

Tao Zhang

List of Publications by Year in descending order

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56
papers

2,786
citations

172457

29
h-index

175258

52
g-index

56
all docs

56
docs citations

56
times ranked

1747
citing authors

#	ARTICLE	IF	CITATIONS
1	Incorporation of LDH nanocontainers into plasma electrolytic oxidation coatings on Mg alloy. <i>Journal of Magnesium and Alloys</i> , 2023, 11, 1236-1246.	11.9	19
2	Why CoCrFeMnNi HEA could not passivate in chloride solution? A novel strategy to significantly improve corrosion resistance of CoCrFeMnNi HEA by N-alloying. <i>Corrosion Science</i> , 2022, 204, 110396.	6.6	62
3	Effects of Gd and Nd on microstructure, corrosion behavior, and electrochemical performance of Mg-Y-based anodes for magnesium air batteries. <i>Journal of Applied Electrochemistry</i> , 2022, 52, 1433-1447.	2.9	5
4	The development of a mechanistic-chemometrics model with multi-degree of freedom for pitting corrosion of HP-13Cr stainless steel under extremely oilfield environments. <i>Corrosion Science</i> , 2021, 181, 109237.	6.6	9
5	Chemically depleting the noble impurities from AZ91-T4 magnesium alloy: A new and efficient pretreatment method to improve the corrosion resistance of phosphate conversion coatings. <i>Corrosion Science</i> , 2021, 191, 109725.	6.6	16
6	Effect of the calcareous deposits on the cathodic protection potential of 10Ni5CrMoV high strength steel in a deep sea environment by using the response surface methodology. <i>Materials and Corrosion - Werkstoffe Und Korrosion</i> , 2021, 72, 720-731.	1.5	3
7	Investigation of the failure mechanism of the TG-201 inhibitor: Promoting the synergistic effect of HP-13Cr stainless steel during the well completion. <i>Corrosion Science</i> , 2020, 166, 108448.	6.6	17
8	Influence of Rare Earth Element (Y) on Microstructure and Corrosion Behavior of Hot Extrusion AZ91 Magnesium Alloy. <i>Materials</i> , 2020, 13, 3651.	2.9	13
9	Nitrogen significantly enhances corrosion resistance of 316L stainless steel in thiosulfate-chloride solution. <i>Corrosion Science</i> , 2020, 174, 108792.	6.6	49
10	Designing for high corrosion-resistant high nitrogen martensitic stainless steel based on DFT calculation and pressurized metallurgy method. <i>Corrosion Science</i> , 2019, 158, 108081.	6.6	61
11	Modeling of Pitting Corrosion Damage Based on Electrochemical and Statistical Methods. <i>Journal of the Electrochemical Society</i> , 2019, 166, C539-C549.	2.9	12
12	Significantly improved corrosion resistance of Mg-15Gd-2Zn-0.39Zr alloys: Effect of heat-treatment. <i>Journal of Materials Science and Technology</i> , 2019, 35, 1644-1654.	10.7	51
13	A novel design of electrochemical noise configuration based on embedded-electrodes for in-situ evaluation of epoxy coating under marine alternating hydrostatic pressure. <i>Progress in Organic Coatings</i> , 2019, 131, 346-356.	3.9	10
14	The effect of hot extrusion on the microstructure and anti-corrosion performance of LDHs conversion coating on AZ91D magnesium alloy. <i>Journal of Alloys and Compounds</i> , 2019, 788, 756-767.	5.5	23
15	Unveiling the inhibition mechanism of an effective inhibitor for AZ91 Mg alloy. <i>Corrosion Science</i> , 2019, 148, 264-271.	6.6	76
16	Study on the effect of mischmetal (La,Ce) on the micro-galvanic corrosion of AZ91 alloy using multiscale methods. <i>Journal of Alloys and Compounds</i> , 2019, 778, 427-438.	5.5	32
17	Modeling the corrosion behavior of Ni-Cr-Mo-V high strength steel in the simulated deep sea environments using design of experiment and artificial neural network. <i>Journal of Materials Science and Technology</i> , 2019, 35, 168-175.	10.7	44
18	Effect of nitrogen on corrosion behaviour of a novel high nitrogen medium-entropy alloy CrCoNiN manufactured by pressurized metallurgy. <i>Journal of Materials Science and Technology</i> , 2018, 34, 1781-1790.	10.7	102

