

# Yanxin Qiao

## List of Publications by Year in descending order

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90  
papers

2,403  
citations

218592

26  
h-index

233338

45  
g-index

94  
all docs

94  
docs citations

94  
times ranked

1638  
citing authors

#	ARTICLE	IF	CITATIONS
1	Comparison of the corrosion behavior of pure titanium and its alloys in fluoride-containing sulfuric acid. <i>Corrosion Science</i> , 2016, 103, 50-65.	3.0	246
2	Electrochemical behaviour of high nitrogen stainless steel in acidic solutions. <i>Corrosion Science</i> , 2009, 51, 979-986.	3.0	141
3	Corrosion properties of friction-stir processed cast NiAl bronze. <i>Corrosion Science</i> , 2010, 52, 1610-1617.	3.0	123
4	Toward Promising Cathode Catalysts for Nonlithium Metal-Oxygen Batteries. <i>Advanced Energy Materials</i> , 2020, 10, 1901997.	10.2	102
5	Microstructure and composition evolution of a single-crystal superalloy caused by elements interdiffusion with an overlay NiCrAlY coating on oxidation. <i>Journal of Materials Science and Technology</i> , 2020, 45, 49-58.	5.6	87
6	Microstructural characteristics and mechanical properties of the hot extruded Mg-Zn-Y-Nd alloys. <i>Journal of Materials Science and Technology</i> , 2021, 60, 44-55.	5.6	85
7	Electrochemical behaviour of high nitrogen bearing stainless steel in acidic chloride solution: Effects of oxygen, acid concentration and surface roughness. <i>Electrochimica Acta</i> , 2009, 54, 2298-2304.	2.6	79
8	Beyond Seashells: Bioinspired 2D Photonic and Photoelectronic Devices. <i>Advanced Functional Materials</i> , 2019, 29, 1901460.	7.8	78
9	Cavitation Erosion Behaviors of a Nickel-Free High-Nitrogen Stainless Steel. <i>Tribology Letters</i> , 2019, 67, 1.	1.2	73
10	Effect of hydrogen charging on microstructural evolution and corrosion behavior of Ti-4Al-2V-1Mo-1Fe alloy. <i>Journal of Materials Science and Technology</i> , 2021, 60, 168-176.	5.6	71
11	Effect of aging treatment on microstructure and corrosion behavior of a Fe-18Cr-15Mn-0.66N stainless steel. <i>Journal of Materials Science and Technology</i> , 2022, 107, 197-206.	5.6	61
12	Corrosion behavior and mechanism of Cr-Mo alloyed steel: Role of ferrite/bainite duplex microstructure. <i>Journal of Alloys and Compounds</i> , 2019, 809, 151787.	2.8	60
13	Effects of annealing treatment on microstructure and tensile behavior of the Mg-Zn-Y-Nd alloy. <i>Journal of Magnesium and Alloys</i> , 2020, 8, 601-613.	5.5	58
14	Effect of rolling ratios on the microstructural evolution and corrosion performance of an as-rolled Mg-8 wt.%Li alloy. <i>Journal of Magnesium and Alloys</i> , 2021, 9, 560-568.	5.5	53
15	Effect of solution treatment on cavitation erosion behavior of high-nitrogen austenitic stainless steel. <i>Wear</i> , 2019, 424-425, 70-77.	1.5	51
16	Influence of phase dissolution and hydrogen absorption on the stress corrosion cracking behavior of Mg-7%Gd-5%Y-1%Nd-0.5%Zr alloy in 3.5 wt.% NaCl solution. <i>Corrosion Science</i> , 2018, 142, 185-200.	3.0	46
17	Anisotropic corrosion behavior of hot-rolled Mg-8 wt.%Li alloy. <i>Journal of Materials Science and Technology</i> , 2020, 53, 102-111.	5.6	44
18	Optimization of microstructure and mechanical property of a Mg-Zn-Y-Nd alloy by extrusion process. <i>Journal of Alloys and Compounds</i> , 2019, 775, 990-1001.	2.8	40

