

# Zhongyu Cui

## List of Publications by Year in descending order

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60  
papers

3,094  
citations

218677

26  
h-index

161849

54  
g-index

60  
all docs

60  
docs citations

60  
times ranked

1422  
citing authors

#	ARTICLE	IF	CITATIONS
1	Influence of temperature on the electrochemical and passivation behavior of 2507 super duplex stainless steel in simulated desulfurized flue gas condensates. <i>Corrosion Science</i> , 2017, 118, 31-48.	6.6	257
2	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
3	Passivation behavior and surface chemistry of 2507 super duplex stainless steel in artificial seawater: Influence of dissolved oxygen and pH. <i>Corrosion Science</i> , 2019, 150, 218-234.	6.6	212
4	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
5	Influence of inclusions on initiation of pitting corrosion and stress corrosion cracking of X70 steel in near-neutral pH environment. <i>Corrosion Science</i> , 2019, 147, 108-127.	6.6	158
6	Atmospheric corrosion of field-exposed AZ31 magnesium in a tropical marine environment. <i>Corrosion Science</i> , 2013, 76, 243-256.	6.6	137
7	Electrochemical corrosion, hydrogen permeation and stress corrosion cracking behavior of E690 steel in thiosulfate-containing artificial seawater. <i>Corrosion Science</i> , 2018, 144, 145-162.	6.6	129
8	Pitting behavior of SLM 316L stainless steel exposed to chloride environments with different aggressiveness: Pitting mechanism induced by gas pores. <i>Corrosion Science</i> , 2020, 167, 108520.	6.6	129
9	Effect of plastic deformation on the electrochemical and stress corrosion cracking behavior of X70 steel in near-neutral pH environment. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2016, 677, 259-273.	5.6	116
10	Effect of alloyed Sr on the microstructure and corrosion behavior of biodegradable Mg-Zn-Mn alloy in Hank's™ solution. <i>Corrosion Science</i> , 2019, 157, 420-437.	6.6	109
11	Quantitative study of the corrosion evolution and stress corrosion cracking of high strength aluminum alloys in solution and thin electrolyte layer containing Cl <sup>-</sup> . <i>Corrosion Science</i> , 2021, 178, 109076.	6.6	105
12	Combined effect of cathodic potential and sulfur species on calcareous deposition, hydrogen permeation, and hydrogen embrittlement of a low carbon bainite steel in artificial seawater. <i>Corrosion Science</i> , 2019, 158, 108089.	6.6	98
13	A comparative study of primary and secondary passive films formed on AM355 stainless steel in 0.1 M NaOH. <i>Applied Surface Science</i> , 2018, 427, 763-773.	6.1	96
14	Corrosion behavior of AZ31 magnesium alloy in the chloride solution containing ammonium nitrate. <i>Electrochimica Acta</i> , 2018, 278, 421-437.	5.2	78
15	Influence of different heat-affected zone microstructures on the stress corrosion behavior and mechanism of high-strength low-alloy steel in a sulfurated marine atmosphere. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2019, 759, 124-141.	5.6	77
16	Characterization of the passive properties of 254SMO stainless steel in simulated desulfurized flue gas condensates by electrochemical analysis, XPS and ToF-SIMS. <i>Corrosion Science</i> , 2020, 165, 108405.	6.6	66
17	Corrosion evolution and stress corrosion cracking of E690 steel for marine construction in artificial seawater under potentiostatic anodic polarization. <i>Construction and Building Materials</i> , 2020, 238, 117763.	7.2	63
18	The effect of sub-grain structure on intergranular corrosion of 316L stainless steel fabricated via selective laser melting. <i>Materials Letters</i> , 2019, 243, 157-160.	2.6	57

