

# Mikhail L Zheludkevich

## List of Publications by Year in Descending Order

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

289  
papers

13,816  
citations

61  
h-index

110  
g-index

296  
ext. papers

16,211  
ext. citations

5.6  
avg, IF

6.74  
L-index

#	Paper	IF	Citations
289	Role of cobalt additive on formation and anticorrosion properties of PEO coatings on AA2024 alloy in alkali-silicate electrolyte. <i>Surface and Coatings Technology</i> , <b>2022</b> , 433, 128075	4.4	0
288	Prediction of the internal corrosion rate for oil and gas pipeline: Implementation of ensemble learning techniques. <i>Journal of Natural Gas Science and Engineering</i> , <b>2022</b> , 99, 104425	4.6	5
287	Corrosion and wear performance of La <sub>2</sub> O <sub>3</sub> doped plasma electrolytic oxidation coating on pure Mg. <i>Surface and Coatings Technology</i> , <b>2022</b> , 433, 128112	4.4	1
286	Active Corrosion Protection Surfaces Based on Layered Double Hydroxides Nanocontainers: A Computational Study. <i>Minerals, Metals and Materials Series</i> , <b>2022</b> , 251-252	0.3	
285	Semiconducting properties of surface-treated titanium and their effect on peel resistance: Experimental and modelling studies. <i>International Journal of Adhesion and Adhesives</i> , <b>2022</b> , 113, 103049	3.4	0
284	Bilayer coatings for temporary and long-term corrosion protection of magnesium AZ31 alloy. <i>Progress in Organic Coatings</i> , <b>2022</b> , 163, 106608	4.8	0
283	Local pH and oxygen concentration at the interface of Zn alloys in Tris-HCl or HEPES buffered Hanks balanced salt solution. <i>Corrosion Science</i> , <b>2022</b> , 197, 110061	6.8	0
282	Low interfacial pH discloses the favorable biodegradability of several Mg alloys. <i>Corrosion Science</i> , <b>2022</b> , 197, 110059	6.8	0
281	Formation of plasma electrolytic oxidation coatings on pure niobium in different electrolytes. <i>Applied Surface Science</i> , <b>2022</b> , 573, 151629	6.7	2
280	Biodegradation behaviour of Fe-based alloys in Hanks' Balanced Salt Solutions: Part II. The evolution of local pH and dissolved oxygen concentration at metal interface. <i>Bioactive Materials</i> , <b>2022</b> , 7, 412-425	16.7	5
279	Biodegradation behaviour of Fe-based alloys in Hanks' Balanced Salt Solutions: Part I. material characterisation and corrosion testing. <i>Bioactive Materials</i> , <b>2022</b> , 7, 426-440	16.7	9
278	Enhancement of discharge performance for aqueous Mg-air batteries in 2,6-dihydroxybenzoate-containing electrolyte. <i>Chemical Engineering Journal</i> , <b>2022</b> , 429, 132369	14.7	2
277	Insight into chelating agent stimulated in-situ growth of MgAl-LDH films on magnesium alloy AZ31: The effect of initial cationic concentrations. <i>Surface and Coatings Technology</i> , <b>2022</b> , 128414	4.4	1
276	Exploring the effect of sodium salt of Ethylenediaminetetraacetic acid as an electrolyte additive on electrochemical behavior of a commercially pure Mg in primary Mg-air batteries. <i>Journal of Power Sources</i> , <b>2022</b> , 527, 231176	8.9	1
275	Atomistic Insight into the Hydration States of Layered Double Hydroxides.. <i>ACS Omega</i> , <b>2022</b> , 7, 12412-12423	3.423	2
274	Micro-arc oxidation of magnesium alloys: A review. <i>Journal of Materials Science and Technology</i> , <b>2022</b> , 118, 158-180	9.1	3
273	PEO processing of AZ91Nd/Al <sub>2</sub> O <sub>3</sub> MMC-the role of alumina fibers. <i>Journal of Magnesium and Alloys</i> , <b>2022</b> , 10, 423-439	8.8	0

