

# CITATION REPORT

List of articles citing

Research on an Mg-Zn alloy as a degradable biomaterial

DOI: 10.1016/j.actbio.2009.06.028  
Acta Biomaterialia, 2010, 6, 626-40.

**Source:** <https://exaly.com/paper-pdf/48345882/citation-report.pdf>

**Version:** 2024-04-05

This report has been generated based on the citations recorded by exaly.com for the above article. For the latest version of this publication list, visit the link given above.

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

#	Paper	IF	Citations
987	A review on magnesium alloys as biodegradable materials. <b>2010</b> , 4, 111-115		369
986	Influence of dicalcium phosphate dihydrate coating on the in vitro degradation of Mg-Zn alloy. <b>2010</b> , 4, 116-119		7
985	In vitro degradation behavior and cytocompatibility of Mg-Zn-Zr alloys. <b>2010</b> , 21, 2623-35		155
984	Magnesium-based composites with improved in vitro surface biocompatibility. <b>2010</b> , 21, 3163-9		18
983	In vitro degradation and cell attachment of a PLGA coated biodegradable Mg <sub>65</sub> Zn based alloy. <b>2010</b> , 45, 6038-6045		127
982	Mechanical properties and phase composition of potential biodegradable Mg <sub>70</sub> Zn <sub>30</sub> Base alloys with addition of rare earth elements. <b>2010</b> , 61, 952-958		35
981	Dynamic degradation behavior of MgZn alloy in circulating m-SBF. <b>2010</b> , 64, 1996-1999		37
980	Degradation and cytotoxicity of lotus-type porous pure magnesium as potential tissue engineering scaffold material. <b>2010</b> , 64, 1871-1874		87
979	XPS Studies of Magnesium Surfaces after Exposure to Dulbecco's Modified Eagle Medium, Hank's Buffered Salt Solution, and Simulated Body Fluid. <b>2010</b> , 12, B699-B704		65
978	Influence of Heat Treatments on In Vitro Degradation Behavior of Mg-6Zn Alloy Studied by Electrochemical Measurements. <b>2010</b> , 12, B170-B174		9
977	Biocompatibility and degradation behaviour of degradable magnesium sponges coated with bioglass [method establishment within the framework of a pilot study. <i>Materialwissenschaft Und Werkstofftechnik</i> , <b>2010</b> , 41, 1025-1034	0.9	19
976	Fluoride treatment and in vitro corrosion behavior of an AZ31B magnesium alloy. <b>2010</b> , 30, 740-748		157
975	In vitro responses of human bone marrow stromal cells to a fluoridated hydroxyapatite coated biodegradable Mg-Zn alloy. <b>2010</b> , 31, 5782-8		152
974	Antibacterial Effect of Biodegradable Magnesium Alloys Modified By Biocompatible Transitions Metals. <b>2010</b> , 1277, 61301		2
973	Influence of Test Solutions on In Vitro Studies of Biomedical Magnesium Alloys. <b>2010</b> , 157, C238		82
972	Evaluation of the soft tissue biocompatibility of MgCa <sub>0.8</sub> and surgical steel 316L in vivo: a comparative study in rabbits. <b>2010</b> , 9, 63		78
971	In vitro corrosion degradation behaviour of Mg <sub>92</sub> Ca alloy in the presence of albumin. <b>2010</b> , 52, 3341-3347		134

970	In Vitro Bioactivity of a Biocomposite Fabricated from Ti and Mg Powders by Powder Metallurgy Method. <b>2011</b> , 415-417, 1176-1180	
969	Corrosion of high purity Mg, AZ91, ZE41 and Mg <sub>2</sub> Zn <sub>0.2</sub> Mn in Hank's solution at room temperature. <b>2011</b> , 53, 862-872	123
968	Corrosion of high purity Mg, Mg <sub>2</sub> Zn <sub>0.2</sub> Mn, ZE41 and AZ91 in Hank's solution at 37 °C. <b>2011</b> , 53, 3542-3556	167
967	Development of CaZn based glassy alloys as potential biodegradable bone graft substitute. <b>2011</b> , 357, 3830-3840	29
966	Microstructure and properties of biodegradable TiCP reinforced Mg-Zn-Zr composites. <b>2011</b> , 21, 814-819	36
965	In-vitro evaluation of Mg-4.0Zn-0.2Ca alloy for biomedical application. <b>2011</b> , 21, s252-s257	17
964	A Review of Magnesium/Magnesium Alloys Corrosion. <b>2011</b> , 1, 72-90	15
963	?????????????????????. <b>2011</b> , 62, 204-210	3
962	Corrosion mechanism applicable to biodegradable magnesium implants. <b>2011</b> , 176, 1609-1636	302
961	Mechanical and corrosion properties of binary MgDy alloys for medical applications. <b>2011</b> , 176, 1827-1834	65
960	Influence of Mg <sup>2+</sup> concentration, pH value and specimen parameter on the hemolytic property of biodegradable magnesium. <b>2011</b> , 176, 1823-1826	11
959	Effects of Nd on microstructures and properties of extruded Mg <sub>0.46</sub> Y <sub>0.54</sub> Nd alloys for stent application. <b>2011</b> , 176, 1673-1678	39
958	In vitro study on equal channel angular pressing AZ31 magnesium alloy with and without back pressure. <b>2011</b> , 176, 1802-1806	40
957	The in vitro indirect cytotoxicity test and in vivo interface bioactivity evaluation of biodegradable FHA coated Mg <sub>92</sub> Ni alloys. <b>2011</b> , 176, 1785-1788	27
956	In vitro degradation performance and biological response of a Mg <sub>92</sub> Ni <sub>8</sub> alloy. <b>2011</b> , 176, 1778-1784	100
955	Blood triggered corrosion of magnesium alloys. <b>2011</b> , 176, 1761-1766	38
954	Development and microstructural characterizations of Mg <sub>92</sub> Ni <sub>8</sub> alloys for biomedical applications. <b>2011</b> , 176, 1660-1665	50
953	ZK30-bioactive glass composites for orthopedic applications: A comparative study on fabrication method and characteristics. <b>2011</b> , 176, 1644-1652	25

952	Novel sol-gel derived calcium phosphate coatings on Mg4Y alloy. <b>2011</b> , 176, 1679-1689	40
951	Mechanical properties, degradation performance and cytotoxicity of Mg <sub>70</sub> Zn <sub>30</sub> Ca biomedical alloys with different compositions. <b>2011</b> , 31, 1667-1673	170
950	Effect of fluoride coating on in vitro dynamic degradation of Mg <sub>70</sub> Zn alloy. <b>2011</b> , 65, 2568-2571	13
949	In vivo degradation behavior of Ca-deficient hydroxyapatite coated Mg-Zn-Ca alloy for bone implant application. <b>2011</b> , 88, 254-9	92
948	Corrosion resistance and surface biocompatibility of a microarc oxidation coating on a Mg-Ca alloy. <i>Acta Biomaterialia</i> , <b>2011</b> , 7, 1880-9	10.8 305
947	A corrosion model for bioabsorbable metallic stents. <i>Acta Biomaterialia</i> , <b>2011</b> , 7, 3523-33	10.8 117
946	Research activities of biomedical magnesium alloys in China. <b>2011</b> , 63, 105-108	20
945	Performance-driven design of Biocompatible Mg alloys. <b>2011</b> , 63, 28-34	77
944	The effects of surface and biomolecules on magnesium degradation and mesenchymal stem cell adhesion. <b>2011</b> , 99, 249-60	58
943	Potential antiosteoporosis effect of biodegradable magnesium implanted in STZ-induced diabetic rats. <b>2011</b> , 99, 386-94	12
942	Bone-implant interface strength and osseointegration: Biodegradable magnesium alloy versus standard titanium control. <i>Acta Biomaterialia</i> , <b>2011</b> , 7, 432-40	10.8 286
941	Biomechanical testing and degradation analysis of MgCa0.8 alloy screws: a comparative in vivo study in rabbits. <i>Acta Biomaterialia</i> , <b>2011</b> , 7, 1421-8	10.8 160
940	In vitro studies of biomedical magnesium alloys in a simulated physiological environment: a review. <i>Acta Biomaterialia</i> , <b>2011</b> , 7, 1452-9	10.8 490
939	Chemical surface alteration of biodegradable magnesium exposed to corrosion media. <i>Acta Biomaterialia</i> , <b>2011</b> , 7, 2704-15	10.8 151
938	Mechanical and corrosion properties of newly developed biodegradable Zn-based alloys for bone fixation. <i>Acta Biomaterialia</i> , <b>2011</b> , 7, 3515-22	10.8 387
937	Mechanical and in vitro degradation behavior of ultrafine calcium polyphosphate reinforced magnesium-alloy composites. <b>2011</b> , 32, 2813-2820	57
936	Effect of forging process on microstructure, mechanical and corrosion properties of biodegradable Mg <sub>90</sub> Ca alloy. <b>2011</b> , 32, 2596-2603	53
935	Activity and passivity of magnesium (Mg) and its alloys. <b>2011</b> , 66-114	6

934	Biodegradable Behaviors of Mg-6%Zn-5%Hydroxyapatite Biomaterial. <b>2011</b> , 239-242, 1287-1291	12
933	Characterization and Corrosion Behavior of Biodegradable Mg-Ca and Mg-Ca-Zn Implant Alloys. <b>2011</b> , 121-126, 568-572	8
932	Rapid Deposition of Hydroxyapatite on Mg-Alloy by Biomineralization Method. <b>2011</b> , 413, 160-165	2
931	The bioactivated interfacial behavior of the fluoridated hydroxyapatite-coated mg-zn alloy in cell culture environments. <b>2011</b> , 2011, 192671	6
930	Nanotechnology Enabled In situ Sensors for Monitoring Health. <b>2011</b> ,	5
929	Corrosion of magnesium (Mg) alloys and metallurgical influence. <b>2011</b> , 117-165	22
928	In Vivo Degradation Behavior of the Magnesium Alloy LAND442 in Rabbit Tibiae. <i>Materials</i> , <b>2011</b> , 4, 2197-2218	32
927	In Vivo Corrosion of Two Novel Magnesium Alloys ZEK100 and AX30 and Their Mechanical Suitability as Biodegradable Implants. <i>Materials</i> , <b>2011</b> , 4, 1144-1167	3.5 50
926	Effects of corrosion environment and proteins on magnesium corrosion. <b>2012</b> , 47, 335-339	55
925	In vitro corrosion survey of Mg-Ca and Mg-Zn-Ca alloys with and without calcium phosphate conversion coatings. <b>2012</b> , 47, 365-373	19
924	Potentiodynamic polarisation study of bulk metallic glasses based on the Mg-Zn-Ca ternary system. <b>2012</b> , 47, 329-334	16
923	The potential of magnesium alloy use in orthopaedic surgery. <b>2012</b> , 23, 146-150	12
922	Microstructures and Various Properties of Hot-Extruded Mg-Zr-Ca Alloys for Biomedical Applications. <b>2012</b> , 232, 162-166	1
921	Mechanical properties and biodegradable behavior of Mg-3%Zn-3Ca3(PO4)2 metal matrix composites in Ringer's solution. <b>2012</b> , 103, 723-728	1
920	Electrochemical Deposition and Evaluation of Conductive Polymer Coating on Biodegradable Magnesium Implants for Neural Applications. <b>2012</b> , 1466, 44	
919	In Vitro Evaluation of Degradation of a Calcium Phosphate Coating on a Mg-Zn-Ca Alloy in a Physiological Environment. <b>2012</b> , 68, 499-506	10
918	Effects of degradable MG-ND-ZN-ZR alloy on osteoblastic cell function. <b>2012</b> , 25, 597-606	4
917	Review on magnesium alloys as biodegradable implant materials. <b>2012</b> , 10, 383	14

916	In vitro corrosion behavior and in vivo biodegradation of biomedical $\text{Ca}_3(\text{PO}_4)_2/\text{Mg-Zn}$ composites. <i>Acta Biomaterialia</i> , <b>2012</b> , 8, 2845-55	10.8	55
915	In vitro degradation of biodegradable polymer-coated magnesium under cell culture condition. <b>2012</b> , 258, 6353-6358		53
914	A novel biodegradable $\text{Mg-Nd-Zn-Zr}$ alloy with uniform corrosion behavior in artificial plasma. <b>2012</b> , 88, 1-4		60
913	In vivo assessment of the host reactions to the biodegradation of the two novel magnesium alloys ZEK100 and AX30 in an animal model. <b>2012</b> , 11, 14		47
912	Effect of heat treatment on microstructure, mechanical properties and in vitro degradation behavior of as-extruded $\text{Mg-2.7Nd-0.2Zn-0.4Zr}$ alloy. <b>2012</b> , 22, 2343-2350		13
911	Biodegradation behavior of micro-arc oxidized AZ31 magnesium alloys formed in two different electrolytes. <b>2012</b> , 261, 92-100		64
910	Improved corrosion resistance on biodegradable magnesium by zinc and aluminum ion implantation. <b>2012</b> , 263, 608-612		28
909	Effects of Zn on microstructure, mechanical properties and corrosion behavior of $\text{Mg-Zn}$ alloys. <b>2012</b> , 32, 2570-2577		231
908	Rare Earth Metals as Alloying Components in Magnesium Implants for Orthopaedic Applications. <b>2012</b> ,		9
907	Corrosion behavior and cytotoxicity of $\text{Mg-35Zn-3Ca}$ alloy for surface modified biodegradable implant material. <b>2012</b> , 100, 911-23		30
906	Potential bioactivity of coatings formed on AZ91D magnesium alloy by plasma electrolytic anodizing. <b>2012</b> , 100, 1846-53		7
905	Research on the Biocompatibility of the New Magnesium Alloy $\text{LaNd442Zn}$ In Vivo Study in the Rabbit Tibia over 26 Weeks. <b>2012</b> , 14, B28-B37		24
904	In vitro corrosion of ZEK100 plates in Hank's Balanced Salt Solution. <b>2012</b> , 11, 12		21
903	In vitro degradation and biocompatibility of $\text{Mg-Nd-Zn-Zr}$ alloy. <b>2012</b> , 57, 2163-2170		18
902	Corrosion fatigue of biomedical metallic alloys: mechanisms and mitigation. <i>Acta Biomaterialia</i> , <b>2012</b> , 8, 937-62	10.8	163
901	Assessing the corrosion of biodegradable magnesium implants: a critical review of current methodologies and their limitations. <i>Acta Biomaterialia</i> , <b>2012</b> , 8, 925-36	10.8	561
900	In vitro and in vivo studies on a $\text{Mg-Sr}$ binary alloy system developed as a new kind of biodegradable metal. <i>Acta Biomaterialia</i> , <b>2012</b> , 8, 2360-74	10.8	296
899	Characteristics and cytocompatibility of biodegradable polymer film on magnesium by spin coating. <b>2012</b> , 93, 67-74		166

898	Influence of hot rolling parameters on microstructure and biodegradability of Mg <sub>1</sub> Ca alloy in simulated body fluid. <b>2012</b> , 33, 20-25	48
897	Preparation and characterization of a new biomedical Mg <sub>2</sub> Ni <sub>1</sub> Ca alloy. <b>2012</b> , 34, 58-64	209
896	Electrochemical property and in vitro degradation of DCPD/PCL composite coating on the biodegradable Mg <sub>2</sub> Ni alloy. <b>2012</b> , 68, 435-438	26
895	The Y-doped MgZnCa alloys with ultrahigh specific strength and good corrosion resistance in simulated body fluid. <b>2012</b> , 81, 112-114	18
894	Effects of biodegradable Mg <sub>2</sub> Zn alloy extracts on apoptosis of intestinal epithelial cells. <b>2012</b> , 177, 388-393	14
893	In-vitro cytotoxicity and in-vivo biocompatibility of as-extruded Mg <sub>4.0</sub> Zn <sub>0.2</sub> Ca alloy. <b>2012</b> , 32, 665-669	33
892	Corrosion studies of modified organosilane coated magnesium/yttrium alloy in different environments. <b>2012</b> , 32, 1230-1236	16
891	Fabrication of biodegradable nano-sized $\beta$ -TCP/Mg composite by a novel melt shearing technology. <b>2012</b> , 32, 1253-1258	39
890	Investigation of the mechanical and degradation properties of Mg-Sr and Mg-Zn-Sr alloys for use as potential biodegradable implant materials. <b>2012</b> , 7, 87-95	163
889	Improved mechanical performance and delayed corrosion phenomena in biodegradable Mg-Zn-Ca alloys through Pd-alloying. <b>2012</b> , 6, 53-62	61
888	Phase stability, mechanical property, and electronic structure of an Mg-Ca system. <b>2012</b> , 8, 154-64	34
887	Microstructure, mechanical properties, biocorrosion behavior, and cytotoxicity of as-extruded Mg-Nd-Zn-Zr alloy with different extrusion ratios. <b>2012</b> , 9, 153-62	131
886	Effects of backward extrusion on mechanical and degradation properties of Mg-Zn biomaterial. <b>2012</b> , 10, 128-37	51
885	Electrodeposition of hydroxyapatite coating on Mg-4.0Zn-1.0Ca-0.6Zr alloy and in vitro evaluation of degradation, hemolysis, and cytotoxicity. <b>2012</b> , 100, 999-1015	64
884	In vivo behavior of biodegradable Mg-Nd-Y-Zr-Ca alloy. <b>2012</b> , 23, 805-12	63
883	Corrosion behavior and mechanical properties of Mg <sub>2</sub> Ni <sub>1</sub> Ca amorphous alloys. <b>2013</b> , 42, 9-13	37
882	Structural characteristics and corrosion behavior of biodegradable Mg-Zn, Mg-Zn-Gd alloys. <b>2013</b> , 24, 1615-26	38
881	Effects of Ca on microstructure, mechanical and corrosion properties and biocompatibility of Mg-Zn-Ca alloys. <b>2013</b> , 24, 1365-73	49

880	Comparison of the effects of Mg-6Zn and titanium on intestinal tract in vivo. <b>2013</b> , 24, 1515-25		14
879	Polycaprolactone coating with varying thicknesses for controlled corrosion of magnesium. <b>2013</b> , 10, 695-706		22
878	In vitro degradation and cytotoxicity response of Mg-4% Zn-0.5% Zr (ZK40) alloy as a potential biodegradable material. <i>Acta Biomaterialia</i> , <b>2013</b> , 9, 8534-47	10.8	100
877	In vivo comparative property study of the bioactivity of coated Mg-3Zn-0.8Zr alloy. <b>2013</b> , 33, 3263-72		34
876	Biodegradable Materials for Bone Repairs: A Review. <b>2013</b> , 29, 503-513		251
875	Biocompatibility of Mg-Nd-Zn-Zr alloy with rabbit blood. <b>2013</b> , 58, 2903-2908		3
874	In vitro degradation and biocompatibility of Ca-P coated magnesium alloy. <b>2013</b> , 29, 285-289		9
873	Biocompatibility and biodegradability of Mg-Sr alloys: the formation of Sr-substituted hydroxyapatite. <i>Acta Biomaterialia</i> , <b>2013</b> , 9, 5319-30	10.8	179
872	Improving the corrosion resistance of Mg-4.0Zn-0.2Ca alloy by micro-arc oxidation. <b>2013</b> , 33, 5044-50		32
871	The effect of selected alloying element additions on properties of Mg-based alloy as bioimplants: A literature review. <b>2013</b> , 7, 227-236		43
870	Mechanical integrity of magnesium alloys in a physiological environment: Slow strain rate testing based study. <b>2013</b> , 103, 94-102		49
869	Influence of biocorrosion on microstructure and mechanical properties of deformed Mg-Y-Er-Zn biomaterial containing 18R-LPSO phase. <b>2013</b> , 28, 332-9		33
868	Open cellular magnesium alloys for biodegradable orthopaedic implants. <b>2013</b> , 1, 303-311		29
867	Comparative in vitro Study on Pure Metals (Fe, Mn, Mg, Zn and W) as Biodegradable Metals. <b>2013</b> , 29, 619-627		127
866	Improved surface corrosion resistance of WE43 magnesium alloy by dual titanium and oxygen ion implantation. <b>2013</b> , 529, 407-411		50
865	Microstructure, mechanical and bio-corrosion properties of Mn-doped Mg-Zn-Ca bulk metallic glass composites. <b>2013</b> , 33, 3832-8		19
864	Controlling the degradation rate of AZ91 magnesium alloy via sol-gel derived nanostructured hydroxyapatite coating. <b>2013</b> , 33, 3817-25		105
863	Surface design of biodegradable magnesium alloys [A review. <b>2013</b> , 233, 2-12		245



