Mgâ€"Dyâ€"Gdâ€"Zr alloys for medical applications. Acta Biomaterialia, 2013, 9, 8499-8508.	4.1	92
25	Spin asymmetry in muon-proton deep inelastic scattering on a transversely-polarized target. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1994, 336, 125-130.	1.5	89
26	Element distribution in the corrosion layer and cytotoxicity of alloy Mgâ€"10Dy during in vitro biodegradation. Acta Biomaterialia, 2013, 9, 8475-8487.	4.1	87
27	Bioactive plasma electrolytic oxidation coatings on Mg-Ca alloy to control degradation behaviour. Surface and Coatings Technology, 2017, 315, 454-467.	2.2	87
28	Mechanical and corrosion properties of binary Mgâ€"Dy alloys for medical applications. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2011, 176, 1827-1834.	1.7	86
29	In vitro evaluation of the ZX11 magnesium alloy as potential bone plate: Degradability and mechanical integrity. Acta Biomaterialia, 2019, 97, 608-622.	4.1	86
30	XPS Studies of Magnesium Surfaces after Exposure to Dulbecco's Modified Eagle Medium, Hank's Buffered Salt Solution, and Simulated Body Fluid. Advanced Engineering Materials, 2010, 12, B699.	1.6	83
31	Unphysiologically High Magnesium Concentrations Support Chondrocyte Proliferation and Redifferentiation. Tissue Engineering, 2006, 12, 3545-3556.	4.9	79
32	Thermotropic and lyotropic properties of long chain alkyl glycopyranosides. Part II. Disaccharide headgroups. Chemistry and Physics of Lipids, 2000, 106, 157-179.	1.5	78
33	Proton- and deuteron spin targets in bioligical structure research. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1995, 356, 124-132.	0.7	76
34	Long-Living Intermediates during a Lamellar to a Diamond-Cubic Lipid Phase Transition: A Small-Angle X-Ray Scattering Investigation. Langmuir, 2009, 25, 3734-3742.	1.6	76
35	Intramedullary Mg2Ag nails augment callus formation during fracture healing in mice. Acta Biomaterialia, 2016, 36, 350-360.	4.1	75
36	Structural rearrangement of model membranes by the peptide antibiotic NK-2. Biochimica Et Biophysica Acta - Biomembranes, 2005, 1669, 125-134.	1.4	74

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37	Baicalin loaded in folate-PEG modified liposomes for enhanced stability and tumor targeting. Colloids and Surfaces B: Biointerfaces, 2016, 140, 74-82.	2.5	73
38	In vitro mechanical and corrosion properties of biodegradable Mg-Ag alloys. Materials and Corrosion - Werkstoffe Und Korrosion, 2014, 65, 569-576.	0.8	72
39	On the nanoparticle synthesis in microemulsions: detailed characterization of an applied reaction mixture. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2000, 163, 3-15.	2.3	70
40	Spin asymmetriesA1of the proton and the deuteron in the lowxand lowQ2region from polarized high energy muon scattering. Physical Review D, 1999, 60, .	1.6	69
41	Earliest Stage of the Tetrahedral Nanochannel Formation in Cubosome Particles from Unilamellar Nanovesicles. Langmuir, 2012, 28, 16647-16655.	1.6	68
42	Sterically stabilized spongosomes for multidrug delivery of anticancer nanomedicines. Journal of Materials Chemistry B, 2015, 3, 7734-7744.	2.9	68
43	Gadolinium accumulation in organs of Spragueâ€“DawleyÂ® rats after implantation of a biodegradable magnesium-gadolinium alloy. Acta Biomaterialia, 2017, 48, 521-529.	4.1	68
44	Reprint of: Improved cytotoxicity testing of magnesium materials. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2011, 176, 1773-1777.	1.7	67
45	Effects of magnesium degradation products on mesenchymal stem cell fate and osteoblastogenesis. Gene, 2016, 575, 9-20.	1.0	66
46	Effects of corrosion environment and proteins on magnesium corrosion. Corrosion Engineering Science and Technology, 2012, 47, 335-339.	0.7	63
47	Local pH and Its Evolution Near Mg Alloy Surfaces Exposed to Simulated Body Fluids. Advanced Materials Interfaces, 2018, 5, 1800169.	1.9	63
48	Comparison of Small-Angle Scattering Methods for the Structural Analysis of Octyl-Î²-maltopyranoside Micelles. Journal of Physical Chemistry B, 2002, 106, 7596-7604.	1.2	62