272	Exploring the corrosion inhibition mechanism of 8-hydroxyquinoline for a PEO-coated magnesium alloy. <i>Corrosion Science</i> , <b>2022</b> , 203, 110344	6.8	3
271	Role of phosphate, silicate and aluminate in the electrolytes on PEO coating formation and properties of coated Ti6Al4V alloy. <i>Applied Surface Science</i> , <b>2022</b> , 595, 153523	6.7	1
270	Role of polymorph microstructure of Ti6Al4V alloy on PEO coating formation in phosphate electrolyte. <i>Surface and Coatings Technology</i> , <b>2021</b> , 428, 127890	4.4	1
269	Revealing physical interpretation of time constants in electrochemical impedance spectra of Mg via Tribo-EIS measurements. <i>Electrochimica Acta</i> , <b>2021</b> , 139582	6.7	3
268	Effect of 6-Aminohexanoic Acid Released from Its Aluminum Tri-Polyphosphate Intercalate (ATP-6-AHA) on the Corrosion Protection Mechanism of Steel in 3.5% Sodium Chloride Solution. <i>Corrosion and Materials Degradation</i> , <b>2021</b> , 2, 666-677	2.6	0
267	In-situ LDHs growth on PEO coatings on AZ31 magnesium alloy for active protection: Roles of PEO composition and conversion solution. <i>Journal of Magnesium and Alloys</i> , <b>2021</b> ,	8.8	1
266	Double-Ligand Strategy to Construct an Inhibitor-Loaded Zn-MOF and Its Corrosion Protection Ability for Aluminum Alloy 2A12. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2021</b> , 13, 51685-51694	9.5	3
265	Indium chloride as an electrolyte additive for primary aqueous Mg batteries. <i>Electrochimica Acta</i> , <b>2021</b> , 373, 137916	6.7	7
264	Properties of ZnO/ZnAl <sub>2</sub> O <sub>4</sub> composite PEO coatings on zinc alloy Z1. <i>Surface and Coatings Technology</i> , <b>2021</b> , 410, 126948	4.4	2
263	The Influence of In Situ Anatase Particle Addition on the Formation and Properties of Multifunctional Plasma Electrolytic Oxidation Coatings on AA2024 Aluminum Alloy. <i>Advanced Engineering Materials</i> , <b>2021</b> , 23, 2001527	3.5	2
262	Flash-PEO as an alternative to chromate conversion coatings for corrosion protection of Mg alloy. <i>Corrosion Science</i> , <b>2021</b> , 180, 109189	6.8	18
261	Formation and corrosion behaviors of calcium phosphate coatings on plasma electrolytic oxidized Mg under changing chemical environment. <i>Surface and Coatings Technology</i> , <b>2021</b> , 412, 127030	4.4	3
260	Formation of multi-functional TiO <sub>2</sub> surfaces on AA2024 alloy using plasma electrolytic oxidation. <i>Applied Surface Science</i> , <b>2021</b> , 544, 148875	6.7	6
259	Control of the Mg alloy biodegradation via PEO and polymer-containing coatings. <i>Corrosion Science</i> , <b>2021</b> , 182, 109254	6.8	16
258	Mg Biodegradation Mechanism Deduced from the Local Surface Environment under Simulated Physiological Conditions. <i>Advanced Healthcare Materials</i> , <b>2021</b> , 10, e2100053	10.1	4
257	Corrosion-induced mechanical properties degradation of Al-Cu-Li (2198-T351) aluminium alloy and the role of side-surface cracks. <i>Corrosion Science</i> , <b>2021</b> , 183, 109330	6.8	3
256	Mechanism of LDH Direct Growth on Aluminum Alloy Surface: A Kinetic and Morphological Approach. <i>Journal of Physical Chemistry C</i> , <b>2021</b> , 125, 11687-11701	3.8	4
255	A critical look at interpretation of electrochemical impedance spectra of sol-gel coated aluminium. <i>Electrochimica Acta</i> , <b>2021</b> , 378, 138091	6.7	0

254	Experimental and quantum chemical studies of carboxylates as corrosion inhibitors for AM50 alloy in pH neutral NaCl solution. <i>Journal of Magnesium and Alloys</i> , <b>2021</b> ,	8.8	3
253	Insight into physical interpretation of high frequency time constant in electrochemical impedance spectra of Mg. <i>Corrosion Science</i> , <b>2021</b> , 187, 109501	6.8	19
252	Influence of LDH conversion coatings on the adhesion and corrosion protection of friction spot-joined AA2024-T3/CF-PPS. <i>Journal of Materials Science and Technology</i> , <b>2021</b> , 67, 197-210	9.1	5
251	Approaching "stainless magnesium" by Ca micro-alloying. <i>Materials Horizons</i> , <b>2021</b> , 8, 589-596	14.4	20
250	The Stability and Chloride Entrapping Capacity of ZnAl-NO <sub>2</sub> LDH in High-Alkaline/Cementitious Environment. <i>Corrosion and Materials Degradation</i> , <b>2021</b> , 2, 78-99	2.6	1
249	Insights into corrosion behaviour of uncoated Mg alloys for biomedical applications in different aqueous media. <i>Journal of Materials Research and Technology</i> , <b>2021</b> , 13, 1908-1922	5.5	0
248	Sacrificial protection of Mg-based resorbable implant alloy by magnetron sputtered Mg5Gd alloy coating: A short-term study. <i>Corrosion Science</i> , <b>2021</b> , 189, 109590	6.8	2
247	Corrosion behavior of Mg wires for ureteral stent in artificial urine solution. <i>Corrosion Science</i> , <b>2021</b> , 189, 109567	6.8	6
246	Incorporation of LDH nanocontainers into plasma electrolytic oxidation coatings on Mg alloy. <i>Journal of Magnesium and Alloys</i> , <b>2021</b> ,	8.8	4
245	Difference in formation of plasma electrolytic oxidation coatings on MgLi alloy in comparison with pure Mg. <i>Journal of Magnesium and Alloys</i> , <b>2021</b> , 9, 1725-1740	8.8	6
244	Evaluation of the biodegradation product layer on Mg-1Zn alloy during dynamical strain. <i>Journal of Magnesium and Alloys</i> , <b>2021</b> , 9, 1820-1833	8.8	1
243	Zeolite-containing photocatalysts immobilized on aluminum support by plasma electrolytic oxidation. <i>Surfaces and Interfaces</i> , <b>2021</b> , 26, 101307	4.1	3
242	Evolution and performance of a MgO/HA/DCPD gradient coating on pure magnesium. <i>Journal of Alloys and Compounds</i> , <b>2021</b> , 883, 160793	5.7	2
241	Adverse effect of 2,5PDC corrosion inhibitor on PEO coated magnesium. <i>Corrosion Science</i> , <b>2021</b> , 192, 109830	6.8	2
240	MgAl-V2O7 4- LDHs/(PEI/MXene) <sub>10</sub> composite film for magnesium alloy corrosion protection. <i>Journal of Materials Science and Technology</i> , <b>2021</b> , 91, 28-39	9.1	11
239	High-energy and durable aqueous magnesium batteries: Recent advances and perspectives. <i>Energy Storage Materials</i> , <b>2021</b> , 43, 238-247	19.4	5
238	Introduction of an innovative corrosion-protective alkyd steel coating based on a novel layered aluminum tripolyphosphate loaded with 6-amino hexanoic acid (ATP-6-AHA). <i>Progress in Organic Coatings</i> , <b>2021</b> , 161, 106500	4.8	1
237	A novel lean alloy of biodegradable Mg-2Zn with nanograins. <i>Bioactive Materials</i> , <b>2021</b> , 6, 4333-4341	16.7	6