862	In-vitro assessments of micro arc oxidized ceramic films on AZ31 magnesium implant: Degradation and cell-surface response. <b>2013</b> , 23, 425-433		14
861	The in vitro degradation process and biocompatibility of a ZK60 magnesium alloy with a forsterite-containing micro-arc oxidation coating. <i>Acta Biomaterialia</i> , <b>2013</b> , 9, 8631-42	10.8	142
860	Long-term in vivo degradation behaviour and biocompatibility of the magnesium alloy ZEK100 for use as a biodegradable bone implant. <i>Acta Biomaterialia</i> , <b>2013</b> , 9, 8548-60	10.8	124
859	Effects of biodegradable Mg-6Zn alloy extracts on cell cycle of intestinal epithelial cells. <b>2013</b> , 27, 739-47		11
858	Thermal characteristics and corrosion behaviour of Mg-Zn alloys for biomedical applications. <b>2013</b> , 36, 1103-1113		15
857	Neue Materialien für eine bessere Patientenversorgung. <b>2013</b> , 15, 259-265		1
856	Possibility of Mg- and Ca-based intermetallic compounds as new biodegradable implant materials. <b>2013</b> , 33, 4101-11		25
855	Advances in Bio-Mechanical Systems and Materials. <b>2013</b> ,		1
854	Microstructure, mechanical and corrosion properties of Mg-Dy-Gd-Zr alloys for medical applications. <i>Acta Biomaterialia</i> , <b>2013</b> , 9, 8499-508	10.8	64
853	Control of biodegradation of magnesium (Mg) alloys for medical applications. <b>2013</b> , 509-543		5
852	Effect of the physiological stabilization process on the corrosion behaviour and surface biocompatibility of AZ91D magnesium alloy. <b>2013</b> , 1, 6213-6224		21
851	Biocorrosion and osteoconductivity of PCL/nHAp composite porous film-based coating of magnesium alloy. <b>2013</b> , 18, 131-140		48
850	Electrochemical polymerization of pyrrole over AZ31 Mg alloy for biomedical applications. <b>2013</b> , 88, 310-321		65
849	Evaluation of the biocompatibility of two magnesium alloys as degradable implant materials in comparison to titanium as non-resorbable material in the rabbit. <b>2013</b> , 33, 317-26		26
848	Biodegradable magnesium implants for orthopedic applications. <b>2013</b> , 48, 39-50		195
847	Microstructures, mechanical properties and in vitro corrosion behaviour of biodegradable Mg-Zr-Ca alloys. <b>2013</b> , 48, 1632-1639		21
846	Korrosionsverhalten binärer Magnesium-Zink-Legierungen in salzhaltigen Medien. <i>Materialwissenschaft Und Werkstofftechnik</i> , <b>2013</b> , 44, 84-93	0.9	1
845	Comparative biomechanical and radiological characterization of osseointegration of a biodegradable magnesium alloy pin and a copolymeric control for osteosynthesis. <b>2013</b> , 28, 232-43		27

844	Limitations in the use of the potentiodynamic polarisation curves to investigate the effect of Zn on the corrosion behaviour of as-extruded MgZn binary alloy. <b>2013</b> , 75, 426-433	54
843	In vivo degradation and tissue compatibility of ZK60 magnesium alloy with micro-arc oxidation coating in a transcortical model. <b>2013</b> , 33, 3881-8	44
842	Microstructure, mechanical property and corrosion behavior of interpenetrating (HA+ $\beta$ -TCP)/MgCa composite fabricated by suction casting. <b>2013</b> , 33, 4266-73	30
841	Fast escape of hydrogen from gas cavities around corroding magnesium implants. <i>Acta Biomaterialia</i> , <b>2013</b> , 9, 8714-21	10.8 184
840	Influence of Nd on Microstructure and Bio-corrosion Resistance of Mg-Zn-Mn-Ca Alloy. <b>2013</b> , 42, 661-666	10
839	A study of a biodegradable Mg-3Sc-3Y alloy and the effect of self-passivation on the in vitro degradation. <i>Acta Biomaterialia</i> , <b>2013</b> , 9, 5331-40	10.8 47
838	Synthesis of biphasic calcium phosphate containing nanostructured films by micro arc oxidation on magnesium alloy. <i>Materials Chemistry and Physics</i> , <b>2013</b> , 142, 87-94	4.4 48
837	In Vivo Corrosion Resistance of Ca-P Coating on AZ60 Magnesium Alloy. <b>2013</b> , 10, 156-161	18
836	Effects of Zn atoms on the basal dislocation in magnesium solution from Peierls-Nabarro model. <b>2013</b> , 582, 299-304	7
835	Atmospheric RE-free Mg-based bulk metallic glass with high bio-corrosion resistance. <b>2013</b> , 379, 107-111	14
834	Corrosion behaviour of MgZnMnMischmetal alloys in phosphate buffer saline solution. <b>2013</b> , 69, 226-235	32
833	Functionalization of biodegradable magnesium alloy implants with alkylphosphonate self-assembled films. <b>2013</b> , 33, 2152-8	22
832	Mg-Zn-Y alloys with long-period stacking ordered structure: in vitro assessments of biodegradation behavior. <b>2013</b> , 33, 3627-37	67
831	Effect of fluoride treatment on corrosion behavior of MgCa binary alloy for implant application. <b>2013</b> , 23, 699-710	40
830	Microstructure, mechanical properties, in vitro degradation and cytotoxicity evaluations of Mg-1.5Y-1.2Zn-0.44Zr alloys for biodegradable metallic implants. <b>2013</b> , 33, 2345-52	53
829	Bioactive Ca-P coating with self-sealing structure on pure magnesium. <b>2013</b> , 24, 889-901	30
828	Effect of K <sub>2</sub> TiF <sub>6</sub> and Na <sub>2</sub> B <sub>4</sub> O <sub>7</sub> as electrolyte additives on pore morphology and corrosion properties of plasma electrolytic oxidation coatings on ZM21 magnesium alloy. <b>2013</b> , 222, 31-37	62
827	Biodegradable Mg-Zn-Y alloys with long-period stacking ordered structure: optimization for mechanical properties. <b>2013</b> , 18, 181-90	32

826	On the Immersion Testing of Degradable Implant Materials in Simulated Body Fluid: Active pH Regulation Using CO <sub>2</sub> . <b>2013</b> , 15, 434-441	26
825	Novel Magnesium Alloys Developed for Biomedical Application: A Review. <b>2013</b> , 29, 489-502	446
824	Microstructures, aging behaviour and mechanical properties in hydrogen and chloride media of backward extruded Mg-Y based biomaterials. <b>2013</b> , 17, 176-85	11
823	Microstructure, mechanical property and corrosion behaviors of interpenetrating C/Mg-Zn-Mn composite fabricated by suction casting. <b>2013</b> , 33, 618-25	26
822	Biodegradability engineering of biodegradable Mg alloys: tailoring the electrochemical properties and microstructure of constituent phases. <b>2013</b> , 3, 2367	126
821	Effect of surface area on corrosion properties of magnesium for biomaterials. <b>2013</b> , 19, 1131-1137	11
820	Degrading magnesium screws ZEK100: biomechanical testing, degradation analysis and soft-tissue biocompatibility in a rabbit model. <b>2013</b> , 8, 045012	33
819	The in vivo and in vitro corrosion of high-purity magnesium and magnesium alloys WZ21 and AZ91. <b>2013</b> , 75, 354-366	152
818	On the biodegradability, mechanical behavior, and cytocompatibility of amorphous Mg <sub>72</sub> Zn <sub>23</sub> Ca <sub>5</sub> and crystalline Mg <sub>70</sub> Zn <sub>23</sub> Ca <sub>5</sub> Pd <sub>2</sub> alloys as temporary implant materials. <b>2013</b> , 101, 502-17	23
817	Quantitative in vitro assessment of Mg <sub>65</sub> Zn <sub>30</sub> Ca <sub>5</sub> degradation and its effect on cell viability. <b>2013</b> , 101, 43-9	17
816	Application of Mg-based alloys for cardiovascular stents. <b>2013</b> , 12, 382	14
815	Corrosion Protection and Surface Treatment of Magnesium Alloys Used for Orthopedic Applications. <b>2013</b> , 2013, 1-10	32
814	Assessment of cellular reactions to magnesium as implant material in comparison to titanium and to glyconate using the mouse tail model. <b>2013</b> , 11, e89-94	7
813	Effectivity of fluoride treatment on hydrogen and corrosion product generation in temporal implants for different magnesium alloys. <b>2013</b> , 227, 1301-11	19
812	In Vitro and In Vivo Studies on a MgLi-X Alloy System Developed as a New Kind of Biological Metal. <b>2013</b> , 747-748, 257-263	2
811	FORMATION OF HA-CONTAINING COATING ON AZ31 MAGNESIUM ALLOY BY MICRO-ARC OXIDATION. <b>2013</b> , 20, 1350026	2
810	Synthesis, characterization and mechanical properties of biodegradable magnesium alloys. <b>2013</b> , 2, 45-52	2
809	Degradable magnesium-based implant materials with anti-inflammatory activity. <b>2013</b> , 101, 1898-906	26

808	Effect of calcium content on the microstructure, hardness and in-vitro corrosion behavior of biodegradable Mg-Ca binary alloy. <b>2013</b> , 16, 11-18	48
807	In vitro biocompatibility and endothelialization of novel magnesium-rare Earth alloys for improved stent applications. <b>2014</b> , 9, e98674	23
806	Doping inorganic ions to regulate bioactivity of CaP coating on bioabsorbable high purity magnesium. <b>2014</b> , 24, 479-485	6
805	In vitro corrosion of Mg-6Zn-1Mn-4Sn-1.5Nd/0.5Y alloys. <b>2014</b> , 8, 230-243	12
804	In vivo and in vitro evaluation of effects of Mg-6Zn alloy on apoptosis of common bile duct epithelial cell. <b>2014</b> , 27, 1217-30	20
803	Effect of Extrusion Ratio on Microstructure, Mechanical and Degradation Properties of Mg-2Zn-0.2Mn Biomedical Alloy. <b>2014</b> , 154, 166-174	2
802	Cytocompatibility of Magnesium-Zinc-Calcium Alloys with Bone Marrow Derived Mesenchymal Stem Cells. <b>2014</b> , 922, 1-6	
801	Progress of biodegradable metals. <b>2014</b> , 24, 414-422	222
800	Preparation, microstructure and degradation performance of biomedical magnesium alloy fine wires. <b>2014</b> , 24, 523-530	33
799	In vitro and in vivo studies on biodegradable magnesium alloy. <b>2014</b> , 24, 466-471	34
798	Study on vertical mandibular distraction osteogenesis using magnesium alloy on canine. <b>2014</b> , 24, 446-451	4
797	Shape and site dependent in vivo degradation of Mg-Zn pins in rabbit femoral condyle. <b>2014</b> , 15, 2959-70	10
796	Effect of Heat Treatment on Microstructure Homogeneity of Zn-3Mg Alloy. <b>2014</b> , 493, 777-782	0
795	Track P: Active and intelligent implants. <b>2014</b> , 59 Suppl 1, s1053-220	1
794	Comparison of the effects of Mg-6Zn and Ti-3Al-2.5V alloys on TGF- $\beta$ /TNF- $\alpha$ /VEGF/b-FGF in the healing of the intestinal tract in vivo. <b>2014</b> , 9, 025011	13
793	Comparison of degradation behavior and the associated bone response of ZK60 and PLLA in vivo. <b>2014</b> , 102, 1255-63	20
792	Magnesium Biomaterials. <b>2014</b> ,	24
791	Processing of Magnesium Porous Structures by Infiltration Casting for Biomedical Applications. <b>2014</b> , 16, 241-247	35

790	Effect of different processings on mechanical property and corrosion behavior in simulated body fluid of Mg-Zn-Y-Nd alloy for cardiovascular stent application. <b>2014</b> , 8, 256-263	17
789	Comparative in vitro study and biomechanical testing of two different magnesium alloys. <b>2014</b> , 28, 1264-73	17
788	Corrosion mechanism of micro-arc oxidation treated biocompatible AZ31 magnesium alloy in simulated body fluid. <b>2014</b> , 24, 516-522	15
787	Mg-Based Bulk Amorphous Alloy Composites Fabricated by Spark Plasma Sintering. <b>2014</b> , 783-786, 1931-1936	4
786	pH Influence on Performance of Phytic Acid Conversion Coatings on AZ31 Magnesium Alloy in Simulated Body Fluid. <b>2014</b> , 27, 535-540	3
785	Microstructural and mechanical study of PCL coated Mg scaffolds. <b>2014</b> , 30, 920-926	29
784	Compared Study of Vascular Cell Response to Mg-Zn-Y-Nd and WE43 as Biodegradable Stents. <b>2014</b> , 915-916, 962-967	1
783	Mechanical Properties of the Extruded Mg-Zn-Mn-Ca Alloy for Biomedical Application. <b>2014</b> , 540, 356-359	0
782	Influence of ECAP process on mechanical and corrosion properties of pure Mg and ZK60 magnesium alloy for biodegradable stent applications. <b>2014</b> , 4, e28283	58
781	Microstructure, mechanical property and corrosion behavior of co-continuous TiCP/MgCa composite manufactured by suction casting. <b>2014</b> , 56, 305-312	27
780	Magnesium implant alloy with low levels of strontium and calcium: the third element effect and phase selection improve bio-corrosion resistance and mechanical performance. <b>2014</b> , 35, 267-82	65
779	Microstructure, corrosion, and mechanical properties of compression-molded zinc-nanodiamond composites. <b>2014</b> , 49, 3629-3641	26
778	In vitro and in vivo assessment of the biocompatibility of an Mg-6Zn alloy in the bile. <b>2014</b> , 25, 471-80	22
777	Biocompatibility of nano-hydroxyapatite/Mg-Zn-Ca alloy composite scaffolds to human umbilical cord mesenchymal stem cells from Wharton's jelly in vitro. <b>2014</b> , 57, 181-7	10
776	Biodegradable metals. <b>2014</b> , 77, 1-34	1355
775	Magnesium alloys as a biomaterial for degradable craniofacial screws. <i>Acta Biomaterialia</i> , <b>2014</b> , 10, 2323-2328	91
774	In vivo study of a biodegradable orthopedic screw (MgYREZr-alloy) in a rabbit model for up to 12 months. <b>2014</b> , 28, 667-75	98
773	In Vitro Study on MgSnMn Alloy as Biodegradable Metals. <b>2014</b> , 30, 675-685	42

772	Effects of zirconium and oxygen plasma ion implantation on the corrosion behavior of ZK60 Mg alloy in simulated body fluids. <b>2014</b> , 82, 7-26	80
771	In vitro and in vivo corrosion measurements of Mg-6Zn alloys in the bile. <b>2014</b> , 42, 116-23	28
770	Microstructure and characteristics of interpenetrating $\beta$ -TCP/Mg <sub>2</sub> Zn/Mn composite fabricated by suction casting. <b>2014</b> , 54, 995-1001	28
769	Strategies to improve the corrosion resistance of microarc oxidation (MAO) coated magnesium alloys for degradable implants: Prospects and challenges. <b>2014</b> , 60, 1-71	410
768	Effects of alloying elements on the corrosion behavior and biocompatibility of biodegradable magnesium alloys: a review. <b>2014</b> , 2, 1912-1933	265
767	Magnesium based degradable biomaterials: A review. <b>2014</b> , 8, 200-218	99
766	In vitro analysis of magnesium corrosion in orthopaedic biomaterials. <b>2014</b> , 225-269	
765	Degradation behavior of Ca-Mg-Zn intermetallic compounds for use as biodegradable implant materials. <b>2014</b> , 44, 285-92	13
764	Impression creep behavior of the extruded Mg <sub>2</sub> Zn <sub>0.5</sub> Ca and Mg <sub>2</sub> Zn <sub>0.5</sub> Ca <sub>2</sub> RE alloys. <b>2014</b> , 616, 161-170	14
763	Dynamic electrochemical impedance spectroscopy (DEIS) studies of AZ31 magnesium alloy in simulated body fluid solution. <b>2014</b> , 4, 27791-27795	14
762	Magnesium biomaterials for orthopedic application: a review from a biological perspective. <b>2014</b> , 102, 1316-31	184
761	Uniform corrosion behavior of GZ51K alloy with long period stacking ordered structure for biomedical application. <b>2014</b> , 88, 1-5	69
760	Spectrophotometric analysis to monitor the corrosion behaviour of magnesium during immersion corrosion testing: A suitable alternative to pH measurement?. <b>2014</b> , 89, 338-342	3
759	Micro arc oxidation and electrophoretic deposition effect on damping and sound transmission characteristics of AZ31B magnesium alloy. <b>2014</b> , 21, 3419-3425	4
758	A Microfabricated Wireless RF Pressure Sensor Made Completely of Biodegradable Materials. <b>2014</b> , 23, 4-13	116
757	Microstructure, mechanical properties, corrosion behavior and cytotoxicity of Mg <sub>2</sub> Ni <sub>2</sub> Al <sub>2</sub> Ca alloys as biodegradable materials. <i>Journal of Alloys and Compounds</i> , <b>2014</b> , 607, 1-10	5.7 78
756	Biodegradation of a magnesium alloy implant in the intercondylar femoral notch showed an appropriate response to the synovial membrane in a rabbit model in vivo. <b>2014</b> , 29, 291-302	11
755	Recent advances on the development of magnesium alloys for biodegradable implants. <i>Acta Biomaterialia</i> , <b>2014</b> , 10, 4561-4573	10.8 693

754	The in vitro and in vivo evaluation of the biocompatibility of Mg alloys. <b>2014</b> , 9, 015006		28
753	Effects of Mg on microstructure and corrosion properties of ZnMg alloy. <i>Journal of Alloys and Compounds</i> , <b>2014</b> , 602, 101-107	5.7	90
752	Surface modification of anodized Mg in ammonium hydrogen fluoride by various voltages. <b>2014</b> , 259, 310-317		14
751	Biodegradation of metallic magnesium elicits an inflammatory response in primary nasal epithelial cells. <i>Acta Biomaterialia</i> , <b>2014</b> , 10, 996-1004	10.8	22
750	In-vitro characterization of stress corrosion cracking of aluminium-free magnesium alloys for temporary bio-implant applications. <b>2014</b> , 42, 629-36		64
749	Effects of zirconium and nitrogen plasma immersion ion implantation on the electrochemical corrosion behavior of MgZrRE alloy in simulated body fluid and cell culture medium. <b>2014</b> , 86, 239-251		40
748	Fabrication of porous and pillar-shaped Mg by magnetron sputtering. <b>2014</b> , 550, 220-226		4
747	Magnesium-based implants: a mini-review. <b>2014</b> , 27, 142-54		69
746	Effects of solidification cooling rate on the corrosion resistance of MgZnCa alloy. <b>2014</b> , 24, 452-457		18
745	Microstructure of Directionally Solidified Mg-Zn Alloy with Different Growth Rates. <b>2015</b> , 816, 411-417		9
744	In vitro and in vivo corrosion of the novel magnesium alloy Mg-La-Nd-Zr: influence of the measurement technique and in vivo implant location. <b>2015</b> , 10, 045021		19
743	Influence of solution treatment on microstructure, mechanical and corrosion properties of Mg-4Zn alloy. <b>2015</b> , 3, 247-252		18
742	References. <b>2015</b> , 457-546		
741	New horizon for high performance Mg-based biomaterial with uniform degradation behavior: Formation of stacking faults. <b>2015</b> , 5, 13933		37
740	Advances in techniques and technologies for bone implants. <b>2015</b> , 4, 26-36		4
739	Cytotoxicity of the Ga-containing coatings on biodegradable magnesium alloys. <b>2015</b> , 3, 10-19		7
738	The Effect of Zn Concentration on the Corrosion Behavior of the Composite Magnesium-10wt.% Bio-Glass. <b>2015</b> , 819, 314-318		
737	Effects of Nd on the Microstructures, Mechanical Properties and in Vitro Corrosion Behavior of Cast Mg-1Mn-2Zn-xNd Alloys. <b>2015</b> , 56, 253-258		2

