

# Fa-He Cao

## List of Publications by Year in descending order

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89  
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docs citations

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#	ARTICLE	IF	CITATIONS
1	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
2	Nanoscale corrosion investigation of surface nanocrystallized 7150 Al alloy in 3.5 wt% NaCl solution by using FIB-TEM techniques. <i>Corrosion Science</i> , 2022, 195, 110021.	3.0	14
3	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
4	Interfacial Adsorption and Electron Properties of Water Molecule/Cluster on Anatase TiO <sub>2</sub> (101) Surface: Raman and DFT Investigation. <i>Langmuir</i> , 2022, 38, 1057-1066.	1.6	10
5	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
6	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
7	High temperature oxidation performance of the electrodeposited SiO <sub>2</sub> coating incorporated with Ni nanoparticle. <i>Corrosion Science</i> , 2022, 205, 110455.	3.0	5
8	Tailoring hydrogen embrittlement resistance of pure Ni by grain boundary engineering. <i>Corrosion Communications</i> , 2022, 6, 48-51.	2.7	5
9	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
10	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
11	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
12	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
13	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
14	The oxidation performance and interfacial reaction behavior of YSZ-ZrB <sub>2</sub> incorporated glass composite coating. <i>Corrosion Science</i> , 2021, 189, 109622.	3.0	6
15	Oxidation performance and interfacial reaction behavior of glass-ceramic coating on TiAl alloy with electrodeposited SiO <sub>2</sub> interlayer. <i>Surface and Coatings Technology</i> , 2021, 422, 127495.	2.2	10
16	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
17	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
18	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

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19	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
20	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
21	Oxidation and tribological properties of anodized Ti45Al8.5Nb alloy. <i>Transactions of Nonferrous Metals Society of China</i> , 2021, 31, 3439-3451.	1.7	3
22	Oxidation behavior of Ti45Al8.5Nb alloy anodized in NH4F containing solution. <i>Corrosion Science</i> , 2020, 166, 108447.	3.0	17
23	The study of the H2O2 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
24	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
25	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
26	A bistable [2]catenane switched by hetero-radical pairing interactions. <i>Chemical Communications</i> , 2020, 56, 11887-11890.	2.2	6
27	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
28	Hot corrosion behavior of electrodeposited SiO2 coating on TiAl alloy. <i>Corrosion Science</i> , 2020, 174, 108827.	3.0	33
29	Quasi-simultaneous electrochemical/chemical imaging of local Fe2+ and pH distributions on 316L stainless steel surface. <i>Journal of Electroanalytical Chemistry</i> , 2020, 871, 114107.	1.9	17
30	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
31	Influence of chloride ion adsorption on the kinetics and mechanism of Ru(NH3)63+/2+ electrode reactions. <i>Electrochimica Acta</i> , 2019, 324, 134863.	2.6	5
32	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
33	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
34	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
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	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

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37	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. <i>Sensors and Actuators B: Chemical</i> , 2018, 255, 1974-1982.	4.0	53
38	Probing the corrosion mechanism of zinc under direct current electric field. <i>Materials Chemistry and Physics</i> , 2018, 206, 232-242.	2.0	16
39	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
40	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
41	Coulombic-enhanced hetero radical pairing interactions. <i>Nature Communications</i> , 2018, 9, 1961.	5.8	30
42	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
43	Recent Advances in Scanning Electrochemical Microscopy for Biological Applications. <i>Materials</i> , 2018, 11, 1389.	1.3	26
44	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
45	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
46	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
47	PW9V3/rGO/SPEEK hybrid material: an excellent proton conductor. <i>RSC Advances</i> , 2016, 6, 84689-84693.	1.7	8
48	Magnesium Alloy Corrosion Under Thin Electrolyte Layer Using Electrochemical Impedance Spectroscopy and Polarization Curve. <i>ECS Meeting Abstracts</i> , 2016, , .	0.0	0
49	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
50	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
51	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
52	Detection of the Short-Lived Cation Radical Intermediate in the Electrochemical Oxidation of N,N-Dimethylaniline by Scanning Electrochemical Microscopy. <i>Journal of the American Chemical Society</i> , 2014, 136, 18163-18169.	6.6	60
53	Syntheses and electrochemical properties of polyoxometalate salts with Dawson structure. <i>Russian Journal of Electrochemistry</i> , 2014, 50, 398-401.	0.3	8
54	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