236	Smart Protection of Carbon-Reinforced Composite Materials and CFRP-Metal Joints <b>2021</b> , 429-449		0
235	Exploring structure-property relationships in magnesium dissolution modulators. <i>Npj Materials Degradation</i> , <b>2021</b> , 5,	5.7	2
234	Wear and corrosion behavior of clay containing coating on AM 50 magnesium alloy produced by aluminate-based plasma electrolytic oxidation. <i>Transactions of Nonferrous Metals Society of China</i> , <b>2021</b> , 31, 3719-3738	3.3	0
233	High rate oxygen reduction reaction during corrosion of ultra-high-purity magnesium. <i>Npj Materials Degradation</i> , <b>2020</b> , 4,	5.7	16
232	Selecting medium for corrosion testing of bioabsorbable magnesium and other metals A critical review. <i>Corrosion Science</i> , <b>2020</b> , 171, 108722	6.8	57
231	Influence of secondary phases of AlSi9Cu3 alloy on the plasma electrolytic oxidation coating formation process. <i>Journal of Materials Science and Technology</i> , <b>2020</b> , 50, 75-85	9.1	14
230	Numerical and Experimental Analysis of Self-Protection in Reinforced Concrete due to Application of MgAl(OH)2 Layered Double Hydroxides. <i>Advanced Engineering Materials</i> , <b>2020</b> , 22, 2000398	3.5	5
229	Self-assembled layers for the temporary corrosion protection of magnesium-AZ31 alloy. <i>Corrosion Science</i> , <b>2020</b> , 169, 108619	6.8	8
228	Tailoring the Mg-air primary battery performance using strong complexing agents as electrolyte additives. <i>Journal of Power Sources</i> , <b>2020</b> , 453, 227880	8.9	20
227	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
226	Ca/In micro alloying as a novel strategy to simultaneously enhance power and energy density of primary Mg-air batteries from anode aspect. <i>Journal of Power Sources</i> , <b>2020</b> , 472, 228528	8.9	24
225	Corrosion performance, corrosion fatigue behavior and mechanical integrity of an extruded Mg4Zn0.2Sn alloy. <i>Journal of Materials Science and Technology</i> , <b>2020</b> , 59, 107-116	9.1	6
224	Mechanistic understanding of the corrosion behavior of Mg4Zn0.2Sn alloys: From the perspective view of microstructure. <i>Corrosion Science</i> , <b>2020</b> , 174, 108863	6.8	8
223	Electrochemical behaviour of the MA8 Mg alloy in minimum essential medium. <i>Corrosion Science</i> , <b>2020</b> , 168, 108552	6.8	14
222	In situ surface film evolution during Mg aqueous corrosion in presence of selected carboxylates. <i>Corrosion Science</i> , <b>2020</b> , 171, 108484	6.8	16
221	Interoperability architecture for bridging computational tools: application to steel corrosion in concrete. <i>Modelling and Simulation in Materials Science and Engineering</i> , <b>2020</b> , 28, 025003	2	3
220	Localized currents and pH distribution studied during corrosion of MA8 Mg alloy in the cell culture medium. <i>Corrosion Science</i> , <b>2020</b> , 170, 108689	6.8	23
219	The Corrosion Performance and Mechanical Properties of Mg-Zn Based Alloys A Review. <i>Corrosion and Materials Degradation</i> , <b>2020</b> , 1, 92-158	2.6	6

