

# Ze-Hua Dong

## List of Publications by Year in descending order

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72  
papers

3,637  
citations

126907

33  
h-index

133252

59  
g-index

72  
all docs

72  
docs citations

72  
times ranked

3925  
citing authors

#	ARTICLE	IF	CITATIONS
1	Advanced Architectures and Relatives of Air Electrodes in Zn-Air Batteries. <i>Advanced Science</i> , 2018, 5, 1700691.	11.2	645
2	Recent Progress on Transition Metal Oxides as Bifunctional Catalysts for Lithium-Air and Zinc-Air Batteries. <i>Batteries and Supercaps</i> , 2019, 2, 336-347.	4.7	173
3	A novel coating system with self-reparable slippery surface and active corrosion inhibition for reliable protection of Mg alloy. <i>Chemical Engineering Journal</i> , 2019, 373, 285-297.	12.7	168
4	N-doped carbon shell coated CoP nanocrystals encapsulated in porous N-doped carbon substrate as efficient electrocatalyst of water splitting. <i>Carbon</i> , 2019, 144, 464-471.	10.3	119
5	Synthesis of polypyrrole wrapped graphene hydrogels composites as supercapacitor electrodes. <i>Electrochimica Acta</i> , 2013, 114, 125-132.	5.2	110
6	Influence of EPS isolated from thermophilic sulphate-reducing bacteria on carbon steel corrosion. <i>Biofouling</i> , 2011, 27, 487-495.	2.2	106
7	Heterogeneous corrosion of mild steel under SRB-biofilm characterised by electrochemical mapping technique. <i>Corrosion Science</i> , 2011, 53, 2978-2987.	6.6	104
8	Graphene oxide-polythiophene derivative hybrid nanosheet for enhancing performance of supercapacitor. <i>Journal of Power Sources</i> , 2016, 306, 241-247.	7.8	103
9	Nitrogen-doped activated carbons derived from a co-polymer for high supercapacitor performance. <i>Journal of Materials Chemistry A</i> , 2014, 2, 11697-11705.	10.3	94
10	Dual nanoenzyme modified microelectrode based on carbon fiber coated with AuPd alloy nanoparticles decorated graphene quantum dots assembly for electrochemical detection in clinic cancer samples. <i>Biosensors and Bioelectronics</i> , 2018, 107, 153-162.	10.1	92
11	Initiation and repassivation of pitting corrosion of carbon steel in carbonated concrete pore solution. <i>Corrosion Science</i> , 2011, 53, 1322-1330.	6.6	91
12	The effects of Cl <sup>-</sup> ion concentration and relative humidity on atmospheric corrosion behaviour of PCB-Cu under adsorbed thin electrolyte layer. <i>Corrosion Science</i> , 2011, 53, 1230-1236.	6.6	84
13	Fabrication of superhydrophobic coating on magnesium alloy with improved corrosion resistance by combining micro-arc oxidation and cyclic assembly. <i>Surface and Coatings Technology</i> , 2018, 339, 155-166.	4.8	84
14	<i>In situ</i> formation of Ni <sub>3</sub> Se <sub>4</sub> nanorod arrays as versatile electrocatalysts for electrochemical oxidation reactions in hybrid water electrolysis. <i>Journal of Materials Chemistry A</i> , 2018, 6, 15653-15658.	10.3	84
15	The role of inhibitors on the repassivation of pitting corrosion of carbon steel in synthetic carbonated concrete pore solution. <i>Electrochimica Acta</i> , 2011, 56, 5890-5897.	5.2	78
16	Characterisation of doped polypyrrole/manganese oxide nanocomposite for supercapacitor electrodes. <i>Materials Chemistry and Physics</i> , 2011, 131, 529-534.	4.0	66
17	CeO <sub>2</sub> grafted carbon nanotube via polydopamine wrapping to enhance corrosion barrier of polyurethane coating. <i>Corrosion Science</i> , 2021, 178, 109014.	6.6	62
18	Microstructural evolution and biological performance of Cu-incorporated TiO <sub>2</sub> coating fabricated through one-step micro-arc oxidation. <i>Applied Surface Science</i> , 2020, 508, 144766.	6.1	55

