

Yu Yan

List of Publications by Year in descending order

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123
papers

3,403
citations

126907

33
h-index

168389

53
g-index

125
all docs

125
docs citations

125
times ranked

4290
citing authors

#	ARTICLE	IF	CITATIONS
1	Engineering the Electrical Conductivity of Lamellar Silver-Doped Cobalt(II) Selenide Nanobelts for Enhanced Oxygen Evolution. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 328-332.	13.8	172
2	Biotribocorrosion of CoCrMo orthopaedic implant materials—Assessing the formation and effect of the biofilm. <i>Tribology International</i> , 2007, 40, 1492-1499.	5.9	161
3	Tribo-corrosion properties of cobalt-based medical implant alloys in simulated biological environments. <i>Wear</i> , 2007, 263, 1105-1111.	3.1	158
4	Cadmium adsorption on plant- and manure-derived biochar and biochar-amended sandy soils: Impact of bulk and surface properties. <i>Chemosphere</i> , 2014, 111, 320-326.	8.2	137
5	Electrical and structural engineering of cobalt selenide nanosheets by Mn modulation for efficient oxygen evolution. <i>Applied Catalysis B: Environmental</i> , 2018, 236, 569-575.	20.2	122
6	Tribocorrosion in implants—assessing high carbon and low carbon Co-Cr-Mo alloys by in situ electrochemical measurements. <i>Tribology International</i> , 2006, 39, 1509-1517.	5.9	117
7	Sealing ZnO nanorods for deeply rechargeable high-energy aqueous battery anodes. <i>Nano Energy</i> , 2018, 53, 666-674.	16.0	112
8	Initial formation of corrosion products on pure zinc in saline solution. <i>Bioactive Materials</i> , 2019, 4, 87-96.	15.6	98
9	Initial formation of corrosion products on pure zinc in simulated body fluid. <i>Journal of Materials Science and Technology</i> , 2018, 34, 2271-2282.	10.7	79
10	Properties of the plant- and manure-derived biochars and their sorption of dibutyl phthalate and phenanthrene. <i>Scientific Reports</i> , 2014, 4, 5295.	3.3	73
11	Oxygen Evolution Reaction: Electron Correlations Engineer Catalytic Activity of Pyrochlore Iridates for Acidic Water Oxidation (<i>Adv. Mater.</i> 6/2019). <i>Advanced Materials</i> , 2019, 31, 1970042.	21.0	72
12	Hydrogen embrittlement assessment of ultra-high strength steel 30CrMnSiNi2. <i>Corrosion Science</i> , 2013, 77, 273-280.	6.6	66
13	Electron Correlations Engineer Catalytic Activity of Pyrochlore Iridates for Acidic Water Oxidation. <i>Advanced Materials</i> , 2019, 31, e1805104.	21.0	63
14	Stainless steel pitting and early-stage stress corrosion cracking under ultra-low elastic load. <i>Corrosion Science</i> , 2013, 77, 360-368.	6.6	62
15	Influence of continental organic aerosols to the marine atmosphere over the East China Sea: Insights from lipids, PAHs and phthalates. <i>Science of the Total Environment</i> , 2017, 607-608, 339-350.	8.0	59
16	Gold atom-decorated CoSe ₂ nanobelts with engineered active sites for enhanced oxygen evolution. <i>Journal of Materials Chemistry A</i> , 2017, 5, 20202-20207.	10.3	57
17	Microstructure effect on hydrogen-induced cracking in TM210 maraging steel. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2013, 586, 142-148.	5.6	52
18	Insight into the corrosion behaviour and degradation mechanism of pure zinc in simulated body fluid. <i>Corrosion Science</i> , 2021, 178, 109071.	6.6	52