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19	Natural ageing responses of duplex structured Mg-Li based alloys. <i>Scientific Reports</i> , 2017, 7, 40078.	1.6	37
20	Corrosion and impactâ€“abrasionâ€“corrosion behaviors of quenchingâ€“tempering martensitic Feâ€“Cr alloy steels. <i>Journal of Iron and Steel Research International</i> , 2022, 29, 1853-1863.	1.4	37
21	Microstructure and properties of sol-enhanced Co-P-TiO <sub>2</sub> nano-composite coatings. <i>Journal of Alloys and Compounds</i> , 2019, 792, 617-625.	2.8	32
22	Friction and wear behaviors of a high nitrogen austenitic stainless steel Fe-19Cr-15Mn-0.66N. <i>Journal of Mining and Metallurgy, Section B: Metallurgy</i> , 2021, 57, 285-293.	0.3	31
23	Corrosion Behavior of a Nickel-Free High-Nitrogen Stainless Steel with Hydrogen Charging. <i>Jom</i> , 2021, 73, 1165-1172.	0.9	31
24	Effects of Laser Scanning Speed on Microstructure, Microhardness, and Corrosion Behavior of Laser Cladding Ni45 Coatings. <i>Journal of Chemistry</i> , 2020, 2020, 1-11.	0.9	30
25	Microstructural evolution in nickel alloy C-276 after Ar <sup>+</sup> ion irradiation. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , 2011, 269, 209-215.	0.6	29
26	Microstructural evolution of P92 ferritic/martensitic steel under argon ion irradiation. <i>Materials Characterization</i> , 2011, 62, 136-142.	1.9	28
27	Cavitation Erosion and Jet Impingement Erosion Behavior of the NiTi Coating Produced by Air Plasma Spraying. <i>Coatings</i> , 2018, 8, 346.	1.2	27
28	Corrosion Behavior of a Selective Laser Melted Inconel 718 Alloy in a 3.5 wt.% NaCl Solution. <i>Journal of Materials Engineering and Performance</i> , 2021, 30, 5506-5514.	1.2	27
29	Corrosion and cavitation erosion resistance enhancement of cast Niâ€“Al bronze by laser surface melting. <i>Journal of Iron and Steel Research International</i> , 2022, 29, 359-369.	1.4	27
30	Effect of Ni Interlayer on Cavitation Erosion Resistance of NiTi Cladding by Tungsten Inert Gas (TIG) Surfacing Process. <i>Acta Metallurgica Sinica (English Letters)</i> , 2020, 33, 415-424.	1.5	26
31	Synergistic effect between cavitation erosion and corrosion for various copper alloys in sulphide-containing 3.5% NaCl solutions. <i>Wear</i> , 2020, 450-451, 203258.	1.5	25
32	Oxidation behavior of a nanocrystalline coating with low Ta content at high temperature. <i>Corrosion Science</i> , 2021, 180, 109182.	3.0	25
33	Corrosion and Cavitation Erosion Behaviors of Two Marine Propeller Materials in Clean and Sulfide-Polluted 3.5% NaCl Solutions. <i>Acta Metallurgica Sinica (English Letters)</i> , 2017, 30, 712-720.	1.5	24
34	Corrosion and Tensile Behaviors of Ti-4Al-2V-1Mo-1Fe and Ti-6Al-4V Titanium Alloys. <i>Metals</i> , 2019, 9, 1213.	1.0	24
35	TEM Characterization of Self-ion Irradiation Damage in Nickel-base Alloy C-276 at Elevated Temperature. <i>Journal of Materials Science and Technology</i> , 2012, 28, 1039-1045.	5.6	22
36	Microstructural evolution of P92 ferritic/martensitic steel under Ar <sup>+</sup> ion irradiation at elevated temperature. <i>Materials Characterization</i> , 2012, 68, 63-70.	1.9	21