736	Effect of Zn Content and Solution Treatment on Damping Capacities of Mg&ndash;Zn Casting Alloys. <b>2015</b> , 56, 1609-1612	3
735	In vitro degradation, hemolysis, and cytocompatibility of PEO/PLLA composite coating on biodegradable AZ31 alloy. <b>2015</b> , 103, 342-54	39
734	Biodegradable Materials for Bone Repair and Tissue Engineering Applications. <i>Materials</i> , <b>2015</b> , 8, 5744-5794	373
733	Magnesium, Iron and Zinc Alloys, the Trifecta of Bioresorbable Orthopaedic and Vascular Implantation - A Review. <b>2015</b> , 05,	11
732	In vitro degradation and cell viability assessment of Zn-3Mg alloy for biodegradable bone implants. <b>2015</b> , 229, 335-42	14
731	A statistical prediction of density and hardness of biodegradable mechanically alloyed Mg&Zn alloy using fractional factorial design. <i>Journal of Alloys and Compounds</i> , <b>2015</b> , 644, 476-484	5:7 25
730	Development of biodegradable Zn-1X binary alloys with nutrient alloying elements Mg, Ca and Sr. <b>2015</b> , 5, 10719	187
729	Effects of gas produced by degradation of Mg-Zn-Zr Alloy on cancellous bone tissue. <b>2015</b> , 55, 556-61	21
728	Microstructure, corrosion behavior and cytotoxicity of biodegradable Mg-Sn implant alloys prepared by sub-rapid solidification. <b>2015</b> , 54, 245-51	44
727	Selection of Alloying Elements and Reinforcements Based on Toxicity and Mechanical Properties. <b>2015</b> , 35-67	0
726	Powder metallurgical low-modulus Ti-Mg alloys for biomedical applications. <b>2015</b> , 56, 241-50	54
725	Improvement of corrosion resistance of magnesium alloys for biomedical applications. <b>2015</b> , 33, 101-117	45
724	Enhancing the performance of Mg-based implant materials by introducing basal plane stacking faults. <b>2015</b> , 3, 7386-7400	13
723	In vitro evaluation of biodegradable magnesium alloys containing micro-alloying additions of strontium, with and without zinc. <b>2015</b> , 3, 8874-8883	16
722	In vitro and in vivo evaluation of effects of Mg&Zn alloy on tight junction of intestinal epithelial cell. <b>2015</b> , 25, 3760-3766	6
721	Preparation and characterization of as-extruded Mg&Sn alloys for orthopedic applications. <b>2015</b> , 70, 60-67	60
720	Phosphate treatment of magnesium alloy implants for biomedical applications. <b>2015</b> , 23-57	3
719	Study on microstructure and properties of extruded Mg-2Nd-0.2Zn alloy as potential biodegradable implant material. <b>2015</b> , 49, 422-429	29



718	Improving in-vitro biocorrosion resistance of Mg-Zn-Mn-Ca alloy in Hank's solution through addition of cerium. <b>2015</b> , 33, 93-101	22
717	Influence of Ca and Zn on the microstructure and corrosion of biodegradable Mg-Ca-Zn alloys. <b>2015</b> , 93, 222-233	118
716	Surface modification of biodegradable porous Mg bone scaffold using polycaprolactone/bioactive glass composite. <b>2015</b> , 49, 436-444	76
715	Microstructures, mechanical and corrosion properties and biocompatibility of as extruded Mg-Mn-Zn-Nd alloys for biomedical applications. <b>2015</b> , 49, 93-100	59
714	Corrosion resistance and calcium-phosphorus precipitation of micro-arc oxidized magnesium for biomedical applications. <b>2015</b> , 330, 431-438	22
713	Bioabsorbable behaviour of magnesium alloys in an in vivo approach. <b>2015</b> , 123-178	2
712	In vivo study of magnesium plate and screw degradation and bone fracture healing. <i>Acta Biomaterialia</i> , <b>2015</b> , 18, 262-9	10.8 211
711	Friction stir welding effect on transverse rigidity and sound transmission characteristics of AZ31B magnesium alloy. <b>2015</b> , 21, 64-68	
710	In vitro and in vivo studies on the degradation of high-purity Mg (99.99wt.%) screw with femoral intracondylar fractured rabbit model. <b>2015</b> , 64, 57-69	152
709	Review on Zn-Based Alloys as Potential Biodegradable Medical Devices Materials. <b>2015</b> , 776, 277-281	7
708	Effect of solution treatment on corrosion characteristics of biodegradable Mg-Zn alloy. <b>2015</b> , 25, 1490-1499	14
707	Addition of Zn to the ternary Mg-Ca-Sr alloys significantly improves their antibacterial property. <b>2015</b> , 3, 6676-6689	53
706	In vitro study of polycaprolactone/bioactive glass composite coatings on corrosion and bioactivity of pure Mg. <b>2015</b> , 355, 832-841	32
705	Analysis of intermetallic particles in Mg-2 wt.%Zn binary alloy using transmission electron microscopy. <b>2015</b> , 106, 428-436	14
704	Mg-based bulk metallic glasses for biodegradable implant materials: A review on glass forming ability, mechanical properties, and biocompatibility. <b>2015</b> , 426, 110-115	45
703	Structure, mechanical property and corrosion behaviors of (HA+TCP)/Mg-5Sn composite with interpenetrating networks. <b>2015</b> , 56, 386-92	11
702	Synthesis and Evaluation of Mechanical and Biological Properties of Scaffold Prepared From Ti and Mg With Different Volume Percent. <b>2015</b> , 45, 1087-1091	20
701	Effects of grain size on the corrosion resistance of pure magnesium by cooling rate-controlled solidification. <b>2015</b> , 9, 247-253	35

700	Microstructure and degradation behavior of forged FeMnBi alloys. <b>2015</b> , 29, 1540014	5
699	Mechanical properties and corrosion resistance of hot extruded Mg <sub>0.5</sub> Zn <sub>1</sub> Ca alloy. <b>2015</b> , 195, 50-58	30
698	Properties of WZ21 (%wt) alloy processed by a powder metallurgy route. <b>2015</b> , 46, 115-26	20
697	A novel multilayer model with controllable mechanical properties for magnesium-based bone plates. <b>2015</b> , 26, 164	2
696	Effects of zirconium and strontium on the biocorrosion of Mg-Zr-Sr alloys for biodegradable implant applications. <b>2015</b> , 3, 3714-3729	20
695	Appropriate Mechanochemical Conditions for Corrosion-Fatigue Testing of Magnesium Alloys for Temporary Bioimplant Applications. <b>2015</b> , 67, 1137-1142	11
694	Multifunctional MgF <sub>2</sub> /Polydopamine Coating on Mg Alloy for Vascular Stent Application. <b>2015</b> , 31, 733-743	55
693	Significantly improved corrosion resistance of heat-treated Mg-Al-Cd alloy containing profuse needle-like precipitates within grains. <b>2015</b> , 94, 171-178	35
692	Mechanical properties and corrosion behavior of Mg-Gd-Ca-Zr alloys for medical applications. <b>2015</b> , 47, 38-48	30
691	Microstructure-modified biodegradable magnesium alloy for promoting cytocompatibility and wound healing in vitro. <b>2015</b> , 26, 248	14
690	Multifunctional Properties of Bulk Nanostructured Metallic Materials. <b>2015</b> , 27-100	3
689	Conventional and improved cytotoxicity test methods of newly developed biodegradable magnesium alloys. <b>2015</b> , 21, 1108-1117	5
688	Fundamental understanding of the corrosion and biomineralization of MgO surfaces [An in situ AFM study. <b>2015</b> , 100, 496-503	4
687	Effects of extracellular magnesium extract on the proliferation and differentiation of human osteoblasts and osteoclasts in coculture. <i>Acta Biomaterialia</i> , <b>2015</b> , 27, 294-304	10.8 110
686	Surface modification of biodegradable magnesium and its alloys for biomedical applications. <b>2015</b> , 2, 135-51	108
685	Corrosion fatigue of a magnesium alloy in modified simulated body fluid. <b>2015</b> , 137, 2-11	62
684	Mg and Mg alloys: how comparable are in vitro and in vivo corrosion rates? A review. <i>Acta Biomaterialia</i> , <b>2015</b> , 13, 16-31	10.8 283
683	An investigation of the corrosion mechanisms of WE43 Mg alloy in a modified simulated body fluid solution: The effect of electrolyte renewal. <b>2015</b> , 91, 297-310	60

682	Advances in microarc oxidation coated AZ31 Mg alloys for biomedical applications. <b>2015</b> , 91, 7-28	95
681	The in vitro biocompatibility and macrophage phagocytosis of Mg17Al12 phase in Mg-Al-Zn alloys. <b>2015</b> , 103, 2405-15	10
680	The Mechanical Properties and Corrosion Behavior of Quaternary Mg-6Zn-0.8Mn-xCa Alloys. <b>2015</b> , 24, 598-608	18
679	Corrosion and wear behavior of an Mg $\bar{2}$ Zn $\bar{0}$ .2Mn alloy in simulated body fluid. <b>2015</b> , 34, 553-559	29
678	Comparison of corrosion behavior of Mg-1.5Zn-0.6Zr and AZ91D alloys in a NaCl solution. <b>2015</b> , 66, 7-15	20
677	Influence of Composition and Processing on the Corrosion of Magnesium Alloys Containing Binary and Ternary Additions of Zinc and Strontium. <b>2015</b> , 71, 38-49	21
676	Effects of tensile and compressive deformation on corrosion behaviour of a Mg $\bar{2}$ Zn alloy. <b>2015</b> , 90, 445-450	47
675	Liquation Cracking in Arc and Friction-Stir Welding of Mg-Zn Alloys. <b>2015</b> , 46, 315-327	12
674	Corrosion fatigue fracture of magnesium alloys in bioimplant applications: A review. <b>2015</b> , 137, 97-108	81
673	Nanocomposites for bone repair and osteointegration with soft tissues. <b>2016</b> , 241-257	6
672	The Enhancement of Mg Corrosion Resistance by Alloying Mn and Laser-Melting. <i>Materials</i> , <b>2016</b> , 9, 3-5	34
671	Influence of Processing Techniques on Microstructure and Mechanical Properties of a Biodegradable Mg-3Zn-2Ca Alloy. <i>Materials</i> , <b>2016</b> , 9, 3-5	16
670	Effective and Environmentally Friendly Nickel Coating on the Magnesium Alloy. <b>2016</b> , 6, 316	3
669	The Influence of Zn Content on the Corrosion and Wear Performance of Mg-Zn-Ca Alloy in Simulated Body Fluid. <b>2016</b> , 25, 3890-3895	24
668	In vitro corrosion behavior of Mg-5Zn alloy containing low Y contents. <b>2016</b> , 67, 396-405	20
667	Fretting properties of biodegradable Mg-Nd-Zn-Zr alloy in air and in Hank's solution. <b>2016</b> , 6, 35803	5
666	The synthesis and characterization of Mg-Zn-Ca alloy by powder metallurgy process. <b>2016</b> ,	10
665	The Effect of Heat-Treatment on Mechanical, Microstructural, and Corrosion Characteristics of a Magnesium Alloy With Potential Application in Resorbable Bone Fixation Hardware. <b>2016</b> ,	1

664	Corrosion of Biocompatible Mg <sub>66</sub> +xZn <sub>30-x</sub> Ca <sub>4</sub> (x=0.2) Bulk Metallic Glasses. <b>2016</b> , 61, 807-810	4
663	Unique antitumor property of the Mg-Ca-Sr alloys with addition of Zn. <b>2016</b> , 6, 21736	26
662	Synthesis of biodegradable Mg-Zn alloy using mechanical alloying: Effect of ball to powder weight ratio. <b>2016</b> ,	1
661	Synthesis of Biodegradable Mg-Zn Alloy by Mechanical Alloying: Effect of Milling Time. <b>2016</b> , 19, 525-530	16
660	In vivo corrosion behaviour of magnesium alloy in association with surrounding tissue response in rats. <b>2016</b> , 11, 025001	14
659	Effects of cooling rate on bio-corrosion resistance and mechanical properties of Mg <sub>99</sub> Zn <sub>0.5</sub> Ca casting alloy. <b>2016</b> , 26, 704-711	6
658	Effect of Texture on Biodegradable Behavior of an As-Extruded Mg <sub>93</sub> Al <sub>4</sub> Zn Alloy in Phosphate Buffer Saline Medium. <b>2016</b> , 32, 646-652	36
657	Reduction of the biodegradation rate of MgZnSrCa alloy by use of a biomimetic apatite coating. <b>2016</b> , 63, 226-230	0
656	Study on the in vitro degradation behavior of pure Mg and WE43 in human bile for 60 days for future usage in biliary. <b>2016</b> , 179, 100-103	24
655	Recent advances in bulk metallic glasses for biomedical applications. <i>Acta Biomaterialia</i> , <b>2016</b> , 36, 1-20	10.8 220
654	Biomaterials and Medical Devices. <b>2016</b> ,	9
653	Prediction of Compressive Strength of Biodegradable Mg <sub>99</sub> Zn/HA Composite via Response Surface Methodology and Its Biodegradation. <b>2016</b> , 29, 464-474	9
652	In vivo monitoring the biodegradation of magnesium alloys with an electrochemical H <sub>2</sub> sensor. <i>Acta Biomaterialia</i> , <b>2016</b> , 36, 361-8	10.8 35
651	Synergistic effect of a biodegradable Mg <sub>99</sub> Zn alloy on osteogenic activity and anti-biofilm ability: an in vitro and in vivo study. <b>2016</b> , 6, 45219-45230	8
650	Site-Dependent Osseointegration of Biodegradable High-Purity Magnesium for Orthopedic Implants in Femoral Shaft and Femoral Condyle of New Zealand Rabbits. <b>2016</b> , 32, 883-888	13
649	Investigation of microstructure and mechanical properties of Mg <sub>99</sub> Zn/Al multilayered composite developed by accumulative roll bonding. <b>2016</b> , 8, 104-106	5
648	Cytocompatibility of magnesium and AZ31 alloy with three types of cell lines using a direct in vitro method. <b>2016</b> , 27, 145	11
647	Damping Capacities of Mg-4 Pct Zn-(0-0.5) Pct Ca Biomedical Alloys. <b>2016</b> , 47, 4784-4787	0

646	Design of magnesium alloys with controllable degradation for biomedical implants: From bulk to surface. <i>Acta Biomaterialia</i> , <b>2016</b> , 45, 2-30	10.8	203
645	Effects of external stress on biodegradable orthopedic materials: A review. <i>Bioactive Materials</i> , <b>2016</b> , 1, 77-84	16.7	16
644	Research of a novel biodegradable surgical staple made of high purity magnesium. <i>Bioactive Materials</i> , <b>2016</b> , 1, 122-126	16.7	30
643	Electrical Discharge Machining on Biodegradable AZ31 Magnesium Alloy Using Taguchi Method. <b>2016</b> , 148, 916-922		38
642	Mg-Zn-Ca amorphous alloys for application as temporary implant: Effect of Zn content on the mechanical and corrosion properties. <i>Materials and Design</i> , <b>2016</b> , 110, 188-195	8.1	30
641	Microstructure, mechanical and bio-corrosion properties of as-extruded Mg <sub>95</sub> Sn <sub>5</sub> alloys. <b>2016</b> , 26, 1574-1582		22
640	Microstructure, Mechanical Properties, Corrosion Behavior and Biocompatibility of As-Extruded Biodegradable Mg <sub>95</sub> Sn <sub>5</sub> Zn <sub>0.5</sub> Mn Alloy. <b>2016</b> , 32, 874-882		47
639	The role of solution heat treatment on corrosion and mechanical behaviour of Mg <sub>95</sub> Zn <sub>5</sub> biodegradable alloys. <b>2016</b> , 55, 53-64		9
638	Corrosion Behavior and Surface Modification of Mg-Zn Implant Alloys. <b>2016</b> , 25, 4171-4180		3
637	Improved corrosion resistance and biocompatibility of a calcium phosphate coating on a magnesium alloy for orthopedic applications. <b>2016</b> , 14, 169-183		6
636	The role of titania on the microstructure, biocorrosion and mechanical properties of Mg/HA-based nanocomposites for potential application in bone repair. <b>2016</b> , 42, 18223-18237		7
635	Drag Effects of Solute and Second Phase Distributions on the Grain Growth Kinetics of Pre-Extruded Mg-6Zn Alloy. <b>2016</b> , 32, 1260-1266		21
634	The in vivo degradation and bone-implant interface of Mg-Nd-Zn-Zr alloy screws: 18 months post-operation results. <b>2016</b> , 113, 183-187		48
633	Evolution of the microstructure and mechanical properties of Mg-matrix in situ composites during spark plasma sintering. <b>2016</b> , 59, 302-307		11
632	Cytotoxicity of 3CβC Investigated Through Strict Adherence to ISO 10993. <b>2016</b> , 27-61		3
631	In vitro evaluation of effects of Mg-6Zn alloy extracts on apoptosis of intestinal epithelial cells. <b>2016</b> , 31, 1387-1393		
630	Biodegradable Metals for Cardiovascular Stents: from Clinical Concerns to Recent Zn-Alloys. <b>2016</b> , 5, 1121-40		231
629	Sonochemical Syntheses and Structural Elucidation of New Dinuclear Lanthanum (III) Complex: Precursors for La <sub>2</sub> O <sub>3</sub> Nanostructure. <b>2016</b> , 46, 1865-1870		1

628	Biodegradable magnesium alloys for orthopaedic applications: A review on corrosion, biocompatibility and surface modifications. <b>2016</b> , 68, 948-963		445
627	Mechanical properties and in vitro biodegradation of newly developed porous Zn scaffolds for biomedical applications. <i>Materials and Design</i> , <b>2016</b> , 108, 136-144	8.1	50
626	Blood compatibility of zinc/calcium phosphate conversion coating on Mg <sub>0.33</sub> Li <sub>0.6</sub> Ca alloy. <b>2016</b> , 10, 281-289		20
625	In Vitro Evaluation of the Feasibility of Commercial Zn Alloys as Biodegradable Metals. <b>2016</b> , 32, 909-918		66
624	Surface characterization, in vitro and in vivo biocompatibility of Mg-0.3Sr-0.3Ca for temporary cardiovascular implant. <b>2016</b> , 67, 72-84		24
623	In vitro and in vivo corrosion and histocompatibility of pure Mg and a Mg-6Zn alloy as urinary implants in rat model. <b>2016</b> , 68, 414-422		38
622	Influence of HA in the electrolyte on the properties and corrosion behavior of MAO Ca/P coating. <b>2016</b> , 67, 702-709		7
621	Modelling corrosion rate of biodegradable magnesium-based alloys: The case study of Mg-Zn-RE-xCa (x = 0, 0.5, 1.5, 3 and 6 wt%) alloys. <i>Journal of Alloys and Compounds</i> , <b>2016</b> , 687, 630-642	5.7	35
620	Long-term clinical study and multiscale analysis of in vivo biodegradation mechanism of Mg alloy. <b>2016</b> , 113, 716-21		230
619	On the surface properties of biodegrading magnesium and its alloys: a survey and discussion. <b>2016</b> , 4, 014005		2
618	Electrochemical corrosion behavior of silver doped tricalcium phosphate coatings on magnesium for biomedical application. <b>2016</b> , 292, 99-109		15
617	Microstructure and mechanical properties of Mg <sub>3</sub> Sn and Mg <sub>3</sub> Zn alloys prepared by different processing techniques: a comparative study. <i>Materialwissenschaft Und Werkstofftechnik</i> , <b>2016</b> , 47, 37-46 <sup>0.9</sup>		5
616	In vitro analysis of Mg scaffolds coated with polymer/hydrogel/ceramic composite layers. <b>2016</b> , 301, 126-132		9
615	Ag-Incorporated FHA Coating on Pure Mg: Degradation and in Vitro Antibacterial Properties. <b>2016</b> , 8, 5093-103		38
614	Mussel-inspired functionalization of PEO/PCL composite coating on a biodegradable AZ31 magnesium alloy. <b>2016</b> , 141, 327-337		47
613	Degradable Biomaterials for Temporary Medical Implants. <b>2016</b> , 127-160		7
612	Strengthening of Mg based alloy through grain refinement for orthopaedic application. <b>2016</b> , 59, 57-70		63
611	Microstructures and corrosion behavior of biodegradable Mg <sub>3</sub> Gd <sub>2</sub> Zn <sub>0.4</sub> Zr alloys with and without long period stacking ordered structure. <b>2016</b> , 105, 68-77		50

