

# Guang-Ling Song

## List of Publications by Citations

**Source:** <https://exaly.com/author-pdf/7086398/guang-ling-song-publications-by-citations.pdf>

**Version:** 2024-04-28

This document has been generated based on the publications and citations recorded by exaly.com. 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.

208  
papers

17,852  
citations

62  
h-index

132  
g-index

217  
ext. papers

20,238  
ext. citations

5.3  
avg, IF

7.27  
L-index

#	Paper	IF	Citations
208	Understanding Magnesium Corrosion: A Framework for Improved Alloy Performance. <i>Advanced Engineering Materials</i> , <b>2003</b> , 5, 837-858	3.5	1495
207	Control of biodegradation of biocompatible magnesium alloys. <i>Corrosion Science</i> , <b>2007</b> , 49, 1696-1701	6.8	1120
206	Influence of microstructure on the corrosion of diecast AZ91D. <i>Corrosion Science</i> , <b>1998</b> , 41, 249-273	6.8	717
205	Recent Progress in Corrosion and Protection of Magnesium Alloys. <i>Advanced Engineering Materials</i> , <b>2005</b> , 7, 563-586	3.5	684
204	Corrosion behaviour of AZ21, AZ501 and AZ91 in sodium chloride. <i>Corrosion Science</i> , <b>1998</b> , 40, 1769-1791	6.8	666
203	The anodic dissolution of magnesium in chloride and sulphate solutions. <i>Corrosion Science</i> , <b>1997</b> , 39, 1981-2004	6.8	642
202	The electrochemical corrosion of pure magnesium in 1 N NaCl. <i>Corrosion Science</i> , <b>1997</b> , 39, 855-875	6.8	476
201	Review of Recent Developments in the Field of Magnesium Corrosion. <i>Advanced Engineering Materials</i> , <b>2015</b> , 17, 400-453	3.5	452
200	Influence of the $\beta$ phase morphology on the corrosion of the Mg alloy AZ91. <i>Corrosion Science</i> , <b>2008</b> , 50, 1939-1953	6.8	437
199	A Possible Biodegradable Magnesium Implant Material. <i>Advanced Engineering Materials</i> , <b>2007</b> , 9, 298-302	3.5	375
198	Anodizing Treatments for Magnesium Alloys and Their Effect on Corrosion Resistance in Various Environments. <i>Advanced Engineering Materials</i> , <b>2006</b> , 8, 511-533	3.5	375
197	Corrosion resistance of aged die cast magnesium alloy AZ91D. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2004</b> , 366, 74-86	5.3	357
196	A Critical Review of the Stress Corrosion Cracking (SCC) of Magnesium Alloys. <i>Advanced Engineering Materials</i> , <b>2005</b> , 7, 659-693	3.5	329
195	Advances in Mg corrosion and research suggestions. <i>Journal of Magnesium and Alloys</i> , <b>2013</b> , 1, 177-200	8.8	311
194	Influence of pH and chloride ion concentration on the corrosion of Mg alloy ZE41. <i>Corrosion Science</i> , <b>2008</b> , 50, 3168-3178	6.8	300
193	Recent progress in corrosion protection of magnesium alloys by organic coatings. <i>Progress in Organic Coatings</i> , <b>2012</b> , 73, 129-141	4.8	270
192	Galvanic corrosion of magnesium alloy AZ91D in contact with an aluminium alloy, steel and zinc. <i>Corrosion Science</i> , <b>2004</b> , 46, 955-977	6.8	247