49	Magnesium degradation influenced by buffering salts in concentrations typical of in vitro and in vivo models. Materials Science and Engineering C, 2016, 58, 817-825.	3.8	61
50	Open porous dealloying-based biomaterials as a novel biomaterial platform. Materials Science and Engineering C, 2018, 88, 95-103.	3.8	60
51	Influence of ageing treatment on microstructure, mechanical and bio-corrosion properties of Mgâ€“Dy alloys. Journal of the Mechanical Behavior of Biomedical Materials, 2012, 13, 36-44.	1.5	59
52	Sintering behavior and mechanical properties of a metal injection molded Tiâ€“Nb binary alloy as biomaterial. Journal of Alloys and Compounds, 2015, 640, 393-400.	2.8	59
53	Magnesium degradation as determined by artificial neural networks. Acta Biomaterialia, 2013, 9, 8722-8729.	4.1	57
54	Degradation testing of Mg alloys in Dulbecco's modified eagle medium: Influence of medium sterilization. Materials Science and Engineering C, 2016, 62, 68-78.	3.8	57

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55	In vivo and in vitro degradation comparison of pure Mg, Mg-10Gd and Mg-2Ag: a short term study. , 2017, 33, 90-104.		56
56	Membrane Activity of Biomimetic Facially Amphiphilic Antibioticsâ€. Journal of Physical Chemistry B, 2006, 110, 3527-3532.	1.2	54
57	Amphiphilic Branched Polymers as Antimicrobial Agents. Macromolecular Bioscience, 2008, 8, 903-915.	2.1	54
58	Aggregate Structure in Concentrated Liquid Dispersions of Ultrananocrystalline Diamond by Small-Angle Neutron Scattering. Journal of Physical Chemistry C, 2009, 113, 9473-9479.	1.5	53
59	Different effects of single protein vs. protein mixtures on magnesium degradation under cell culture conditions. Acta Biomaterialia, 2019, 98, 256-268.	4.1	51
60	Comparative structure analysis of non-polar organic ferrofluids stabilized by saturated mono-carboxylic acids. Journal of Colloid and Interface Science, 2009, 334, 37-41.	5.0	49
61	Micellization Activity of the Natural Lipopeptide [Glu₁, Asp₅] Surfactin-C15 in Aqueous Solution. Journal of Physical Chemistry B, 2010, 114, 2712-2718.	1.2	48
62	Molecular basis for membrane selectivity of NK-2, a potent peptide antibiotic derived from NK-lysin. Biochimica Et Biophysica Acta - Biomembranes, 2003, 1612, 164-171.	1.4	46
63	Mechanical properties and corrosion behavior of Mgâ€“Gdâ€“Caâ€“Zr alloys for medical applications. Journal of the Mechanical Behavior of Biomedical Materials, 2015, 47, 38-48.	1.5	46
64	Effect of magnesium-degradation products and hypoxia on the angiogenesis of human umbilical vein endothelial cells. Acta Biomaterialia, 2019, 98, 269-283.	4.1	45
65	Localization of the Trigger Factor Binding Site on the Ribosomal 50S Subunit. Journal of Molecular Biology, 2003, 326, 887-897.	2.0	44
66	Ion release from magnesium materials in physiological solutions under different oxygen tensions. Journal of Materials Science: Materials in Medicine, 2012, 23, 9-24.	1.7	44
67	On the Determination of Magnesium Degradation Rates under Physiological Conditions. Materials, 2016, 9, 627.	1.3	44
68	Lubrication synergy: Mixture of hyaluronan and dipalmitoylphosphatidylcholine (DPPC) vesicles. Journal of Colloid and Interface Science, 2017, 488, 225-233.	5.0	42
69	Influence of the Microstructure and Silver Content on Degradation, Cytocompatibility, and Antibacterial Properties of Magnesium-Silver Alloys In Vitro. Oxidative Medicine and Cellular Longevity, 2017, 2017, 1-14.	1.9	42
70	Exploring the effects of organic molecules on the degradation of magnesium under cell culture conditions. Corrosion Science, 2018, 132, 35-45.	3.0	42
71	Fibrinogen and magnesium combination biomaterials modulate macrophage phenotype, NF-kB signaling and crosstalk with mesenchymal stem/stromal cells. Acta Biomaterialia, 2020, 114, 471-484.	4.1	42
72	The Degradation Interface of Magnesium Based Alloys in Direct Contact with Human Primary Osteoblast Cells. PLoS ONE, 2016, 11, e0157874.	1.1	41