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55	Preparation and Electrochemical Performance of Tungstovanadophosphoric Heteropoly Acid and Its Hybrid Materials. <i>Journal of Physical Chemistry C</i> , 2013, 117, 3258-3263.	1.5	64
56	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
57	Shot noise analysis on corrosion behavior of zinc alloy (ZnAl <sub>4</sub> Cu <sub>1</sub> ) under dry-wet cycles. <i>Transactions of Nonferrous Metals Society of China</i> , 2012, 22, 228-240.	1.7	4
58	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
59	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
60	Electrodeposition and characterization of nanocrystalline CoNiFe films. <i>Thin Solid Films</i> , 2012, 520, 3553-3557.	0.8	21
61	Corrosion behaviour of copper under chloride-containing thin electrolyte layer. <i>Corrosion Science</i> , 2011, 53, 3289-3298.	3.0	167
62	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
63	The preparation and corrosion behaviors of MAO coating on AZ91D with rare earth conversion precursor film. <i>Applied Surface Science</i> , 2011, 257, 3804-3811.	3.1	135
64	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
65	Electrodeposition and characterization of nano-structured Ni-SiC composite films. <i>Surface and Coatings Technology</i> , 2011, 205, 3448-3454.	2.2	69
66	Preparation and Characterization of Nanostructured Ni-TiN Composite Films. <i>Chinese Journal of Chemical Physics</i> , 2010, 23, 347-350.	0.6	4
67	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
68	Corrosion behaviour of AM60 magnesium alloys containing Ce or La under thin electrolyte layers. Part 1: Microstructural characterization and electrochemical behaviour. <i>Corrosion Science</i> , 2010, 52, 627-638.	3.0	108
69	Influence of rare earth element Ce and La addition on corrosion behavior of AZ91 magnesium alloy. <i>Materials and Corrosion - Werkstoffe Und Korrosion</i> , 2009, 60, 795-803.	0.8	62
70	Formation and transformation of Mg(OH) <sub>2</sub> in anodic coating using FTIR mapping. <i>Electrochemistry Communications</i> , 2009, 11, 2245-2248.	2.3	32
71	Electrocatalytic degradation of 4-chlorophenol on F-doped PbO <sub>2</sub> anodes. <i>Electrochimica Acta</i> , 2009, 54, 2595-2602.	2.6	118
72	Effect of rare earth element Ce and La on corrosion behavior of AM60 magnesium alloy. <i>Corrosion Science</i> , 2009, 51, 1334-1343.	3.0	257

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73	A new hydrothermal blackening technology for Fe <sub>3</sub> O <sub>4</sub> coatings of carbon steel. Applied Surface Science, 2008, 254, 5905-5909.	3.1	20
74	Dimensional analysis applied to pitting corrosion measurements. Electrochimica Acta, 2008, 53, 2688-2698.	2.6	27
75	The effect of phosphate on MAO of AZ91D magnesium using AC power source. Materials and Corrosion - Werkstoffe Und Korrosion, 2008, 59, 819-824.	0.8	18
76	Environmental friendly plasma electrolytic oxidation of AM60 magnesium alloy and its corrosion resistance. Transactions of Nonferrous Metals Society of China, 2008, 18, 240-247.	1.7	42
77	Plasma electrolytic oxidation of AZ91D magnesium alloy with different additives and its corrosion behavior. Materials and Corrosion - Werkstoffe Und Korrosion, 2007, 58, 696-703.	0.8	48
78	Study on the anodic film formation process of AZ91D magnesium alloy. Electrochimica Acta, 2007, 52, 5325-5333.	2.6	77
79	Corrosion behavior of magnesium and its alloy in NaCl solution. Russian Journal of Electrochemistry, 2007, 43, 837-843.	0.3	19
80	The influence of F <sup>-</sup> doping on the activity of PbO <sub>2</sub> film electrodes in oxygen evolution reaction. Electrochimica Acta, 2007, 52, 7870-7876.	2.6	56
81	Study on the anodizing of AZ31 magnesium alloys in alkaline borate solutions. Applied Surface Science, 2007, 253, 3893-3898.	3.1	124
82	Electrochemical noise analysis of LY12-T3 in EXCO solution by discrete wavelet transform technique. Electrochimica Acta, 2006, 51, 1359-1364.	2.6	92
83	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
84	Electrodeposition of amorphous Ni-P coatings onto Nd-Fe-B permanent magnet substrates. Applied Surface Science, 2006, 253, 2251-2256.	3.1	64
85	Exfoliation corrosion of Al-Li alloy 2090-T6 in EXCO solution: A study of electrochemical noise and electrochemical impedance spectroscopy. Materials and Corrosion - Werkstoffe Und Korrosion, 2006, 57, 484-490.	0.8	11
86	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
87	Exfoliation corrosion of aluminum alloy AA7075 examined by electrochemical impedance spectroscopy. Materials and Corrosion - Werkstoffe Und Korrosion, 2004, 55, 18-23.	0.8	34
88	A study of the corrosion of aluminum alloy 2024-T3 under thin electrolyte layers. Corrosion Science, 2004, 46, 1649-1667.	3.0	185
89	Study of the potential electrochemical noise during corrosion process of aluminum alloys 2024, 7075 and pure aluminum. Materials and Corrosion - Werkstoffe Und Korrosion, 2003, 54, 601-608.	0.8	13