191	The influence of yttrium (Y) on the corrosion of Mg <sub>2</sub> X binary alloys. <i>Corrosion Science</i> , <b>2010</b> , 52, 3687-3701	6.8	246
190	Calculated phase diagrams and the corrosion of die-cast Mg <sub>2</sub> Al alloys. <i>Corrosion Science</i> , <b>2009</b> , 51, 602-610	6.8	246
189	Crystallographic orientation and electrochemical activity of AZ31 Mg alloy. <i>Electrochemistry Communications</i> , <b>2010</b> , 12, 1009-1012	5.1	228
188	Recent Insights into the Mechanism of Magnesium Corrosion and Research Suggestions. <i>Advanced Engineering Materials</i> , <b>2007</b> , 9, 177-183	3.5	227
187	The surface, microstructure and corrosion of magnesium alloy AZ31 sheet. <i>Electrochimica Acta</i> , <b>2010</b> , 55, 4148-4161	6.7	220
186	Corrosion and passivation of magnesium alloys. <i>Corrosion Science</i> , <b>2016</b> , 111, 835-845	6.8	204
185	Corrosion of ultra-high-purity Mg in 3.5% NaCl solution saturated with Mg(OH) <sub>2</sub> . <i>Corrosion Science</i> , <b>2013</b> , 75, 78-99	6.8	201
184	The effect of crystallographic orientation on the active corrosion of pure magnesium. <i>Scripta Materialia</i> , <b>2008</b> , 58, 421-424	5.6	199
183	An exploratory study of the corrosion of Mg alloys during interrupted salt spray testing. <i>Corrosion Science</i> , <b>2009</b> , 51, 1277-1292	6.8	196
182	The effect of zirconium grain refinement on the corrosion behaviour of magnesium-rare earth alloy MEZ. <i>Journal of Light Metals</i> , <b>2002</b> , 2, 1-16		189
181	A first quantitative XPS study of the surface films formed, by exposure to water, on Mg and on the Mg <sub>2</sub> Al intermetallics: Al <sub>3</sub> Mg <sub>2</sub> and Mg <sub>17</sub> Al <sub>12</sub> . <i>Corrosion Science</i> , <b>2009</b> , 51, 1115-1127	6.8	187
180	Grain refined and basal textured surface produced by burnishing for improved corrosion performance of AZ31B Mg alloy. <i>Corrosion Science</i> , <b>2012</b> , 57, 192-201	6.8	183
179	Equivalent circuit model for AC electrochemical impedance spectroscopy of concrete. <i>Cement and Concrete Research</i> , <b>2000</b> , 30, 1723-1730	10.3	177
178	Active corrosion protection by a smart coating based on a MgAl-layered double hydroxide on a cerium-modified plasma electrolytic oxidation coating on Mg alloy AZ31. <i>Corrosion Science</i> , <b>2018</b> , 139, 370-382	6.8	174
177	Effect of microstructure evolution on corrosion of different crystal surfaces of AZ31 Mg alloy in a chloride containing solution. <i>Corrosion Science</i> , <b>2012</b> , 54, 97-105	6.8	160
176	Corrosion behaviour in salt spray and in 3.5% NaCl solution saturated with Mg(OH) <sub>2</sub> of as-cast and solution heat-treated binary Mg <sub>2</sub> X alloys: X=Mn, Sn, Ca, Zn, Al, Zr, Si, Sr. <i>Corrosion Science</i> , <b>2013</b> , 76, 60-97	6.8	150
175	Crystal orientation and electrochemical corrosion of polycrystalline Mg. <i>Corrosion Science</i> , <b>2012</b> , 63, 100-112	6.8	139
174	Corrosion mechanism and evaluation of anodized magnesium alloys. <i>Corrosion Science</i> , <b>2014</b> , 85, 126-140	6.8	138

173	Microstructure and corrosion performance of a cold sprayed aluminium coating on AZ91D magnesium alloy. <i>Corrosion Science</i> , <b>2010</b> , 52, 3191-3197	6.8	135
172	Characterisation of stress corrosion cracking (SCC) of MgAl alloys. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2008</b> , 488, 339-351	5.3	133
171	Influence of anodising current on the corrosion resistance of anodised AZ91D magnesium alloy. <i>Corrosion Science</i> , <b>2006</b> , 48, 1939-1959	6.8	128
170	Effect of tin modification on corrosion of AM70 magnesium alloy. <i>Corrosion Science</i> , <b>2009</b> , 51, 2063-2070	6.8	126
169	The Effect of Pre-Processing and Grain Structure on the Bio-Corrosion and Fatigue Resistance of Magnesium Alloy AZ31. <i>Advanced Engineering Materials</i> , <b>2007</b> , 9, 967-972	3.5	121
168	Influence of geometry on galvanic corrosion of AZ91D coupled to steel. <i>Corrosion Science</i> , <b>2006</b> , 48, 2133-2153	6.8	118
167	Influence of the $\beta$ phase on the corrosion performance of anodised coatings on magnesium-aluminium alloys. <i>Corrosion Science</i> , <b>2005</b> , 47, 2760-2777	6.8	115
166	Corrosion behaviour of magnesium in ethylene glycol. <i>Corrosion Science</i> , <b>2004</b> , 46, 1381-1399	6.8	112
165	Ultrafine-grained surface layer on MgAlZn alloy produced by cryogenic burnishing for enhanced corrosion resistance. <i>Scripta Materialia</i> , <b>2011</b> , 65, 520-523	5.6	109
164	Influence of Microstructure on Corrosion of As-cast ZE41. <i>Advanced Engineering Materials</i> , <b>2008</b> , 10, 104-111	5.1	108
163	Improved corrosion resistance of AZ91D magnesium alloy by an aluminium-alloyed coating. <i>Surface and Coatings Technology</i> , <b>2006</b> , 200, 2834-2840	4.4	106
162	Corrosion behaviour in salt spray and in 3.5% NaCl solution saturated with Mg(OH) <sub>2</sub> of as-cast and solution heat-treated binary MgRE alloys: RE = Ce, La, Nd, Y, Gd. <i>Corrosion Science</i> , <b>2013</b> , 76, 98-118	6.8	104
161	The corrosion performance of anodised magnesium alloys. <i>Corrosion Science</i> , <b>2006</b> , 48, 3531-3546	6.8	99
160	Film Breakdown and Nano-Porous Mg(OH) <sub>2</sub> Formation from Corrosion of Magnesium Alloys in Salt Solutions. <i>Journal of the Electrochemical Society</i> , <b>2015</b> , 162, C140-C149	3.9	98
159	The anodic surface film and hydrogen evolution on Mg. <i>Corrosion Science</i> , <b>2015</b> , 98, 758-765	6.8	97
158	Transmission Electron Microscopy Study of Aqueous Film Formation and Evolution on Magnesium Alloys. <i>Journal of the Electrochemical Society</i> , <b>2014</b> , 161, C302-C311	3.9	97
157	Comparison of the linearly increasing stress test and the constant extension rate test in the evaluation of transgranular stress corrosion cracking of magnesium. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2008</b> , 472, 97-106	5.3	97
156	Influence of hot rolling on the corrosion behavior of several MgAl alloys. <i>Corrosion Science</i> , <b>2015</b> , 90, 176-191	6.8	96