610	Micro-alloying with Mn in ZnMg alloy for future biodegradable metals application. <i>Materials and Design</i> , <b>2016</b> , 94, 95-104	8.1	146
609	Examination of a biodegradable magnesium screw for the reconstruction of the anterior cruciate ligament: A pilot in vivo study in rabbits. <b>2016</b> , 59, 1100-1109		43
608	In vitro degradation of biodegradable polylactic acid/magnesium composites: Relevance of Mg particle shape. <i>Acta Biomaterialia</i> , <b>2016</b> , 32, 348-357	10.8	55
607	Influence of homogenization treatment on the degradation behavior of ZnB Mg alloy in simulated body fluid solution. <b>2016</b> , 230, 615-619		
606	In vitro degradation behavior and cytocompatibility of a bioceramic anodization films on the biodegradable magnesium alloy. <b>2016</b> , 488, 82-92		20
605	Investigating the effect of salicylate salt in enhancing the corrosion resistance of AZ91 magnesium alloy for biomedical applications. <b>2016</b> , 17,		7
604	Structure, mechanical characteristics and in vitro degradation, cytotoxicity, genotoxicity and mutagenicity of novel biodegradable Zn-Mg alloys. <b>2016</b> , 58, 24-35		157
603	Nanoparticle coating on the silane-modified surface of magnesium for local drug delivery and controlled corrosion. <b>2016</b> , 30, 651-61		5
602	Microstructure, mechanical and bio-corrosion properties of MgZnZr alloys with minor Ca addition. <b>2017</b> , 33, 9-16		12
601	Microstructure, mechanical properties, bio-corrosion properties and cytotoxicity of as-extruded Mg-Sr alloys. <b>2017</b> , 70, 1081-1088		51
600	Recent advances in research on magnesium alloys and magnesium-calcium phosphate composites as biodegradable implant materials. <b>2017</b> , 31, 878-900		39
599	Biodegradable nasal stents (MgF <sub>2</sub> -coated Mg-2 wt %Nd alloy)-A long-term in vivo study. <b>2017</b> , 105, 350-365		7
598	Electrochemical evaluation of AZ 31 magnesium alloy in two simulated biological solutions. <b>2017</b> , 64, 103-108		4
597	Improvement of the mechanical properties and corrosion resistance of biodegradable ECa(PO)/Mg-Zn composites prepared by powder metallurgy: the adding ECa(PO) hot extrusion and aging treatment. <b>2017</b> , 74, 582-596		34
596	Preparation and characterization of laser-melted Mg-Sn-Zn alloys for biomedical application. <b>2017</b> , 28, 13		13
595	Microstructural, mechanical and corrosion characteristics of heat-treated Mg-1.2Zn-0.5Ca (wt%) alloy for use as resorbable bone fixation material. <b>2017</b> , 69, 203-212		50
594	Improving EDM Process on AZ31 Magnesium Alloy towards Sustainable Biodegradable Implant Manufacturing. <b>2017</b> , 7, 504-509		12
593	Assessing the Corrosion of Multi-Phase Mg-Al Alloys with High Al Content by Electrochemical Impedance, Mass Loss, Hydrogen Collection, and Inductively Coupled Plasma Optical Emission Spectrometry Solution Analysis. <b>2017</b> , 73, 526-543		24



592	Strengthening due to the in-situ evolution of $\beta$ ? Mg-Zn rich phase in a ZnO nanoparticles introduced Mg-Y alloy. <b>2017</b> , 133, 29-32		16
591	Bioactive plasma electrolytic oxidation coatings on Mg-Ca alloy to control degradation behaviour. <b>2017</b> , 315, 454-467		54
590	A Comparative Study on the Microstructure, Mechanical Properties, and Hot Deformation of Magnesium Alloys Containing Zinc, Calcium and Yttrium. <b>2017</b> , 449-461		1
589	In vivo and in vitro assessment of the biocompatibility and degradation of high-purity Mg anastomotic staples. <b>2017</b> , 31, 1203-1214		13
588	In vivo response of AZ31 alloy as biliary stents: a 6 months evaluation in rabbits. <b>2017</b> , 7, 40184		10
587	Thermal Characteristics, Mechanical Properties, In Vitro Degradation and Cytotoxicity of Novel Biodegradable Zn-Al-Mg and Zn-Al-Mg-Bi Alloys. <b>2017</b> , 30, 201-211		27
586	A biodegradable AZ91 magnesium alloy coated with a thin nanostructured hydroxyapatite for improving the corrosion resistance. <b>2017</b> , 75, 95-103		46
585	Computer-aided cooling curve thermal analysis and microstructural evolution of Mg-Bi-Zn-Y cast alloys. <b>2017</b> , 130, 1429-1437		10
584	The hot deformation behavior and microstructure evolution of HA/Mg-3Zn-0.8Zr composites for biomedical application. <b>2017</b> , 77, 690-697		17
583	A strain-mediated corrosion model for bioabsorbable metallic stents. <i>Acta Biomaterialia</i> , <b>2017</b> , 55, 505-517.		15
582	In vitro degradation and cytocompatibility of a silane/Mg(OH) <sub>2</sub> composite coating on AZ31 alloy by spin coating. <i>Journal of Alloys and Compounds</i> , <b>2017</b> , 714, 186-193	5.7	20
581	Potential biodegradable Zn-Cu binary alloys developed for cardiovascular implant applications. <b>2017</b> , 72, 182-191		127
580	Mussel-inspired nano-multilayered coating on magnesium alloys for enhanced corrosion resistance and antibacterial property. <b>2017</b> , 157, 432-439		19
579	Degradable, absorbable or resorbable? what is the best grammatical modifier for an implant that is eventually absorbed by the body?. <b>2017</b> , 60, 377-391		40
578	Atomic layer deposited ZrO nanofilm on Mg-Sr alloy for enhanced corrosion resistance and biocompatibility. <i>Acta Biomaterialia</i> , <b>2017</b> , 58, 515-526	10.8	56
577	Polydopamine mediated assembly of hydroxyapatite nanoparticles and bone morphogenetic protein-2 on magnesium alloys for enhanced corrosion resistance and bone regeneration. <b>2017</b> , 105, 2750-2761		20
576	Dynamic Corrosion and Material Characteristics of Mg-Zn-Zr Mini-Tubes: The Influence of Microstructures and Extrusion Parameters. <b>2017</b> , 19, 1700159		11
575	Magnesium-based biodegradable alloys: Degradation, application, and alloying elements. <b>2017</b> , 9, 27-38		45



574	Development of Mg-Based Degradable Metallic Biomaterials. <b>2017</b> , 59-112		
573	Development of Zn-Based Degradable Metallic Biomaterials. <b>2017</b> , 161-188		
572	[First results with a resorbable MgYREZr compression screw in unstable scaphoid fractures show extensive bone cysts]. <b>2017</b> , 49, 37-41		19
571	Enhanced Mechanical Properties and Corrosion Behavior of Biodegradable Mg-Zn/HA Composite. <b>2017</b> , 48, 2519-2528		13
570	Biological activity evaluation of magnesium fluoride coated Mg-Zn-Zr alloy in vivo. <b>2017</b> , 75, 1068-1074		27
569	In vivo evaluation of Mg-6Zn and titanium alloys on collagen metabolism in the healing of intestinal anastomosis. <b>2017</b> , 7, 44919		14
568	Plastic strains during stent deployment have a critical influence on the rate of corrosion in absorbable magnesium stents. <b>2017</b> , 55, 1261-1275		10
567	Microstructure and properties of co-continuous (ETCP+MgO)/Zn-Mg composite fabricated by suction exsorption for biomedical applications. <b>2017</b> , 27, 1996-2006		4
566	Development of magnesium-based biodegradable metals with dietary trace element germanium as orthopaedic implant applications. <i>Acta Biomaterialia</i> , <b>2017</b> , 64, 421-436	10.8	55
565	Enhanced cell attachment and hemocompatibility of titanium by nanoscale surface modification through severe plastic integration of magnesium-rich islands and porosification. <b>2017</b> , 7, 12965		10
564	Effect of friction stir processing on the corrosion behavior of pure Mg. <b>2017</b> , 53, 895-901		3
563	A pro-angiogenic degradable Mg-poly(lactic-co-glycolic acid) implant combined with rhbFGF in a rat limb ischemia model. <i>Acta Biomaterialia</i> , <b>2017</b> , 64, 279-289	10.8	5
562	Influence of alloying element Zn on the microstructural, mechanical and corrosion properties of binary Mg-Zn alloys after severe plastic deformation. <b>2017</b> , 134, 69-75		32
561	Effect of Minor Yttrium on Microstructure and Mechanical Properties of Bioimplant Mg-5Zn Alloy. <b>2017</b> , 26, 5590-5598		4
560	Powder metallurgy preparation of Mg-Ca alloy for biodegradable implant application. <b>2017</b> , 817, 012062		4
559	Biodegradability and antibacterial properties of MAO coatings formed on Mg-Sr-Ca alloys in an electrolyte containing Ag doped hydroxyapatite. <b>2017</b> , 644, 92-98		25
558	Laser irradiation of Mg-Al-Zn alloy: Reduced electrochemical kinetics and enhanced performance in simulated body fluid. <b>2017</b> , 12, 021003		6
557	The improvement of corrosion resistance, biocompatibility and osteogenesis of the novel porous Mg-Nd-Zn alloy. <b>2017</b> , 5, 7661-7674		14

556	Nd-induced honeycomb structure of intermetallic phase enhances the corrosion resistance of Mg alloys for bone implants. <b>2017</b> , 28, 130		16
555	Effect of duty cycle on preparation and corrosion behavior of electrodeposited calcium phosphate coatings on AZ91. <b>2017</b> , 426, 418-426		22
554	Thermal stability and microstructure development of cast and powder metallurgy produced Mg <sub>70</sub> Zn alloy during heat treatment. <b>2017</b> , 5, 173-180		8
553	A comprehensive evaluation between the efficiency of different treatments in modifying the properties and behavior of magnesium alloys as degradable biomaterials. <b>2017</b> , 68, 995-1003		3
552	Degradation of Mg-6Zn alloy stents does not influence the healing of the common bile duct. <b>2017</b> , 13, 2651-2656		3
551	Study on the Mg-Li-Zn ternary alloy system with improved mechanical properties, good degradation performance and different responses to cells. <i>Acta Biomaterialia</i> , <b>2017</b> , 62, 418-433	10.8	43
550	Advances in the induction of osteogenesis by zinc surface modification based on titanium alloy substrates for medical implants. <i>Journal of Alloys and Compounds</i> , <b>2017</b> , 726, 1072-1084	5.7	24
549	Degradation of Bioresorbable Mg-4Zn-1Sr Intramedullary Pins and Associated Biological Responses in Vitro and in Vivo. <b>2017</b> , 9, 44332-44355		25
548	Effects of Heat Treatment on Corrosion and Wear Behaviors of Mg-6Gd-2Zn-0.4Zr Alloy in Simulated Body Fluid. <b>2017</b> , 26, 5501-5510		8
547	Corrosion behavior of severely plastic deformed magnesium based alloys: A review. <b>2017</b> , 53, 439-448		31
546	In vivo study of microarc oxidation coated biodegradable magnesium plate to heal bone fracture defect of 3mm width. <b>2017</b> , 158, 147-156		22
545	Corrosion and biocompatibility improvement of magnesium-based alloys as bone implant materials: a review. <b>2017</b> , 4, 129-137		60
544	The Bioresorption and Guided Bone Regeneration of Absorbable Hydroxyapatite-Coated Magnesium Mesh. <b>2017</b> , 28, 518-523		9
543	In vitro biodegradation, electrochemical corrosion evaluations and mechanical properties of an Mg/HA/TiO <sub>2</sub> nanocomposite for biomedical applications. <i>Journal of Alloys and Compounds</i> , <b>2017</b> , 696, 768-781	5.7	24
542	Fabrication of novel magnesium-matrix composites and their mechanical properties prior to and during in vitro degradation. <b>2017</b> , 67, 74-86		23
541	Corrosion resistance and cytocompatibility of tantalum-surface-functionalized biomedical ZK60 Mg alloy. <b>2017</b> , 114, 45-56		75
540	Plasma electrolytic oxidation of binary Mg-Al and Mg-Zn alloys. <b>2017</b> , 323, 72-81		10
539	Do biodegradable magnesium alloy intramedullary interlocking nails prematurely lose fixation stability in the treatment of tibial fracture? A numerical simulation. <b>2017</b> , 65, 117-126		7

538	Design of experiments approach in AZ31 powder selective laser melting process optimization. <b>2017</b> , 17, 9-18		38
537	Effect of Solution Pretreatment on Homogeneity and Corrosion Resistance of Biomedical MgZnCa Alloy Processed by High Pressure Torsion . <b>2017</b> , 19, 1600326		7
536	Stress corrosion cracking and corrosion fatigue characterisation of MgZn1Ca0.3 (ZX10) in a simulated physiological environment. <b>2017</b> , 65, 634-643		43
535	Resorbable bone fixation alloys, forming, and post-fabrication treatments. <b>2017</b> , 70, 870-888		61
534	Effects of Zn concentration and heat treatment on the microstructure, mechanical properties and corrosion behavior of as-extruded Mg-Zn alloys produced by powder metallurgy. <i>Journal of Alloys and Compounds</i> , <b>2017</b> , 693, 1277-1289	5.7	58
533	Corrosion resistance and in vitro bioactivity of Si-containing coating prepared on a biodegradable Mg-Zn-Ca bulk metallic glass by micro-arc oxidation. <b>2017</b> , 456, 125-131		22
532	Preparation of Mg/Nano-HA Composites by Spark Plasma Sintering Method and Evaluation of Different Milling Time Effects on Their Microhardness, Corrosion Resistance, and Biocompatibility . <b>2017</b> , 19, 1600294		10
531	Effect of solid solution treatment on in vitro degradation rate of as-extruded Mg-Zn-Ag alloys. <b>2017</b> , 27, 2607-2612		9
530	Magnesium oxide nanoparticle-loaded polycaprolactone composite electrospun fiber scaffolds for bone-soft tissue engineering applications: in-vitro and in-vivo evaluation. <b>2017</b> , 12, 055011		39
529	Friction and wear behaviors of biodegradable Mg-6Gd-0.5Zn-0.4Zr alloy under simulated body fluid condition. <b>2017</b> , 5, 448-453		18
528	Surface Modification and Coatings for Controlling the Degradation and Bioactivity of Magnesium Alloys for Medical Applications. <b>2017</b> , 331-363		7
527	Biodegradable Mg/HA/TiO <sub>2</sub> Nanocomposites Coated with MgO and Si/MgO for Orthopedic Applications: A Study on the Corrosion, Surface Characterization, and Biocompatibility. <b>2017</b> , 7, 154		8
526	Monitoring degradation products and metal ions in vivo. <b>2017</b> , 19-44		6
525	Biodegradable Materials and Metallic Implants-A Review. <b>2017</b> , 8,		182
524	Characterization and In Vitro and In Vivo Assessment of a Novel Cellulose Acetate-Coated Mg-Based Alloy for Orthopedic Applications. <i>Materials</i> , <b>2017</b> , 10,	3.5	30
523	Preparation and Characterization of Zinc Materials Prepared by Powder Metallurgy. <b>2017</b> , 7, 396		13
522	In Vitro Corrosion Properties of Mg Matrix In Situ Composites Fabricated by Spark Plasma Sintering. <b>2017</b> , 7, 358		17
521	Influence of the Microstructure and Silver Content on Degradation, Cytocompatibility, and Antibacterial Properties of Magnesium-Silver Alloys In Vitro. <b>2017</b> , 2017, 8091265		30

520	Surface Modification of Magnesium and its Alloys Using Anodization for Orthopedic Implant Application. <b>2017</b> ,	2
519	Mg and Its Alloys for Biomedical Applications: Exploring Corrosion and Its Interplay with Mechanical Failure. <b>2017</b> , 7, 252	64
518	Resistance of Magnesium Alloys to Corrosion Fatigue for Biodegradable Implant Applications: Current Status and Challenges. <i>Materials</i> , <b>2017</b> , 10,	3.5 17
517	Effect of Alloying Elements on Properties of Biodegradable Magnesium Composite for Implant Application. <b>2017</b> , 06,	0
516	Effect of Mn on microstructure and corrosion properties of extruded Mg-1%Zn alloy. <b>2017</b> , 182, 012048	
515	Microstructure, Mechanical Properties and Corrosion Behavior of Extruded Mg <sub>70</sub> Zn <sub>30</sub> Alloys with Single-Phase Structure. <b>2018</b> , 31, 575-583	7
514	Influence of Zn Content on Microstructure and Tensile Properties of Mg <sub>70</sub> Zn <sub>30</sub> Alloy. <b>2018</b> , 31, 351-361	23
513	Indirectly extruded biodegradable Zn-0.05wt%Mg alloy with improved strength and ductility: In vitro and in vivo studies. <b>2018</b> , 34, 1618-1627	83
512	Controlling corrosion rate of Magnesium alloy using powder mixed electrical discharge machining. <b>2018</b> , 344, 012010	10
511	Corrosion behavior of biodegradable Mg-based alloys via femtosecond laser surface melting. <b>2018</b> , 448, 424-434	37
510	Review of magnesium-based biomaterials and their applications. <b>2018</b> , 6, 23-43	277
509	In vitro and in vivo evaluation of novel biodegradable Mg-Ag-Y alloys for use as resorbable bone fixation implant. <b>2018</b> , 106, 2059-2069	7
508	Surface roughness optimization in machining of AZ31 magnesium alloy using ABC algorithm. <b>2018</b> , 144, 03006	2
507	Influence of heat treatment and hot extrusion on the microstructure and tensile properties of rare earth modified Mg-Zn based alloy. <b>2018</b> , 292, 012041	3
506	Effects of microstructure transformation on mechanical properties, corrosion behaviors of Mg-Zn-Mn-Ca alloys in simulated body fluid. <b>2018</b> , 80, 246-257	23
505	Microstructure, Mechanical Properties and Corrosion Behavior of Porous Mg-6 wt.% Zn Scaffolds for Bone Tissue Engineering. <b>2018</b> , 27, 970-984	19
504	Building towards a standardised approach to biocorrosion studies: a review of factors influencing Mg corrosion in vitro pertinent to in vivo corrosion. <b>2018</b> , 61, 475-500	35
503	In vitro and in vivo cytocompatibility evaluation of biodegradable magnesium-based stents: a review. <b>2018</b> , 61, 501-515	21

502	Mechanical, tribological and corrosion properties of fullerene reinforced magnesium matrix composites fabricated by semi powder metallurgy. <i>Journal of Alloys and Compounds</i> , <b>2018</b> , 740, 1149-1158	57	69
501	In Vitro and in Vivo Studies on Biomedical Magnesium Low-Alloying with Elements Gadolinium and Zinc for Orthopedic Implant Applications. <b>2018</b> , 10, 4394-4408		57
500	Structure and compression strength characteristics of the sintered Mg <sub>2</sub> Zn <sub>10</sub> Ca alloy for medical applications. <b>2018</b> , 18, 1288-1299		13
499	Particulate Matter Triggers Depressive-Like Response Associated With Modulation of Inflammatory Cytokine Homeostasis and Brain-Derived Neurotrophic Factor Signaling Pathway in Mice. <b>2018</b> , 164, 278-288		23
498	In vivo quantification of hydrogen gas concentration in bone marrow surrounding magnesium fracture fixation hardware using an electrochemical hydrogen gas sensor. <i>Acta Biomaterialia</i> , <b>2018</b> , 73, 559-566	10.8	14
497	Effects of Li addition on the corrosion behaviour and biocompatibility of Mg(Li) <sub>2</sub> Zn <sub>10</sub> Ca metallic glasses. <b>2018</b> , 53, 9928-9942		5
496	Preparation and characterization of porous Mg-Zn-Ca alloy by space holder technique. <b>2018</b> ,		1
495	Zinc-based alloys for degradable vascular stent applications. <i>Acta Biomaterialia</i> , <b>2018</b> , 71, 1-23	10.8	187
494	Long-term in vivo evolution of high-purity Mg screw degradation - Local and systemic effects of Mg degradation products. <i>Acta Biomaterialia</i> , <b>2018</b> , 71, 215-224	10.8	49
493	Effect of trace HA on microstructure, mechanical properties and corrosion behavior of Mg-2Zn-0.5Sr alloy. <b>2018</b> , 34, 299-310		23
492	Biodegradation of Mg-14Li alloy in simulated body fluid: A proof-of-concept study. <i>Bioactive Materials</i> , <b>2018</b> , 3, 110-117	16.7	11
491	Preparation and characterization of porous zinc prepared by spark plasma sintering as a material for biodegradable scaffolds. <i>Materials Chemistry and Physics</i> , <b>2018</b> , 203, 249-258	4.4	30
490	Microstructure characterization of a directionally solidified Mg-12wt.%Zn alloy: Equiaxed dendrites, eutectic mixture and type/ morphology of intermetallics. <i>Materials Chemistry and Physics</i> , <b>2018</b> , 204, 105-131	4.4	10
489	Bio-corrosion behavior and mechanical characteristics of magnesium-titania-hydroxyapatite nanocomposites coated by magnesium-oxide flakes and silicon for use as resorbable bone fixation material. <b>2018</b> , 77, 360-374		14
488	Microstructures, mechanical properties, and degradation behaviors of heat-treated Mg-Sr alloys as potential biodegradable implant materials. <b>2018</b> , 77, 47-57		24
487	The influence of two common sterilization techniques on the corrosion of Mg and its alloys for biomedical applications. <b>2018</b> , 106, 1907-1917		12
486	Utilizing Low-Cost Eggshell Particles to Enhance the Mechanical Response of Mg <sub>2</sub> .5Zn Magnesium Alloy Matrix. <b>2018</b> , 20, 1700919		24
485	Influence of Hot Extrusion and Aging Treatment on the Properties of Biodegradable Mg-Zn-Y Alloy. <b>2018</b> , 47, 773-779		1