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19	Enhanced Corrosion Barrier of Microarc-Oxidized Mg Alloy by Self-Healing Superhydrophobic Silica Coating. <i>Industrial &amp; Engineering Chemistry Research</i> , 2019, 58, 165-178.	3.7	53
20	Corrosion behaviour of AA6082 Al-Mg-Si alloy extrusion: Recrystallized and non-recrystallized structures. <i>Corrosion Science</i> , 2018, 144, 163-171.	6.6	52
21	The effects of temperature and electric field on atmospheric corrosion behaviour of PCB-Cu under absorbed thin electrolyte layer. <i>Corrosion Science</i> , 2011, 53, 1700-1707.	6.6	50
22	Synthesis and characterization of a bi-functional hydroxyapatite/Cu-doped TiO <sub>2</sub> composite coating. <i>Ceramics International</i> , 2019, 45, 6693-6701.	4.8	48
23	Application of wire beam electrode technique to investigate the migrating behavior of corrosion inhibitors in mortar. <i>Construction and Building Materials</i> , 2017, 134, 167-175.	7.2	45
24	Characterization and property of dual-functional Zn-incorporated TiO <sub>2</sub> micro-arc oxidation coatings: The influence of current density. <i>Journal of Alloys and Compounds</i> , 2019, 810, 151893.	5.5	43
25	Intergranular corrosion in AA2024-T3 aluminium alloy: The influence of stored energy and prediction. <i>Corrosion Science</i> , 2019, 155, 1-12.	6.6	43
26	Microstructure, bio-corrosion and biological property of Ag-incorporated TiO <sub>2</sub> coatings: Influence of Ag <sub>2</sub> O contents. <i>Ceramics International</i> , 2019, 45, 22357-22367.	4.8	42
27	Corrosion formation and phase transformation of nickel-iron hydroxide nanosheets array for efficient water oxidation. <i>Nano Research</i> , 2021, 14, 4528-4533.	10.4	42
28	Growth mechanism of titania on titanium substrate during the early stage of plasma electrolytic oxidation. <i>Surface and Coatings Technology</i> , 2020, 400, 126202.	4.8	41
29	Formation mechanism, corrosion behaviour and biological property of hydroxyapatite/TiO <sub>2</sub> coatings fabricated by plasma electrolytic oxidation. <i>Surface and Coatings Technology</i> , 2020, 386, 125483.	4.8	41
30	Polydopamine-wrapped carbon nanotubes to improve the corrosion barrier of polyurethane coating. <i>RSC Advances</i> , 2018, 8, 23727-23741.	3.6	38
31	Polydopamine coated prussian blue analogue derived hollow carbon nanoboxes with FeP encapsulated for hydrogen evolution. <i>Carbon</i> , 2019, 152, 16-23.	10.3	37
32	Synthesis, microstructure, anti-corrosion property and biological performances of Mn-incorporated Ca-P/TiO <sub>2</sub> composite coating fabricated via micro-arc oxidation. <i>Materials Science and Engineering C</i> , 2020, 117, 111321.	7.3	36
33	Characterization and property of bifunctional Zn-incorporated TiO <sub>2</sub> micro-arc oxidation coatings: The influence of different Zn sources. <i>Ceramics International</i> , 2019, 45, 19747-19756.	4.8	35
34	Enhanced corrosion resistance of copper by synergetic effects of silica and BTA codoped in polypyrrole film. <i>Progress in Organic Coatings</i> , 2019, 129, 187-198.	3.9	35
35	Microstructure, formation mechanism and antifouling property of multi-layered Cu-incorporated Al <sub>2</sub> O <sub>3</sub> coating fabricated through plasma electrolytic oxidation. <i>Ceramics International</i> , 2020, 46, 2901-2909.	4.8	34
36	Weathering barrier enhancement of printed circuit board by fluorinated silica based superhydrophobic coating. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2018, 538, 628-638.	4.7	32

