

Fa-He Cao

List of Publications by Year in descending order

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89
papers

3,224
citations

147566
31
h-index

168136
53
g-index

89
all docs

89
docs citations

89
times ranked

2304
citing authors

#	ARTICLE	IF	CITATIONS
1	Effect of rare earth element Ce and La on corrosion behavior of AM60 magnesium alloy. Corrosion Science, 2009, 51, 1334-1343.	3.0	257
2	A study of the corrosion of aluminum alloy 2024-T3 under thin electrolyte layers. Corrosion Science, 2004, 46, 1649-1667.	3.0	185
3	Corrosion behaviour of copper under chloride-containing thin electrolyte layer. Corrosion Science, 2011, 53, 3289-3298.	3.0	167
4	The preparation and corrosion behaviors of MAO coating on AZ91D with rare earth conversion precursor film. Applied Surface Science, 2011, 257, 3804-3811.	3.1	135
5	Study on the anodizing of AZ31 magnesium alloys in alkaline borate solutions. Applied Surface Science, 2007, 253, 3893-3898.	3.1	124
6	Electrocatalytic degradation of 4-chlorophenol on F-doped PbO ₂ anodes. Electrochimica Acta, 2009, 54, 2595-2602.	2.6	118
7	Corrosion behaviour of AM60 magnesium alloys containing Ce or La under thin electrolyte layers. Part 1: Microstructural characterization and electrochemical behaviour. Corrosion Science, 2010, 52, 627-638.	3.0	108
8	Electrochemical noise analysis of LY12-T3 in EXCO solution by discrete wavelet transform technique. Electrochimica Acta, 2006, 51, 1359-1364.	2.6	92
9	Electrochemical noise study on 2024-T3 Aluminum alloy corrosion in simulated acid rain under cyclic wet-dry condition. Electrochimica Acta, 2006, 51, 4977-4986.	2.6	83
10	Analysis of pitting corrosion behavior of pure Al in sodium chloride solution with the wavelet technique. Journal of Electroanalytical Chemistry, 2005, 578, 143-150.	1.9	81
11	Study on the anodic film formation process of AZ91D magnesium alloy. Electrochimica Acta, 2007, 52, 5325-5333.	2.6	77
12	Electrodeposition and characterization of nano-structured Ni-SiC composite films. Surface and Coatings Technology, 2011, 205, 3448-3454.	2.2	69
13	Electrodeposition of amorphous Ni-P coatings onto Nd-Fe-B permanent magnet substrates. Applied Surface Science, 2006, 253, 2251-2256.	3.1	64
14	Preparation and Electrochemical Performance of Tungstovanadophosphoric Heteropoly Acid and Its Hybrid Materials. Journal of Physical Chemistry C, 2013, 117, 3258-3263.	1.5	64
15	Influence of rare earth element Ce and La addition on corrosion behavior of AZ91 magnesium alloy. Materials and Corrosion - Werkstoffe Und Korrosion, 2009, 60, 795-803.	0.8	62
16	Detection of the Short-Lived Cation Radical Intermediate in the Electrochemical Oxidation of N,N-Dimethylaniline by Scanning Electrochemical Microscopy. Journal of the American Chemical Society, 2014, 136, 18163-18169.	6.6	60
17	The influence of F ⁻ doping on the activity of PbO ₂ film electrodes in oxygen evolution reaction. Electrochimica Acta, 2007, 52, 7870-7876.	2.6	56
18	A fabrication of iridium oxide film pH micro-sensor on Pt ultramicroelectrode and its application on in-situ pH distribution of 316L stainless steel corrosion at open circuit potential. Sensors and Actuators B: Chemical, 2018, 255, 1974-1982.	4.0	53

