

Fen Zhang

List of Publications by Year in descending order

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46
papers

3,336
citations

136740

32
h-index

223531

46
g-index

46
all docs

46
docs citations

46
times ranked

2038
citing authors

#	ARTICLE	IF	CITATIONS
1	Corrosion resistance of a self-healing micro-arc oxidation/polymethyltrimethoxysilane composite coating on magnesium alloy AZ31. <i>Corrosion Science</i> , 2017, 118, 84-95.	3.0	335
2	Corrosion resistance of Mg-Al-LDH coating on magnesium alloy AZ31. <i>Surface and Coatings Technology</i> , 2014, 258, 1152-1158.	2.2	188
3	Layered double hydroxide coatings on magnesium alloys: A review. <i>Journal of Materials Science and Technology</i> , 2018, 34, 1455-1466.	5.6	186
4	Corrosion of molybdate intercalated hydrotalcite coating on AZ31 Mg alloy. <i>Journal of Materials Chemistry A</i> , 2014, 2, 13049-13057.	5.2	184
5	Preparation of superhydrophobic films on titanium as effective corrosion barriers. <i>Applied Surface Science</i> , 2011, 257, 2587-2591.	3.1	174
6	Degradation mechanism of micro-arc oxidation coatings on biodegradable Mg-Ca alloys: The influence of porosity. <i>Journal of Alloys and Compounds</i> , 2017, 695, 2464-2476.	2.8	158
7	Corrosion resistance of calcium-modified zinc phosphate conversion coatings on magnesium-aluminum alloys. <i>Corrosion Science</i> , 2014, 88, 452-459.	3.0	121
8	Corrosion resistance and antibacterial properties of polysiloxane modified layer-by-layer assembled self-healing coating on magnesium alloy. <i>Journal of Colloid and Interface Science</i> , 2018, 526, 43-50.	5.0	104
9	Self-degradation of micro-arc oxidation/chitosan composite coating on Mg-4Li-1Ca alloy. <i>Surface and Coatings Technology</i> , 2018, 344, 1-11.	2.2	104
10	In vitro degradation of pure Mg in response to glucose. <i>Scientific Reports</i> , 2015, 5, 13026.	1.6	99
11	In vitro corrosion of micro-arc oxidation coating on Mg-1Li-1Ca alloy The influence of intermetallic compound Mg ₂ Ca. <i>Journal of Alloys and Compounds</i> , 2018, 764, 250-260.	2.8	95
12	Fabrication of the Superhydrophobic Surface on Magnesium Alloy and Its Corrosion Resistance. <i>Journal of Materials Science and Technology</i> , 2015, 31, 1139-1143.	5.6	90
13	Corrosion resistance of a ceria/polymethyltrimethoxysilane modified Mg-Al-layered double hydroxide on AZ31 magnesium alloy. <i>Journal of Alloys and Compounds</i> , 2018, 764, 913-928.	2.8	88
14	Corrosion resistance of in-situ growth of nano-sized Mg(OH) ₂ on micro-arc oxidized magnesium alloy AZ31 Influence of EDTA. <i>Journal of Materials Science and Technology</i> , 2019, 35, 1088-1098.	5.6	86
15	Corrosion resistance of Zn-Al layered double hydroxide/poly(lactic acid) composite coating on magnesium alloy AZ31. <i>Frontiers of Materials Science</i> , 2015, 9, 355-365.	1.1	85
16	Corrosion resistance of cerium-doped zinc calcium phosphate chemical conversion coatings on AZ31 magnesium alloy. <i>Transactions of Nonferrous Metals Society of China</i> , 2016, 26, 472-483.	1.7	81
17	Corrosion Resistance of the Superhydrophobic Mg(OH) ₂ /Mg-Al Layered Double Hydroxide Coatings on Magnesium Alloys. <i>Metals</i> , 2016, 6, 85.	1.0	71
18	Corrosion Resistance of Superhydrophobic Mg-Al Layered Double Hydroxide Coatings on Aluminum Alloys. <i>Acta Metallurgica Sinica (English Letters)</i> , 2015, 28, 1373-1381.	1.5	70