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19	Influence of nitrogen on corrosion behaviour of high nitrogen martensitic stainless steels manufactured by pressurized metallurgy. <i>Corrosion Science</i> , 2018, 144, 288-300.	6.6	112
20	Modeling of the Critical Pitting Temperature between the Laboratory-Scale Specimen and the Large-Scale Specimen. <i>Journal of the Electrochemical Society</i> , 2018, 165, C328-C333.	2.9	8
21	Electrochemically assisted silanization treatment of an aluminum alloy under oxygen pressure for corrosion protection. <i>New Journal of Chemistry</i> , 2018, 42, 9771-9782.	2.8	12
22	Laboratory investigation of microbiologically influenced corrosion of 2205 duplex stainless steel by marine <i>Pseudomonas aeruginosa</i> biofilm using electrochemical noise. <i>Corrosion Science</i> , 2018, 143, 281-291.	6.6	55
23	Influence of second phase on corrosion performance and formation mechanism of PEO coating on AZ91 Mg alloy. <i>Journal of Alloys and Compounds</i> , 2017, 718, 92-103.	5.5	42
24	Relationship between Microstructure and Corrosion Behavior of Martensitic High Nitrogen Stainless Steel 30Cr15Mo1N at Different Austenitizing Temperatures. <i>Materials</i> , 2017, 10, 861.	2.9	34
25	Interaction effect between different constituents in silicate-containing electrolyte on PEO coatings on Mg alloy. <i>Surface and Coatings Technology</i> , 2016, 307, 825-836.	4.8	22
26	Experimental and numerical studies on corrosion failure of a three-limb pipe in natural gas field. <i>Engineering Failure Analysis</i> , 2016, 62, 21-38.	4.0	13
27	Reply to comment on "New understanding of the effect of hydrostatic pressure on the corrosion of Ni-Cr-Mo-V high strength steel". <i>Corrosion Science</i> , 2015, 100, 674-676.	6.6	1
28	Quantitative Modeling for Corrosion Behavior in Complex Coupled Environment by Response Surface Methodology. <i>Acta Metallurgica Sinica (English Letters)</i> , 2015, 28, 994-1001.	2.9	5
29	Effect of SiC Particulates on the Corrosion Behavior of Extruded AZ91/SiCp Composites during the Early Stage of Exposure. <i>Journal of the Electrochemical Society</i> , 2015, 162, C754-C766.	2.9	28
30	Effect of pitting nucleation on critical pitting temperature of 316L stainless steel by nitric acid passivation. <i>Corrosion Science</i> , 2015, 91, 232-244.	6.6	93
31	Effect of Cl ⁻ on the Properties of the Passive Films Formed on 316L Stainless Steel in Acidic Solution. <i>Journal of Materials Science and Technology</i> , 2014, 30, 253-258.	10.7	83
32	New understanding of the effect of hydrostatic pressure on the corrosion of Ni-Cr-Mo-V high strength steel. <i>Corrosion Science</i> , 2013, 73, 250-261.	6.6	92
33	In situ study of dew point corrosion by electrochemical measurement. <i>Corrosion Science</i> , 2013, 71, 62-71.	6.6	33
34	A new criterion to determine the critical pitting temperature (CPT) based on electrochemical noise measurement. <i>Corrosion Science</i> , 2012, 58, 202-210.	6.6	32
35	Effect of alternating voltage treatment on corrosion resistance of AZ91D magnesium alloy. <i>Materials and Corrosion - Werkstoffe Und Korrosion</i> , 2012, 63, 505-516.	1.5	10
36	Failure behavior of nano-SiO ₂ fillers epoxy coating under hydrostatic pressure. <i>Electrochimica Acta</i> , 2012, 62, 42-50.	5.2	44