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37	Corrosion behavior of carbon steel in amine-based CO <sub>2</sub> capture system: effect of sodium sulfate and sodium sulfite contaminants. <i>Materials and Corrosion - Werkstoffe Und Korrosion</i> , 2017, 68, 674-682.	0.8	21
38	Wear Characteristic of Stellite 6 Alloy Hardfacing Layer by Plasma Arc Surfacing Processes. <i>Scanning</i> , 2017, 2017, 1-7.	0.7	20
39	Developing super-hydrophobic and corrosion-resistant coating on magnesium-lithium alloy via one-step hydrothermal processing. <i>Journal of Magnesium and Alloys</i> , 2023, 11, 1422-1439.	5.5	20
40	Corrosion and Cavitation Erosion Behaviours of Cast Nickel Aluminium Bronze in 3.5% NaCl Solution with Different Sulphide Concentrations. <i>Acta Metallurgica Sinica (English Letters)</i> , 2019, 32, 1470-1482.	1.5	18
41	Effect of Sulfide Concentration on the Corrosion and Cavitation Erosion Behavior of a Manganese-Aluminum Bronze in 3.5% NaCl Solution. <i>Journal of Materials Engineering and Performance</i> , 2019, 28, 4053-4064.	1.2	16
42	Developing Improved Mechanical Property and Corrosion Resistance of Mg-9Li Alloy via Solid-Solution Treatment. <i>Metals</i> , 2019, 9, 920.	1.0	16
43	Enhanced super-hydrophobicity and corrosion resistance of the one-step hydrothermal synthesized coating on the Mg-9Li alloy: Role of the solid-solution treated substrate. <i>Journal of Alloys and Compounds</i> , 2022, 921, 166044.	2.8	16
44	Development of High-Performance Enamel Coating on Grey Iron by Low-Temperature Sintering. <i>Materials</i> , 2018, 11, 2183.	1.3	15
45	Effect of Al and Cr on the oxidation behavior of nanocrystalline coatings at 1050°C. <i>Corrosion Science</i> , 2022, 200, 110191.	3.0	14
46	Effect of Laser Power on Microstructure and Micro-Galvanic Corrosion Behavior of a 6061-T6 Aluminum Alloy Welding Joints. <i>Metals</i> , 2021, 11, 3.	1.0	13
47	Effect of Rare Earth Oxides on Microstructure and Corrosion Behavior of Laser-Cladding Coating on 316L Stainless Steel. <i>Coatings</i> , 2019, 9, 636.	1.2	12
48	Influence of Ho and Hf on the microstructure and mechanical properties of NiAl and NiAl-Cr(Mo) eutectic alloy. <i>Materials Research Express</i> , 2019, 6, 046502.	0.8	12
49	Passivity and Semiconducting Behavior of a High Nitrogen Stainless Steel in Acidic NaCl Solution. <i>Advances in Materials Science and Engineering</i> , 2016, 2016, 1-8.	1.0	10
50	Cobalt-phosphorus-titanium oxide nanocomposite coatings: structures, properties, and corrosion studies. <i>Journal of Materials Science: Materials in Electronics</i> , 2019, 30, 19940-19947.	1.1	9
51	Characterization of oxide film in P92 ferritic-martensitic steel exposed to high temperature and pressure water. <i>Journal of Nuclear Materials</i> , 2020, 541, 152406.	1.3	9
52	Correlation between Corrosion Films and Corrosion-Related Defects Formed on 316 Stainless Steel at High Temperatures in Pressurized Water. <i>Journal of Materials Engineering and Performance</i> , 2021, 30, 3577-3585.	1.2	9
53	Investigation on the Corrosion and Cavitation Erosion Behaviors of the Cast and Friction Stir Processed Ni-Al Bronze in Sulfide-Containing Chloride Solution. <i>International Journal of Electrochemical Science</i> , 2017, 12, 10616-10632.	0.5	9
54	Effect of Hydrogen on Cavitation Erosion Behaviour of High Strength Steel. <i>International Journal of Electrochemical Science</i> , 2016, 11, 10329-10346.	0.5	8

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55	Corrosion Behavior of Alloy C-276 in Supercritical Water. <i>Advances in Materials Science and Engineering</i> , 2018, 2018, 1-6.	1.0	8
56	Microstructure and Properties of Duplex Ni-P-TiO <sub>2</sub> /Ni-P Nanocomposite Coatings. <i>Materials Research</i> , 2019, 22, .	0.6	8
57	Cu-Sn-Zn nanocomposite coatings prepared by TiO <sub>2</sub> sol-enhanced electrodeposition. <i>Journal of Applied Electrochemistry</i> , 2020, 50, 875-885.	1.5	8
58	Cavitation erosion properties of a nickel-free high-nitrogen Fe-Cr-Mn-N stainless steel. <i>Materiali in Tehnologije</i> , 2017, 51, 933-938.	0.3	8
59	Promoted Anodizing Reaction and Enhanced Coating Performance of Al-11Si Alloy: The Role of an Equal-Channel-Angular-Pressed Substrate. <i>Materials</i> , 2019, 12, 3255.	1.3	7
60	Effect of electrochemical hydrogen charging on the mechanical behavior of a dual-phase Ti-4Al-2V-1Mo-1Fe (in wt.%) alloy. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2021, 802, 140448.	2.6	7
61	Electrochemical Behavior and Passive Film Composition of a High-Nitrogen Nickel-Free Austenitic Stainless Steel. <i>Arabian Journal for Science and Engineering</i> , 2022, 47, 887-894.	1.7	7
62	Friction and Wear Behaviors of Fe-19Cr-15Mn-0.66N Steel at High Temperature. <i>Coatings</i> , 2021, 11, 1285.	1.2	7
63	Corrosion Behavior of Cu <sub>40</sub> Zn in Sulfide-Polluted 3.5% NaCl Solution. <i>Journal of Materials Engineering and Performance</i> , 2017, 26, 4822-4830.	1.2	6
64	Effect of $\beta$ Phase Elements on Oxidation Behavior of Nanocrystalline Coatings at 1050 °C. <i>Materials</i> , 2021, 14, 202.	1.3	6
65	Dual-Layer Corrosion-Resistant Conversion Coatings on Mg-9Li Alloy via Hydrothermal Synthesis in Deionized Water. <i>Metals</i> , 2021, 11, 1396.	1.0	6
66	Structural Characterization of Nickel-Base Alloy C-276 Irradiated with Ar Ions. <i>Plasma Science and Technology</i> , 2012, 14, 548-552.	0.7	5
67	Cavitation Erosion and Corrosion Behavior of NiTi Cladding with Cu and Nb Interlayers. <i>Journal of Materials Engineering and Performance</i> , 2020, 29, 3840-3851.	1.2	5
68	Effect of temperature on corrosion behavior of E690 steel in 3.5 wt.% NaCl solution. <i>Materials Research Express</i> , 2021, 8, 016528.	0.8	5
69	Cavitation erosion resistance of high nitrogen stainless steel in comparison with low N content CrMnN stainless steel. <i>Tribology - Materials, Surfaces and Interfaces</i> , 2007, 1, 165-172.	0.6	4
70	Effect of Surface Nanocrystallization on Corrosion Resistance of the Conformed Cu-0.4%Mg Alloy in NaCl Solution. <i>Metals</i> , 2018, 8, 765.	1.0	4
71	Effect of Laser Power on Hybrid Laser-Gas Metal Arc Welding (GMAW) of a 6061 Aluminum Alloy. <i>Journal of the Korean Physical Society</i> , 2020, 77, 991-996.	0.3	4
72	Friction stir processing of a cast manganese-aluminum bronze for improving corrosion and cavitation erosion resistances. <i>Surface Topography: Metrology and Properties</i> , 2020, 8, 025020.	0.9	4