155	Simulation of galvanic corrosion of magnesium coupled to a steel fastener in NaCl solution. <i>Materials and Corrosion - Werkstoffe Und Korrosion</i> , <b>2005</b> , 56, 468-474	1.6	87
154	Corrosion resistance of anodised single-phase Mg alloys. <i>Surface and Coatings Technology</i> , <b>2006</b> , 201, 492-503	4.4	80
153	Potential and current distributions of one-dimensional galvanic corrosion systems. <i>Corrosion Science</i> , <b>2010</b> , 52, 455-480	6.8	78
152	Electroless deposition of a pre-film of electrophoresis coating and its corrosion resistance on a Mg alloy. <i>Electrochimica Acta</i> , <b>2010</b> , 55, 2258-2268	6.7	78
151	Evaluation of the delayed hydride cracking mechanism for transgranular stress corrosion cracking of magnesium alloys. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , <b>2007</b> , 466, 18-31	5.3	78
150	Inhibition effect of inorganic and organic inhibitors on the corrosion of Mg <sub>90</sub> Gd <sub>5</sub> Y <sub>0.5</sub> Zr alloy in an ethylene glycol solution at ambient and elevated temperatures. <i>Electrochimica Acta</i> , <b>2011</b> , 56, 10166-10178	6.7	73
149	Influence of Homogenization Annealing of AZ91 on Mechanical Properties and Corrosion Behavior. <i>Advanced Engineering Materials</i> , <b>2008</b> , 10, 93-103	3.5	69
148	Experimental Measurement and Computer Simulation of Galvanic Corrosion of Magnesium Coupled to Steel. <i>Advanced Engineering Materials</i> , <b>2007</b> , 9, 65-74	3.5	67
147	Direct electroless nickel-boron plating on AZ91D magnesium alloy. <i>Surface and Coatings Technology</i> , <b>2012</b> , 206, 3676-3685	4.4	62
146	Stress Corrosion Cracking and Hydrogen Diffusion in Magnesium. <i>Advanced Engineering Materials</i> , <b>2006</b> , 8, 749-751	3.5	62
145	Review of the atmospheric corrosion of magnesium alloys. <i>Journal of Materials Science and Technology</i> , <b>2019</b> , 35, 2003-2016	9.1	61
144	The Effect of Texture on the Corrosion Behavior of AZ31 Mg Alloy. <i>Jom</i> , <b>2012</b> , 64, 671-679	2.1	61
143	Electrochemical reactivity, surface composition and corrosion mechanisms of the complex metallic alloy Al <sub>3</sub> Mg <sub>2</sub> . <i>Corrosion Science</i> , <b>2010</b> , 52, 562-578	6.8	60
142	Theoretical analysis of the measurement of polarisation resistance in reinforced concrete. <i>Cement and Concrete Composites</i> , <b>2000</b> , 22, 407-415	8.6	60
141	Flow-induced corrosion of absorbable magnesium alloy: In-situ and real-time electrochemical study. <i>Corrosion Science</i> , <b>2016</b> , 104, 277-289	6.8	59
140	2-Hydroxy-4-methoxy-acetophenone as an environment-friendly corrosion inhibitor for AZ91D magnesium alloy. <i>Corrosion Science</i> , <b>2013</b> , 74, 35-43	6.8	59
139	Fractography of Stress Corrosion Cracking of Mg-Al Alloys. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , <b>2008</b> , 39, 1157-1173	2.3	58
138	Corrosion of magnesium alloys <b>2011</b> ,		54