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73	Structure of water-based ferrofluids with sodium oleate and polyethylene glycol stabilization by small-angle neutron scattering: contrast-variation experiments. Journal of Applied Crystallography, 2010, 43, 959-969.	1.9	40
74	Mixture of Nonionic/Ionic Surfactants for the Formulation of Nanostructured Lipid Carriers: Effects on Physical Properties. Langmuir, 2014, 30, 6920-6928.	1.6	40
75	Influence of the amount of intermetallics on the degradation of Mg-Nd alloys under physiological conditions. Acta Biomaterialia, 2021, 121, 695-712.	4.1	39
76	Comparison of the reaction of bone-derived cells to enhanced MgCl₂-salt concentrations. Biomatter, 2014, 4, e967616.	2.6	38
77	Blood compatibility of magnesium and its alloys. Acta Biomaterialia, 2015, 25, 384-394.	4.1	38
78	Doxorubicin hydrochloride-oleic acid conjugate loaded nanostructured lipid carriers for tumor specific drug release. Colloids and Surfaces B: Biointerfaces, 2016, 145, 95-103.	2.5	38
79	The Effect of Surface Treatments on the Degradation of Biomedical Mg Alloysâ€"A Review Paper. Materials, 2018, 11, 2561.	1.3	38
80	Time-sequential corrosion behaviour observation of micro-alloyed Mg-0.5Zn-0.2Ca alloy via a quasi-in situ approach. Corrosion Science, 2019, 158, 108096.	3.0	38
81	Analysis of the structure of aqueous ferrofluids by the small-angle neutron scattering method. Physics of the Solid State, 2010, 52, 974-978.	0.2	37
82	The polarized target station at GKSS. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1995, 356, 133-137.	0.7	36
83	Structure of the elongating ribosome: Arrangement of the two tRNAs before and after translocation. Proceedings of the National Academy of Sciences of the United States of America, 1998, 95, 945-950.	3.3	36
84	Optimization of Cell Adhesion on Mg Based Implant Materials by Pre-Incubation under Cell Culture Conditions. International Journal of Molecular Sciences, 2014, 15, 7639-7650.	1.8	36
85	Preparation and characterization of a nanostructured lipid carrier for a poorly soluble drug. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2014, 455, 36-43.	2.3	36
86	Structure of DPPCâ€"hyaluronan interfacial layers â€" effects of molecular weight and ion composition. Soft Matter, 2016, 12, 729-740.	1.2	36
87	In vitro degradation behavior of Mg scaffolds with three-dimensional interconnected porous structures for bone tissue engineering. Corrosion Science, 2018, 144, 301-312.	3.0	36
88	Anomalous small-angle X-ray scattering characterization of composites based on sulfonated poly(ether ether ketone), zirconium phosphates, and zirconium oxide. Journal of Polymer Science, Part B: Polymer Physics, 2004, 42, 567-575.	2.4	35
89	Structure and in Vitro Biological Testing of Water-Based Ferrofluids Stabilized by Monocarboxylic Acids. Langmuir, 2010, 26, 8503-8509.	1.6	35
90	Direct localization of the tRNAs within the elongating ribosome by means of neutron scattering (proton-spin contrast-variation). Journal of Molecular Biology, 1997, 266, 343-356.	2.0	34

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91	The effect of temperature on supported dipalmitoylphosphatidylcholine (DPPC) bilayers: Structure and lubrication performance. Journal of Colloid and Interface Science, 2015, 445, 84-92.	5.0	34
92	Microstructure-corrosion behaviour relationship of micro-alloyed Mg-0.5Zn alloy with the addition of Ca, Sr, Ag, In and Cu. Materials and Design, 2020, 195, 108980.	3.3	34
93	Extended Conformation of Mammalian Translation Elongation Factor 1A in Solutionâ€. Biochemistry, 2002, 41, 15342-15349.	1.2	33
94	Behavior of bone cells in contact with magnesium implant material. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2017, 105, 165-179.	1.6	33
95	Adsorption of Proteins on Degradable Magnesiumâ€"Which Factors are Relevant?. ACS Applied Materials & Interfaces, 2018, 10, 42175-42185.	4.0	33