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73	Precipitation Behavior of the Topologically Close-Packed Phase in the DD5 Superalloy during Long-Term Aging. Scanning, 2020, 2020, 1-6.	0.7	4
74	Preparation of Room Temperature Vulcanized Silicone Rubber Foam with Excellent Flame Retardancy. Scanning, 2021, 2021, 1-8.	0.7	4
75	Effect of Quasicrystal I-Phase on Microstructure and Mechanical Properties of Hot-Rolled Diphasic Mg-8 wt.% Li Alloy. Journal of Materials Engineering and Performance, 2022, 31, 3054-3064.	1.2	4
76	Self-Formed Diffusion Layer in Cu(Re) Alloy Film for Barrierless Copper Metallization. Coatings, 2022, 12, 613.	1.2	4
77	Corrosion Behavior of High-Nitrogen Stainless Steel in NaCl Solution. International Journal of Electrochemical Science, 2017, 12, 11298-11308.	0.5	3
78	Preparation and properties of duplex Ni-P-TiO <sub>2</sub> /Ni nanocomposite coatings. International Journal of Modern Physics B, 2019, 33, 1940019.	1.0	3
79	Electrochemical Behavior of a Vacuum-Brazed 10Ni-WC/NiCrBSi Composite Coating. Journal of the Korean Physical Society, 2020, 76, 1035-1040.	0.3	3
80	NaMnO <sub>2</sub> thin nanosheets assembled microspheres as electrode for aqueous asymmetric supercapacitor. Materials Research Express, 2020, 7, 035508.	0.8	3
81	Environmental Fatigue Behavior of a Z3CN20.09M Stainless Steel in High Temperature Water. Coatings, 2022, 12, 317.	1.2	3
82	Corrosion and cavitation erosion behaviors of the manganese-aluminum-bronze cladding layer prepared by MIG in 3.5% NaCl solution. Materials Today Communications, 2022, 31, 103566.	0.9	3
83	Effect of Hydrogen Charging on the Corrosion Behavior of E690 Steel in 3.5 wt.% NaCl Solution. Journal of Materials Engineering and Performance, 2022, 31, 3826-3834.	1.2	2
84	Effect of Ti addition on the precipitation behavior of martensitic steel irradiated with iron ions and subsequent hydrogen ions. Materiali in Tehnologije, 2018, 52, 745-749.	0.3	1
85	Improving the exploration of vacancy evolution in P92 alloy under Fe ion irradiation using positron annihilation. Journal of Nuclear Materials, 2022, , 153714.	1.3	1
86	Corrosion and Degradation of Materials. Coatings, 2022, 12, 969.	1.2	1
87	Effect of cold rolling on microstructural and mechanical properties of MG-7Li alloy. International Journal of Modern Physics B, 2020, 34, 2040035.	1.0	0
88	Cavitation erosion behavior of nitinol coating sealed by epoxy resin. Materialwissenschaft Und Werkstofftechnik, 2020, 51, 1507-1514.	0.5	0
89	Erosion-corrosion behaviors of Z2CN19-10N austenitic stainless steel in liquid-solid two-phase flow. Journal of the Korean Physical Society, 2021, 79, 395-400.	0.3	0
90	Microstructure and mechanical properties of Stellite 6 alloy powders incorporated with Ti/B4C using plasma-arc-surfacing processes. Materiali in Tehnologije, 2019, 53, 3-8.	0.3	0