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19	Electrochemical Behavior and Surface Characteristics of Pure Titanium during Corrosion in Simulated Desulfurized Flue Gas Condensates. <i>Journal of the Electrochemical Society</i> , 2018, 165, C542-C561.	2.9	56
20	Electrochemical and XPS analytical investigation of the accelerative effect of bicarbonate/carbonate ions on AISI 304 in alkaline environment. <i>Applied Surface Science</i> , 2019, 492, 792-807.	6.1	55
21	Passivation Behavior and Surface Chemistry of 2507 Super Duplex Stainless Steel in Acidified Artificial Seawater Containing Thiosulfate. <i>Journal of the Electrochemical Society</i> , 2017, 164, C856-C868.	2.9	51
22	Comparative study of the SCC behavior of E690 steel and simulated HAZ microstructures in a SO <sub>2</sub> -polluted marine atmosphere. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2016, 650, 93-101.	5.6	50
23	Dissolution kinetics of the sulfide-oxide complex inclusion and resulting localized corrosion mechanism of X70 steel in deaerated acidic environment. <i>Corrosion Science</i> , 2020, 174, 108815.	6.6	50
24	Corrosion Behavior of Field-Exposed Zinc in a Tropical Marine Atmosphere. <i>Corrosion</i> , 2014, 70, 731-748.	1.1	43
25	Corrosion evolution and stress corrosion cracking behavior of a low carbon bainite steel in the marine environments: Effect of the marine zones. <i>Corrosion Science</i> , 2022, 206, 110490.	6.6	42
26	Understanding the effect of fluoride on corrosion behavior of pure titanium in different acids. <i>Corrosion Science</i> , 2021, 192, 109812.	6.6	38
27	Influence of sulfide on the passivation behavior and surface chemistry of 2507 super duplex stainless steel in acidified artificial seawater. <i>Applied Surface Science</i> , 2020, 504, 144340.	6.1	29
28	Effect of extrusion on the microstructure and corrosion behavior of Mg-Zn-Mn-(0, 1.5)Sr alloys in Hank's solution. <i>Corrosion Science</i> , 2022, 195, 109975.	6.6	27
29	Fabrication of durable and roughness-regeneration superhydrophobic composite materials by hot pressing. <i>Composites Part B: Engineering</i> , 2019, 179, 107431.	12.0	25
30	The effect of crack tip environment on crack growth behaviour of a low alloy steel at cathodic potentials in artificial seawater. <i>Journal of Materials Science and Technology</i> , 2020, 54, 119-131.	10.7	25
31	Combined Effect of Alternating Current Interference and Cathodic Protection on Pitting Corrosion and Stress Corrosion Cracking Behavior of X70 Pipeline Steel in Near-Neutral pH Environment. <i>Materials</i> , 2018, 11, 465.	2.9	24
32	Effect of temperature and dissolved oxygen on the passivation behavior of Ti-6Al-3Nb-2Zr-1Mo alloy in artificial seawater. <i>Journal of Materials Research and Technology</i> , 2022, 17, 374-391.	5.8	24
33	Simple spray deposition of a hot water-repellent and oil-water separating superhydrophobic organic-inorganic hybrid coatings via methylsiloxane modification of hydrophilic nano-alumina. <i>Progress in Organic Coatings</i> , 2018, 125, 15-22.	3.9	20
34	Recycling papermill waste lignin into recyclable and flowerlike composites for effective oil/water separation. <i>Composites Part B: Engineering</i> , 2021, 216, 108884.	12.0	20
35	Mechanistic study of ammonium-induced corrosion of AZ31 magnesium alloy in sulfate solution. <i>Journal of Materials Science and Technology</i> , 2020, 54, 1-13.	10.7	20
36	Effect of NH <sub>4</sub> <sup>+</sup> on the pitting corrosion behavior of 316 stainless steel in the chloride environment. <i>Journal of Electroanalytical Chemistry</i> , 2021, 894, 115368.	3.8	19