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19	Effect of the direct current electric field on the initial corrosion of steel in simulated industrial atmospheric environment. <i>Corrosion Science</i> , 2015, 99, 295-303.	3.0	51
20	Localized Corrosion of Magnesium Alloys in NaCl Solutions Explored by Scanning Electrochemical Microscopy in Feedback Mode. <i>Electrochimica Acta</i> , 2014, 132, 377-388.	2.6	49
21	Plasma electrolytic oxidation of AZ91D magnesium alloy with different additives and its corrosion behavior. <i>Materials and Corrosion - Werkstoffe Und Korrosion</i> , 2007, 58, 696-703.	0.8	48
22	Corrosion behaviour of AM60 magnesium alloys containing Ce or La under thin electrolyte layers. Part 2: Corrosion product and characterization. <i>Corrosion Science</i> , 2010, 52, 639-650.	3.0	48
23	Electrodeposition of high corrosion resistance Cu/Ni-P coating on AZ91D magnesium alloy. <i>Applied Surface Science</i> , 2011, 257, 9213-9220.	3.1	48
24	Electrodeposition and corrosion resistance of Ni-P-TiN composite coating on AZ91D magnesium alloy. <i>Transactions of Nonferrous Metals Society of China</i> , 2016, 26, 2976-2987.	1.7	44
25	Study of pitting corrosion on mild steel during wet-dry cycles by electrochemical noise analysis based on chaos theory. <i>Corrosion Science</i> , 2013, 66, 183-195.	3.0	43
26	Environmental friendly plasma electrolytic oxidation of AM60 magnesium alloy and its corrosion resistance. <i>Transactions of Nonferrous Metals Society of China</i> , 2008, 18, 240-247.	1.7	42
27	In-situ investigation of atmospheric corrosion behavior of bronze under thin electrolyte layers using electrochemical technique. <i>Transactions of Nonferrous Metals Society of China</i> , 2012, 22, 1239-1249.	1.7	38
28	Investigation of microstructure and corrosion behavior of weathering steel in aqueous solution containing different anions for simulating service environments. <i>Corrosion Science</i> , 2020, 170, 108686.	3.0	38
29	Effect of aging treatment on microstructure and corrosion behavior of Al-Zn-Mg aluminum alloy in aqueous solutions with different aggressive ions. <i>Journal of Materials Science and Technology</i> , 2021, 64, 85-98.	5.6	37
30	Separation and kinetic study of iron corrosion in acidic solution via a modified tip generation/substrate collection mode by SECM. <i>Corrosion Science</i> , 2018, 139, 403-409.	3.0	36
31	Exfoliation corrosion of aluminum alloy AA7075 examined by electrochemical impedance spectroscopy. <i>Materials and Corrosion - Werkstoffe Und Korrosion</i> , 2004, 55, 18-23.	0.8	34
32	Influence of electric parameters on MAO of AZ91D magnesium alloy using alternative square-wave power source. <i>Transactions of Nonferrous Metals Society of China</i> , 2011, 21, 307-316.	1.7	33
33	Hot corrosion behavior of electrodeposited SiO ₂ coating on TiAl alloy. <i>Corrosion Science</i> , 2020, 174, 108827.	3.0	33
34	Formation and transformation of Mg(OH) ₂ in anodic coating using FTIR mapping. <i>Electrochemistry Communications</i> , 2009, 11, 2245-2248.	2.3	32
35	Novel dual Pt-Pt/IrO ultramicroelectrode for pH imaging using SECM in both potentiometric and amperometric modes. <i>Electrochemistry Communications</i> , 2018, 88, 47-51.	2.3	32
36	Coulombic-enhanced hetero radical pairing interactions. <i>Nature Communications</i> , 2018, 9, 1961.	5.8	30

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37	In situ SECM mapping of pitting corrosion in stainless steel using submicron Pt ultramicroelectrode and quantitative spatial resolution analysis. <i>Corrosion Science</i> , 2018, 143, 221-228.	3.0	29
38	Dimensional analysis applied to pitting corrosion measurements. <i>Electrochimica Acta</i> , 2008, 53, 2688-2698.	2.6	27
39	Recent Advances in Scanning Electrochemical Microscopy for Biological Applications. <i>Materials</i> , 2018, 11, 1389.	1.3	26
40	Accelerating effect of catalase on microbiologically influenced corrosion of 304 stainless steel by the halophilic archaeon <i>Natronorubrum tibetense</i> . <i>Corrosion Science</i> , 2021, 178, 109057.	3.0	26
41	Insight into the triggering effect of (Al, Mg, Ca, Mn)-oxy-sulfide inclusions on localized corrosion of weathering steel. <i>Journal of Materials Science and Technology</i> , 2021, 64, 99-113.	5.6	23
42	Electrodeposition and characterization of nanocrystalline CoNiFe films. <i>Thin Solid Films</i> , 2012, 520, 3553-3557.	0.8	21
43	Corrosion Electrochemical Kinetic Study of Copper in Acidic Solution using Scanning Electrochemical Microscopy. <i>Journal of the Electrochemical Society</i> , 2019, 166, C401-C409.	1.3	21
44	A new hydrothermal blackening technology for Fe ₃ O ₄ coatings of carbon steel. <i>Applied Surface Science</i> , 2008, 254, 5905-5909.	3.1	20
45	The study of the H ₂ O ₂ during oxygen reduction process on typically corroding metal surface using tip generation-substrate collection mode of SECM. <i>Corrosion Science</i> , 2020, 164, 108312.	3.0	20
46	Improving hot corrosion resistance of aluminized TiAl alloy by anodization and pre-oxidation. <i>Transactions of Nonferrous Metals Society of China</i> , 2021, 31, 193-206.	1.7	20
47	Corrosion behavior of magnesium and its alloy in NaCl solution. <i>Russian Journal of Electrochemistry</i> , 2007, 43, 837-843.	0.3	19
48	Improved oxidation performance of TiAl alloy by a novel Al-Si composite coating. <i>Surface and Coatings Technology</i> , 2020, 381, 125126.	2.2	19
49	Carboxylate breaks the arene C-H bond via a hydrogen-atom-transfer mechanism in electrochemical cobalt catalysis. <i>Chemical Science</i> , 2020, 11, 5790-5796.	3.7	19
50	The effect of phosphate on MAO of AZ91D magnesium using AC power source. <i>Materials and Corrosion - Werkstoffe Und Korrosion</i> , 2008, 59, 819-824.	0.8	18
51	Oxidation behavior of Ti ₄₅ Al _{8.5} Nb alloy anodized in NH ₄ F containing solution. <i>Corrosion Science</i> , 2020, 166, 108447.	3.0	17
52	Quasi-simultaneous electrochemical/chemical imaging of local Fe ²⁺ and pH distributions on 316L stainless steel surface. <i>Journal of Electroanalytical Chemistry</i> , 2020, 871, 114107.	1.9	17
53	A new study for healing pitting defects of 316L stainless steel based on microarc technology. <i>Corrosion Science</i> , 2021, 187, 109505.	3.0	17
54	Probing the corrosion mechanism of zinc under direct current electric field. <i>Materials Chemistry and Physics</i> , 2018, 206, 232-242.	2.0	16