137	Review of Mg alloy corrosion rates. <i>Journal of Magnesium and Alloys</i> , <b>2020</b> , 8, 989-998	8.8	54
136	ToF-SIMS depth profile of the surface film on pure magnesium formed by immersion in pure water and the identification of magnesium hydride. <i>Corrosion Science</i> , <b>2009</b> , 51, 1883-1886	6.8	53
135	An irreversible dipping sealing technique for anodized ZE41 Mg alloy. <i>Surface and Coatings Technology</i> , <b>2009</b> , 203, 3618-3625	4.4	52
134	Low apparent valence of Mg during corrosion. <i>Corrosion Science</i> , <b>2014</b> , 88, 434-443	6.8	51
133	Transpassivation of Fe-Cr-Ni stainless steels. <i>Corrosion Science</i> , <b>2005</b> , 47, 1953-1987	6.8	51
132	A state-of-the-art review on passivation and biofouling of Ti and its alloys in marine environments. <i>Journal of Materials Science and Technology</i> , <b>2018</b> , 34, 421-435	9.1	51
131	Evaluation of the BEASY program using linear and piecewise linear approaches for the boundary conditions. <i>Materials and Corrosion - Werkstoffe Und Korrosion</i> , <b>2004</b> , 55, 845-852	1.6	50
130	Corrosion of magnesium alloys in commercial engine coolants. <i>Materials and Corrosion - Werkstoffe Und Korrosion</i> , <b>2005</b> , 56, 15-23	1.6	49
129	Effect of bicarbonate on biodegradation behaviour of pure magnesium in a simulated body fluid. <i>Electrochimica Acta</i> , <b>2014</b> , 115, 56-65	6.7	47
128	Impurity control and corrosion resistance of magnesium-aluminum alloy. <i>Corrosion Science</i> , <b>2013</b> , 77, 143-150	6.8	47
127	Degradation of the surface appearance of magnesium and its alloys in simulated atmospheric environments. <i>Corrosion Science</i> , <b>2007</b> , 49, 1245-1265	6.8	47
126	An investigation of new barium phosphate chemical conversion coating on AZ31 magnesium alloy. <i>Surface and Coatings Technology</i> , <b>2012</b> , 210, 156-165	4.4	46
125	Enhanced photoelectrochemical performances of ZnS-Bi <sub>2</sub> S <sub>3</sub> /TiO <sub>2</sub> /WO <sub>3</sub> composite film for photocathodic protection. <i>Corrosion Science</i> , <b>2018</b> , 143, 31-38	6.8	41
124	Research on the inhibition mechanism of tetraphenylporphyrin on AZ91D magnesium alloy. <i>Corrosion Science</i> , <b>2012</b> , 63, 367-378	6.8	40
123	The synergistic inhibition effect of organic silicate and inorganic Zn salt on corrosion of Mg-10Gd-3Y magnesium alloy. <i>Corrosion Science</i> , <b>2011</b> , 53, 4093-4101	6.8	40
122	Boundary element method predictions of the influence of the electrolyte on the galvanic corrosion of AZ91D coupled to steel. <i>Materials and Corrosion - Werkstoffe Und Korrosion</i> , <b>2005</b> , 56, 259-270	1.6	40
121	The effect of surface pretreatment on the corrosion performance of Electroless E-coating coated AZ31. <i>Corrosion Science</i> , <b>2012</b> , 62, 61-72	6.8	37
120	The topography of magnetron sputter-deposited Mg-Ti alloy thin films. <i>Materials Chemistry and Physics</i> , <b>2011</b> , 125, 548-552	4.4	37

119	Facile fabrication of BiVO <sub>4</sub> modified TiO <sub>2</sub> nanotube film photoanode and its photocathodic protection effect on stainless steel. <i>Corrosion Science</i> , <b>2019</b> , 157, 247-255	6.8	36
118	Stress corrosion cracking of several solution heat-treated Mg alloys. <i>Corrosion Science</i> , <b>2015</b> , 96, 121-132		34
117	Corrosion and electrochemical evaluation of an AlSiCu aluminum alloy in ethanol solutions. <i>Corrosion Science</i> , <b>2013</b> , 72, 73-81	6.8	31
116	Study of mechanical joint strength of aluminum alloy 7075-T6 and dual phase steel 980 welded by friction bit joining and weld-bonding under corrosion medium. <i>Materials &amp; Design</i> , <b>2015</b> , 69, 37-43		30
115	A dipping E-coating for Mg alloys. <i>Progress in Organic Coatings</i> , <b>2011</b> , 70, 252-258	4.8	30
114	Electroless E-Coating: An Innovative Surface Treatment for Magnesium Alloys. <i>Electrochemical and Solid-State Letters</i> , <b>2009</b> , 12, D77		30
113	What activates the Mg surface? A comparison of Mg dissolution mechanisms. <i>Journal of Materials Science and Technology</i> , <b>2020</b> , 57, 204-220	9.1	29
112	Stress Corrosion Cracking (SCC) in Mg-Al Alloys Studied using Compact Specimens. <i>Advanced Engineering Materials</i> , <b>2008</b> , 10, 453-458	3.5	29
111	Corrosion prevention of magnesium alloys <b>2013</b> ,		29
110	Stress corrosion cracking in magnesium alloys: Characterization and prevention. <i>Jom</i> , <b>2007</b> , 59, 49-53	2.1	28
109	Tracer Film Growth Study of Hydrogen and Oxygen from the Corrosion of Magnesium in Water. <i>Journal of the Electrochemical Society</i> , <b>2014</b> , 161, C395-C404	3.9	26
108	The possibility of forming a sacrificial anode coating for Mg. <i>Corrosion Science</i> , <b>2014</b> , 87, 11-14	6.8	25
107	The corrosion performance of magnesium alloy AM-SC1 in automotive engine block applications. <i>Jom</i> , <b>2005</b> , 57, 54-56	2.1	25
106	The effect of Mg alloy substrate on electroless E-coating performance. <i>Corrosion Science</i> , <b>2011</b> , 53, 3500-3508	6.8	24
105	Electrochemical potential noise of 321 stainless steel stressed under constant strain rate testing conditions. <i>Electrochimica Acta</i> , <b>2007</b> , 52, 2123-2133	6.7	24
104	Corrosion performance of magnesium alloys MEZ and AZ91. <i>International Journal of Cast Metals Research</i> , <b>2000</b> , 12, 327-334	1	23
103	The corrosion and passivity of sputtered Mg alloys. <i>Corrosion Science</i> , <b>2016</b> , 104, 36-46	6.8	22
102	The corrosion of pure Mg accelerated by haze pollutant ammonium sulphate. <i>Corrosion Science</i> , <b>2019</b> , 150, 161-174	6.8	21