484	Surface Roughness Optimization in Machining of Biodegradable Magnesium Alloys. <b>2018</b> , 5, 11787-11793		2
483	In vitro degradation and cytotoxicity of Mg-5Zn-0.3Ca/nHA biocomposites prepared by powder metallurgy. <b>2018</b> , 28, 1745-1754		13
482	The effect of Mg-2Zn-0.5Nd alloy on the mTOR signalling pathway in L6 cells. <b>2018</b> , 18, 1885-1891		1
481	Effects of the Intermetallic Phases on Microstructure and Properties of Biodegradable Magnesium Matrix and Zinc Matrix Prepared by Powder Metallurgy. <b>2018</b> , 59, 1837-1844		3
480	Microstructure and Corrosion Behavior of Extruded Mg-Zn-Er Alloys. <b>2018</b> , 941, 1766-1771		1
479	Effect of Sn Content on the Microstructure, Mechanical Properties and Corrosion Behavior of Biodegradable Mg <sub>70</sub> Sn <sub>30</sub> (1, 3 and 5 wt.%) Sn <sub>70</sub> Zn <sub>30</sub> 0.5Ca Alloys. <i>Materials</i> , <b>2018</b> , 11,	3.5	6
478	Monitoring and Assessing the Degradation Rate of Magnesium-Based Artificial Bone In Vitro Using a Wireless Magnetoelastic Sensor. <b>2018</b> , 18,		9
477	Degradation Behavior of Micro-Arc Oxidized ZK60 Magnesium Alloy in a Simulated Body Fluid. <b>2018</b> , 8, 724		19
476	Magnesium glassy alloy laminated nanofibrous polymer as biodegradable scaffolds. <b>2018</b> , 502, 210-217		4
475	Assessment of the Biocompatibility and Biological Effects of Biodegradable Pure Zinc Material in the Colorectum. <i>ACS Biomaterials Science and Engineering</i> , <b>2018</b> , 4, 4095-4103	5.5	9
474	Enhanced corrosion and wear resistance of AZ31 magnesium alloy in simulated body fluid via electrodeposition of nanocrystalline zinc. <b>2018</b> , 4, 282-286		10
473	Porous NiTi Particle Dispersed Mg-Zn-Ca Bulk Metallic Glass Matrix Composites. <i>Materials</i> , <b>2018</b> , 11,	3.5	13
472	The Suitability of Zn <sub>99.3</sub> Fe Alloy as a Biodegradable Implant Material. <b>2018</b> , 8, 153		43
471	Stress corrosion cracking of an extruded magnesium alloy (ZK21) in a simulated body fluid. <b>2018</b> , 201, 47-55		19
470	Unraveling the osteogenesis of magnesium by the activity of osteoblasts in vitro. <b>2018</b> , 6, 6615-6621		13
469	Effect of zinc and rare-earth element addition on mechanical, corrosion, and biological properties of magnesium. <b>2018</b> , 33, 3466-3478		13
468	In Vitro Biodegradation and Mechanical Properties of Mg-Zn Alloy and Mg-Zn-Hydroxyapatite Composite Produced by Mechanical Alloying for Potential Application in Bone Repair. <b>2018</b> , 49, 5888-5903		7
467	To improve strength and bio-corrosion resistance of Mg-4Zn alloy via high strain rate rolling combined with double aging. <b>2018</b> , 227, 301-304		1

466	Surface design of Mg-Zn alloy temporary orthopaedic implants: Tailoring wettability and biodegradability using laser surface melting. <b>2018</b> , 347, 337-349		25
465	Synthesis of biodegradable Mg-Zn alloy by mechanical alloying: Statistical prediction of elastic modulus and mass loss using fractional factorial design. <b>2018</b> , 28, 687-699		5
464	Local pH and Its Evolution Near Mg Alloy Surfaces Exposed to Simulated Body Fluids. <b>2018</b> , 5, 1800169		37
463	Mechanical, degradation and drug-release behavior of nano-grained Fe-Ag composites for biomedical applications. <b>2018</b> , 86, 240-249		13
462	Simultaneously improving the corrosion resistance and strength of magnesium via low levels of Zn and Ge additions. <b>2018</b> , 140, 18-29		34
461	Biodegradable Magnesium Alloys Developed as Bone Repair Materials: A Review. <b>2018</b> , 2018, 9216314		83
460	Mechanical properties of magnesium alloys for medical application: A review. <b>2018</b> , 87, 68-79		108
459	Bioactive metallic surfaces for bone tissue engineering. <b>2018</b> , 79-110		4
458	Role of nanosize icosahedral quasicrystal of Mg-Al and Mg-Ca alloys in avoiding crystallization of liquid Mg: Ab initio molecular dynamics study. <b>2018</b> , 499, 173-182		4
457	Study of sintering on Mg-Zn-Ca alloy system. <b>2018</b> ,		2
456	Improvement of mechanical properties and reduction of yield asymmetry of extruded Mg-Al-Zn alloy through Sn addition. <i>Journal of Alloys and Compounds</i> , <b>2018</b> , 766, 748-758	5.7	24
455	Osteointegration of Porous Poly-εCaprolactone-Coated and Previtallised Magnesium Implants in Critically Sized Calvarial Bone Defects in the Mouse Model. <i>Materials</i> , <b>2017</b> , 11,	3.5	6
454	Effect of Homogenization on Microstructure Characteristics, Corrosion and Biocompatibility of Mg-Zn-Mn-xCa Alloys. <i>Materials</i> , <b>2018</b> , 11,	3.5	9
453	Mechanical and Corrosion Testing of Magnesium WE43 Specimens for Pitting Corrosion Model Calibration. <b>2018</b> , 20, 1800656		6
452	A review of additive manufacturing of magnesium alloys. <b>2018</b> ,		13
451	Fabrication and properties of biodegradable ZnO nano-rods/porous Zn scaffolds. <b>2018</b> , 144, 227-238		6
450	Effects of trace Ca/Sn addition on corrosion behaviors of biodegradable Mg <sub>99</sub> Zn <sub>0.2</sub> Mn alloy. <b>2018</b> , 6, 1-14		34
449	In vitro degradation behavior and cytocompatibility of Mg-6Zn-Mn alloy. <b>2018</b> , 228, 77-80		25



448	Microstructure, Mechanical Properties and Corrosion Behavior of Mg <sub>92</sub> Zn <sub>8</sub> Alloys with Different Compositions. <b>2018</b> , 477-485		
447	Fabrication and properties of porous Zn-Ag alloy scaffolds as biodegradable materials. <i>Materials Chemistry and Physics</i> , <b>2018</b> , 219, 433-443	4-4	28
446	Fabrication of Mg <sub>65</sub> Zn <sub>30</sub> Ca <sub>5</sub> amorphous coating by laser remelting. <b>2018</b> , 500, 205-209		7
445	A duplex coating composed of electrophoretic deposited graphene oxide inner-layer and electrodeposited graphene oxide/Mg substituted hydroxyapatite outer-layer on carbon/carbon composites for biomedical application. <b>2018</b> , 44, 21229-21237		9
444	Effect of ECAP Processing on Corrosion Behavior and Mechanical Properties of the ZFW MP Magnesium Alloy as a Biodegradable Implant Material. <b>2018</b> , 20, 1800121		15
443	Microstructure, corrosion and cytotoxicity analysis of novel biodegradable Mg-Zn-Ca/HA alloys/composites for future biomedical applications. <b>2018</b> ,		
442	Effect of dissolution of magnesium alloy AZ31 on the rheological properties of Phosphate Buffer Saline. <b>2018</b> , 85, 201-208		2
441	Determination of ideal Mg <sub>85</sub> Zn <sub>15</sub> Ca alloy depending on Ca concentration for biomaterials. <i>Journal of Alloys and Compounds</i> , <b>2018</b> , 766, 994-1002	5-7	6
440	Effects of Sr on the microstructure, mechanical properties and corrosion behavior of Mg-2Zn-xSr alloys. <b>2018</b> , 29, 87		14
439	Enhanced Strength and Corrosion Resistance of Mg <sub>92</sub> Zn <sub>8</sub> 0.6Zr Alloy with Extrusion. <b>2019</b> , 32, 10-22		13
438	In vitro and in vivo studies on magnesium alloys to evaluate the feasibility of their use in obstetrics and gynecology. <i>Acta Biomaterialia</i> , <b>2019</b> , 97, 623-636	10-8	8
437	Development of magnesium implants by application of conjoint-based quality function deployment. <b>2019</b> , 107, 2814-2834		1
436	Preparation of a single-phase Mg <sub>85</sub> Zn alloy via ECAP-stimulated solution treatment. <b>2019</b> , 7, 305-314		12
435	Corrosion resistance and cytotoxicity of AZ31 magnesium alloy with N <sup>+</sup> ion implantation. <b>2019</b> , 34, 730-736		10
434	In vitro and in vivo studies on the biodegradable behavior and bone response of Mg <sub>69</sub> Zn <sub>27</sub> Ca <sub>4</sub> metal glass for treatment of bone defect. <b>2019</b> , 35, 2254-2262		3
433	Effect of Ca/P ratios on porous calcium phosphate salt bioceramic scaffolds for bone engineering by 3D gel-printing method. <b>2019</b> , 45, 20493-20500		8
432	Biodegradable nanocomposite Fe-Ag load-bearing scaffolds for bone healing. <b>2019</b> , 98, 246-254		6
431	Influence of copper on the structural, mechanical, and biological characteristics of Mg <sub>91</sub> Al <sub>9</sub> Cu alloy. <i>Materials Chemistry and Physics</i> , <b>2019</b> , 237, 121838	4-4	10



430	Evolution of mechanical behavior of magnesium alloy infiltrated 3D-printed CoCr scaffolds under corrosion in simulated body fluid. <b>2019</b> , 105, 109747		6
429	An Investigation on Microstructure Evolution, Mechanical Properties, and Strain Aging of Mg-1.8Zn-0.7Si-0.4Ca Biomedical Alloy Processed by Equal Channel Angular Pressing. <b>2019</b> , 28, 5207-5219		2
428	Particulate Matter Exposure History Affects Antioxidant Defense Response of Mouse Lung to Haze Episodes. <b>2019</b> , 53, 9789-9799		4
427	The evaluation of a degradable Magnesium alloy Bio-Transfix nail system compounded with bone morphogenetic protein-2 in a beagle anterior cruciate ligament reconstruction model. <b>2019</b> , 34, 687-698		1
426	In vitro evaluation of the ZX11 magnesium alloy as potential bone plate: Degradability and mechanical integrity. <i>Acta Biomaterialia</i> , <b>2019</b> , 97, 608-622	10.8	43
425	Mechanical and biocorrosive properties of magnesium-aluminum alloy scaffold for biomedical applications. <b>2019</b> , 98, 213-224		14
424	Improving in vitro and in vivo antibacterial functionality of Mg alloys through micro-alloying with Sr and Ga. <b>2019</b> , 104, 109926		25
423	Degradation behavior of AZ80 magnesium alloy with LSP/MAO composite bio-coating in simulated body fluid. <b>2019</b> , 6, 116587		5
422	Research on corrosion behavior and biocompatibility of a porous Mg-3%Zn/5%Ca(PO) composite scaffold for bone tissue engineering. <b>2019</b> , 17, 2280800019857064		0
421	Corrosion degradation behavior of MgZnZr bone screw in vitro and vivo. <b>2019</b> , 6, 1165g2		
420	Comparative, real-time in situ monitoring of galvanic corrosion in Mg-Mg <sub>2</sub> Ca and Mg-MgZn <sub>2</sub> couples in Hank's solution. <b>2019</b> , 161, 108185		18
419	The impact of different volume fractions of crystalline structures on the electrochemical behaviour of Mg <sub>67</sub> Zn <sub>29</sub> Ca <sub>4</sub> alloys for biomedical applications. <b>2019</b> , 54, 659-665		0
418	The influence of alloying and fabrication techniques on the mechanical properties, biodegradability and biocompatibility of zinc: A comprehensive review. <i>Acta Biomaterialia</i> , <b>2019</b> , 87, 1-40	10.8	158
417	Low hydrogen release behavior and antibacterial property of Mg-4Zn-xSn alloys. <b>2019</b> , 241, 88-91		10
416	The design strategy of intelligent biomedical magnesium with controlled-release platform. <b>2019</b> , 97, 254-263		3
415	Research on Biodegradable Mg-Zn-Gd Alloys for Potential Orthopedic Implants: In Vitro and in Vivo Evaluations. <i>ACS Biomaterials Science and Engineering</i> , <b>2019</b> , 5, 1623-1634	5.5	17
414	Effects of magnesium coating on bone-implant interfaces with and without polyether-ether-ketone particle interference: A rabbit model based on porous Ti6Al4V implants. <b>2019</b> , 107, 2388-2396		4
413	Biodegradable metallic bone implants. <b>2019</b> , 3, 544-562		88

412	Evaluation of Magnesium-based Medical Devices in Preclinical Studies: Challenges and Points to Consider. <b>2019</b> , 47, 390-400		10
411	Strategy to enhance intrinsic ductility and surface stability of Mg-Zn-R (R = La to Sm) alloys from a first-principles study. <b>2019</b> , 165, 96-100		3
410	Biodegradable magnesium alloys. <b>2019</b> , 265-289		8
409	In vitro and in vivo anti-corrosion properties and bio-compatibility of 5T/CP/Mg-3Zn scaffold coated with dopamine-gelatin composite. <b>2019</b> , 374, 152-163		7
408	Biofunctionalization of metallic implants by calcium phosphate coatings. <i>Bioactive Materials</i> , <b>2019</b> , 4, 196-206	16.7	109
407	Crevice corrosion - A newly observed mechanism of degradation in biomedical magnesium. <i>Acta Biomaterialia</i> , <b>2019</b> , 98, 152-159	10.8	17
406	The influence of volume fraction of amorphous phase on corrosion resistance of Mg67Zn 29Ca 4 alloy. <b>2019</b> , 70, 2073-2081		1
405	Effect of alloyed Sr on the microstructure and corrosion behavior of biodegradable Mg-Zn-Mn alloy in Hank's solution. <b>2019</b> , 157, 420-437		45
404	Emerging magnesium-based biomaterials for orthopedic implantation. <b>2019</b> , 8, 305-319		17
403	Magnesium matrix nanocomposites for orthopedic applications: A review from mechanical, corrosion, and biological perspectives. <i>Acta Biomaterialia</i> , <b>2019</b> , 96, 1-19	10.8	55
402	Corrosion study of biodegradable magnesium based 1393 bioactive glass in simulated body fluid. <b>2019</b> , 45, 16893-16903		5
401	In vitro degradation behavior of Mg wire/poly(lactic acid) composite rods prepared by hot pressing and hot drawing. <i>Acta Biomaterialia</i> , <b>2019</b> , 98, 125-141	10.8	14
400	Improving the mechanical properties and biocorrosion resistance of extruded Mg-Zn-Ca-Mn alloy through hot deformation. <i>Materials Chemistry and Physics</i> , <b>2019</b> , 234, 245-258	4.4	20
399	Mechanical properties and degradation behavior of binary magnesium-silver alloy sheets. <b>2019</b> , 133, 142-150		10
398	Effect of Surface Pre-Treatments on the Formation and Degradation Behaviour of a Calcium Phosphate Coating on Pure Magnesium. <b>2019</b> , 9, 259		7
397	In vivo study of the efficacy, biosafety, and degradation of a zinc alloy osteosynthesis system. <i>Acta Biomaterialia</i> , <b>2019</b> , 92, 351-361	10.8	30
396	Assessment of magnesium-based biomaterials: from bench to clinic. <b>2019</b> , 7, 2241-2263		20
395	Facile fabrication of Mg-based coating to improve the biodegradable behavior and cytocompatibility of pure zinc. <b>2019</b> , 372, 209-217		14

394	Influence of Mg on the mechanical properties and degradation performance of as-extruded ZnMgCa alloys: In vitro and in vivo behavior. <b>2019</b> , 95, 220-231		20
393	In vitro biodegradability of Mg <sub>2</sub> Gd <sub>2</sub> Zn alloys with different Zn contents and solution treatments. <b>2019</b> , 38, 620-628		10
392	Selective laser melting of Mg-Zn binary alloys: Effects of Zn content on densification behavior, microstructure, and mechanical property. <b>2019</b> , 756, 226-236		40
391	Radiographic and histologic effects of bone morphogenetic protein-2/hydroxyapatite within bioabsorbable magnesium screws in a rabbit model. <b>2019</b> , 14, 117		4
390	The Potential of Magnesium Based Materials in Mandibular Reconstruction. <b>2019</b> , 9, 302		25
389	Near-eutectic Zn-Mg alloys: Interrelations of solidification thermal parameters, microstructure length scale and tensile/corrosion properties. <b>2019</b> , 19, 582-598		16
388	Corrosion behavior of Mg <sub>2</sub> Mn <sub>2</sub> Ca alloy: Influences of Al, Sn and Zn. <b>2019</b> , 7, 38-46		42
387	Microstructure, mechanical and biodegradable properties of a Mg <sub>2</sub> Zn <sub>2</sub> Gd <sub>0.5</sub> Zr alloy with different solution treatments. <b>2019</b> , 38, 532-542		19
386	Degradable magnesium-based alloys for biomedical applications: The role of critical alloying elements. <b>2019</b> , 33, 1348-1372		25
385	Processing of Magnesium Alloy by Selective Laser Melting. <b>2019</b> , 411-418		1
384	Effects of Strontium addition on microstructure, mechanical properties, corrosion properties and cytotoxicity of Mg <sub>2</sub> Zn <sub>2</sub> Mn alloy. <b>2019</b> , 6, 056556		7
383	Effect of nano-HA content on the mechanical properties, degradation and biocompatible behavior of Mg-Zn/HA composite prepared by spark plasma sintering. <b>2019</b> , 151, 620-631		35
382	Magnesium-based composites and alloys for medical applications: A review of mechanical and corrosion properties. <i>Journal of Alloys and Compounds</i> , <b>2019</b> , 792, 1162-1190	5-7	90
381	Effect of Sn addition on the mechanical properties and bio-corrosion behavior of cytocompatible Mg <sub>2</sub> Zn based alloys. <b>2019</b> , 7, 15-26		40
380	Magnesium-zinc scaffold loaded with tetracycline for tissue engineering application: In vitro cell biology and antibacterial activity assessment. <b>2019</b> , 102, 53-65		24
379	Fundamental Theory of Biodegradable MetalsDefinition, Criteria, and Design. <b>2019</b> , 29, 1805402		111
378	Mg <sub>6</sub> Zn <sub>0.4</sub> Ca <sub>0.5</sub> Cu alloy: Physically blended microalloyed lightweight alloy with significantly high strength and ductility. <i>Journal of Alloys and Compounds</i> , <b>2019</b> , 787, 1015-1022	5-7	2
377	Corrosion and bone healing of Mg-Y-Zn-Zr-Ca alloy implants: Comparative in vivo study in a non-immobilized rat femoral fracture model. <b>2019</b> , 33, 1178-1194		7