96	Determination of micelle structure of octyl-Î²-glucoside in aqueous solution by small angel neutron scattering and geometric analysis. Journal of Molecular Liquids, 2000, 89, 239-249.	2.3	32
97	Determination of the Structure of Complexes Formed by a Cationic Polymer and Mixed Anionic Surfactants by Small-Angle Neutron Scattering. Langmuir, 2000, 16, 10061-10068.	1.6	32
98	Structures of micelles formed by synthetic alkyl glycosides with unsaturated alkyl chains. Journal of Colloid and Interface Science, 2005, 284, 704-713.	5.0	32
99	Phospholipids as implant coatings. Journal of Materials Science: Materials in Medicine, 2007, 18, 367-380.	1.7	31
100	Preparation and characterization of 4-dedimethylamino sancycline (CMT-3) loaded nanostructured lipid carrier (CMT-3/NLC) formulations. International Journal of Pharmaceutics, 2013, 450, 225-234.	2.6	31
101	Influence of Magnesium Alloy Degradation on Undifferentiated Human Cells. PLoS ONE, 2015, 10, e0142117.	1.1	31
102	Preclinical in vivo research of magnesium-based implants for fracture treatment: A systematic review of animal model selection and study design. Journal of Magnesium and Alloys, 2021, 9, 351-361.	5.5	31
103	The Interface Between Degradable Mg and Tissue. Jom, 2019, 71, 1447-1455.	0.9	30
104	Metal Injection Molding (MIM) of Magnesium and Its Alloys. Metals, 2016, 6, 118.	1.0	29
105	Interaction of a biosurfactant, Surfactin with a cationic Gemini surfactant in aqueous solution. Journal of Colloid and Interface Science, 2016, 481, 201-209.	5.0	29
106	Analysis of the bone ultrastructure around biodegradable Mgâ€"xGd implants using small angle X-ray scattering and X-ray diffraction. Acta Biomaterialia, 2020, 101, 637-645.	4.1	29
107	Influence of Dy in solid solution on the degradation behavior of binary Mg-Dy alloys in cell culture medium. Materials Science and Engineering C, 2017, 75, 1351-1358.	3.8	28
108	Quantitative characterization of degradation processes in situ by means of a bioreactor coupled flow chamber under physiological conditions using timeâ€lapse SRÂµCT. Materials and Corrosion - Werkstoffe Und Korrosion, 2018, 69, 298-306.	0.8	28

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109	All-atom molecular dynamics simulation studies of fully hydrated gel phase DPPG and DPPE bilayers. Journal of Molecular Structure, 2009, 921, 38-50.	1.8	27
110	Interaction between the Natural Lipopeptide [Glu₁, Asp₅] Surfactin-C15 and Hemoglobin in Aqueous Solution. Biomacromolecules, 2010, 11, 593-599.	2.6	26
111	Degradation rates and products of pure magnesium exposed to different aqueous media under physiological conditions. BioNanoMaterials, 2016, 17, .	1.4	26
112	Characterisation of structure and aggregation processes of aquatic humic substances using small-angle scattering and X-ray microscopy. Analytical and Bioanalytical Chemistry, 2003, 376, 618-625.	1.9	25
113	Production, characterisation, and cytocompatibility of porous titanium-based particulate scaffolds. Journal of Materials Science: Materials in Medicine, 2013, 24, 2337-2358.	1.7	25
114	Magnesium Powder Injection Molding (MIM) of Orthopedic Implants for Biomedical Applications. Jom, 2016, 68, 1191-1197.	0.9	24
115	Cytotoxicity of biodegradable magnesium alloy WE43 to tumor cells in vitro: Bioresorbable implants with antitumor activity?. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2020, 108, 167-173.	1.6	24
116	Titanium carbide precipitation in Tiâ€"22Nb alloy fabricated by metal injection moulding. Powder Metallurgy, 2014, 57, 2-4.	0.9	23
117	Microhardness and In Vitro Corrosion of Heat-Treated Mgâ€"Yâ€"Ag Biodegradable Alloy. Materials, 2017, 10, 55.	1.3	23
118	Large enhancement of deuteron polarization with frequency modulated microwaves. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1996, 372, 339-343.	0.7	22