101	Stress corrosion cracking of several hot-rolled binary Mg <sub>2</sub> alloys. <i>Corrosion Science</i> , <b>2015</b> , 98, 6-19	6.8	21
100	Influence of casting porosity on the corrosion behaviour of Mg <sub>0.1</sub> Si. <i>Corrosion Science</i> , <b>2015</b> , 94, 255-269.	6.8	21
99	A study on transition of iron from active into passive state. <i>Corrosion Science</i> , <b>2005</b> , 47, 323-339	6.8	21
98	Carbon quantum dots/Ag sensitized TiO <sub>2</sub> nanotube film for applications in photocathodic protection. <i>Journal of Alloys and Compounds</i> , <b>2019</b> , 797, 912-921	5.7	19
97	The stability of the transpassive film on 304 stainless steel with post-treatment. <i>Corrosion Science</i> , <b>1994</b> , 36, 165-169	6.8	19
96	Magnesium alloy anode as a smart corrosivity detector and intelligent sacrificial anode protector for reinforced concrete. <i>Corrosion Science</i> , <b>2019</b> , 155, 13-28	6.8	18
95	Corrosion behaviour of a pressure die cast magnesium alloy. <i>International Journal of Cast Metals Research</i> , <b>2005</b> , 18, 174-180	1	18
94	A corrosion resistant die-cast Mg-9Al-1Zn anode with superior discharge performance for Mg-air battery. <i>Materials and Design</i> , <b>2020</b> , 194, 108931	8.1	17
93	Localized Corrosion of Binary Mg-Al Alloy in 0.9 wt% Sodium Chloride Solution. <i>Acta Metallurgica Sinica (English Letters)</i> , <b>2016</b> , 29, 46-57	2.5	17
92	Design of tailored biodegradable implants: The effect of voltage on electrodeposited calcium phosphate coatings on pure magnesium. <i>Journal of the American Ceramic Society</i> , <b>2019</b> , 102, 123-135	3.8	16
91	Corrosion behaviour of friction-bit-joined and weld-bonded AA7075-T6/galvannealed DP980. <i>Science and Technology of Welding and Joining</i> , <b>2017</b> , 22, 455-464	3.7	15
90	Effects of AC-Modulated Passivation and Post-Treatment on Composition and Stability of Passive Films. <i>Corrosion</i> , <b>1993</b> , 49, 271-277	1.8	15
89	Tracer Film Growth Study of the Corrosion of Magnesium Alloys AZ31B and ZE10A in 0.01% NaCl Solution. <i>Journal of the Electrochemical Society</i> , <b>2017</b> , 164, C367-C375	3.9	14
88	Formation mechanism of pulse current anodized film on AZ91D Mg alloy. <i>Transactions of Nonferrous Metals Society of China</i> , <b>2008</b> , 18, 19-23	3.3	14
87	A protective superhydrophobic Mg-Zn-Al LDH film on Surface-Alloyed Magnesium. <i>Journal of Alloys and Compounds</i> , <b>2021</b> , 855, 157550	5.7	14
86	Effect of Additives and Heat Treatment on the Formation and Performance of Electroless Nickel-Boron Plating on AZ91D Mg Alloy. <i>Journal of the Electrochemical Society</i> , <b>2012</b> , 159, D406-D412	3.9	13
85	Corrosion Control in CO <sub>2</sub> Enhanced Oil Recovery From a Perspective of Multiphase Fluids. <i>Frontiers in Materials</i> , <b>2019</b> , 6,	4	13
84	Corrosion morphology of AZ91D exposed in an atmospheric environment. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , <b>2006</b> , 37, 2313-2316	2.3	12