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19	Microstructure, wear resistance, and corrosion performance of Ti35Zr28Nb alloy fabricated by powder metallurgy for orthopedic applications. <i>Journal of Materials Science and Technology</i> , 2020, 41, 191-198.	10.7	51
20	Large magnetic anisotropy and strain induced enhancement of magnetic anisotropy in monolayer TaTe ₂ . <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 24341-24347.	2.8	48
21	Bone tissue engineering by using a combination of polymer/Bioglass composites with human adipose-derived stem cells. <i>Cell and Tissue Research</i> , 2014, 356, 97-107.	2.9	46
22	A Lasagna-Inspired Nanoscale ZnO Anode Design for High-Energy Rechargeable Aqueous Batteries. <i>ACS Applied Energy Materials</i> , 2018, 1, 6345-6351.	5.1	46
23	Investigation of hydrogen evolution and enrichment by scanning Kelvin probe force microscopy. <i>Electrochemistry Communications</i> , 2013, 35, 100-103.	4.7	45
24	CoCrMo alloy for orthopedic implant application enhanced corrosion and tribocorrosion properties by nitrogen ion implantation. <i>Applied Surface Science</i> , 2015, 347, 23-34.	6.1	44
25	Novel porous Ti35Zr28Nb scaffolds fabricated by powder metallurgy with excellent osteointegration ability for bone-tissue engineering applications. <i>Materials Science and Engineering C</i> , 2019, 105, 110015.	7.3	44
26	Prediction of Novel 2D Intrinsic Ferromagnetic Materials with High Curie Temperature and Large Perpendicular Magnetic Anisotropy. <i>Journal of Physical Chemistry C</i> , 2020, 124, 7956-7964.	3.1	42
27	A first-principles study on the hydrogen trap characteristics of coherent nano-precipitates in $\hat{1}\pm$ -Fe. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 27941-27949.	7.1	39
28	Protein adsorption on implant metals with various deformed surfaces. <i>Colloids and Surfaces B: Biointerfaces</i> , 2017, 156, 62-70.	5.0	38
29	Engineering the Electrical Conductivity of Lamellar Silver-Doped Cobalt(II) Selenide Nanobelts for Enhanced Oxygen Evolution. <i>Angewandte Chemie</i> , 2017, 129, 334-338.	2.0	38
30	In-situ electrochemical study of interaction of tribology and corrosion in artificial hip prosthesis simulators. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2013, 18, 191-199.	3.1	37
31	Corrosion and tribocorrosion behavior of equiatomic refractory medium entropy TiZr(Hf, Ta, Nb) alloys in chloride solutions. <i>Corrosion Science</i> , 2022, 199, 110166.	6.6	37
32	Albumin adsorption on CoCrMo alloy surfaces. <i>Scientific Reports</i> , 2016, 5, 18403.	3.3	36
33	Release of metal ions from nano CoCrMo wear debris generated from tribo-corrosion processes in artificial hip implants. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2017, 68, 124-133.	3.1	36
34	Topological node line semimetal state in two-dimensional tetragonal allotrope of Ge and Sn. <i>New Journal of Physics</i> , 2019, 21, 033005.	2.9	35
35	Effect of proteins on the surface microstructure evolution of a CoCrMo alloy in bio-tribocorrosion processes. <i>Colloids and Surfaces B: Biointerfaces</i> , 2016, 145, 176-184.	5.0	34
36	An investigation on the hole quality during picosecond laser helical drilling of stainless steel 304. <i>Applied Physics A: Materials Science and Processing</i> , 2015, 119, 745-752.	2.3	33