218	ATR-FTIR in Kretschmann configuration integrated with electrochemical cell as in situ interfacial sensitive tool to study corrosion inhibitors for magnesium substrates. <i>Electrochimica Acta</i> , <b>2020</b> , 345, 136166	6.7	17
217	Effect of Heat Treatment on the Corrosion Behavior of Mg-10Gd Alloy in 0.5% NaCl Solution. <i>Frontiers in Materials</i> , <b>2020</b> , 7,	4	5
216	Magnetic Properties of LaAMnO (A: Li, Na, K) Nanopowders and Nanoceramics. <i>Materials</i> , <b>2020</b> , 13,	3.5	3
215	Microstructure, wear and corrosion performance of plasma electrolytic oxidation coatings formed on D16T Al alloy. <i>Rare Metals</i> , <b>2020</b> , 39, 1425-1439	5.5	4
214	Revealing the interfacial nanostructure of a deep eutectic solvent at a solid electrode. <i>Physical Chemistry Chemical Physics</i> , <b>2020</b> , 22, 12104-12112	3.6	13
213	Plasma electrolytic oxidation of zinc alloy in a phosphate-aluminate electrolyte. <i>Applied Surface Science</i> , <b>2020</b> , 505, 144552	6.7	16
212	Active protection of Mg alloy by composite PEO coating loaded with corrosion inhibitors. <i>Applied Surface Science</i> , <b>2020</b> , 504, 144462	6.7	36
211	Anticorrosion thin film smart coatings for aluminum alloys <b>2020</b> , 429-454		4
210	A first-principles analysis of the charge transfer in magnesium corrosion. <i>Scientific Reports</i> , <b>2020</b> , 10, 15006	4.9	12
209	Clarifying the influence of albumin on the initial stages of magnesium corrosion in Hank's balanced salt solution. <i>Journal of Magnesium and Alloys</i> , <b>2020</b> ,	8.8	7
208	Synergistic Mixture of Electrolyte Additives: A Route to a High-Efficiency Mg-Air Battery. <i>Journal of Physical Chemistry Letters</i> , <b>2020</b> , 11, 8790-8798	6.4	11
207	Molybdate intercalated hydrotalcite/graphene oxide composite as corrosion inhibitor for carbon steel. <i>Surface and Coatings Technology</i> , <b>2020</b> , 399, 126165	4.4	22
206	Plasma electrolytic oxidation of AZ31 and AZ91 magnesium alloys: Comparison of coatings formation mechanism. <i>Journal of Magnesium and Alloys</i> , <b>2020</b> , 8, 587-600	8.8	27
205	The stress corrosion cracking behaviour of biomedical Mg-1Zn alloy in synthetic or natural biological media. <i>Corrosion Science</i> , <b>2020</b> , 175, 108876	6.8	11
204	In situ kinetics studies of Zn-Al LDH intercalation with corrosion related species. <i>Physical Chemistry Chemical Physics</i> , <b>2020</b> , 22, 17574-17586	3.6	8
203	Corrosion and discharge properties of Ca/Ge micro-alloyed Mg anodes for primary aqueous Mg batteries. <i>Corrosion Science</i> , <b>2020</b> , 177, 108958	6.8	17
202	Layered double hydroxides (LDHs) as functional materials for the corrosion protection of aluminum alloys: A review. <i>Applied Materials Today</i> , <b>2020</b> , 21, 100857	6.6	26
201	High Power Diode Laser (HPDL) surface treatments to improve the mechanical properties and the corrosion behaviour of Mg-Zn-Ca alloys for biodegradable implants. <i>Surface and Coatings Technology</i> , <b>2020</b> , 402, 126314	4.4	6