83	The corrosion of Al-supersaturated Mg matrix and the galvanic effect of secondary phase nanoparticles. <i>Corrosion Science</i> , <b>2021</b> , 184, 109410	6.8	12
82	Galvanic Effect Between Galvanized Steel and Carbon Fiber Reinforced Polymers. <i>Acta Metallurgica Sinica (English Letters)</i> , <b>2017</b> , 30, 342-351	2.5	11
81	The Inhibitive Effect of Artificial Seawater on Magnesium Corrosion. <i>Advanced Engineering Materials</i> , <b>2019</b> , 21, 1900363	3.5	11
80	Rapid Diffusion and Nanosegregation of Hydrogen in Magnesium Alloys from Exposure to Water. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2017</b> , 9, 38125-38134	9.5	10
79	Corrosion mitigation behavior of an alternately wetted steel electrode in oil/water media. <i>Corrosion Science</i> , <b>2019</b> , 152, 140-152	6.8	10
78	Assessment of localized corrosion under simulated physiological conditions of magnesium samples with heterogeneous microstructure: Value of X-ray computed micro-tomography platform. <i>Corrosion Science</i> , <b>2016</b> , 104, 187-196	6.8	10
77	Influence of microstructure of carbon fibre reinforced polymer on the metal in contact. <i>Journal of Materials Research and Technology</i> , <b>2020</b> , 9, 560-573	5.5	10
76	Corrosion study of new surface treatment/coating for AZ31B magnesium alloy. <i>Surface Engineering</i> , <b>2012</b> , 28, 486-490	2.6	9
75	Fabrication and synergistic antibacterial and antifouling effect of an organic/inorganic hybrid coating embedded with nanocomposite Ag@TA-SiO particles. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , <b>2021</b> , 613, 126085	5.1	9
74	Development of a curcumin-based antifouling and anticorrosion sustainable polybenzoxazine resin composite coating. <i>Composites Part B: Engineering</i> , <b>2021</b> , 225, 109263	10	9
73	Effect of the Microstructure of Carbon Fiber Reinforced Polymer on Electrochemical Behavior. <i>Journal of the Electrochemical Society</i> , <b>2018</b> , 165, C647-C656	3.9	8
72	The Grand Challenges in Electrochemical Corrosion Research. <i>Frontiers in Materials</i> , <b>2014</b> , 1,	4	8
71	A Study on Tetraphenylporphyrin as a Corrosion Inhibitor for Pure Magnesium. <i>Electrochemical and Solid-State Letters</i> , <b>2012</b> , 15, C13		8
70	Corrosivity of haze constituents to pure Mg. <i>Journal of Magnesium and Alloys</i> , <b>2020</b> , 8, 150-162	8.8	7
69	Microstructure and corrosion behavior of die-cast AM60B magnesium alloys in a complex salt solution: A slow positron beam study. <i>Corrosion Science</i> , <b>2014</b> , 81, 65-74	6.8	7
68	Self-corrosion, galvanic corrosion and inhibition of GW103 and AZ91D Mg alloys in ethylene glycol solution. <i>Corrosion Engineering Science and Technology</i> , <b>2013</b> , 48, 155-160	1.7	7
67	Inhibitive effect of benzotriazole on the stress corrosion cracking of 18cr-9ni-ti stainless steel in acidic chloride solution. <i>Corrosion Science</i> , <b>1998</b> , 40, 1109-1117	6.8	7
66	On the linear response of a passivated metallic electrode to potential step perturbation. <i>Corrosion Science</i> , <b>1992</b> , 33, 413-423	6.8	7

65	The Corrosion Behavior of Mg5Y in Nominally Distilled Water. <i>Advanced Engineering Materials</i> , <b>2018</b> , 20, 1700986	3.5	6
64	Galvanic Corrosion and Inhibition of GW103 and AZ91D Mg Alloys Coupled to an Al Alloy in an Ethylene Glycol Solution at Ambient and Elevated Temperatures. <i>Corrosion</i> , <b>2012</b> , 68, 475-488	1.8	6
63	Microstructure modification and corrosion resistance enhancement of die-cast Mg-Al-Re alloy by Sr alloying. <i>Journal of Magnesium and Alloys</i> , <b>2020</b> , 9, 950-950	8.8	6
62	Influence of heat treatment on corrosion behavior of hot rolled Mg5Gd alloys. <i>Transactions of Nonferrous Metals Society of China</i> , <b>2021</b> , 31, 939-951	3.3	6
61	The anodically polarized Mg surface products and accelerated hydrogen evolution. <i>Journal of Magnesium and Alloys</i> , <b>2021</b> ,	8.8	6
60	Micro-galvanic corrosion during formation of epoxy coating. <i>Progress in Organic Coatings</i> , <b>2020</b> , 147, 105799	4.8	5
59	A Mg alloy with no hydrogen evolution during dissolution. <i>Journal of Magnesium and Alloys</i> , <b>2021</b> ,	8.8	5
58	Batch transportation of oil and water for reducing pipeline corrosion. <i>Journal of Petroleum Science and Engineering</i> , <b>2020</b> , 195, 107583	4.4	5
57	Improvement of intelligent corrosivity-detection and corrosion-protection for reinforcing steel. <i>Corrosion Science</i> , <b>2021</b> , 184, 109396	6.8	5
56	A burnished and Al-alloyed magnesium surface with improved mechanical and corrosion properties. <i>Corrosion Science</i> , <b>2021</b> , 184, 109395	6.8	5
55	Fluid structure governing the corrosion behavior of mild steel in oil/water mixtures. <i>Corrosion Engineering Science and Technology</i> , <b>2020</b> , 55, 241-252	1.7	4
54	A double-mode cell to measure pitting and crevice corrosion. <i>Materials and Corrosion - Werkstoffe Und Korrosion</i> , <b>2019</b> , 70, 2228-2237	1.6	4
53	Two-dimensional anisotropic electrochemical behavior of carbon fiber. <i>Electrochimica Acta</i> , <b>2019</b> , 326, 135005	6.7	4
52	A New Technique for Correlation of Underground Corrosion. <i>Corrosion</i> , <b>1995</b> , 51, 491-497	1.8	4
51	Salt crystallization-assisted degradation of epoxy resin surface in simulated marine environments. <i>Progress in Organic Coatings</i> , <b>2020</b> , 149, 105932	4.8	4
50	An Analytical Model for the Corrosion Risk of Water Alternating Gas Injection Wells in CO2 Enhanced Oil Recovery. <i>Advanced Theory and Simulations</i> , <b>2018</b> , 1, 1800041	3.5	4
49	Effect of vacuum degree on adhesion strength and corrosion resistance of magnetron sputtered aluminum coating on NdFeB magnet. <i>Materials and Corrosion - Werkstoffe Und Korrosion</i> , <b>2019</b> , 70, 1230-1241	1.6	3
48	Lab Evaluation and Comparison of Corrosion Performance of Mg Alloys. <i>SAE International Journal of Passenger Cars - Mechanical Systems</i> , <b>2010</b> , 3, 554-564	0.3	3