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37	Nonmetallic Atoms Induced Magnetic Anisotropy in Monolayer Chromium Trihalides. <i>Journal of Physical Chemistry C</i> , 2019, 123, 691-697.	3.1	33
38	Strain controlling transport properties of heterostructure composed of monolayer CrI ₃ . <i>Applied Physics Letters</i> , 2019, 114, .	3.3	31
39	Biotribocorrosion: Some electrochemical observations from an instrumented hip joint simulator. <i>Tribology International</i> , 2013, 59, 332-338.	5.9	27
40	Passive film-induced stress and mechanical properties of Ti-Ti in methanol solution. <i>Corrosion Science</i> , 2014, 78, 287-292.	6.6	27
41	In-situ Operando Visualization of the Electrochemical Formation of Liquid Polybromide Microdroplets. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 15228-15234.	13.8	27
42	Large magnetic anisotropy and its strain modulation in two-dimensional intrinsic ferromagnetic monolayer RuO ₂ and OsO ₂ . <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 28162-28168.	2.8	26
43	Strain-tunable electric structure and magnetic anisotropy in monolayer CrSi. <i>Physical Chemistry Chemical Physics</i> , 2019, 21, 20892-20900.	2.8	25
44	Stress corrosion cracking under low stress: Continuous or discontinuous cracks?. <i>Corrosion Science</i> , 2014, 80, 350-358.	6.6	23
45	Hydrogen-induced cracking mechanism of precipitation strengthened austenitic stainless steel weldment. <i>International Journal of Hydrogen Energy</i> , 2015, 40, 2404-2414.	7.1	23
46	Four distinct resistive states in van der Waals full magnetic 1T-VSe ₂ /CrI ₃ /1T-VSe ₂ tunnel junction. <i>Applied Surface Science</i> , 2020, 505, 144648.	6.1	23
47	Stress corrosion cracking at low loads: Surface slip and crystallographic analysis. <i>Corrosion Science</i> , 2015, 100, 619-626.	6.6	22
48	Effect of electrochemical corrosion on the subsurface microstructure evolution of a CoCrMo alloy in albumin containing environment. <i>Applied Surface Science</i> , 2017, 406, 319-329.	6.1	22
49	Monitoring the Characteristics of the Bohai Sea Ice Using High-Resolution Geostationary Ocean Color Imager (GOCI) Data. <i>Sustainability</i> , 2019, 11, 777.	3.2	22
50	Enhanced magnetic anisotropy and Curie temperature of the Ni ₂ monolayer by applying strain: a first-principles study. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 26917-26922.	2.8	21
51	Regulating solute partitioning utilized to decorate grain boundary for improving corrosion resistance in a model Al-Cu-Mg alloy. <i>Corrosion Science</i> , 2021, 181, 109219.	6.6	20
52	Study of the tribocorrosion behaviors of albumin on a cobalt-based alloy using scanning Kelvin probe force microscopy and atomic force microscopy. <i>Electrochemistry Communications</i> , 2016, 64, 61-64.	4.7	18
53	Variability of sea ice area in the Bohai Sea from 1958 to 2015. <i>Science of the Total Environment</i> , 2020, 709, 136164.	8.0	18
54	In vitro degradation behavior of novel Zn-Cu-Li alloys: Roles of alloy composition and rolling processing. <i>Materials and Design</i> , 2021, 212, 110288.	7.0	18