119	Folate receptor targeted bufalin/Î²-cyclodextrin supramolecular inclusion complex for enhanced solubility and anti-tumor efficiency of bufalin. Materials Science and Engineering C, 2017, 78, 609-618.	3.8	22
120	Exploring key ionic interactions for magnesium degradation in simulated body fluid â€" A data-driven approach. Corrosion Science, 2021, 182, 109272.	3.0	22
121	Localization of the protein L2 in the 50 S subunit and the 70 S E. coli ribosome. Journal of Molecular Biology, 2001, 305, 167-177.	2.0	21
122	Structure of Complexes Formed by PDADMAC and Sodium Palmitate. Langmuir, 2002, 18, 7272-7278.	1.6	21
123	Tiâ€"6Alâ€"4Vâ€"0.5Bâ€"A Modified Alloy for Implants Produced by Metal Injection Molding. Advanced Engineering Materials, 2011, 13, B440.	1.6	21
124	Interaction of the Biosurfactant, Surfactin with Betaines in Aqueous Solution. Langmuir, 2013, 29, 10648-10657.	1.6	21
125	Investigation of the inverse piezoelectric effect of trabecular bone on a micrometer length scale using synchrotron radiation. Acta Biomaterialia, 2015, 25, 339-346.	4.1	21
126	The influence of hyaluronan on the structure of a DPPCâ€"bilayer under high pressures. Colloids and Surfaces B: Biointerfaces, 2016, 142, 230-238.	2.5	21

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127	Alloying effect of silver in magnesium on the development of microstructure and mechanical properties by indirect extrusion. Journal of Magnesium and Alloys, 2021, 9, 112-122.	5.5	21
128	The in situ structure of ribosomal proteins from polarized neutron scattering. Journal of Molecular Structure, 1996, 383, 201-211.	1.8	20
129	On structural features of fullerene C60 dissolved in carbon disulfide: Complementary study by small-angle neutron scattering and molecular dynamic simulations. Journal of Chemical Physics, 2010, 132, 164515.	1.2	20
130	A Porous TiAl6V4 Implant Material for Medical Application. International Journal of Biomaterials, 2014, 2014, 1-8.	1.1	20
131	The Effect of Equal-Channel Angular Pressing on the Microstructure, the Mechanical and Corrosion Properties and the Anti-Tumor Activity of Magnesium Alloyed with Silver. Materials, 2019, 12, 3832.	1.3	20
132	Assessing the microstructure and in vitro degradation behavior of Mg-xGd screw implants using ÂµCT. Journal of Magnesium and Alloys, 2021, 9, 2207-2222.	5.5	20
133	Insights into the Interactions among Surfactin, Betaines, and PAM: Surface Tension, Small-Angle Neutron Scattering, and Small-Angle X-ray Scattering Study. Langmuir, 2014, 30, 3363-3372.	1.6	19
134	The effect of osteoblasts on the surface oxidation processes of biodegradable Mg and Mg-Ag alloys studied by synchrotron IR microspectroscopy. Materials Science and Engineering C, 2018, 91, 659-668.	3.8	19
135	Wide Range Mechanical Customization of Mg-Gd Alloys With Low Degradation Rates by Extrusion. Frontiers in Materials, 2019, 6, .	1.2	19
136	Surface Functionalization of Biomedical Ti-6Al-7Nb Alloy by Liquid Metal Dealloying. Nanomaterials, 2020, 10, 1479.	1.9	19
137	Utilizing Synchrotron Radiation for the Characterization of Biodegradable Magnesium Alloysâ€"From Alloy Development to the Application as Implant Material. Advanced Engineering Materials, 2021, 23, 2100197.	1.6	19
138	Membrane association and selectivity of the antimicrobial peptide NKâ€2: a molecular dynamics simulation study. Journal of Peptide Science, 2009, 15, 654-667.	0.8	18
139	Fast corroding, thin magnesium coating displays antibacterial effects and low cytotoxicity. Biofouling, 2017, 33, 294-305.	0.8	18
140	Increased levels of sodium chloride directly increase osteoclastic differentiation and resorption in mice and men. Osteoporosis International, 2017, 28, 3215-3228.	1.3	18
141	High-resolution ex vivo analysis of the degradation and osseointegration of Mg-xGd implant screws in 3D. Bioactive Materials, 2022, 13, 37-52.	8.6	18
142	A line-shape analysis for spin-1 NMR signals. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1997, 398, 109-125.	0.7	17