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37	Monitoring of atmospheric corrosion and dewing process by interlacing copper electrode sensor. <i>Corrosion Science</i> , 2019, 150, 246-257.	6.6	32
38	Effect of direct current electric field on atmospheric corrosion behavior of copper under thin electrolyte layer. <i>Corrosion Science</i> , 2011, 53, 3446-3449.	6.6	31
39	Microbiologically influenced corrosion of X60 carbon steel in CO <sub>2</sub> -saturated oilfield flooding water. <i>Materials and Corrosion - Werkstoffe Und Korrosion</i> , 2013, 64, 242-246.	1.5	31
40	Integration of CoFe Alloys and Fe/Fe <sub>3</sub> C Nanoparticles into N-Doped Carbon Nanosheets as Dual Catalytic Active Sites To Promote the Oxygen Electrocatalysis of Zn-Air Batteries. <i>ACS Sustainable Chemistry and Engineering</i> , 2020, 8, 9009-9016.	6.7	30
41	Enhanced uniformity, corrosion resistance and biological performance of Cu-incorporated TiO <sub>2</sub> coating produced by ultrasound-auxiliary micro-arc oxidation. <i>Applied Surface Science</i> , 2021, 569, 150932.	6.1	30
42	Inhibition of 2-phenyl imidazoline on chloride-induced initial atmospheric corrosion of copper by quartz crystal microbalance and electrochemical impedance. <i>Corrosion Science</i> , 2020, 170, 108692.	6.6	29
43	Application of wire beam electrode technique to investigate initiation and propagation of rebar corrosion. <i>Cement and Concrete Research</i> , 2013, 48, 25-33.	11.0	27
44	Reactive incorporation of Ag into porous TiO <sub>2</sub> coating and its influence on its microstructure, in vitro antibacterial efficacy and cytocompatibility. <i>Progress in Natural Science: Materials International</i> , 2021, 31, 215-229.	4.4	26
45	Degradation of fluorinated polyurethane coating under UVA and salt spray. Part I: Corrosion resistance and morphology. <i>Progress in Organic Coatings</i> , 2018, 123, 337-349.	3.9	25
46	Enhanced corrosion resistance of AZ31 Mg alloy by one-step formation of PEO/Mg-Al LDH composite coating. <i>Corrosion Communications</i> , 2022, 6, 67-83.	6.0	24
47	Microstructure, corrosion resistance, osteogenic activity and antibacterial capability of Mn-incorporated TiO <sub>2</sub> coating. <i>Applied Surface Science</i> , 2020, 531, 147399.	6.1	21
48	Construction of multi-layered Zn-modified TiO <sub>2</sub> coating by ultrasound-auxiliary micro-arc oxidation: Microstructure and biological property. <i>Materials Science and Engineering C</i> , 2021, 131, 112487.	7.3	20
49	Microstructural characterization and in vitro biological performances of Ag, Zn co-incorporated TiO <sub>2</sub> coating. <i>Ceramics International</i> , 2020, 46, 29160-29172.	4.8	19
50	Enhancement of Corrosion Resistance and Biological Performances of Cu-Incorporated Hydroxyapatite/TiO <sub>2</sub> Coating by Adjusting Cu Chemical Configuration and Hydroxyapatite Contents. <i>ACS Applied Bio Materials</i> , 2021, 4, 903-917.	4.6	19
51	Degradation of fluorinated polyurethane coating under UVA and salt spray. Part II: Molecular structures and depth profile. <i>Progress in Organic Coatings</i> , 2018, 124, 25-32.	3.9	18
52	Ag distribution and corrosion behaviour of the plasma electrolytic oxidized antibacterial Mg-Ag alloy. <i>Electrochimica Acta</i> , 2022, 411, 140089.	5.2	16
53	PEO coating on Mg-Ag alloy: The incorporation and release of Ag species. <i>Journal of Magnesium and Alloys</i> , 2023, 11, 2182-2195.	11.9	15
54	Microstructure and Corrosion Resistance of Plasma Electrolytic Oxidized Recycled Mg Alloy. <i>Acta Metallurgica Sinica (English Letters)</i> , 2022, 35, 961-974.	2.9	13