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37	Elucidating the passivation kinetics and surface film chemistry of 254SMO stainless steel for chimney construction in simulated desulfurized flue gas condensates. <i>Construction and Building Materials</i> , 2021, 285, 122905.	7.2	17
38	Passivation Behavior of 2507 Super Duplex Stainless Steel in Hot Concentrated Seawater: Influence of Temperature and Seawater Concentration. <i>Acta Metallurgica Sinica (English Letters)</i> , 2022, 35, 326-340.	2.9	16
39	Hydrogen permeation and stress corrosion cracking of heat-affected zone of E690 steel under the combined effect of sulfur species and cathodic protection in artificial seawater. <i>Construction and Building Materials</i> , 2021, 296, 123721.	7.2	15
40	Atmospheric Corrosion Behavior of 2A12 Aluminum Alloy in a Tropical Marine Environment. <i>Advances in Materials Science and Engineering</i> , 2015, 2015, 1-17.	1.8	13
41	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
42	Siloxane-epoxy composite coatings for enhanced resistance to large temperature variations. <i>Progress in Organic Coatings</i> , 2020, 139, 105457.	3.9	11
43	Facile fabrication of hydrophobic polysiloxane coatings for protection of AZ31 magnesium alloy. <i>Journal of Materials Science</i> , 2019, 54, 9759-9774.	3.7	10
44	Passivation behavior and surface chemistry of 316 SS in the environment containing Cl <sup>-</sup> and NH <sub>4</sub> <sup>+</sup> . <i>Journal of Electroanalytical Chemistry</i> , 2021, 886, 115138.	3.8	10
45	The anti-corrosion performance of the epoxy coating enhanced via 5-Amino-1,3,4-thiadiazole-2-thiol grafted graphene oxide at ambient and low temperatures. <i>Progress in Organic Coatings</i> , 2021, 159, 106441.	3.9	9
46	Characterization of the Outer Layer Nanostructure in the Electrochemical Response of Stainless Steel in Aqueous Sodium Hydroxide. <i>Analytical Letters</i> , 2018, 51, 1384-1399.	1.8	8
47	Roles of pH in the NH <sub>4</sub> <sup>+</sup> -induced corrosion of AZ31 magnesium alloy in chloride environment. <i>Journal of Magnesium and Alloys</i> , 2022, 10, 3167-3178.	11.9	8
48	Corrosion behavior of CoCrNiMoBC coatings obtained by laser cladding: Synergistic effects of composition and microstructure. <i>Journal of Alloys and Compounds</i> , 2022, 911, 164984.	5.5	8
49	Corrosion Evolution of High-Strength Aluminum Alloys in the Simulated Service Environment of Amphibious Aircraft in the Presence of Chloride and Bisulfite. <i>Acta Metallurgica Sinica (English)</i> Tj ETQq1 1 0.7843 14rgBT /Overlock		
50	Effect of pH Value on the Crack Growth Behavior of X70 Pipeline Steel in the Dilute Bicarbonate Solutions. <i>Materials Transactions</i> , 2015, 56, 777-780.	1.2	6
51	Anodic Dissolution Behavior of the Crack Tip of X70 Pipeline Steel in Near-Neutral pH Environment. <i>Journal of Materials Engineering and Performance</i> , 2016, 25, 5468-5476.	2.5	6
52	Anticorrosion behavior of organic offshore coating systems in UV, salt spray and low temperature alternation simulated Arctic offshore environment. <i>Materials Today Communications</i> , 2021, 28, 102545.	1.9	6
53	Passivation behavior of CoCrNiZr medium-entropy alloy in the sulfuric acid solutions. <i>Journal of Electroanalytical Chemistry</i> , 2021, 899, 115693.	3.8	6
54	Mechanistic studies of atmospheric corrosion behavior of Al and Al-based alloys in a tropical marine environment. <i>Journal Wuhan University of Technology, Materials Science Edition</i> , 2017, 32, 633-639.	1.0	4

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55	Anticorrosion behavior of superhydrophobic particles reinforced epoxy coatings for long-time in the high salinity liquid. <i>Progress in Organic Coatings</i> , 2020, 147, 105867.	3.9	4
56	The influence of Nb addition on the passivity of CoCrNiNb multi-principal element alloys. <i>Journal of Electroanalytical Chemistry</i> , 2022, 908, 116107.	3.8	4
57	Correlation between Microstructure and Hydrogen Degradation of 690 MPa Grade Marine Engineering Steel. <i>Materials</i> , 2021, 14, 851.	2.9	3
58	The crevice corrosion behavior of N80 carbon steel in acidic NaCl solution: The effect of O <sub>2</sub> . <i>Materials and Corrosion - Werkstoffe Und Korrosion</i> , 0, , .	1.5	3
59	Correlation between low-temperature anticorrosion performance and mechanical properties of composite coatings reinforced by modified Fe <sub>3</sub> O <sub>4</sub> . <i>Progress in Organic Coatings</i> , 2022, 165, 106737.	3.9	3
60	Understanding the passivation behavior and film chemistry of four corrosion-resistant alloys in the simulated flue gas condensates. <i>Materials Today Communications</i> , 2022, 31, 103567.	1.9	3