200	Zn-Al LDH growth on AA2024 and zinc and their intercalation with chloride: Comparison of crystal structure and kinetics. <i>Applied Surface Science</i> , <b>2020</b> , 501, 144027	6.7	21
199	In silico screening of modulators of magnesium dissolution. <i>Corrosion Science</i> , <b>2020</b> , 163, 108245	6.8	20
198	A comprehensive comparison of the corrosion performance, fatigue behavior and mechanical properties of micro-alloyed MgZnCa and MgZnGe alloys. <i>Materials and Design</i> , <b>2020</b> , 185, 108285	8.1	7
197	Tailoring electrolyte additives for controlled Mg-Ca anode activity in aqueous Mg-air batteries. <i>Journal of Power Sources</i> , <b>2020</b> , 460, 228106	8.9	21
196	Recent Advances on the Application of Layered Double Hydroxides in Concrete-A Review. <i>Materials</i> , <b>2020</b> , 13,	3.5	13
195	Influence of inhibitor adsorption on readings of microelectrode during SVET measurements. <i>Electrochimica Acta</i> , <b>2019</b> , 322, 134761	6.7	9
194	Layered Double Hydroxide Clusters as Precursors of Novel Multifunctional Layers: A Bottom-Up Approach. <i>Coatings</i> , <b>2019</b> , 9, 328	2.9	9
193	One-step synthesis and growth mechanism of nitrate intercalated ZnAl LDH conversion coatings on zinc. <i>Chemical Communications</i> , <b>2019</b> , 55, 6878-6881	5.8	21
192	Effect of Surface Pre-Treatments on the Formation and Degradation Behaviour of a Calcium Phosphate Coating on Pure Magnesium. <i>Coatings</i> , <b>2019</b> , 9, 259	2.9	7
191	The effect of grain boundary precipitates on stress corrosion cracking in a bobbin tool friction stir welded Al-Cu-Li alloy. <i>Materials Letters: X</i> , <b>2019</b> , 2, 100014	0.5	4
190	Galvanic corrosion of Ti6Al4V-AA2024 joints in aircraft environment: Modelling and experimental validation. <i>Corrosion Science</i> , <b>2019</b> , 157, 70-78	6.8	22
189	Effect of unequal levels of deformation and fragmentation on the electrochemical response of friction stir welded AA2024-T3 alloy. <i>Electrochimica Acta</i> , <b>2019</b> , 313, 271-281	6.7	18
188	Small-Angle Neutron Scattering and Magnetically Heterogeneous State in Sr <sub>2</sub> FeMoO <sub>6</sub> <i>Physica Status Solidi (B): Basic Research</i> , <b>2019</b> , 256, 1800428	1.3	5
187	Galvanically Stimulated Degradation of Carbon-Fiber Reinforced Polymer Composites: A Critical Review. <i>Materials</i> , <b>2019</b> , 12,	3.5	16
186	Effects of graphene nanosheets on the ceramic coatings formed on Ti6Al4V alloy drill pipe by plasma electrolytic oxidation. <i>Journal of Alloys and Compounds</i> , <b>2019</b> , 789, 996-1007	5.7	30
185	Mutual interplay of ZnO micro- and nanowires and methylene blue during cyclic photocatalysis process. <i>Journal of Environmental Chemical Engineering</i> , <b>2019</b> , 7, 103016	6.8	69
184	Revealing the impact of second phase morphology on discharge properties of binary Mg-Ca anodes for primary Mg-air batteries. <i>Corrosion Science</i> , <b>2019</b> , 153, 225-235	6.8	43
183	Self-cleaning property of AZ31 Mg alloy during plasma electrolytic oxidation process. <i>Progress in Natural Science: Materials International</i> , <b>2019</b> , 29, 94-102	3.6	2

182	The effect of small-molecule bio-relevant organic components at low concentration on the corrosion of commercially pure Mg and Mg-0.8Ca alloy: An overall perspective. <i>Corrosion Science</i> , <b>2019</b> , 153, 258-271	6.8	43
181	Influence of water purity on the corrosion behavior of Mg <sub>0.5</sub> ZnX (X=Ca, Ge) alloys. <i>Corrosion Science</i> , <b>2019</b> , 153, 62-73	6.8	18
180	Data Science Based Mg Corrosion Engineering. <i>Frontiers in Materials</i> , <b>2019</b> , 6,	4	16
179	Enhanced Predictive Modelling of Steel Corrosion in Concrete in Submerged Zone Based on a Dynamic Activation Approach. <i>International Journal of Concrete Structures and Materials</i> , <b>2019</b> , 13,	2.8	9
178	PEO coatings design for Mg-Ca alloy for cardiovascular stent and bone regeneration applications. <i>Materials Science and Engineering C</i> , <b>2019</b> , 105, 110026	8.3	29
177	Enhanced predictive corrosion modeling with implicit corrosion products. <i>Materials and Corrosion - Werkstoffe Und Korrosion</i> , <b>2019</b> , 70, 2247-2255	1.6	5
176	Corrosion behavior of metal/composite hybrid joints: Influence of precipitation state and bonding zones. <i>Corrosion Science</i> , <b>2019</b> , 158, 108075	6.8	8
175	Layered double hydroxide based active corrosion protective sealing of plasma electrolytic oxidation/sol-gel composite coating on AA2024. <i>Applied Surface Science</i> , <b>2019</b> , 494, 829-840	6.7	31
174	Clarifying the decisive factors for utilization efficiency of Mg anodes for primary aqueous batteries. <i>Journal of Power Sources</i> , <b>2019</b> , 441, 227201	8.9	38
173	CHAPTER 12:Aqueous Mg Batteries. <i>RSC Energy and Environment Series</i> , <b>2019</b> , 275-308	0.6	3
172	Modification of carbon fibre reinforced polymer (CFRP) surface with sodium dodecyl sulphate for mitigation of cathodic activity. <i>Applied Surface Science</i> , <b>2019</b> , 478, 924-936	6.7	12
171	Corrosion Inhibition and Acceleration by Rare Earth Ions in Galvanic Couples. <i>Journal of the Electrochemical Society</i> , <b>2019</b> , 166, C642-C648	3.9	3
170	Evaporation of Electrolyte during SVET Measurements: The Scale of the Problem and the Solutions. <i>Electroanalysis</i> , <b>2019</b> , 31, 2290-2298	3	3
169	The role of individual components of simulated body fluid on the corrosion behavior of commercially pure Mg. <i>Corrosion Science</i> , <b>2019</b> , 147, 81-93	6.8	56
168	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
167	The wear characteristics of CeO <sub>2</sub> containing nanocomposite coating made by aluminate-based PEO on AM 50 magnesium alloy. <i>Surface and Coatings Technology</i> , <b>2019</b> , 357, 626-637	4.4	32
166	Influence of cathodic duty cycle on the properties of tungsten containing Al <sub>2</sub> O <sub>3</sub> /TiO <sub>2</sub> PEO nano-composite coatings. <i>Surface and Coatings Technology</i> , <b>2018</b> , 340, 210-221	4.4	17
165	Synergetic active corrosion protection of AA2024-T3 by 2D- anionic and 3D-cationic nanocontainers loaded with Ce and mercaptobenzothiazole. <i>Corrosion Science</i> , <b>2018</b> , 135, 35-45	6.8	46