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55	A pH-responsive cerium-imidazole decorated ZIF-8 to achieve self-healing barrier property for epoxy coating on Al alloy by controlled release. <i>Progress in Organic Coatings</i> , 2022, 163, 106640.	3.9	13
56	The corrosion behavior of carbon steel in CO <sub>2</sub> -saturated NaCl crevice solution containing acetic acid. <i>Materials and Corrosion - Werkstoffe Und Korrosion</i> , 2012, 63, 720-728.	1.5	12
57	Impedance sensor for the early failure diagnosis of organic coatings. <i>Journal of Coatings Technology Research</i> , 2018, 15, 1259-1272.	2.5	12
58	Investigation on initial atmospheric corrosion of copper and inhibition performance of 2-phenyl imidazoline based on electrical resistance sensors. <i>Materials Chemistry and Physics</i> , 2021, 262, 124321.	4.0	12
59	Corrosion behaviour of micro-arc oxidized titanium in NaCl solution with H <sub>2</sub> O <sub>2</sub> and albumin. <i>Materials Chemistry and Physics</i> , 2022, 276, 125376.	4.0	11
60	The synergistic effect of Ag and ZnO on the microstructure, corrosion resistance and in vitro biological performance of titania coating. <i>Surface and Coatings Technology</i> , 2021, 426, 127798.	4.8	11
61	Simultaneous tuning of the cation content and pore structure of cobalt-iron bimetal phosphide to enhance the electrochemical oxygen evolution. <i>Journal of Alloys and Compounds</i> , 2020, 842, 155784.	5.5	9
62	Effects of temperature on polarity reversal of under deposit corrosion of mild steel in oilfield produced water. <i>Corrosion Engineering Science and Technology</i> , 2020, 55, 708-720.	1.4	9
63	A chemically robust and self-healing superhydrophobic polybenzoxazine coating without fluorocarbon resin modification: Fabrication and failure mechanism. <i>Progress in Organic Coatings</i> , 2022, 163, 106630.	3.9	9
64	Comparative investigation on copper atmospheric corrosion by electrochemical impedance and electrical resistance sensors. <i>Transactions of Nonferrous Metals Society of China</i> , 2021, 31, 3024-3038.	4.2	9
65	Investigation on the initial atmospheric corrosion of mild steel in a simulated environment of industrial coastland by thin electrical resistance and electrochemical sensors. <i>Corrosion Science</i> , 2022, 204, 110389.	6.6	9
66	The Influence of Stored Energy on Grain Boundary Chemistry and Intergranular Corrosion Development in AA2024-T3 Alloy. <i>Materials</i> , 2018, 11, 2299.	2.9	6
67	Microstructure, anti-corrosion and biological performance of Ag, Zn Co-doped titania coating: The influence of Zn contents. <i>Ceramics International</i> , 2021, 47, 11129-11143.	4.8	5
68	The influence of room temperature storage on intergranular corrosion susceptibility of AA6082 Al-Mg-Si alloy. <i>Corrosion Communications</i> , 2021, 3, 71-79.	6.0	5
69	Preventing surface passivation of transition metal nanoparticles in oxygen electrocatalyst to extend the lifespan of Zn-air battery. <i>Journal of Materials Science and Technology</i> , 2022, 128, 205-212.	10.7	5
70	Early identification of stress corrosion cracking of P110 low alloy steel in downhole fluid by electrochemical noise measurement. <i>Corrosion Engineering Science and Technology</i> , 2021, 56, 230-243.	1.4	3
71	Synergistic inhibition of cerium and alkyl phosphate composite adlayer on pitting corrosion of Al-Mg-Si aluminium alloy. <i>Corrosion Engineering Science and Technology</i> , 2021, 56, 678-689.	1.4	3
72	One-pot synthesis and microstructure of multi-layered nanospheres via plasma electrolytic oxidation. <i>Ceramics International</i> , 2021, 47, 28037-28041.	4.8	3