376	Development of HA-CNTs composite coating on AZ31 magnesium alloy by cathodic electrodeposition. Part 1: Microstructural and mechanical characterization. <b>2019</b> , 45, 11174-11185	19
375	Biocorrosion and Mechanical Properties of ZXM100 and ZXM120 Magnesium Alloys. <b>2019</b> , 13, 905-914	6
374	Laser surface melting of Mg-Zn-Dy alloy for better wettability and corrosion resistance for biodegradable implant applications. <b>2019</b> , 480, 70-82	31
373	Influence of heat treatment and aging on microstructure and mechanical properties of Mg-1.8Zn-0.7Si-0.4Ca alloy. <i>Materialwissenschaft Und Werkstofftechnik</i> , <b>2019</b> , 50, 187-196	0.9
372	Selective laser melting of magnesium AZ31B alloy powder. <b>2019</b> , 26, 249-258	11
371	Investigation of heat treatment and subsequently surface modification by nano-TiO <sub>2</sub> on Mg <sub>72</sub> Zn <sub>18</sub> Ca <sub>10</sub> Mn bio-magnesium alloy. <b>2019</b> , 9, 931-939	4
370	Study on Properties of New Mg-Y-Nd-(La+Ce)-Zr Degradable Magnesium Alloy. <b>2019</b> , 358, 052059	0
369	Mechanical and degradation behaviour of biodegradable magnesium/zinc/hydroxyapatite composite with different powder mixing techniques. <b>2019</b> , 7, 566-576	16
368	Preparation and properties of open-cell zinc foams as human bone substitute material. <b>2019</b> , 16, 414-422	3
367	Atomic Layer Deposition Coating of TiO Nano-Thin Films on Magnesium-Zinc Alloys to Enhance Cytocompatibility for Bioresorbable Vascular Stents. <b>2019</b> , 14, 9955-9970	20
366	Optimizing mechanical property and cytocompatibility of the biodegradable Mg-Zn-Y-Nd alloy by hot extrusion and heat treatment. <b>2019</b> , 35, 6-18	31
365	Preparation of a high strength and high ductility Mg-6Zn alloy wire by combination of ECAP and hot drawing. <b>2019</b> , 739, 513-518	19
364	In vitro and in vivo analysis of the biodegradable behavior of a magnesium alloy for biomedical applications. <b>2019</b> , 38, 11-21	10
363	Biocompatible silica-based magnesium composites. <i>Journal of Alloys and Compounds</i> , <b>2019</b> , 772, 49-57	5.7 9
362	Effects of Heat Treatment on Microstructure, Mechanical Properties, Corrosion Resistance and Cytotoxicity of ZM21 Magnesium Alloy as Biomaterials. <b>2019</b> , 28, 33-43	5
361	Materials Design and Applications II. <b>2019</b> ,	
360	Formation Mechanism, Corrosion Behavior, and Cytocompatibility of Microarc Oxidation Coating on Absorbable High-Purity Zinc. <i>ACS Biomaterials Science and Engineering</i> , <b>2019</b> , 5, 487-497	5.5 28
359	In vitro corrosion resistance and antibacterial performance of novel tin dioxide-doped calcium phosphate coating on degradable Mg-1Li-1Ca alloy. <b>2019</b> , 35, 254-265	43

358	Hydrothermal fabrication of rGO/Apatite layers on AZ31 magnesium alloy for enhanced bonding strength and corrosion resistance. <b>2019</b> , 470, 430-438		16
357	Effect of fluoride coatings on the corrosion behavior of MgZnEr alloys. <b>2019</b> , 14, 72-81		15
356	Recent Progress and Development in Extrusion of Rare Earth Free Mg Alloys: A Review. <b>2019</b> , 32, 145-168		40
355	In vitro degradation and mineralization of high-purity magnesium in three physiological fluids. <b>2019</b> , 240, 279-283		9
354	Synthesis of MgZnCa Alloy by the Spark Plasma Sintering. <b>2019</b> , 85-96		1
353	Zn-alloy provides a novel platform for mechanically stable bioresorbable vascular stents. <b>2019</b> , 14, e0209111		26
352	Microstructural influence on corrosion behavior of MgZnGe alloy in NaCl solution. <i>Journal of Alloys and Compounds</i> , <b>2019</b> , 783, 179-192	5-7	33
351	Optimization of microstructure and mechanical property of a Mg-Zn-Y-Nd alloy by extrusion process. <i>Journal of Alloys and Compounds</i> , <b>2019</b> , 775, 990-1001	5-7	31
350	The current trends of Mg alloys in biomedical applications-A review. <b>2019</b> , 107, 1970-1996		56
349	Biomimetic porous Mg with tunable mechanical properties and biodegradation rates for bone regeneration. <i>Acta Biomaterialia</i> , <b>2019</b> , 84, 453-467	10.8	38
348	Recent advances in biodegradation controls over Mg alloys for bone fracture management: A review. <b>2019</b> , 35, 535-544		110
347	Wear Behavior of Biodegradable Mg5Zn1Y(0.1)Ca Magnesium Alloy in Simulated Body Fluid. <b>2020</b> , 26, 395-407		6
346	In Vivo Evaluation of Mg-5%Zn-2%Nd Alloy as an Innovative Biodegradable Implant Material. <b>2020</b> , 48, 380-392		9
345	Effect of extrusion on the microstructure and corrosion behaviors of biodegradable MgZnNdZr alloy. <b>2020</b> , 55, 1231-1245		14
344	Morphological studies on the development of chemical conversion coating on surface of MgZn alloy and its corrosion and bio mineralisation behaviour in simulated body fluid. <i>Journal of Alloys and Compounds</i> , <b>2020</b> , 812, 152146	5-7	25
343	Microstructure, tensile properties, and corrosion resistance of extruded Mg-1Bi-1Zn alloy: The influence of minor Ca addition. <i>Journal of Alloys and Compounds</i> , <b>2020</b> , 815, 152414	5-7	15
342	Microstructure, mechanical properties and bio-corrosion properties of Mg-HA bionanocomposites fabricated by a novel severe plastic deformation process. <b>2020</b> , 46, 2836-2844		7
341	Elucidating the role of microstructural modification on stress corrosion cracking of biodegradable Mg4Zn alloy in simulated body fluid. <b>2020</b> , 106, 110164		9

340	Sputtered Mg100-xZnx (0 ≤ x ≤ 100) systems as anode materials for a biodegradable battery aimed for transient bioelectronics. <b>2020</b> , 329, 135129		10
339	Mg bone implant: Features, developments and perspectives. <i>Materials and Design</i> , <b>2020</b> , 185, 108259	8.1	145
338	Mechanical and morphological investigation of bio-degradable magnesium AZ31 alloy for an orthopedic application. <b>2020</b> , 21, 272-277		7
337	Effect of grain morphology on the degradation behavior of Mg-4 wt% Zn alloy in Hank's solution. <b>2020</b> , 106, 110013		12
336	Effects of Zn content on microstructure, mechanical and degradation behaviors of Mg-xZn-0.2Ca-0.1Mn alloys. <i>Materials Chemistry and Physics</i> , <b>2020</b> , 241, 122441	4.4	21
335	The effects of $\beta$ -TCP on mechanical properties, corrosion behavior and biocompatibility of $\beta$ -TCP/Zn-Mg composites. <b>2020</b> , 108, 110397		14
334	Comparative in vitro study on binary Mg-RE (Sc, Y, La, Ce, Pr, Nd, Sm, Eu, Gd, Tb, Dy, Ho, Er, Tm, Yb and Lu) alloy systems. <i>Acta Biomaterialia</i> , <b>2020</b> , 102, 508-528	10.8	62
333	Local intragranular misorientation accelerates corrosion in biodegradable Mg. <i>Acta Biomaterialia</i> , <b>2020</b> , 101, 575-585	10.8	16
332	Effect of Y-Element on Microstructure and Mechanical Properties of As-Cast Mg <sub>93</sub> Zn <sub>4</sub> Mn Alloy Containing I and W Phase. <b>2020</b> , 22, 1900964		1
331	Effect of Alloyed Mo on Mechanical Properties, Biocorrosion and Cytocompatibility of As-Cast Mg <sub>93</sub> Zn <sub>4</sub> Mn Alloys. <b>2020</b> , 33, 500-513		11
330	Prospects and strategies for magnesium alloys as biodegradable implants from crystalline to bulk metallic glasses and composites-A review. <i>Acta Biomaterialia</i> , <b>2020</b> , 103, 1-23	10.8	45
329	Facile fabrication and biological properties of super-hydrophobic coating on magnesium alloy used as potential implant materials. <b>2020</b> , 384, 125223		22
328	Efficacy of laser shock processing of biodegradable Mg and Mg-1Zn alloy on their in vitro corrosion and bacterial response. <b>2020</b> , 384, 125320		9
327	Impact of Wound Closure on the Corrosion Rate of Biodegradable Mg-Ca-Zn Alloys in the Oral Environment. <i>Materials</i> , <b>2020</b> , 13,	3.5	2
326	Stable and Antibacterial Magnesium-Graphene Nanocomposite-Based Implants for Bone Repair. <i>ACS Biomaterials Science and Engineering</i> , <b>2020</b> , 6, 6253-6262	5.5	12
325	3D thixo-printing: A novel approach for additive manufacturing of biodegradable Mg-Zn alloys. <i>Materials and Design</i> , <b>2020</b> , 196, 109161	8.1	1
324	Biomedical Implants for Regenerative Therapies. <b>2020</b> ,		2
323	Production of Al6061 matrix composites with ZrO <sub>2</sub> ceramic reinforcement using a low-cost stir casting technique: Microstructure, mechanical properties, and electrochemical behavior. <i>Journal of Materials Research and Technology</i> , <b>2020</b> , 9, 15072-15086	5.5	9

322	Corrosion behavior of Mg-1%Ca-x%Zn alloys in simulated body fluid under plastic strain loading. <b>2020</b> ,		
321	Bio-mechanical characterization of Mg-composite implant developed by spark plasma sintering technique. <b>2020</b> ,		1
320	Microstructure-corrosion behaviour relationship of micro-alloyed Mg-0.5Zn alloy with the addition of Ca, Sr, Ag, In and Cu. <i>Materials and Design</i> , <b>2020</b> , 195, 108980	8.1	12
319	Amplitude Dependent Internal Friction in Strained Magnesium Alloys of AZ Series. <b>2020</b> , 10, 608		0
318	Corrosion Modeling of Magnesium and Its Alloys for Biomedical Applications: Review. <b>2020</b> , 1, 219-248		13
317	Effects of Intermetallic Microstructure on Degradation of Mg-5Nd Alloy. <b>2020</b> , 51, 5498-5515		4
316	Preparation and Properties of Zn-Cu Alloy for Potential Stent Material. <b>2020</b> , 29, 6484-6493		3
315	Magnesium-alloy rods reinforced bioglass bone cement composite scaffolds with cortical bone-matching mechanical properties and excellent osteoconductivity for load-bearing bone in vivo regeneration. <b>2020</b> , 10, 18193		4
314	Synthesis and characterization of biodegradable AZ31/calcium phosphate glass composites for orthopedic applications. <b>2020</b> , 3, 390-401		8
313	Surface Modifications of Biodegradable Metallic Foams for Medical Applications. <b>2020</b> , 10, 819		9
312	Bioabsorbable high-purity magnesium interbody cage: degradation, interbody fusion, and biocompatibility from a goat cervical spine model. <b>2020</b> , 8, 1054		4
311	Abnormal Blood Glucose Concentration on Degradation Behavior of AZ31 Magnesium Alloy. <b>2020</b> , 36, 1217-1226		
310	Recent Developments in Magnesium Metal-Matrix Composites for Biomedical Applications: A Review. <i>ACS Biomaterials Science and Engineering</i> , <b>2020</b> , 6, 4748-4773	5.5	21
309	Ni-Doped ZnO-Chitin Composites for Anti-Corrosive Coating on Zn Alloy in Simulated Body Fluid Solution. <i>Journal of Bio- and Tribo-Corrosion</i> , <b>2020</b> , 6, 1	2.9	2
308	Processing characterization of binary Mg-Zn alloys fabricated by a new powder consolidation combined severe plastic deformation method. <i>Journal of Alloys and Compounds</i> , <b>2020</b> , 832, 154922	5.7	6
307	Gallium-containing magnesium alloy for potential use as temporary implants in osteosynthesis. <b>2020</b> , 8, 352-363		12
306	Challenges and Opportunities in the Selective Laser Melting of Biodegradable Metals for Load-Bearing Bone Scaffold Applications. <b>2020</b> , 51, 3311-3334		20
305	Microstructural, mechanical and corrosion characterization of an as-cast Mg <sub>3</sub> Zn <sub>0.4</sub> Ca alloy for biomedical applications. <b>2020</b> , 8, 510-522		19



304	Influence of Zirconium (Zr) on the microstructure, mechanical properties and corrosion behavior of biodegradable zinc-magnesium alloys. <i>Journal of Alloys and Compounds</i> , <b>2020</b> , 840, 155792	5.7	5
303	Bio-inspired biomaterial Mg-Zn-Ca: a review of the main mechanical and biological properties of Mg-based alloys. <b>2020</b> , 6, 042001		4
302	Controlling the dissolution of iron through the development of nanostructured Fe-Mg for biomedical applications. <i>Acta Biomaterialia</i> , <b>2020</b> , 113, 660-676	10.8	12
301	Electrophoretic deposition of chitosan-bioactive glass nanocomposite coatings on AZ91 Mg alloy for biomedical applications. <b>2020</b> , 147, 105803		14
300	Functional terpyridyl iron complexes for in vivo photoacoustic imaging. <b>2020</b> , 7, 2753-2758		2
299	Strain-Rate Sensitivity, Tension-Compression Asymmetry, r-Ratio, Twinning, and Texture Evolution of a Rolled Magnesium Alloy Mg-1.3Zn-0.4Ca-0.4Mn. <b>2020</b> , 51, 3858-3868		6
298	Micro-end milling of biomedical Tz54 magnesium alloy produced through powder metallurgy. <b>2020</b> , 24, 924-947		5
297	A novel method for evaluating the dynamic biocompatibility of degradable biomaterials based on real-time cell analysis. <b>2020</b> , 7, 321-329		11
296	Effects of annealing treatment on microstructure and tensile behavior of the Mg-Zn-Y-Nd alloy. <b>2020</b> , 8, 601-613		23
295	Magnesium Alloys With Tunable Interfaces as Bone Implant Materials. <i>Frontiers in Bioengineering and Biotechnology</i> , <b>2020</b> , 8, 564	5.8	24
294	A triple-layered hybrid coating with self-organized microporous polymer film on magnesium for biodegradable implant applications. <b>2020</b> , 3, e10070		1
293	and degradation behavior of Mg-2Sr-Ca and Mg-2Sr-Zn alloys. <i>Bioactive Materials</i> , <b>2020</b> , 5, 275-285	16.7	28
292	Tailoring the Mechanical and Degradation Performance of Mg-2.0Zn-0.5Ca-0.4Mn Alloy Through Microstructure Design. <b>2020</b> , 72, 1880-1891		3
291	Mg <sub>91</sub> Zn <sub>8</sub> Ca alloy for biomedical applications. Influence of the secondary phases on the mechanical and corrosion behaviour. <i>Journal of Alloys and Compounds</i> , <b>2020</b> , 831, 154735	5.7	21
290	In vitro degradation of pure magnesium-the synergetic influences of glucose and albumin. <i>Bioactive Materials</i> , <b>2020</b> , 5, 318-333	16.7	19
289	Microstructure controls the corrosion behavior of a lean biodegradable Mg-2Zn alloy. <i>Acta Biomaterialia</i> , <b>2020</b> , 107, 349-361	10.8	9
288	The effect of in vitro corrosion on the mechanical properties of metallic high strength biodegradable surgical threads. <b>2020</b> , 20, 1		7
287	Corrosion performance, corrosion fatigue behavior and mechanical integrity of an extruded Mg <sub>4</sub> Zn <sub>0.2</sub> Sn alloy. <b>2020</b> , 59, 107-116		6



286	Mechanistic understanding of the corrosion behavior of Mg <sub>4</sub> Zn <sub>0.2</sub> Sn alloys: From the perspective view of microstructure. <b>2020</b> , 174, 108863		8
285	Mechanochemical characteristics of Ca-added Mg-based alloys: A multimodality approach. <b>2020</b> , 167, 110475		2
284	Biodegradation ZK50 magnesium alloy compression screws: Mechanical properties, biodegradable characteristics and implant test. <b>2020</b> , 25, 1107-1115		6
283	Microstructure, texture, mechanical properties and biodegradability of extruded Mg <sub>92</sub> Zn <sub>8</sub> -xMn alloys. <b>2020</b> , 792, 139828		12
282	Magnesium-based composites reinforced with graphene nanoplatelets as biodegradable implant materials. <i>Journal of Alloys and Compounds</i> , <b>2020</b> , 828, 154461	5.7	26
281	Effect of melting method on the bio-corrosion resistance of Mg <sub>67</sub> Zn <sub>28</sub> Ca <sub>5</sub> cast magnesium alloy in simulated body fluid. <b>2020</b> , 7, 015409		0
280	Influence of stamping on the biodegradation behavior of Mg-2Zn-0.5Nd (ZN20) sheet. <i>Bioactive Materials</i> , <b>2020</b> , 5, 133-141	16.7	7
279	Advances in coatings on biodegradable magnesium alloys. <b>2020</b> , 8, 42-65		141
278	Effect of 1.0 wt. % Zn addition on the microstructure, mechanical properties, and bio-corrosion behaviour of micro alloyed Mg-0.24Sn-0.04Mn alloy as biodegradable material. <b>2020</b> , 24, 100999		9
277	Electrochemical behaviour of the MA8 Mg alloy in minimum essential medium. <b>2020</b> , 168, 108552		14
276	Effects of alloy elements on adsorption of fibrinogen on biodegradable magnesium alloys surfaces: The MD simulations and experimental studies. <b>2020</b> , 512, 145725		2
275	Formation mechanism, degradation behavior, and cytocompatibility of a double-layered structural MAO/rGO-CaP coating on AZ31 Mg. <b>2020</b> , 190, 110901		11
274	Corrosion behaviours of Ti6Al4V-Mg/Mg-Alloy composites. <b>2020</b> , 166, 108470		7
273	A Study on the Biocompatibility of MgO Coating Prepared by Anodic Oxidation Method on Magnesium Metal. <b>2020</b> , 17, 76-91		6
272	The Functional Properties of Mg-Zn-X Biodegradable Magnesium Alloys. <i>Materials</i> , <b>2020</b> , 13,	3.5	9
271	Alloying design of biodegradable zinc as promising bone implants for load-bearing applications. <b>2020</b> , 11, 401		124
270	High-purity weight-bearing magnesium screw: Translational application in the healing of femoral neck fracture. <b>2020</b> , 238, 119829		20
269	Degradation and Biocompatibility of AZ31 Magnesium Alloy Implants In Vitro and In Vivo: A Micro-Computed Tomography Study in Rats. <i>Materials</i> , <b>2020</b> , 13,	3.5	11