164	Mg Alloys: Challenges and Achievements in Controlling Performance, and Future Application Perspectives. <i>Minerals, Metals and Materials Series</i> , <b>2018</b> , 3-14	0.3	6
163	Formation of self-lubricating PEO coating via in-situ incorporation of PTFE particles. <i>Surface and Coatings Technology</i> , <b>2018</b> , 337, 379-388	4.4	45
162	Corrosion inhibition of pure Mg containing a high level of iron impurity in pH neutral NaCl solution. <i>Corrosion Science</i> , <b>2018</b> , 142, 222-237	6.8	45
161	Influence of particle additions on corrosion and wear resistance of plasma electrolytic oxidation coatings on Mg alloy. <i>Surface and Coatings Technology</i> , <b>2018</b> , 352, 1-14	4.4	32
160	Simulation assisted investigation of substrate geometry impact on PEO coating formation. <i>Surface and Coatings Technology</i> , <b>2018</b> , 350, 281-297	4.4	5
159	Enhanced predictive corrosion modeling via randomly distributed boundary conditions. <i>Materials and Corrosion - Werkstoffe Und Korrosion</i> , <b>2018</b> , 69, 1720-1728	1.6	4
158	Enhanced Wear Performance of Hybrid Epoxy-Ceramic Coatings on Magnesium Substrates. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2018</b> , 10, 30741-30751	9.5	13
157	A novel bilayer system comprising LDH conversion layer and sol-gel coating for active corrosion protection of AA2024. <i>Corrosion Science</i> , <b>2018</b> , 143, 299-313	6.8	49
156	Mg-Ca binary alloys as anodes for primary Mg-air batteries. <i>Journal of Power Sources</i> , <b>2018</b> , 396, 109-1188.9		104
155	Corrosion protection properties of inhibitor containing hybrid PEO-epoxy coating on magnesium. <i>Corrosion Science</i> , <b>2018</b> , 140, 99-110	6.8	62
154	Sol-Gel Coatings with Nanocontainers of Corrosion Inhibitors for Active Corrosion Protection of Metallic Materials <b>2018</b> , 2435-2471		1
153	The Influence of PSA Pre-Anodization of AA2024 on PEO Coating Formation: Composition, Microstructure, Corrosion, and Wear Behaviors. <i>Materials</i> , <b>2018</b> , 11,	3.5	4
152	The Reduction of Dissolved Oxygen During Magnesium Corrosion. <i>ChemistryOpen</i> , <b>2018</b> , 7, 664-668	2.3	35
151	Encapsulation of Al and Ti-Al alloy 1-D nanorods into oxide matrix by powerful pulsed discharge method. <i>Journal of Solid State Electrochemistry</i> , <b>2018</b> , 22, 3913-3920	2.6	
150	Influence of SiO <sub>2</sub> Particles on the Corrosion and Wear Resistance of Plasma Electrolytic Oxidation-Coated AM50 Mg Alloy. <i>Coatings</i> , <b>2018</b> , 8, 306	2.9	11
149	Nanoporous magnesium. <i>Nano Research</i> , <b>2018</b> , 11, 6428-6435	10	33
148	Performance boost for primary magnesium cells using iron complexing agents as electrolyte additives. <i>Scientific Reports</i> , <b>2018</b> , 8, 7578	4.9	28
147	3D reconstruction of plasma electrolytic oxidation coatings on Mg alloy via synchrotron radiation tomography. <i>Corrosion Science</i> , <b>2018</b> , 139, 395-402	6.8	55