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55	Unusual influence of binder composition and phosphoric acid leaching on oxygen mass transport in catalyst layers of high-temperature proton exchange membrane fuel cells. <i>Journal of Power Sources</i> , 2020, 473, 228616.	4.0	16
56	Electrochemical detection of univalent Mg cation: A possible explanation for the negative difference effect during Mg anodic dissolution. <i>Journal of Electroanalytical Chemistry</i> , 2021, 880, 114837.	1.9	16
57	LiF involved interphase layer enabling thousand cycles of LAGP-based solid-state Li metal batteries with 80% capacity retention. <i>Energy Storage Materials</i> , 2022, 48, 145-154.	9.5	16
58	Effect of pretreatments on the hydrogen evolution kinetics of pure titanium using impedance and SECM technologies. <i>Corrosion Science</i> , 2021, 191, 109726.	3.0	15
59	Influence of Direct Current Electric Field on the Formation, Composition and Microstructure of Corrosion Products Formed on the Steel in Simulated Marine Atmospheric Environment. <i>Acta Metallurgica Sinica (English Letters)</i> , 2016, 29, 373-381.	1.5	14
60	Nanoscale corrosion investigation of surface nanocrystallized 7150 Al alloy in 3.5Åwt% NaCl solution by using FIB-TEM techniques. <i>Corrosion Science</i> , 2022, 195, 110021.	3.0	14
61	Study of the potential electrochemical noise during corrosion process of aluminum alloys 2024, 7075 and pure aluminum. <i>Materials and Corrosion - Werkstoffe Und Korrosion</i> , 2003, 54, 601-608.	0.8	13
62	Exfoliation corrosion of Al-Li alloy 2090-T6 in EXCO solution: A study of electrochemical noise and electrochemical impedance spectroscopy. <i>Materials and Corrosion - Werkstoffe Und Korrosion</i> , 2006, 57, 484-490.	0.8	11
63	Quantitative analysis of the polarization behavior of iron in an aerated acidic solution using SECM. <i>Electrochemistry Communications</i> , 2018, 93, 143-147.	2.3	11
64	Effect of direct current electric field intensity and electrolyte layer thickness on oxygen reduction in simulated atmospheric environment. <i>Corrosion Science</i> , 2019, 148, 206-212.	3.0	10
65	Oxidation performance and interfacial reaction behavior of glass-ceramic coating on TiAl alloy with electrodeposited SiO ₂ interlayer. <i>Surface and Coatings Technology</i> , 2021, 422, 127495.	2.2	10
66	Interfacial Adsorption and Electron Properties of Water Molecule/Cluster on Anatase TiO ₂ (101) Surface: Raman and DFT Investigation. <i>Langmuir</i> , 2022, 38, 1057-1066.	1.6	10
67	Rapid synthesis of highly oriented hydrophobic silicalite-1 zeolite films on alloy steel at lower temperature for corrosion protection. <i>Chemical Engineering Journal</i> , 2022, 430, 133173.	6.6	9
68	In Situ Studies of Hydrogen Evolution Kinetics on Pure Titanium Surface: The Effects of Pre-Reduction and Dissolved Oxygen. <i>Journal of Physical Chemistry C</i> , 2022, 126, 1828-1844.	1.5	9
69	Syntheses and electrochemical properties of polyoxometalate salts with Dawson structure. <i>Russian Journal of Electrochemistry</i> , 2014, 50, 398-401.	0.3	8
70	Proton-conductive membranes based on vanadium substituted heteropoly acids with Keggin structure and polymers. <i>Journal of Applied Polymer Science</i> , 2015, 132, .	1.3	8
71	PW9V3/rGO/SPEEK hybrid material: an excellent proton conductor. <i>RSC Advances</i> , 2016, 6, 84689-84693.	1.7	8
72	Solid high-proton conductor tungstovanadozincic acid with transition metal as central atom: Synthesis and conductivity. <i>Functional Materials Letters</i> , 2015, 08, 1550041.	0.7	6