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55	Real-time corrosion measurements to assess biotribocorrosion mechanisms with a hip simulator. <i>Tribology International</i> , 2013, 63, 115-122.	5.9	17
56	Effect of hot/warm rolling on the microstructures and mechanical properties of medium-Mn steels. <i>Materials Characterization</i> , 2020, 170, 110682.	4.4	17
57	Ultrahigh tunneling magnetoresistance in van der Waals and lateral magnetic tunnel junctions formed by intrinsic ferromagnets Li _{0.5} CrI ₃ and CrI ₃ . <i>Applied Physics Letters</i> , 2020, 117, 022412.	3.3	17
58	A Comparison in laser precision drilling of stainless steel 304 with nanosecond and picosecond laser pulses. <i>Chinese Journal of Mechanical Engineering (English Edition)</i> , 2014, 27, 972-977.	3.7	16
59	Tribocorrosion Behavior of Nanocrystalline Metals — a Review. <i>Materials Transactions</i> , 2015, 56, 1759-1763.	1.2	16
60	Eigenstress model for electrochemistry of solid surfaces. <i>Scientific Reports</i> , 2016, 6, 26897.	3.3	16
61	Suppression mechanism of initial pitting corrosion of pure Zn by Li alloying. <i>Corrosion Science</i> , 2021, 189, 109564.	6.6	16
62	Role of gradient nano-structured surface in collapsed pitting corrosion on AISI 316L stainless steel during tribocorrosion. <i>Corrosion Science</i> , 2022, 197, 110043.	6.6	16
63	Hydrogen-induced cracking and service safety evaluation for precipitation strengthened austenitic stainless steel as hydrogen storage tank. <i>International Journal of Hydrogen Energy</i> , 2014, 39, 17921-17928.	7.1	15
64	The role of hard phase carbides in tribocorrosion processes for a Co-based biomedical alloy. <i>Tribology International</i> , 2017, 113, 370-376.	5.9	15
65	Lifecycle of cobalt-based alloy for artificial joints: From bulk material to nanoparticles and ions due to bio-tribocorrosion. <i>Journal of Materials Science and Technology</i> , 2020, 46, 98-106.	10.7	15
66	Effect of surface energy on protein adsorption behaviours of treated CoCrMo alloy surfaces. <i>Applied Surface Science</i> , 2020, 520, 146354.	6.1	15
67	Tribocorrosion investigation of 316L stainless steel: the synergistic effect between chloride ion and sulfate ion. <i>Materials Research Express</i> , 2021, 8, 086501.	1.6	15
68	Hygroscopic behavior of water-soluble matter in marine aerosols over the East China Sea. <i>Science of the Total Environment</i> , 2017, 578, 307-316.	8.0	14
69	Multidecadal anomalies of Bohai Sea ice cover and potential climate driving factors during 1988—2015. <i>Environmental Research Letters</i> , 2017, 12, 094014.	5.2	14
70	Origin of the moir� superlattice scale lateral force modulation of graphene on a transition metal substrate. <i>Nanoscale</i> , 2018, 10, 10576-10583.	5.6	14
71	Crevice corrosion behaviors of CoCrMo alloy and stainless steel 316L artificial joint materials in physiological saline. <i>Corrosion Science</i> , 2022, 197, 110075.	6.6	14
72	The mechanism of precipitation strengthening in Fe—Ni austenitic alloy electron beam weldment. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2015, 630, 85-89.	5.6	13

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73	Interface-induced perpendicular magnetic anisotropy in $\text{Co}_2\text{FeAl/NiFe}_2\text{O}_4$ superlattice: first-principles study. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 716-723.	2.8	13
74	Early electrochemical characteristics and corrosion behaviors of pure zinc in simulated body fluid. <i>Journal of Electroanalytical Chemistry</i> , 2021, 886, 115145.	3.8	13
75	Effect of a two-step annealing process on deformation-induced transformation mechanisms in cold-rolled medium manganese steel. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2022, 831, 142244.	5.6	12
76	Preparation, mechanical properties, fatigue and tribological behavior of double crosslinked high strength hydrogel. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2022, 126, 105009.	3.1	11
77	Effect of povidone-iodine deposition on tribocorrosion and antibacterial properties of titanium alloy. <i>Applied Surface Science</i> , 2016, 363, 432-438.	6.1	10
78	The in situ observation of modelled sea ice drift characteristics in the Bohai Sea. <i>Acta Oceanologica Sinica</i> , 2019, 38, 17-25.	1.0	10
79	Hydrostatic pressure effect on double layer capacity of iron. <i>Journal of Electroanalytical Chemistry</i> , 2020, 871, 114306.	3.8	10
80	Layer thickness and sequence effects on resonant magnetoelectric coupling in Ni/Pb(Zr,Ti)O_3 cylindrical composites. <i>Materials Letters</i> , 2016, 185, 13-16.	2.6	9
81	Electrically Tunable Wafer-Sized Three-Dimensional Topological Insulator Thin Films Grown by Magnetron Sputtering*. <i>Chinese Physics Letters</i> , 2020, 37, 057301.	3.3	9
82	Effect of surface oxidation on wear and tribocorrosion behavior of forged and selective laser melting-based TC4 alloys. <i>Tribology International</i> , 2022, 174, 107780.	5.9	9
83	An investigation on the biotribocorrosion behaviour of CoCrMo alloy grafted with polyelectrolyte brush. <i>Bio-Medical Materials and Engineering</i> , 2014, 24, 2151-2159.	0.6	8
84	Atomic modeling for the initial stage of chromium passivation. <i>International Journal of Minerals, Metallurgy and Materials</i> , 2019, 26, 732-739.	4.9	8
85	Development of a quantitative method for the characterization of hole quality during laser trepan drilling of high-temperature alloy. <i>Applied Physics A: Materials Science and Processing</i> , 2016, 122, 1.	2.3	7
86	Characteristics of the sea ice reflectance spectrum polluted by oil spills based on field experiments in the Bohai Sea. <i>Acta Oceanologica Sinica</i> , 2017, 36, 73-79.	1.0	7
87	Enhance the fluorination activity of graphene via the interfacial interaction from $\text{Ni}(1\bar{1}\bar{1})$ substrate. <i>Computational Materials Science</i> , 2018, 147, 28-33.	3.0	7
88	The Influence of Microstructure on the Mechanical Properties and Fracture Behavior of Medium Mn Steels at Different Strain Rates. <i>Materials</i> , 2019, 12, 4228.	2.9	7
89	Effects of stirring action during friction on electrode processes of AISI 304 stainless steel in sulphuric acid. <i>Electrochimica Acta</i> , 2019, 298, 756-769.	5.2	7
90	The effect of hydrogen concentration on the fracture surface of medium Mn steels. <i>Engineering Failure Analysis</i> , 2020, 108, 104263.	4.0	7

