

Zhiming Shi

List of Publications by Year in descending order

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#	ARTICLE	IF	CITATIONS
1	Corrosion of Mg Alloys. , 2022, , 46-74.		3
2	The influence of the protein bovine serum albumin (BSA) on the corrosion of Mg, Zn, and Fe in Zahrina's simulated interstitial fluid. Corrosion Science, 2022, 199, 110160.	6.6	10
3	Design, mechanical and degradation requirements of biodegradable metal mesh for pelvic floor reconstruction. Biomaterials Science, 2022, 10, 3371-3392.	5.4	6
4	Effect of cold deformation on the hydrogen permeation in a dual-phase advanced high-strength steel. Electrochimica Acta, 2022, 424, 140619.	5.2	5
5	The influence of phosphorus on the temper embrittlement and hydrogen embrittlement of some dual-phase steels. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2022, 854, 143379.	5.6	5
6	Influence of hydrogen on the S-N fatigue of DP1180 advanced high-strength steel. Corrosion Science, 2022, 205, 110465.	6.6	4
7	Effect of corrosion inhibiting compounds on the corrosion behaviour of pure magnesium and the magnesium alloys EV31A, WE43B and ZE41A. Journal of Magnesium and Alloys, 2021, 9, 432-455.	11.9	21
8	Influence of commercial corrosion-inhibiting compounds on the atmospheric corrosion of the magnesium alloys EV31A, WE43B, ZE41A and pure magnesium. Materials and Corrosion - Werkstoffe Und Korrosion, 2021, 72, 672-693.	1.5	7
9	A cost-effective Fe-rich compositionally complicated alloy with superior high-temperature oxidation resistance. Corrosion Science, 2021, 180, 109190.	6.6	28
10	Hydrogen-induced delayed fracture of a 1180-MPa martensitic advanced high-strength steel under U-bend loading. Materials Today Communications, 2021, 26, 101887.	1.9	3
11	Understanding the discharge behavior of an ultra-high-purity Mg anode for Mg-air primary batteries. Journal of Materials Chemistry A, 2021, 9, 21387-21401.	10.3	27
12	The feasibility and limitation of urine as the electrolyte for primary Mg-air batteries. Ionics, 2021, 27, 2733-2737.	2.4	3
13	Effect of vanadium and rare earth microalloying on the hydrogen embrittlement susceptibility of a Fe-18Mn-0.6C TWIP steel studied using the linearly increasing stress test. Corrosion Science, 2021, 185, 109440.	6.6	27
14	Hydrogen-induced fast fracture in notched 1500 and 1700 MPa class automotive martensitic advanced high-strength steel. Corrosion Science, 2021, 188, 109550.	6.6	21
15	Anodic hydrogen evolution on Mg. Journal of Magnesium and Alloys, 2021, 9, 2049-2062.	11.9	30
16	Corrosion of Mg alloys EV31A, WE43B, and ZE41A in chloride- and sulfate-containing solutions saturated with magnesium hydroxide. Materials and Corrosion - Werkstoffe Und Korrosion, 2020, 71, 956-979.	1.5	17
17	Review of Mg alloy corrosion rates. Journal of Magnesium and Alloys, 2020, 8, 989-998.	11.9	212
18	Synergistic inhibitory effects of free nitrous acid and imidazoline derivative on metal corrosion in a simulated water injection system. Water Research, 2020, 184, 116122.	11.3	18