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73	Corrosion Behavior of Weathering Steel Under Thin Electrolyte Layer at Different Relative Humidity. <i>Journal of Materials Engineering and Performance</i> , 2018, 27, 202-218.	1.2	6
74	A bistable [2]catenane switched by hetero-radical pairing interactions. <i>Chemical Communications</i> , 2020, 56, 11887-11890.	2.2	6
75	Interesting phenomena for Al-Zn-Mg aluminum alloy after two years of storage: A comparative study on microstructure, mechanical properties and corrosion behavior of aluminum alloy with different aging treatments. <i>Construction and Building Materials</i> , 2021, 276, 122210.	3.2	6
76	The oxidation performance and interfacial reaction behavior of YSZ-ZrB ₂ incorporated glass composite coating. <i>Corrosion Science</i> , 2021, 189, 109622.	3.0	6
77	PREPARATION AND ELECTROCHEMICAL PERFORMANCE OF HYBRID MATERIALS CONTAINING HETEROPOLY ACID WITH DAWSON STRUCTURE AND POLYMERS. <i>Functional Materials Letters</i> , 2012, 05, 1250040.	0.7	5
78	Effect of sulphate on the corrosion behavior of bronze under a chloride-containing thin electrolyte layer. <i>Materials and Corrosion - Werkstoffe Und Korrosion</i> , 2018, 69, 1412-1421.	0.8	5
79	Influence of chloride ion adsorption on the kinetics and mechanism of Ru(NH ₃) ₆ ³⁺ /2+ electrode reactions. <i>Electrochimica Acta</i> , 2019, 324, 134863.	2.6	5
80	Quantitative study of the kinetics of hydrogen evolution reaction on aluminum surface and the influence of chloride ion. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 39665-39674.	3.8	5
81	Temperature-dependent structure of 3.5 wt.% NaCl aqueous solution: Theoretical and Raman investigation. <i>Journal of Molecular Structure</i> , 2022, 1253, 132279.	1.8	5
82	High temperature oxidation performance of the electrodeposited SiO ₂ coating incorporated with Ni nanoparticle. <i>Corrosion Science</i> , 2022, 205, 110455.	3.0	5
83	Tailoring hydrogen embrittlement resistance of pure Ni by grain boundary engineering. <i>Corrosion Communications</i> , 2022, 6, 48-51.	2.7	5
84	Preparation and Characterization of Nanostructured Ni-TiN Composite Films. <i>Chinese Journal of Chemical Physics</i> , 2010, 23, 347-350.	0.6	4
85	Shot noise analysis on corrosion behavior of zinc alloy (ZnAl ₄ Cu ₁) under dry-wet cycles. <i>Transactions of Nonferrous Metals Society of China</i> , 2012, 22, 228-240.	1.7	4
86	Oxidation and tribological properties of anodized Ti ₄₅ Al _{8.5} Nb alloy. <i>Transactions of Nonferrous Metals Society of China</i> , 2021, 31, 3439-3451.	1.7	3
87	Hydrogen permeation in 2205 duplex stainless steel under hydrostatic pressure and simulation by COMSOL. <i>Materials and Corrosion - Werkstoffe Und Korrosion</i> , 2019, 70, 838-852.	0.8	2
88	Electrochemical observation of individual collision-blocking events of TX-100 nanomicelles: An accurate and universal approach for the critical micelle concentration determination of surfactants. <i>Analytica Chimica Acta</i> , 2021, 1188, 339179.	2.6	2
89	Magnesium Alloy Corrosion Under Thin Electrolyte Layer Using Electrochemical Impedance Spectroscopy and Polarization Curve. <i>ECS Meeting Abstracts</i> , 2016, , .	0.0	0