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19	Corrosion resistance of in-situ Mg-Al hydrotalcite conversion film on AZ31 magnesium alloy by one-step formation. Transactions of Nonferrous Metals Society of China, 2015, 25, 1917-1925.	1.7	70
20	Corrosion resistance of ceria/polymethyltrimethoxysilane modified magnesium hydroxide coating on AZ31 magnesium alloy. Surface and Coatings Technology, 2017, 328, 121-133.	2.2	67
21	Influence of solution temperature on corrosion resistance of Zn-Ca phosphate conversion coating on biomedical Mg-Li-Ca alloys. Transactions of Nonferrous Metals Society of China, 2013, 23, 3293-3299.	1.7	60
22	Corrosion of in-situ grown MgAl-LDH coating on aluminum alloy. Transactions of Nonferrous Metals Society of China, 2015, 25, 3498-3504.	1.7	59
23	Corrosion resistance of layer-by-layer assembled polyvinylpyrrolidone/polyacrylic acid and amorphous silica films on AZ31 magnesium alloys. RSC Advances, 2016, 6, 63107-63116.	1.7	56
24	Corrosion resistance of a self-healing multilayer film based on SiO ₂ and CeO ₂ nanoparticles layer-by-layer assembly on Mg alloys. Materials Letters, 2019, 237, 14-18.	1.3	56
25	Corrosion resistance of Mg(OH) ₂ /Mg-Al-layered double hydroxide coatings on magnesium alloy AZ31: influence of hydrolysis degree of silane. Rare Metals, 2019, 38, 629-641.	3.6	52
26	New insights into the effect of Tris-HCl and Tris on corrosion of magnesium alloy in presence of bicarbonate, sulfate, hydrogen phosphate and dihydrogen phosphate ions. Journal of Materials Science and Technology, 2017, 33, 971-986.	5.6	49
27	In vitro corrosion resistance and antibacterial properties of layer-by-layer assembled chitosan/poly-L-glutamic acid coating on AZ31 magnesium alloys. Transactions of Nonferrous Metals Society of China, 2017, 27, 1081-1086.	1.7	47
28	Corrosion resistance of Mg-Al LDH/Mg(OH) ₂ /silane-Ce hybrid coating on magnesium alloy AZ31. Transactions of Nonferrous Metals Society of China, 2020, 30, 2967-2979.	1.7	45
29	A comparison of corrosion inhibition of magnesium aluminum and zinc aluminum vanadate intercalated layered double hydroxides on magnesium alloys. Frontiers of Materials Science, 2018, 12, 198-206.	1.1	44
30	Corrosion resistance and drug release profile of gentamicin-loaded polyelectrolyte multilayers on magnesium alloys: Effects of heat treatment. Journal of Colloid and Interface Science, 2019, 547, 309-317.	5.0	43
31	In vitro corrosion and antibacterial performance of polysiloxane and poly(acrylic acid)/gentamicin sulfate composite coatings on AZ31 alloy. Surface and Coatings Technology, 2016, 291, 7-14.	2.2	38
32	Corrosion Resistance of Silane-Modified Hydroxyapatite Films on Degradable Magnesium Alloys. Acta Metallurgica Sinica (English Letters), 2018, 31, 180-188.	1.5	34
33	Corrosion resistance and antibacterial effects of hydroxyapatite coating induced by polyacrylic acid and gentamicin sulfate on magnesium alloy. Frontiers of Materials Science, 2019, 13, 87-98.	1.1	33
34	In vitro corrosion of magnesium alloy AZ31 - a synergetic influence of glucose and Tris. Frontiers of Materials Science, 2018, 12, 184-197.	1.1	32
35	Self-assembled silane film and silver nanoparticles coating on magnesium alloys for corrosion resistance and antibacterial applications. Acta Metallurgica Sinica (English Letters), 2013, 26, 681-686.	1.5	31
36	Corrosion Resistance of Silane-Modified Hydroxide Zinc Carbonate Film on AZ31 Magnesium Alloy. Acta Metallurgica Sinica (English Letters), 2015, 28, 373-380.	1.5	29

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37	In vitro degradation, photo-dynamic and thermal antibacterial activities of Cu-bearing chlorophyllin-induced Ca ²⁺ /P coating on magnesium alloy AZ31. <i>Bioactive Materials</i> , 2022, 18, 284-299.	8.6	29
38	Corrosion resistance of biodegradable polymeric layer-by-layer coatings on magnesium alloy AZ31. <i>Frontiers of Materials Science</i> , 2016, 10, 134-146.	1.1	27
39	Corrosion resistance of dodecanethiol-modified magnesium hydroxide coating on AZ31 magnesium alloy. <i>Applied Physics A: Materials Science and Processing</i> , 2020, 126, 1.	1.1	24
40	Biocorrosion resistance and biocompatibility of Mg-Al layered double hydroxide/poly-L-glutamic acid hybrid coating on magnesium alloy AZ31. <i>Progress in Organic Coatings</i> , 2020, 147, 105746.	1.9	22
41	Corrosion resistance and hydrophobicity of myristic acid modified Mg-Al LDH/Mg(OH) ₂ steam coating on magnesium alloy AZ31. <i>Frontiers of Materials Science</i> , 2020, 14, 96-107.	1.1	18
42	Mechanical and corrosion properties of Al/Ti film on magnesium alloy AZ31B. <i>Frontiers of Materials Science</i> , 2015, 9, 66-76.	1.1	17
43	Corrosion resistance of a silane/ceria modified Mg-Al-layered double hydroxide on AA5005 aluminum alloy. <i>Frontiers of Materials Science</i> , 2019, 13, 420-430.	1.1	13
44	<i>In vitro</i> corrosion of pure magnesium and AZ91 alloy—the influence of thin electrolyte layer thickness. <i>International Journal of Energy Production and Management</i> , 2016, 3, 49-56.	1.9	10
45	Biocorrosion resistance and biocompatibility of Mg-Al layered double hydroxide/poly(L-lactic acid) hybrid coating on magnesium alloy AZ31. <i>Frontiers of Materials Science</i> , 2020, 14, 426-441.	1.1	10
46	Synthesis of glutamate intercalated Mg-Al layered double hydroxides: influence of stirring and aging time. <i>Journal of Dispersion Science and Technology</i> , 2020, , 1-9.	1.3	2