268	Effect of solid-solution and aging treatment on corrosion behavior of orthogonal designed and vacuum melted Mg-Zn-Ca-Mn alloys. <b>2020</b> , 18, 2280800019887906	1
267	In vitro crevice corrosion of biodegradable magnesium in different solutions. <b>2020</b> , 52, 83-88	4
266	The Corrosion Performance and Mechanical Properties of Mg-Zn Based Alloys: A Review. <b>2020</b> , 1, 92-158	6
265	Progress in Research on Biodegradable Magnesium Alloys: A Review. <b>2020</b> , 22, 2000213	14
264	Study of mechanical, electrochemical, cellular and antibacterial response of Zn <sub>2</sub> Mg <sub>6</sub> SiC biodegradable implant. <b>2020</b> , 46, 18063-18070	4
263	Recent Advances in Manufacturing Innovative Stents. <b>2020</b> , 12,	23
262	Microstructural Characteristics, Mechanical and Corrosion Properties of an Extruded Low-Alloyed Mg-Bi-Al-Zn Alloy. <b>2020</b> , 7,	0
261	Tensile Properties and Corrosion Behavior of a Dilute Mg <sub>0.5</sub> Sn <sub>0.7</sub> Al <sub>0.8</sub> Zn Alloy Applied for Biomaterials. <b>2020</b> , 1	1
260	Microstructure, fracture behavior, in vitro corrosion resistance, and cytotoxicity of Zn/Mg/Mg <sub>2</sub> Ni <sub>2</sub> Ap laminated composites produced by spark plasma sintering. <b>2021</b> , 40, 939-951	2
259	Effects of Ca, Cu concentration on degradation behavior of Zn alloys in Hank's solution. <b>2021</b> , 76, 40-42	2
258	Development of a micro-scale method to assess the effect of corrosion on the mechanical properties of a biodegradable Fe-316L stent material. <b>2021</b> , 114, 104173	1
257	Biodegradable metal-derived magnesium and sodium enhances bone regeneration by angiogenesis aided osteogenesis and regulated biological apatite formation. <b>2021</b> , 410, 127616	2
256	Microstructural characteristics and mechanical properties of the hot extruded Mg-Zn-Y-Nd alloys. <b>2021</b> , 60, 44-55	31
255	Recent research and progress of biodegradable zinc alloys and composites for biomedical applications: Biomechanical and biocorrosion perspectives. <i>Bioactive Materials</i> , <b>2021</b> , 6, 836-879	16.7 61
254	In vivo biocompatibility evaluation of Zn-0.05Mg-(0, 0.5, 1wt%)Ag implants in New Zealand rabbits. <b>2021</b> , 119, 111435	7
253	Surface metal matrix nano-composite of magnesium/hydroxyapatite produced by stir-centrifugal casting. <b>2021</b> , 406, 126654	2
252	Microstructural Evolution and Biodegradation Response of Mg <sub>2</sub> Zn <sub>0.5</sub> Nd Alloy During Tensile and Compressive Deformation. <b>2021</b> , 34, 834-844	2
251	Development of rare-earth oxide reinforced magnesium nanocomposites for orthopaedic applications: A mechanical/immersion/biocompatibility perspective. <b>2021</b> , 114, 104162	13

250	Mechanical properties and in vivo biodegradability of Mg <sub>70</sub> Zn <sub>30</sub> Ca magnesium alloy produced by a combined severe plastic deformation. <b>2021</b> , 40, 651-662	6
249	Silane coatings modified with hydroxyapatite nanoparticles to enhance the biocompatibility and corrosion resistance of a magnesium alloy.. <b>2021</b> , 11, 26127-26144	3
248	Effect of exposure time on corrosion behavior of zinc-alloy in simulated body fluid solution: Electrochemical and surface investigation. <i>Journal of Materials Research and Technology</i> , <b>2021</b> , 10, 738-751	7
247	Recent progress in in vivo studies and clinical applications of magnesium based biodegradable implants [A review. <b>2021</b> ,	19
246	Corrosion and biocompatibility behaviours of microarc oxidation/phytic acid coated magnesium alloy clips for use in cholecystectomy in a rabbit model.. <b>2021</b> , 11, 20730-20736	3
245	Fabrication of Porous Mg <sub>90</sub> Ca <sub>10</sub> Zn Alloy by High Energy Milling for Bone Implants. <b>2021</b> , 711-722	2
244	Metallic Biomaterials in Tissue Engineering: Retrospect and Prospects. <b>2021</b> , 19-60	1
243	Microstructure and surface texture driven improvement in in-vitro response of laser surface processed AZ31B magnesium alloy. <b>2021</b> , 9, 1406-1406	6
242	Bioresorbable Composites and Implant. <b>2021</b> , 443-456	
241	Microstructure, mechanical properties and corrosion behavior of quaternary Mg <sub>90</sub> Zn <sub>0.2</sub> Ca <sub>8</sub> Ag alloy wires applied as degradable anastomotic nails. <b>2021</b> , 31, 111-124	2
240	Effect of Forging Temperature on Biodegradable Mg-0.7%Ca Alloy Properties for Implant Application. <b>2021</b> , 1062, 012047	
239	First-principles studies on structure stability, segregation, and work function of Mg doped with metal elements. <b>2021</b> , 121, e26626	1
238	Alloying Elements of Magnesium Alloys: A Literature Review.	4
237	In- vitro corrosion behavior of the cast and extruded biodegradable Mg-Zn-Cu alloys in simulated body fluid (SBF). <b>2021</b> , 9, 2078-2078	6
236	Biodegradable JDBM coating stent has potential to be used in the treatment of benign biliary strictures. <b>2021</b> , 16, 025010	3
235	Microstructure, anticorrosion, biocompatibility and antibacterial activities of extruded Mg <sub>90</sub> Zn <sub>10</sub> Mn strengthened with Ca. <b>2021</b> , 31, 358-370	4
234	Biodegradable Zn-3Mg-0.7MgSi composite fabricated by high-pressure solidification for bone implant applications. <i>Acta Biomaterialia</i> , <b>2021</b> , 123, 407-417	10.8 6
233	A degradation kinetics model of Mg <sub>90</sub> Zn <sub>10</sub> Mn <sub>10</sub> Ca alloys in Kokubo solution. <i>Journal of Materials Research and Technology</i> , <b>2021</b> , 11, 887-895	5.5 3

232	Zn content mediated fibrinogen adsorption on biodegradable Mg-Zn alloys surfaces. <b>2021</b> , 9, 2145-2145	2
231	Characterization of precipitates in aged Mg-4 wt%Zn alloy. <b>2021</b> , 26, 102017	2
230	Tribological evaluations of spark plasma sintered MgNi composite. 1-9	0
229	Magnesium-based biomaterials as emerging agents for bone repair and regeneration: from mechanism to application. <b>2021</b> , 9, 779-779	28
228	Modifying an Implant: A Mini-review of Dental Implant Biomaterials. <b>2021</b> , 2, 12-21	1
227	Bio-inspired lamellar hydroxyapatite/magnesium composites prepared by directional freezing and pressureless infiltration. <b>2021</b> , 47, 11183-11192	2
226	The Role of Recrystallization and Local Misorientation on the Biodegradation Behavior of Mg. <b>2021</b> , 73, 1754-1764	1
225	Bioresorbable Magnesium-Based Alloys as Novel Biomaterials in Oral Bone Regeneration: General Review and Clinical Perspectives. <b>2021</b> , 10,	7
224	A multifunctional polymeric coating incorporating lawsone with corrosion resistance and antibacterial activity for biomedical Mg alloys. <b>2021</b> , 153, 106157	5
223	Microstructure, mechanical properties, cytotoxicity, and bio-corrosion of micro-alloyed MgSn0.04Mn alloys for biodegradable orthopedic applications: Effect of processing techniques. <b>2021</b> , 36, 1456-1474	1
222	Magnesium alloy stents: A friend or foe of coronary in-stent restenosis?. <b>2021</b> , 11, 663-670	1
221	Tonpitz transducer head mass selection based on excitation signal type. <b>2021</b> , 176, 107852	5
220	Zinc and cerium synergistically enhance the mechanical properties, corrosion resistance, and osteogenic activity of magnesium as resorbable biomaterials. <b>2021</b> , 16,	1
219	A good combination of ductility, strength, and corrosion resistance of fine-grained ZK60 magnesium alloy produced by repeated upsetting process for biodegradable applications. <i>Journal of Alloys and Compounds</i> , <b>2021</b> , 862, 158334	5.7 15
218	Preclinical study analysis of massive magnesium alloy graft for calcaneal fractures. <b>2021</b> , 22, 731	1
217	Development and Characterization of Zn(98%).Mg2.(SiC)x Composites Synthesized in Graphite Packed Non-oxidizing Media. <b>2021</b> , 30, 4291-4299	0
216	Effect of RE Elements Addition on Corrosion Behavior of Mg-Zn-Ca Amorphous Alloys for Biomedical Applications. 1035, 501-510	1
215	The role and significance of Magnesium in modern day research-A review. <b>2021</b> ,	18

214	The Effect of Chemistry and 3D Microstructural Architecture on Corrosion of Biodegradable Mg-Ca-Zn Alloys. <b>2021</b> , 23, 2100157	0
213	In-situ layered double hydroxides on Mg-Ca alloy: Role of calcium in magnesium alloy. <b>2021</b> , 31, 1612-1627	5
212	Mechanical and corrosion properties of graphene nanoplatelet-reinforced Mg-Zr and Mg-Zr-Zn matrix nanocomposites for biomedical applications. <b>2021</b> ,	5
211	The role of rare earth elements in biodegradable metals: A review. <i>Acta Biomaterialia</i> , <b>2021</b> , 129, 33-42	10.8 8
210	Biodegradable Mg alloys for orthopedic implants – A review. <b>2021</b> , 9, 1884-1884	27
209	A novel MgF2/PDA/S-HA coating on the bio-degradable ZE21B alloy for better multi-functions on cardiovascular application. <b>2021</b> ,	7
208	Dealloying corrosion of anodic and nanometric Mg41Nd5 in solid solution-treated Mg-3Nd-1Li-0.2Zn alloy. <b>2021</b> , 83, 161-178	12
207	Sacrificial protection of Mg-based resorbable implant alloy by magnetron sputtered Mg5Gd alloy coating: A short-term study. <b>2021</b> , 189, 109590	2
206	First-principles study of water decomposition and hydrogen evolution on MgZn2 Laves phase. <b>2021</b> , 196, 110532	0
205	In vitro and in vivo degradation assessment and preventive measures of biodegradable Mg alloys for biomedical applications. <b>2021</b> ,	4
204	Synergistic effect of solute and strain on the electrochemical degradation in representative Zn-based and Mg-based alloys. <b>2021</b> , 188, 109539	1
203	Effect of Mn content on the microstructure and mechanical properties of Mg-Bi-Li-Zn-xMn alloys. <b>2021</b> , 31, 583-590	2
202	The Properties Evolution of Medical Mg-Zn Alloys Prepared by Semi-solid Powder Moulding. 1	1
201	Biomimetic hydroxyapatite (HAp) coatings on pure Mg and their physiological corrosion behavior. <b>2021</b> ,	1
200	Effect of adding Y and Ce on corrosion behaviour of the extruded ZK60 magnesium alloy. 1-6	0
199	Effect of microstructural evolution and texture change on the in-vitro bio-corrosion behaviour of hard-plate hot forged Mg-4Zn-0.5Ca-0.16Mn (wt. %) alloy. <b>2021</b> , 109860	1
198	Effects of MgF2 coating on the biodegradation and biological properties of magnesium. <b>2021</b> , 422, 127552	5
197	A multi-dimensional non-uniform corrosion model for bioabsorbable metallic vascular stents. <i>Acta Biomaterialia</i> , <b>2021</b> , 131, 572-580	10.8 2

196	Tin-induced microstructural changes and associated corrosion resistance of biodegradable MgZn alloy. <b>1</b>		2
195	Electrochemical behavior, biocompatibility and mechanical performance of biodegradable iron with PEI coating. <b>2021</b> ,		1
194	Biomaterials-based bioengineering strategies for bioelectronic medicine. <b>2021</b> , 146, 100630		4
193	Effect of Mn addition on the microstructure, mechanical properties and corrosion resistance of a biodegradable MgCdZn alloy. <i>Materials Chemistry and Physics</i> , <b>2021</b> , 271, 124878	4.4	3
192	The effect of additional element dissolving on the solid solubility of Zn in Mg alloy: A first-principles prediction strategy. <i>Journal of Alloys and Compounds</i> , <b>2021</b> , 877, 160312	5.7	1
191	Deteriorated corrosion performance of micro-alloyed Mg-Zn alloy after heat treatment and mechanical processing. <b>2021</b> , 92, 214-224		3
190	Biodegradable metals for bone defect repair: A systematic review and meta-analysis based on animal studies. <i>Bioactive Materials</i> , <b>2021</b> , 6, 4027-4052	16.7	12
189	Cellulose nanocrystal reinforced silk fibroin coating for enhanced corrosion protection and biocompatibility of Mg-based alloys for orthopedic implant applications. <b>2021</b> , 161, 106525		1
188	Structural and electronic properties of neutral and anionic magnesium clusters doped with two barium atoms. <b>2021</b> , 343, 117622		6
187	Advances in coatings on magnesium alloys for cardiovascular stents - A review. <i>Bioactive Materials</i> , <b>2021</b> , 6, 4729-4757	16.7	19
186	Improving in vitro and in vivo corrosion resistance and biocompatibility of Mg-1Zn-1Sn alloys by microalloying with Sr. <i>Bioactive Materials</i> , <b>2021</b> , 6, 4654-4669	16.7	8
185	A novel lean alloy of biodegradable Mg-2Zn with nanograins. <i>Bioactive Materials</i> , <b>2021</b> , 6, 4333-4341	16.7	6
184	Effects of Ga content on the microstructure and mechanical properties of as-extruded Mg-xGa alloys. <i>Journal of Alloys and Compounds</i> , <b>2021</b> , 887, 161317	5.7	2
183	A review on current research status of the surface modification of Zn-based biodegradable metals. <i>Bioactive Materials</i> , <b>2022</b> , 7, 192-216	16.7	14
182	Recent trends on bioimplant materials: A review. <b>2021</b> , 46, 2726-2731		1
181	Microstructure refinement, mechanical and biocorrosion properties of MgZnTaMn alloy improved by a new severe plastic deformation process. <b>2021</b> ,		8
180	Electrochemical Pourbaix diagrams of Mg-Zn alloys from first-principles calculations and experimental thermodynamic data. <b>2021</b> , 23, 19602-19610		1
179	Effect of stress shot peening on the residual stress field and microstructure of nanostructured Mg-8Gd-3Y alloy. <i>Journal of Materials Research and Technology</i> , <b>2021</b> , 10, 74-83	5.5	4

178	Biodegradable Mg-Ca-Zn alloys synthesized by powder metallurgy. <b>2021</b> ,	
177	Biodegradable and Bioabsorbable Materials for Osteosynthesis Applications: State-of-the-Art and Future Perspectives. 109-143	3
176	Biodegradable Metals and Responsive Biosensors for Musculoskeletal Applications. <b>2011</b> , 115-137	2
175	Nanostructured Hydroxyapatite Coating for Biodegradability Improvement of Magnesium-based Alloy Implant. <b>2013</b> , 25-40	4
174	Influence of Cu Addition on the Microstructure, Mechanical, and Corrosion Properties of Extruded Mg-2%Zn Alloy. <b>2020</b> , 29, 2991-3003	6
173	Effect of Sintering Temperature on the Physico-Mechanical Behavior of SiC Reinforced Zinc-Magnesium Based Composite. <b>2021</b> , 27, 3164-3172	2
172	Effects of ytterbium addition and heat treatment on the mechanical properties and biocorrosion behaviors of Mg <sub>92</sub> Y <sub>8</sub> alloy. <b>2020</b> , 8, 499-509	10
171	Bioresorbable metals in cardiovascular stents: Material insights and progress. <b>2020</b> , 12, 100727	11
170	Bioresorbable Materials and Their Application in Electronics. <b>2017</b> ,	12
169	High Magnesium Corrosion Rate has an Effect on Osteoclast and Mesenchymal Stem Cell Role During Bone Remodelling. <b>2018</b> , 8, 10003	22
168	Surface roughness optimization in machining of AZ31 magnesium alloy using ABC algorithm. <b>2018</b> , 144, 03006	1
167	A review on the exploitation of biodegradable magnesium-based composites for medical applications. <b>2018</b> , 13, 022001	29
166	Surface Characteristics Enhancement of Biocompatible Mg Alloy AZ31B by Cryogenic Milling. 1004, 012011	1
165	Quantifying the influence of calcium ion concentration on the corrosion of high-purity magnesium, AZ91, WE43 in modified Hanks solutions. <b>2020</b> , 7, 096501	2
164	Properties of Biodegradable Alloys Usable for Medical Purposes. <b>2012</b> , 122, 520-523	6
163	Investigation of Mechanical Properties of Mg <sub>5</sub> Sn-xZn Alloys Produced through New Method in Powder Metallurgy. <b>2021</b> , 49, 20200020	8
162	A Magnesium-based Nanobiocomposite Processed by a Novel Technique Combining High Shear Solidification and Hot Extrusion. <b>2019</b> , 13, 38-48	4
161	Effects of Zn content on surface deformability and corrosion resistance of MgZnMnCa alloys. <b>2020</b> , 111, 511-518	2



- 160 Degradation Behavior, Transport Mechanism and Osteogenic Activity of Mg-Zn-RE Alloy Membranes in Critical-Sized Rat Calvarial Defects. **2020**, 10, 496 3
- 159 Recent advancements in magnesium implants for orthopedic application and associated infections. **2016**, 1, 138 2
- 158 Effect of 45S5 Bio-Glass Particles on Physical Properties and Corrosion Resistance of the Mg-5Zn Matrix Composite. **2014**, 04, 1-8 14
- 157 Controlling the Microstructure and Texture Using Multidirectional Forging (MDF) to Develop a Low Corrosion Rate Mg Alloy. **2020**, 76, 750-765 6
- 156 In vivo performance of a rare earth free Mg-Zn-Ca alloy manufactured using twin roll casting for potential applications in the cranial and maxillofacial fixation devices.. *Bioactive Materials*, **2022**, 12, 85-96 2
- 155 Simultaneous enhancement of mechanical properties and corrosion resistance of as-cast Mg-5Zn via microstructural modification by friction stir processing. **2021**, 1
- 154 Magnesium based implants for functional bone tissue regeneration [A review]. **2021**, 4
- 153 A comprehensive review on biocompatible Mg-based alloys as temporary orthopaedic implants: Current status, challenges, and future prospects. **2021**, 7
- 152 Applications of Nanostructured Materials in Dentistry. **2012**, 387-405
- 151 Structural, mechanical and in vitro corrosion characterization of as-cast magnesium based alloys for temporary biodegradable medical implants. **2012**, 12, 285-292 6
- 150 Magnesium Biocorrosion Experiments. **2014**, 13-37
- 149 Influence of Environmental Variables on In Vitro Performance. **2014**, 39-72
- 148 Selection of Alloying Elements and Reinforcements Based on Degradation Properties. **2015**, 69-109
- 147 Investigation of the Biodegradable Mechanism of Pure Magnesium Using Electrochemical Impedance Spectroscopy Technique. **2016**, 15, 43-53
- 146 Effect of Trace Amount of Ca on Corrosion Resistance of Solutionized Mg-4%Zn Alloy. **2016**, 29, 168-175
- 145 Corrosion behavior of Mg-(0~6)%Zn Casting Alloys in 1M NaCl Solution. **2016**, 36, 117-125
- 144 Bioresorbable Composites and Implant. **2019**, 57-76
- 143 Efecto de las nanopartículas de ZrO<sub>2</sub> y L-Cys como agentes dopantes de recubrimientos sol-gel de sílice mesoporosa para la protección anticorrosiva de la aleación de magnesio AZ61. **2019**, 55, 155 1

142	Potential bioactive coating system for high-performance absorbable magnesium bone implants.. <i>Bioactive Materials</i> , <b>2022</b> , 12, 42-63	16.7	4
141	Biodegradable shape memory alloys: Progress and prospects. <b>2021</b> , 279, 121215		5
140	A cage-structured protecting coating prepared on pure magnesium by hydrothermal treatment with enhanced corrosion properties. <b>2020</b> , 25, 101645		2
139	Effect of casting speed on microstructure, corrosion behaviour and in vivo bone reaction of Mg-rare earth alloys. <b>2021</b> , 64, 213-222		1
138	Surface engineering of biodegradable implants: emerging trends in bioactive ceramic coatings and mechanical treatments.		2
137	Effect of 2 wt% Ag Addition on Corrosion Properties of ZK40 for Biodegradable Applications. <b>2020</b> , 243-252		
136	FABRICATION AND SURFACE MODIFICATION OF BIOMATERIALS FOR ORTHOPEDIC IMPLANT: A REVIEW.		
135	Competitive Effect of Grain Size and Second Phase on Corrosion Behavior of Biodegradable Mg-3Zn-1Mn-xSr Alloys. 1		0
134	Rationale for Processing of a Mg-Zn-Ca Alloy by Equal-Channel Angular Pressing for Use in Biodegradable Implants for Osteoreconstruction. <b>2021</b> , 11, 1381		2
133	Growth Mechanism of Ceramic Coating on ZK60 Magnesium Alloy Based on Two-Step Current-Decreasing Mode of Micro-Arc Oxidation. 2101232		0
132	Femur Bone Implant Plate Design Analysis Under Varying Fracture Conditions. <b>2022</b> , 403-421		
131	Nutrient alloying elements in biodegradable metals: a review. <b>2021</b> ,		1
130	Extrusion-based additive manufacturing of Mg-Zn alloy scaffolds. <b>2021</b> ,		1
129	Fluoride Treatment and In Vitro Corrosion Behavior of Mg-Nd-Y-Zn-Zr Alloys Type.. <i>Materials</i> , <b>2022</b> , 15,	3.5	2
128	Achieving high strength above 400 MPa in conventionally extruded Mg-Ca-Zn ternary alloys. <b>2022</b> , 65, 519		1
127	Compositional Tailoring of Mg-2Zn-1Ca Alloy Using Manganese to Enhance Compression Response and In-Vitro Degradation.. <i>Materials</i> , <b>2022</b> , 15,	3.5	3
126	Structural and electronic configuration of medium-sized strontium doped magnesium SrMgMn clusters and their anions. <b>2022</b> , 46, 1182-1193		0
125	Preparation of medical Mg-Zn alloys and the effect of different zinc contents on the alloy.. <b>2022</b> , 33, 9		1