47	A kinetic model for the potential oscillation phenomenon of mild steel in conc. H <sub>2</sub> SO <sub>4</sub> . <i>Corrosion Science</i> , <b>1994</b> , 36, 1491-1497	6.8	3
46	Modification, Degradation and Evaluation of a Few Organic Coatings for Some Marine Applications. <i>Corrosion and Materials Degradation</i> , <b>2020</b> , 1, 408-442	2.6	3
45	The influence of adding samarium on the microstructure, mechanical performance and corrosion behavior of as-extruded AZ41 alloys. <i>Journal of Physics and Chemistry of Solids</i> , <b>2021</b> , 150, 109851	3.9	3
44	The localized corrosion of mild steel in carbonated cement pore solution under supercritical carbon-dioxide in a simulated geothermal environment. <i>Construction and Building Materials</i> , <b>2021</b> , 274, 122035	6.7	3
43	Corrosion behavior of the joints of carbon fiber reinforced polymers with DP590 steel and Al6022 alloy. <i>Anti-Corrosion Methods and Materials</i> , <b>2019</b> , 66, 479-485	0.8	3
42	Crevice corrosion of steel rebar in chloride-contaminated concrete. <i>Construction and Building Materials</i> , <b>2021</b> , 296, 123587	6.7	3
41	Ag/SnO <sub>2</sub> /TiO <sub>2</sub> nanotube composite film used in photocathodic protection for stainless steel. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , <b>2021</b> , 417, 113353	4.7	3
40	Response of a semiliquid epoxy film to a DC plasma. <i>Journal Physics D: Applied Physics</i> , <b>2019</b> , 52, 16LT01	3	2
39	Electric field induced surface modification and impermeability enhancement for a polymer film. <i>AIP Advances</i> , <b>2018</b> , 8, 075102	1.5	2
38	A novel single-electrode AC probe for rapid monitoring of both instantaneous and accumulated electrochemical parameters in corrosion. <i>Electrochimica Acta</i> , <b>2019</b> , 321, 134664	6.7	2
37	Regression analysis of the transient process of an electrode perturbed by a potential step. <i>Corrosion Science</i> , <b>1997</b> , 39, 443-452	6.8	2
36	The marine atmospheric corrosion of pure Mg and Mg alloys in field exposure and lab simulation. <i>Corrosion Engineering Science and Technology</i> , <b>2020</b> , 55, 609-621	1.7	2
35	Galvanic activity of carbon fiber reinforced polymers and electrochemical behavior of carbon fiber. <i>Corrosion Communications</i> , <b>2021</b> , 1, 26-39		2
34	The Real Current Density Distribution on Mg Surface. <i>Journal of the Electrochemical Society</i> , <b>2021</b> , 168, 077505	3.9	2
33	The corrosion damage of an organic coating accelerated by different AC-DC-AC tests. <i>Engineering Failure Analysis</i> , <b>2021</b> , 126, 105461	3.2	2
32	Corrosion of Mg Alloys <b>2022</b> , 46-74		2
31	Copper ion accelerated local failure of epoxy coating on NdFeB magnet in immersion conditions. <i>Engineering Failure Analysis</i> , <b>2020</b> , 115, 104677	3.2	1
30	The Surface Films and Their Possible Roles in Mg Corrosion <b>2016</b> , 285-290		1