146	Validating the early corrosion sensing functionality in poly (ether imide) coatings for enhanced protection of magnesium alloy AZ31. <i>Corrosion Science</i> , <b>2018</b> , 140, 307-320	6.8	16
145	Local pH and Its Evolution Near Mg Alloy Surfaces Exposed to Simulated Body Fluids. <i>Advanced Materials Interfaces</i> , <b>2018</b> , 5, 1800169	4.6	37
144	Effect of the Anodic Titania Layer Thickness on Electrodeposition of Zinc on Ti/TiO <sub>2</sub> from Deep Eutectic Solvent. <i>Journal of the Electrochemical Society</i> , <b>2017</b> , 164, D88-D94	3.9	5
143	Bioactive plasma electrolytic oxidation coatings on Mg-Ca alloy to control degradation behaviour. <i>Surface and Coatings Technology</i> , <b>2017</b> , 315, 454-467	4.4	54
142	Antimicrobial activity of 2-mercaptobenzothiazole released from environmentally friendly nanostructured layered double hydroxides. <i>Journal of Applied Microbiology</i> , <b>2017</b> , 122, 1207-1218	4.7	14
141	Corrosion inhibition of copper in aqueous chloride solution by 1H-1,2,3-triazole and 1,2,4-triazole and their combinations: electrochemical, Raman and theoretical studies. <i>Physical Chemistry Chemical Physics</i> , <b>2017</b> , 19, 6113-6129	3.6	44
140	Microstructure and corrosion behavior of Ca/P coatings prepared on magnesium by plasma electrolytic oxidation. <i>Surface and Coatings Technology</i> , <b>2017</b> , 319, 359-369	4.4	60
139	Modification of Porous Titania Templates for Uniform Metal Electrodeposition from Deep Eutectic Solvent. <i>Journal of the Electrochemical Society</i> , <b>2017</b> , 164, D335-D341	3.9	3
138	Direct Synthesis of Electrowettable Carbon Nanowall/Diamond Hybrid Materials from Sacrificial Ceramic Templates Using HFCVD. <i>Advanced Materials Interfaces</i> , <b>2017</b> , 4, 1700019	4.6	14
137	Digital modelling of the galvanic corrosion behaviour of a self-piercing riveted AZ31 - AA5083 hybrid joint. <i>Materialwissenschaft Und Werkstofftechnik</i> , <b>2017</b> , 48, 529-545	0.9	4
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135	Characterization and corrosion behavior of binary Mg-Ga alloys. <i>Materials Characterization</i> , <b>2017</b> , 128, 85-99	3.9	32
134	Kelvin Microprobe Analytics on Iron-Enriched Corroded Magnesium Surface. <i>Corrosion</i> , <b>2017</b> , 73, 583-595	5.8	11
133	How Density Functional Theory Surface Energies May Explain the Morphology of Particles, Nanosheets, and Conversion Films Based on Layered Double Hydroxides. <i>Journal of Physical Chemistry C</i> , <b>2017</b> , 121, 2211-2220	3.8	24
132	Role of Phase Composition of PEO Coatings on AA2024 for In-Situ LDH Growth. <i>Coatings</i> , <b>2017</b> , 7, 190	2.9	15
131	Hierarchically organized LiAl-LDH nano-flakes: a low-temperature approach to seal porous anodic oxide on aluminum alloys. <i>RSC Advances</i> , <b>2017</b> , 7, 35357-35367	3.7	24
130	Comprehensive screening of Mg corrosion inhibitors. <i>Corrosion Science</i> , <b>2017</b> , 128, 224-240	6.8	118
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126	Influence of surface pre-treatment on the deposition and corrosion properties of hydrophobic coatings on a magnesium alloy. <i>Corrosion Science</i> , <b>2016</b> , 112, 483-494	6.8	43
125	Formation of photocatalytic plasma electrolytic oxidation coatings on magnesium alloy by incorporation of TiO <sub>2</sub> particles. <i>Surface and Coatings Technology</i> , <b>2016</b> , 307, 287-291	4.4	12
124	Initial stages of localized corrosion at cut-edges of adhesively bonded Zn and Zn-Al-Mg galvanized steel. <i>Electrochimica Acta</i> , <b>2016</b> , 211, 126-141	6.7	24
123	Active corrosion protection coating for a ZE41 magnesium alloy created by combining PEO and sol-gel techniques. <i>RSC Advances</i> , <b>2016</b> , 6, 12553-12560	3.7	64
122	Investigation of electrode distance impact on PEO coating formation assisted by simulation. <i>Applied Surface Science</i> , <b>2016</b> , 388, 304-312	6.7	17
121	A new concept for corrosion inhibition of magnesium: Suppression of iron re-deposition. <i>Electrochemistry Communications</i> , <b>2016</b> , 62, 5-8	5.1	72
120	Interlayer intercalation and arrangement of 2-mercaptobenzothiazolate and 1,2,3-benzotriazolate anions in layered double hydroxides: In situ X-ray diffraction study. <i>Journal of Solid State Chemistry</i> , <b>2016</b> , 233, 158-165	3.3	70
119	Influence of electrical parameters on particle uptake during plasma electrolytic oxidation processing of AM50 Mg alloy. <i>Surface and Coatings Technology</i> , <b>2016</b> , 289, 179-185	4.4	35
118	Sealing of tartaric sulfuric (TSA) anodized AA2024 with nanostructured LDH layers. <i>RSC Advances</i> , <b>2016</b> , 6, 13942-13952	3.7	61
117	Investigation of the formation mechanisms of plasma electrolytic oxidation coatings on Mg alloy AM50 using particles. <i>Electrochimica Acta</i> , <b>2016</b> , 196, 680-691	6.7	70
116	Plasma electrolytic oxidation coatings on Mg alloy with addition of SiO <sub>2</sub> particles. <i>Electrochimica Acta</i> , <b>2016</b> , 187, 20-33	6.7	170
115	The effect of iron re-deposition on the corrosion of impurity-containing magnesium. <i>Physical Chemistry Chemical Physics</i> , <b>2016</b> , 18, 1279-91	3.6	106
114	Environmentally friendly anodising process for structural bonding of titanium. <i>Materialwissenschaft Und Werkstofftechnik</i> , <b>2016</b> , 47, 400-408	0.9	2
113	PEO of rheocast A356 Al alloy: energy efficiency and corrosion properties. <i>Surface and Interface Analysis</i> , <b>2016</b> , 48, 953-959	1.5	12
112	Predictive modeling of mechanical properties of metal filled anodic aluminum oxide. <i>Journal of Mechanics of Materials and Structures</i> , <b>2016</b> , 11, 583-594	1.2	
111	Corrosion protection of AA2024-T3 by LDH conversion films. Analysis of SVET results. <i>Electrochimica Acta</i> , <b>2016</b> , 210, 215-224	6.7	67