124	Dual antibacterial polypeptide-coated PCL@ZIF-8 nanofiber reduces infection and inflammation in burn wounds. <b>2022</b> , 57, 3678-3687		0
123	Designing Advanced Biomedical Biodegradable Mg Alloys: A Review. <b>2022</b> , 12, 85		2
122	Functionalized carbon nanotube-encapsulated magnesium-based nanocomposites with outstanding mechanical and biological properties as load-bearing bone implants. <i>Materials and Design</i> , <b>2022</b> , 213, 110354	8.1	4
121	Mg-6Zn alloys promote the healing of intestinal anastomosis via TGF- $\beta$ /Smad signaling pathway in regulation of collagen metabolism as compared with titanium alloys.. <b>2022</b> , 8853282211066555		
120	Synergetic energetic kinetics of Mg-Zn alloys and pyrotechnics. <b>2022</b> , 240, 112000		0
119	Magnesium-Based Alloys Used in Orthopedic Surgery.. <i>Materials</i> , <b>2022</b> , 15,	3.5	6
118	In vitro and in vivo assessment of the effect of biodegradable magnesium alloys on osteogenesis.. <i>Acta Biomaterialia</i> , <b>2021</b> ,	10.8	4
117	Effect of pore size on tissue ingrowth and osteoconductivity in biodegradable Mg alloy scaffolds.. <b>2022</b> , 20, 22808000221078168		1
116	Surface integrity of ball burnished bioresorbable magnesium alloy. 1		2
115	Effect of Milling Parameters on Mechanical Properties and In Vitro Biocompatibility of Mg-Zn-Co Ternary Alloy. <b>2022</b> , 12, 529		0
114	Effect of the CaMgZn Phase on the Corrosion Behavior of Biodegradable Mg-4.0Zn-0.2Mn-Ca Alloys in Hank's Solution.. <i>Materials</i> , <b>2022</b> , 15,	3.5	0
113	A review study on biomechanical properties of biocompatible materials. <b>2022</b> ,		0
112	A review of current challenges and prospects of magnesium and its alloy for bone implant applications.. <b>2022</b> , 11, 1		3
111	Biodegradable Magnesium Biomaterials-Road to the Clinic.. <b>2022</b> , 9,		1
110	Effect of Ti Content on Microstructure and Mechanical Properties of Mg-Sn Alloys Produced by Casting and Hot Extrusion. 1		1
109	Biodegradable Zn-2Ag-0.04Mg Alloy for Bone Regeneration In Vivo.. <b>2022</b> , 1		
108	Fluoride Coatings on Magnesium Alloy Implants.. <b>2022</b> , 2022, 7636482		
107	Deposition temperature effect on sputtered hydroxyapatite coatings prepared on AZ31B alloy substrate. <b>2022</b> , 48, 10486-10497		1

106	Simultaneously improving the mechanical property and corrosion resistance of extruded biomedical Mg-3Zn alloy by forming in-situ MgO. <i>Journal of Materials Research and Technology</i> , <b>2022</b> ,	5.5	1
105	Effect of solution annealing on microstructures and corrosion behavior of wire and arc additive manufactured AZ91 magnesium alloy in sodium chloride solution. <i>Journal of Materials Research and Technology</i> , <b>2022</b> , 18, 416-427	5.5	1
104	Effect of trace copper on the microstructure, corrosion behavior and biological properties of biodegradable Mg <sub>92</sub> Zn-1Gd-0.5Zr alloy. <i>Journal of Materials Research and Technology</i> , <b>2022</b> , 18, 1607-1622	5.5	0
103	A dual redox system for enhancing the biodegradability of Fe-C-Cu composite scaffold.. <b>2022</b> , 213, 112431		0
102	Experimental investigation and thermodynamic description of Mg <sub>85</sub> Sc <sub>15</sub> Zn ternary system. <b>2022</b> , 77, 102406		0
101	Advances in degradation behavior of biomedical magnesium alloys: A review. <i>Journal of Alloys and Compounds</i> , <b>2022</b> , 908, 164600	5.7	4
100	Magnesium role in additive manufacturing of biomedical implants [Challenges and opportunities. <b>2022</b> , 55, 102802		0
99	CO <sub>2</sub> -induced dissolution of ZnO into ionic liquids and its catalytic application for the hydration of propargylic alcohols. <b>2022</b> , 310, 121270		1
98	Corrosion behavior of Mg-Zn-Zr-RE alloys under physiological environment [Impact on mechanical integrity and biocompatibility. <b>2021</b> ,		1
97	A Complex Evaluation of the In-Vivo Biocompatibility and Degradation of an Extruded ZnMgSr Absorbable Alloy Implanted into Rabbit Bones for 360 Days.. <b>2021</b> , 22,		0
96	Effect of Galvanic Corrosion on the Degradability of Biomedical Magnesium. <b>2021</b> , 8,		0
95	A Literature Review on the Biomechanical Properties of Soliderability Materials. <b>2022</b> ,		
94	Recent progress in Mg-based alloys as a novel bioabsorbable biomaterials for orthopedic applications. <b>2022</b> ,		4
93	A review on properties of magnesium-based alloys for biomedical applications.. <b>2022</b> , 8,		0
92	A biodegradable Fe/Zn-3Cu composite with requisite properties for orthopedic applications.. <i>Acta Biomaterialia</i> , <b>2022</b> ,	10.8	0
91	Selection and Preparation Strategies of Mg-alloys and other Biodegradable Materials for Orthopaedic Applications: A Review. <b>2022</b> , 103658		0
90	Surface Modification of Pure Zinc by Acid Etching: Accelerating the Corrosion Rate and Enhancing Biocompatibility and Antibacterial Characteristics.. <b>2022</b> ,		1
89	Degradation of differently processed Mg-based implants leads to distinct foreign body reactions (FBRs) through dissimilar signaling pathways. <b>2022</b> ,		

88	Ag-incorporated biodegradable Mg alloys. <b>2022</b> , 23, 101445		o
87	Enhancing controlled and uniform degradation of Fe by incorporating Mg and Zn aimed for bio-degradable material applications. <i>Materials Chemistry and Physics</i> , <b>2022</b> , 285, 126171	4.4	o
86	Dry Sliding Wear and Corrosion Performance of Mg-Sn-Ti Alloys Produced by Casting and Extrusion. <i>Materials</i> , <b>2022</b> , 15, 3533	3.5	o
85	Open-porous magnesium-based scaffolds withstand corrosion under cyclic loading: A mechanistic study.. <i>Bioactive Materials</i> , <b>2023</b> , 19, 406-417	16.7	o
84	Mg-, Zn-, and Fe-Based Alloys With Antibacterial Properties as Orthopedic Implant Materials. <i>Frontiers in Bioengineering and Biotechnology</i> , <b>2022</b> , 10,	5.8	1
83	Development of a Model System for Gas Cavity Formation Behavior of Magnesium Alloy Implantation. <i>ACS Biomaterials Science and Engineering</i> ,	5.5	1
82	La ingeniería de tejidos en la regeneración ósea. <b>2022</b> , 8, 67-74		
81	Determination of Optimum Zn Content for Mg-0.5mn-0.5sr Alloy in Terms of Mechanical Properties and in Vitro Corrosion Resistance. <i>SSRN Electronic Journal</i> ,	1	
80	Fabrication and characterization of biodegradable Zn scaffold by vacuum heating-press sintering for bone repair. <b>2022</b> , 212968		o
79	Investigation on Mechanical, Biocorrosion, and Biocompatibility Behavior of HAp-Assisted Sr-Based Mg Composites. <i>ACS Applied Bio Materials</i> ,	4.1	
78	Influence of Sc on the microstructure, degradation behavior, biocompatibility in vitro and mechanical property of Mg-2Zn-0.2Zr alloy. <i>Materials and Design</i> , <b>2022</b> , 110863	8.1	o
77	Immunological reaction to magnesium-based implants for orthopedic applications. What do we know so far? A systematic review on in vivo studies. <i>Materials Today Bio</i> , <b>2022</b> , 15, 100315	9.9	
76	Biodegradable Mg-based alloys: biological implications and restorative opportunities. <i>International Materials Reviews</i> , 1-39	16.1	1
75	Review about the corrosion behavior of magnesium alloys for biomedical applications. <i>AIP Conference Proceedings</i> , <b>2022</b> ,	o	
74	Performance of Tension Band Load Bearing Magnesium Alloy Pins Under In Vivo Mimicking Environment: A Short Note on Preliminary Experiments. <i>Journal of Bio- and Tribo-Corrosion</i> , <b>2022</b> , 8,	2.9	
73	Corrosion behavior of as-cast magnesium-4% zinc alloys in simulated body fluid solution: the influence of minor calcium and manganese addition. <i>Materialwissenschaft Und Werkstofftechnik</i> , <b>2022</b> , 53, 819-834	0.9	
72	Degradation behavior of the as-extruded and ECAP-processed Mg-Zn alloy by Ca addition and hydrothermal coating. <i>Journal of Materials Research and Technology</i> , <b>2022</b> ,	5.5	o
71	Research progress of biodegradable magnesium-based biomedical materials: A review. <i>Journal of Alloys and Compounds</i> , <b>2022</b> , 923, 166377	5.7	o

70	In vitro and in vivo assessment of squeeze-cast Mg-Zn-Ca-Mn alloys for biomedical applications. <b>2022</b> ,	2
69	Effects of processing parameters on fabrication defects, microstructure and mechanical properties of additive manufactured MgNdZnZr alloy by selective laser melting process. <b>2022</b> ,	0
68	Magnesium for Implants: A Review on the Effect of Alloying Elements on Biocompatibility and Properties. <b>2022</b> , 15, 5669	0
67	Experimental and numerical investigation on ZnP coated Mg-Mn based composite materials for internal fixation of tibia midshaft fracture: A comprehensive study. <b>2022</b> , 128785	0
66	In vivo degradation and bone reaction of long-term fixation with a magnesium alloy made by twin-roll casting in a rat femur model. <b>2022</b> , 1-13	
65	Study on the angiogenesis ability of Polymethyl methacrylate-mineralized collagen/Mg-Ca composite material in vitro and the bone formation effect in vivo. 088532822211218	
64	Mapping knowledge structure and themes trends of biodegradable Mg-based alloy for orthopedic application: A comprehensive bibliometric analysis. 10,	0
63	A comprehensive analysis on magnesium-based alloys and metal matrix composites for their in-vitro biocompatibility. 1-34	1
62	3D-printed Mg-1Ca/polycaprolactone composite scaffolds with promoted bone regeneration. <b>2022</b> ,	0
61	Review: Degradable Magnesium Corrosion Control for Implant Applications. <b>2022</b> , 15, 6197	1
60	Effect of grain size on the mechanical properties of Fe-30Mn-6Si biodegradable alloy. <b>2022</b> , 193, 112272	0
59	Combination of severe plastic deformation and heat treatment for enhancing the corrosion resistance of a new Magnesium alloy. <b>2022</b> , 927, 166939	1
58	In Vitro Degradation Behavior, Mechanical Properties, and Cytocompatibility of Biodegradable Mg-1Zn-xSn Alloys. <b>2022</b> , 12, 1219	0
57	Optimization of Duty Cycle and Frequency Parameters of ZK60 Magnesium Alloy under Two-Step Voltage-Increasing Mode.	0
56	Optimization of the clinically approved Mg-Zn alloy system through the addition of Ca. <b>2022</b> , 26,	1
55	Biodegradable Mg Alloys for Orthopedic Implant Materials. <b>2022</b> , 1-29	0
54	Effect of extrusion parameters on degradation of magnesium alloys for bioimplant applications: A review. <b>2022</b> , 32, 2787-2813	0
53	Development of degradable magnesium-based metal implants and their function in promoting bone metabolism (A review). <b>2022</b> , 36, 184-193	0

52	Bone Remodeling Interaction with Magnesium Alloy Implants Studied by SEM and EDX. <b>2022</b> , 15, 7529	1
51	Carbon Nanotube (CNT) Encapsulated Magnesium-Based Nanocomposites to Improve Mechanical, Degradation and Antibacterial Performances for Biomedical Device Applications. <b>2022</b> , 12, 1589	2
50	Effect of Rolling Deformation on Microstructure and Mechanical Properties of As-Cast and Rolled ZM21 Magnesium Alloy.	0
49	Anomalous In Vitro Corrosion Behaviour of Rolled Mg-1 wt. % Zn Alloy Due to Buffer-Microstructure Interactions. <b>2022</b> , 12, 1491	0
48	Improved In Vitro and In Vivo Corrosion Resistance of Mg and Mg Alloys by Plasma Ion Implantation and Deposition Techniques A Mini-Review. <b>2022</b> , 10, 255	0
47	Corrosion and in vitro cytocompatibility investigation on the designed Mg-Zn-Ag metallic glasses for biomedical application. <b>2022</b> ,	0
46	Microstructure and biodegradation performance of Mg-Ca-Zn based alloys after ultrasonic treatment and doping with nanodiamonds for biomedical applications. <b>2022</b> , 126959	0
45	Biodegradable ZnDy binary alloys with high strength, ductility, cytocompatibility, and antibacterial ability for bone-implant applications. <b>2022</b> ,	1
44	Synthesis and in vitro evaluation of Ca-P coating on biodegradable Zn alloys. <b>2022</b> ,	0
43	Corrosion Behavior of AZ80 Magnesium Alloy in Simulated Static and Dynamic Fluid Environments with Different pH Values.	1
42	Microstructure and mechanical properties of hot-extruded Mg-Zn-xGa (x=1, 3, 5 and 7 wt.%) alloys. <b>2022</b> , 859, 144208	0
41	Effect of Zn content and processing route on the microstructure, mechanical properties, and bio-degradation of Mg-Zn alloys. <b>2022</b> ,	0
40	Effects of Magnesium Alloy Corrosion on Biological Response- Perspectives of Metal-Cell Interaction. <b>2022</b> , 101039	0
39	Mechanical, Wear, and Degradation Behavior of Biodegradable Mg-x%Sn Alloy Fabricated through Powder Mixing Techniques.	0
38	Determination of Optimum Zn Content for Mg-Zn0.5Mn0.5Sr Alloy in Terms of Mechanical Properties and In Vitro Corrosion Resistance.	0
37	The Cytotoxic and Genotoxic Assays of Mg-Ag Alloy Doped with Zn, Ca, and Nd Elements.	0
36	Magnesium-Based Nanocomposites: An Overview of Applications and Challenges.	0
35	Machine learning-based design of biodegradable Mg alloys for load-bearing implants. <b>2023</b> , 225, 111442	0



- 34 Investigation on mechanical properties of AZ31B magnesium alloy manufactured by stir casting process. **2023**, 138, 105641 ○
- 33 Surface synthesization of magnesium alloys for improving corrosion resistance and implant applications. **2023**, 16, 104465 ○
- 32 Regulating mechanical properties and degradation behavior of biodegradable Zn0.6Mg alloy via ECAP plus cold rolling. **2023**, 937, 168487 ○
- 31 In vitro and in vivo evaluation of micro-alloyed magnesium for potential application in alveolar bone fixation screws. **2023**, 144, 62-69 ○
- 30 Long-Term in Vitro Corrosion of Biodegradable WE43 Magnesium Alloy in DMEM. **2022**, 12, 2062 ○
- 29 Influence of second phase precipitates on mechanical and in-vitro corrosion behaviour of Mg-4Zn-0.5Ca-0.8Mn alloy in optimum homogenized conditions. **2022**, ○
- 28 Research on the degradation behaviors of biomedical Mg-2 wt.% Zn alloy under a biliary environment in vitro and in vivo. **2022**, ○
- 27 Porous Magnesium and Its Application. **2022**, 23, ○
- 26 Assessment of the Mechanical and Corrosion Properties of Mg-1Zn-0.6Ca/Diamond Nanocomposites for Biomedical Applications. **2022**, 12, 4399 ○
- 25 High formability Mg-Zn-Gd wire facilitates ACL reconstruction via its swift degradation to accelerate intra-tunnel endochondral ossification. **2022**, ○
- 24 Research hotspots and trends of biodegradable magnesium and its alloys. **2023**, ○
- 23 High performance nano hydroxyapatite coating on zinc for biomedical applications. **2023**, 58, 740-756 1
- 22 The effect of medical biodegradable magnesium alloy in vivo degradation and bone response in a rat femur model with long-term fixation. **2023**, 1-13 ○
- 21 Effect of nano-CaO particle on the microstructure, mechanical properties and corrosion behavior of lean Mg-1Zn alloy. **2023**, ○
- 20 Surface modifications of biodegradable AZ31 alloy after immersion in physiological solution. ○
- 19 Study of Microstructure and Corrosion Behavior of Cast ZnAlMg Alloys. ○
- 18 Role of electron localisation in H adsorption and hydride formation in the Mg basal plane under aqueous corrosion: a first-principles study. ○
- 17 Magnesium-zinc-graphene oxide nanocomposite scaffolds for bone tissue engineering. **2023**, 16, 104715 ○

- 16 Quasicrystal-strengthened biomedical magnesium alloy fabricated by laser additive manufacturing. **2023**, 947, 169555 ○
- 15 Hydrothermal deposition of high strength biocompatible magnesium phosphate coating through in situ conversion of AZ91D-3Ca magnesium substrate. **2023**, 457, 129301 ○
- 14 Research of Dynamic Corrosion Behavior, Microstructure, and Biocompatibility of Mg<sub>70</sub>Zn<sub>10</sub>Ca<sub>20</sub> Alloys in Simulated Body Fluid Solution Induced by Zn Element Addition. **2023**, 25, ○
- 13 Attaining High Functional Performance in Biodegradable Mg-Alloys: An Overview of Challenges and Prospects for the Mg-Zn-Ca System. **2023**, 16, 1324 ○
- 12 Review on magnesium and magnesium-based alloys as biomaterials for bone immobilization. **2023**, 23, 4396-4419 ○
- 11 Review of the developments in composite materials over the last 15 years. **2023**, ○
- 10 Biodegradable Mg Alloys for Orthopedic Implant Materials. **2023**, 1211-1239 ○
- 9 Corrosion Mechanisms of a Biodegradable Zn-0.4Li Alloy in Simulated Gastrointestinal Environment. **2023**, 13, 529 ○
- 8 Recent Progress in the Development of Metallic Composite for Advanced Technologies. **2023**, 53-87 ○
- 7 Microstructure, mechanical properties and corrosion behavior of Rare Earths (RE) containing Mg-Zn alloy for biomedical applications. **2023**, 1 ○
- 6 Biodegradation mechanisms of pure Mg in presence of glucose, vitamin C, and citric acid. **2023**, 1, 100014 ○
- 5 A Superior Corrosion Protection of Mg Alloy via Smart Nontoxic Hybrid Inhibitor-Containing Coatings. **2023**, 28, 2538 ○
- 4 Recent research advances on corrosion mechanism and protection, and novel coating materials of magnesium alloys: a review. **2023**, 13, 8427-8463 ○
- 3 Fabrication and characterization of bioresorbable radiopaque PLLA/PCL/Mg alloy composite tubes for cardiovascular stent application. 1-17 ○
- 2 Influence of deposition temperature on the structure and functional properties of Mg doped hydroxyapatite coatings deposited on manufactured AZ31B alloy substrates by RF magnetron sputtering. **2023**, ○
- 1 Effect of Aging on Corrosion Resistance of AZ31 Magnesium Alloy. ○