#	ARTICLE	IF	CITATIONS
19	Microstructure modification and corrosion resistance enhancement of die-cast Mg-Al-Re alloy by Sr alloying. <i>Journal of Magnesium and Alloys</i> , 2020, 9, 950-950.	11.9	28
20	Decreasing microbially influenced metal corrosion using free nitrous acid in a simulated water injection system. <i>Water Research</i> , 2020, 172, 115470.	11.3	17
21	Effect of plastic strain damage on the hydrogen embrittlement of a dual-phase (DP) and a quenching and partitioning (Q&P) advanced high-strength steel. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2020, 785, 139343.	5.6	20
22	Understanding the corrosion behaviour of the magnesium alloys EV31A, WE43B, and ZE41A. <i>Materials and Corrosion - Werkstoffe Und Korrosion</i> , 2019, 70, 1527-1552.	1.5	33
23	Development of microbially influenced corrosion on carbon steel in a simulated water injection system. <i>Materials and Corrosion - Werkstoffe Und Korrosion</i> , 2019, 70, 1826-1836.	1.5	7
24	Corrosion of porous Ti35Zr28Nb in Hanks's™ solution and 3.5% NaCl. <i>Materials and Corrosion - Werkstoffe Und Korrosion</i> , 2019, 70, 529-536.	1.5	6
25	Investigating Mg Biocorrosion In Vitro: Lessons Learned and Recommendations. <i>Jom</i> , 2019, 71, 1406-1413.	1.9	34
26	The Corrosion Behavior of Mg5Y in Nominally Distilled Water. <i>Advanced Engineering Materials</i> , 2018, 20, 1700986.	3.5	9
27	The influence of two common sterilization techniques on the corrosion of Mg and its alloys for biomedical applications. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , 2018, 106, 1907-1917.	3.4	16
28	Porous Titanium Scaffolds Fabricated by Metal Injection Moulding for Biomedical Applications. <i>Materials</i> , 2018, 11, 1573.	2.9	16
29	Viewpoint - Understanding Mg corrosion in the body for biodegradable medical implants. <i>Scripta Materialia</i> , 2018, 154, 92-100.	5.2	156
30	Influence of surface condition on the corrosion of ultra-high-purity Mg alloy wire. <i>Corrosion Science</i> , 2016, 108, 66-75.	6.6	36
31	Review of Recent Developments in the Field of Magnesium Corrosion. <i>Advanced Engineering Materials</i> , 2015, 17, 400-453.	3.5	595
32	The influence of pH on the corrosion rate of high-purity Mg, AZ91 and ZE41 in bicarbonate buffered Hanks' solution. <i>Corrosion Science</i> , 2015, 101, 182-192.	6.6	114
33	Low apparent valence of Mg during corrosion. <i>Corrosion Science</i> , 2014, 88, 434-443.	6.6	62
34	Corrosion performance and mechanical properties of sputter-deposited MgY and MgGd alloys. <i>Corrosion Science</i> , 2014, 78, 43-54.	6.6	55
35	Corrosion mechanism and evaluation of anodized magnesium alloys. <i>Corrosion Science</i> , 2014, 85, 126-140.	6.6	206
36	Corrosion of ultra-high-purity Mg in 3.5% NaCl solution saturated with Mg(OH) ₂ . <i>Corrosion Science</i> , 2013, 75, 78-99.	6.6	271

#	ARTICLE	IF	CITATIONS
37	Corrosion behaviour in salt spray and in 3.5% NaCl solution saturated with Mg(OH) ₂ of as-cast and solution heat-treated binary Mg-RE alloys: RE=Ce, La, Nd, Y, Gd. Corrosion Science, 2013, 76, 98-118.	6.6	143
38	Corrosion behaviour in salt spray and in 3.5% NaCl solution saturated with Mg(OH) ₂ of as-cast and solution heat-treated binary Mg-X alloys: X=Mn, Sn, Ca, Zn, Al, Zr, Si, Sr. Corrosion Science, 2013, 76, 60-97.	6.6	212
39	Advances in Mg corrosion and research suggestions. Journal of Magnesium and Alloys, 2013, 1, 177-200.	11.9	397
40	Corrosion behaviour of a nominally high purity Mg ingot produced by permanent mould direct chill casting. Corrosion Science, 2012, 61, 185-207.	6.6	158
41	An innovative specimen configuration for the study of Mg corrosion. Corrosion Science, 2011, 53, 226-246.	6.6	368
42	Measurement of the corrosion rate of magnesium alloys using Tafel extrapolation. Corrosion Science, 2010, 52, 579-588.	6.6	774
43	The corrosion performance of anodised magnesium alloys. Corrosion Science, 2006, 48, 3531-3546.	6.6	111