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106	Influence of stripping and cooling atmospheres on surface properties and corrosion of zinc galvanizing coatings. <i>Applied Surface Science</i> , <b>2016</b> , 389, 144-156	6.7	19
105	Electrochemical deposition of zinc from deep eutectic solvent on barrier alumina layers. <i>Electrochimica Acta</i> , <b>2015</b> , 170, 284-291	6.7	27
104	Polyelectrolyte-modified layered double hydroxide nanocontainers as vehicles for combined inhibitors. <i>RSC Advances</i> , <b>2015</b> , 5, 39916-39929	3.7	64
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102	Corrosion behaviour of WC-10% AISI 304 cemented carbides. <i>Corrosion Science</i> , <b>2015</b> , 100, 322-331	6.8	34
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100	4. Protection of multimaterial assemblies <b>2015</b> , 73-102		1
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15	Stability of Thin Plasma Polymer Films Applied on Coil Coatings. <i>Plasma Processes and Polymers</i> , <b>2006</b> , 3, 618-626	3.4	2
14	TiO <sub>x</sub> self-assembled networks prepared by templating approach as nanostructured reservoirs for self-healing anticorrosion pre-treatments. <i>Electrochemistry Communications</i> , <b>2006</b> , 8, 421-428	5.1	112
13	Corrosion protective properties of nanostructured sol-gel hybrid coatings to AA2024-T3. <i>Surface and Coatings Technology</i> , <b>2006</b> , 200, 3084-3094	4.4	230
12	The corrosion resistance of hot dip galvanized steel pretreated with Bis-functional silanes modified with microsilica. <i>Surface and Coatings Technology</i> , <b>2006</b> , 200, 2875-2885	4.4	93
11	Barrier properties of polyurethane coil coatings treated by microwave plasma polymerization. <i>Surface and Coatings Technology</i> , <b>2006</b> , 200, 4040-4049	4.4	15
10	The use of pre-treatments based on doped silane solutions for improved corrosion resistance of galvanised steel substrates. <i>Surface and Coatings Technology</i> , <b>2006</b> , 200, 4240-4250	4.4	136
9	Analytical characterisation and corrosion behaviour of bis-[triethoxysilylpropyl]tetrasulphide pre-treated AA2024-T3. <i>Corrosion Science</i> , <b>2005</b> , 47, 869-881	6.8	81
8	Triazole and thiazole derivatives as corrosion inhibitors for AA2024 aluminium alloy. <i>Corrosion Science</i> , <b>2005</b> , 47, 3368-3383	6.8	288
7	Oxide nanoparticle reservoirs for storage and prolonged release of the corrosion inhibitors. <i>Electrochemistry Communications</i> , <b>2005</b> , 7, 836-840	5.1	163
6	Nanostructured sol-gel coatings doped with cerium nitrate as pre-treatments for AA2024-T3. <i>Electrochimica Acta</i> , <b>2005</b> , 51, 208-217	6.7	439
5	Sol-gel coatings for corrosion protection of metals. <i>Journal of Materials Chemistry</i> , <b>2005</b> , 15, 5099		399
4	Influence of the RF plasma polymerization process on the barrier properties of coil-coating. <i>Progress in Organic Coatings</i> , <b>2005</b> , 53, 225-234	4.8	6
3	Influence of Oxygen Dissociation on the Oxidation of Iron. <i>Oxidation of Metals</i> , <b>2004</b> , 62, 223-235	1.6	8

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1 In situ synergistic strategy of sacrificial intermedium for scalable-manufactured and controllable layered double hydroxide film. *Science China Materials*,

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