143	X-ray and neutron investigation of self-assembled lipid layers on a titanium surface. Biointerphases, 2013, 8, 21.	0.6	17
144	Mg Biodegradation Mechanism Deduced from the Local Surface Environment under Simulated Physiological Conditions. Advanced Healthcare Materials, 2021, 10, e2100053.	3.9	17

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145	Biological Multi-layer Systems as Implant Surface Modification. Materialwissenschaft Und Werkstofftechnik, 2003, 34, 1084-1093.	0.5	16
146	Cytocompatibility of a free machining titanium alloy containing lanthanum. Journal of Biomedical Materials Research - Part A, 2009, 90A, 931-939.	2.1	16
147	Powder metal injection moulding and heat treatment of AZ81 Mg alloy. Journal of Materials Processing Technology, 2019, 267, 241-246.	3.1	16
148	Macrophage-derived oncostatin M/bone morphogenetic protein 6 in response to Mg-based materials influences pro-osteogenic activity of human umbilical cord perivascular cells. Acta Biomaterialia, 2021, 133, 268-279.	4.1	16
149	Implant degradation of low-alloyed Mgâ€“Znâ€“Ca in osteoporotic, old and juvenile rats. Acta Biomaterialia, 2022, 147, 427-438.	4.1	16
150	SAXS/WAXS characterization of proton-conducting polymer membranes containing phosphomolybdic acid. Journal of Non-Crystalline Solids, 2005, 351, 2194-2199.	1.5	14
151	Chondrogenic differentiation of ATDC5-cells under the influence of Mg and Mg alloy degradation. Materials Science and Engineering C, 2017, 72, 378-388.	3.8	14
152	Alloying and Processing Effects on the Microstructure, Mechanical Properties, and Degradation Behavior of Extruded Magnesium Alloys Containing Calcium, Cerium, or Silver. Materials, 2020, 13, 391.	1.3	14
153	Effects of Corroded and Non-Corroded Biodegradable Mg and Mg Alloys on Viability, Morphology and Differentiation of MC3T3-E1 Cells Elicited by Direct Cell/Material Interaction. PLoS ONE, 2016, 11, e0159879.	1.1	14
154	Dynamic <i>in vivo</i> monitoring of fracture healing process in response to magnesium implant with multimodal imaging: pilot longitudinal study in a rat external fixation model. Biomaterials Science, 2022, 10, 1532-1543.	2.6	14
155	Interaction of an Antimicrobial Peptide with Membranes: Experiments and Simulations with NKCS. Journal of Physical Chemistry B, 2010, 114, 4230-4237.	1.2	13
156	NKCS, a Mutant of the NK-2 Peptide, Causes Severe Distortions and Perforations in Bacterial, But Not Human Model Lipid Membranes. Molecules, 2015, 20, 6941-6958.	1.7	13
157	Measurement of the SMC muon beam polarisation using the asymmetry in the elastic scattering off polarised electrons. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2000, 443, 1-19.	0.7	12
158	Influences of local polymerâ€“solvent Ï€â€“Ï€-interaction on dynamics of phenyl ring rotation and its role on photophysics of conjugated polymer. European Polymer Journal, 2007, 43, 478-487.	2.6	12
159	Studying solutions at high shear rates: a dedicated microfluidics setup. Journal of Synchrotron Radiation, 2016, 23, 480-486.	1.0	12
160	InÂvitro biodegradation testing of Mg-alloy EZK400 and manufacturing of implant prototypes using PM (powder metallurgy) methods. Bioactive Materials, 2018, 3, 213-217.	8.6	12
161	A simple model for longâ€time degradation of magnesium under physiological conditions. Materials and Corrosion - Werkstoffe Und Korrosion, 2018, 69, 191-196.	0.8	12
162	Mechanical properties and degradation behavior of binary magnesium-silver alloy sheets. Journal of Physics and Chemistry of Solids, 2019, 133, 142-150.	1.9	12

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163	Hypoxia influences the effects of magnesium degradation products on the interactions between endothelial and mesenchymal stem cells. Acta Biomaterialia, 2020, 101, 624-636.	4.1	12
164	Pore characterization of PM Mgâ€“0.6Ca alloy and its degradation behavior under physiological conditions. Journal of Magnesium and Alloys, 2021, 9, 686-703.	5.5	12
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