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91	Role of subgrain stripe on the exfoliation corrosion of Al-4.6Mg-3.1Zn (wt.%) alloy. <i>Corrosion Science</i> , 2020, 169, 108622.	6.6	7
92	Equivalent energy-level structures in stacked metamaterials. <i>Journal of Materials Chemistry C</i> , 2015, 3, 11827-11832.	5.5	6
93	Strain-induced N δ -N bonding and magnetic changes in monolayer intrinsic ferromagnetic Tm ₂ (Tm δ = δ % δ % δ %Tc and Nb). <i>Journal of Physics Condensed Matter</i> , 2019, 31, 335801.	1.8	6
94	Influence of micro-nano surface texture on the hydrophobicity and corrosion resistance of a Ti ₆ Al ₄ V alloy surface. <i>Anti-Corrosion Methods and Materials</i> , 2021, 68, 373-379.	1.5	6
95	Repassivation and dry sliding wear behavior of equiatomic medium entropy TiZr (Hf, Ta, Nb) alloys. <i>Materials Letters</i> , 2022, 312, 131643.	2.6	6
96	(iv) Tribofilm on hip implants. <i>Orthopaedics and Trauma</i> , 2013, 27, 93-100.	0.4	5
97	Switchable valley injection into graphene. <i>Physical Review B</i> , 2015, 92, .	3.2	5
98	In δ ...Operando Visualization of the Electrochemical Formation of Liquid Polybromide Microdroplets. <i>Angewandte Chemie</i> , 2019, 131, 15372-15378.	2.0	5
99	Effect of deformed subsurface on the corrosion resistance of biomedical CoCrMo alloy in simulated physiological solution. <i>Journal of Materials Science</i> , 2020, 55, 13351-13362.	3.7	5
100	Ferromagnetic barrier induced large enhancement of tunneling magnetoresistance in van der Waals perpendicular magnetic tunnel junctions. <i>Nanoscale</i> , 2021, 13, 19993-20001.	5.6	5
101	Study of wear-corrosion resistance of Co-based biomaterial. <i>Emerging Materials Research</i> , 2016, 5, 194-200.	0.7	4
102	Tune the chemical activity of graphene via the transition metal substrate. <i>RSC Advances</i> , 2018, 8, 11807-11812.	3.6	4
103	Stabilizing the Fermi Level of Cr-Doped Magnetic Topological Insulators by Al Passivation. <i>Journal of Physical Chemistry C</i> , 2019, 123, 3823-3828.	3.1	4
104	Improvement of valley splitting and valley injection efficiency for graphene/ferromagnet heterostructure*. <i>Chinese Physics B</i> , 2020, 29, 077304.	1.4	4
105	Effect of tribology processes on adsorption of albumin. <i>Surface Topography: Metrology and Properties</i> , 2016, 4, 014007.	1.6	3
106	A Double-Nanophase Intragranular-Oxide-Strengthened Iron Alloy with High Strength and Remarkable Ductility. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2019, 50, 1103-1108.	2.2	3
107	Giant tunneling magnetoresistance induced by bias voltage in spin-filter van der Waals magnetic tunnel junctions with an interlayer antiferromagnetic semiconductor barrier. <i>Physical Review B</i> , 2021, 104, .	3.2	3
108	Preservation of the frictional properties of h-BN under chemical modification in the presence of a commensurate Ni(1 δ -1 δ) substrate. <i>Computational Materials Science</i> , 2019, 165, 82-87.	3.0	2