29	Self-deposited E-coating for Mg Alloys <b>2010</b> ,		1
28	Electrochemical potential noise of AISI type 321 stainless steel under stress in acid sulphate solutions. <i>Corrosion Engineering Science and Technology</i> , <b>2007</b> , 42, 36-41	1.7	1
27	The effect of a biofilm-forming bacterium <i>Tenacibaculum mesophilum</i> D-6 on the passive film of stainless steel in the marine environment.. <i>Science of the Total Environment</i> , <b>2022</b> , 815, 152909	10.2	1
26	The Zn <sup>2+</sup> Destabilized Surface Film and Accelerated Corrosion of Magnesium. <i>Journal of the Electrochemical Society</i> , <b>2020</b> , 167, 161508	3.9	1
25	Fabrication of CdSe/ZnIn <sub>2</sub> S <sub>4</sub> modified TiO <sub>2</sub> nanotube composite and its application in photoelectrochemical cathodic protection. <i>Journal of Electroanalytical Chemistry</i> , <b>2021</b> , 904, 115884	4.1	1
24	Achieving Ultrahigh Anodic Efficiency via Single-Phase Design of Mg-Zn Alloy Anode for Mg-Air Batteries. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2021</b> ,	9.5	1
23	Modification of an alkyd resin coating by airflow. <i>Materials and Corrosion - Werkstoffe Und Korrosion</i> , <b>2020</b> , 71, 637-645	1.6	1
22	Modified AC-DC-AC method for evaluation of corrosion damage of acrylic varnish paint coating/Q215 steel system. <i>Progress in Organic Coatings</i> , <b>2021</b> , 159, 106401	4.8	1
21	A chloride-sensitive corrosion sensor and protector made of an optimized Mg-Al alloy for reinforcing steel. <i>Materials and Design</i> , <b>2021</b> , 210, 110028	8.1	1
20	In situ synergistic strategy of sacrificial intermedium for scalable-manufactured and controllable layered double hydroxide film. <i>Science China Materials</i> ,	7.1	1
19	Self-repairing functionality and corrosion resistance of in-situ Mg-Al LDH film on Al-alloyed AZ31 surface. <i>Journal of Magnesium and Alloys</i> , <b>2021</b> ,	8.8	1
18	Naturally effective inhibition of microbial corrosion by bacterium-alga symbiosis on 304 stainless steel. <i>Journal of Cleaner Production</i> , <b>2022</b> , 131823	10.3	1
17	The controlled in-situ growth of silver-halloysite nanostructure via interaction bonds to reinforce a novel polybenzoxazine composite resin and improve its antifouling and anticorrosion properties. <i>Composites Science and Technology</i> , <b>2022</b> , 221, 109312	8.6	0
16	Intrinsic and extrinsic doping to construct hematite nanorod p-n homojunctions for highly efficient PEC water splitting. <i>Chemical Engineering Journal</i> , <b>2022</b> , 435, 135016	14.7	0
15	Electrochemical Characterization of an Oil/Water Alternately Wetted Rotating Cylinder Electrode. <i>Corrosion</i> , <b>2021</b> , 77, 72-84	1.8	0
14	Intelligentization of traditional sacrificial anode Zn by Mg-alloying for reinforcing steel. <i>Corrosion Science</i> , <b>2022</b> , 194, 109943	6.8	0
13	High-energy-capacity metal-air battery based on a magnetron-sputtered Mg/Al anode. <i>Journal of Power Sources</i> , <b>2022</b> , 520, 230874	8.9	0
12	Influence of dissolved oxygen on the corrosion of mild steel in a simulated cement pore solution under supercritical carbon dioxide. <i>Construction and Building Materials</i> , <b>2021</b> , 311, 125270	6.7	0

11	Surface white spot and pitting corrosion of 316 L stainless steel. <i>Anti-Corrosion Methods and Materials</i> , <b>2021</b> , 68, 1-8	0.8	o
10	In-situ repair of marine coatings by a Fe <sub>3</sub> O <sub>4</sub> nanoparticle-modified epoxy resin under seawater. <i>Chemical Engineering Journal</i> , <b>2022</b> , 430, 132827	14.7	o
9	The Surface Films and Their Possible Roles in Mg Corrosion <b>2016</b> , 285-290		o
8	Corrosion Performance of Mg-Ti Alloys Synthesized by Magnetron Sputtering <b>2011</b> , 611-615		o
7	Corrosion damage in frozen 3.5 wt.% NaCl solution. <i>Materials and Corrosion - Werkstoffe Und Korrosion</i> , <b>2021</b> , 72, 1396-1409	1.6	o
6	A novel fabrication method of surface-porous Mg-Al alloy and its corrosion property. <i>Materials Today Communications</i> , <b>2021</b> , 27, 102415	2.5	o
5	Corrosion Performance of Mg-Ti Alloys Synthesized by Magnetron Sputtering <b>2011</b> , 611-615		
4	Electrochemical Stability and Biofouling Behavior of Differently Polarized Ti Surfaces in Simulated and Natural Seawater. <i>Journal of Materials Engineering and Performance</i> , <b>2022</b> , 31, 2823	1.6	
3	Electroless E-Coating for Magnesium Alloys <b>2012</b> , 229-234		
2	Electroless E-Coating for Mg Alloys <b>2012</b> , 227-234		
1	Prediction of long-term service life of an organic coating based on short-term exposure results. <i>Anti-Corrosion Methods and Materials</i> , <b>2022</b> , ahead-of-print, 269	0.8	