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37	Corrosion of hot extrusion AZ91 magnesium alloy: I-relation between the microstructure and corrosion behavior. <i>Corrosion Science</i> , 2011, 53, 1960-1968.	6.6	226
38	Corrosion of hot extrusion AZ91 magnesium alloy. Part II: Effect of rare earth element neodymium (Nd) on the corrosion behavior of extruded alloy. <i>Corrosion Science</i> , 2011, 53, 2934-2942.	6.6	170
39	Electrochemical noise analysis on the crevice corrosion behavior of Niâ€“Crâ€“Moâ€“V high strength steel using recurrence plots. <i>Journal of Applied Electrochemistry</i> , 2011, 41, 289-298.	2.9	11
40	Effect of hydrostatic pressure on the nature of passive film of pure nickel. <i>Materials and Corrosion - Werkstoffe Und Korrosion</i> , 2011, 62, 269-274.	1.5	7
41	A stochastic analysis of the effect of magnetic field on the pitting corrosion susceptibility of pure magnesium. <i>Materials and Corrosion - Werkstoffe Und Korrosion</i> , 2010, 61, 306-312.	1.5	6
42	Corrosion behavior of Mgâ€“10Gdâ€“2Yâ€“0.4Zr alloy under thin electrolyte layers. <i>Materials and Corrosion - Werkstoffe Und Korrosion</i> , 2010, 61, 388-397.	1.5	5
43	In-situ study of the formation process of stannate conversion coatings on AZ91D magnesium alloy using electrochemical noise. <i>Corrosion Science</i> , 2010, 52, 892-900.	6.6	51
44	Effect of hydrostatic pressure on the corrosion behaviour of Niâ€“Crâ€“Moâ€“V high strength steel. <i>Corrosion Science</i> , 2010, 52, 2697-2706.	6.6	110
45	High Pitting Corrosion Resistance of Pure Aluminum with Nanoscale Twins. <i>Journal of the Electrochemical Society</i> , 2009, 156, C240.	2.9	11
46	A stochastic analysis of the effect of hydrostatic pressure on the pit corrosion of Feâ€“20Cr alloy. <i>Electrochimica Acta</i> , 2009, 54, 3915-3922.	5.2	88
47	Effect of alternating voltage passivation on the corrosion resistance of duplex stainless steel. <i>Journal of Applied Electrochemistry</i> , 2009, 39, 737-745.	2.9	24
48	The role of a zinc phosphate pigment in the corrosion of scratched epoxy-coated steel. <i>Corrosion Science</i> , 2009, 51, 371-379.	6.6	175
49	Effect of alternating voltage treatment on the corrosion resistance of pure magnesium. <i>Corrosion Science</i> , 2009, 51, 1772-1779.	6.6	48
50	Effect of microcrystallization on pitting corrosion of pure aluminium. <i>Corrosion Science</i> , 2009, 51, 2151-2157.	6.6	74
51	Effect of alternating voltage treatment on the microstructure and corrosion resistance of stannate conversion coating on AZ91D alloy. <i>Corrosion Science</i> , 2009, 51, 2685-2693.	6.6	23
52	Corrosion of pure magnesium under thin electrolyte layers. <i>Electrochimica Acta</i> , 2008, 53, 7921-7931.	5.2	92
53	Electrochemical noise analysis on the pit corrosion susceptibility of Mgâ€“10Gdâ€“2Yâ€“0.5Zr, AZ91D alloy and pure magnesium using stochastic model. <i>Corrosion Science</i> , 2008, 50, 3500-3507.	6.6	74
54	Electrochemical noise analysis of the corrosion of AZ91D magnesium alloy in alkaline chloride solution. <i>Electrochimica Acta</i> , 2007, 53, 561-568.	5.2	108

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55	Roles of β phase in the corrosion process of AZ91D magnesium alloy. Corrosion Science, 2006, 48, 1249-1264.	6.6	132
56	Effects of hydrogen on the corrosion of pure magnesium. Electrochimica Acta, 2006, 52, 1323-1328.	5.2	28