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109	Interlayer coupling in intrinsically magnetic bilayer ScO ₂ and NbN ₂ . Applied Physics Letters, 2020, 116, .	3.3	2
110	Effects of substrate and tip characteristics on the surface friction of fluorinated graphene. RSC Advances, 2020, 10, 10888-10896.	3.6	2
111	A first-principles and machine learning combined method to investigate the interfacial friction between corrugated graphene. Modelling and Simulation in Materials Science and Engineering, 2021, 29, 035011.	2.0	2
112	Annealing treatment induced $\hat{\mu}$ martensite formation and evolution in TWIP steel. Materials Letters, 2022, 308, 131110.	2.6	2
113	Effect of Grain Orientation on Hydrogen Embrittlement Behavior of Interstitial-Free Steel. Metals, 2022, 12, 981.	2.3	2
114	Graphene layer effect on protecting the refined surface of transition metal substrate Re(O $\hat{\epsilon}$ O $\hat{\epsilon}$ O $\hat{\epsilon}$ 1): A first-principles study. Applied Surface Science, 2018, 462, 502-507.	6.1	1
115	Effect of Relative Humidity on Mechanical Degradation of Medium Mn Steels. Materials, 2020, 13, 1304.	2.9	1
116	Effect of Alloying Elements on the Stacking Fault Energy and Ductility in Mg ₂ Si Intermetallic Compounds. ACS Omega, 2021, 6, 20254-20263.	3.5	1
117	Effect of Cationic/Anionic Diffusion Dominated Passive Film Growth on Tribocorrosion. Metals, 2022, 12, 798.	2.3	1
118	Experimental Research on Erosion and Corrosion of WC-Base Matrix Materials for Drill Bits under Impingement of Drilling Muds. Key Engineering Materials, 2008, 359-360, 171-175.	0.4	0
119	Adsorption of bovine serum albumin and nanocrystallines on biomedical alloys. Bioinspired, Biomimetic and Nanobiomaterials, 2017, 6, 12-19.	0.9	0
120	Frontispiz: In $\hat{\epsilon}$..Operando Visualization of the Electrochemical Formation of Liquid Polybromide Microdroplets. Angewandte Chemie, 2019, 131, .	2.0	0
121	Frontispiece: In $\hat{\epsilon}$..Operando Visualization of the Electrochemical Formation of Liquid Polybromide Microdroplets. Angewandte Chemie - International Edition, 2019, 58, .	13.8	0
122	The Antibacterial Efficacy and Biocompatibility of PVP-Iodine Coated Ti-6AL-4V from a Clinical View. Journal of Biomaterials and Tissue Engineering, 2015, 5, 120-127.	0.1	0
123	Effect of heat treatment on the microstructures and hardness of selective laser melted Rene88DT superalloy. International Journal of Computational Materials Science and Surface Engineering, 2020, 9, 304.	0.2	0