Wenjun Cai

List of Publications by Year
in descending order

36 papers	622 citations	623734 14 h-index	610901 24 g-index
36 all docs	36 docs citations	36 times ranked	610 citing authors

#	Article	IF	Citations
1	Solid-state additive manufacturing of aluminum and copper using additive friction stir deposition: Process-microstructure linkages. Materialia, 2021, 15, 100967.	2.7	87
2	Multiscale characterization of microstructures and mechanical properties of Inconel 718 fabricated by selective laser melting. Journal of Alloys and Compounds, 2019, 784, 182-194.	5.5	80
3	Abrasive wear response of nanocrystalline Ni–W alloys across the Hall–Petchbreakdown. Wear, 2013, 298-299, 120-126.	3.1	59
4	Spatially expandable fiber-based probes as a multifunctional deep brain interface. Nature Communications, 2020, 11, 6115.	12.8	44
5	Tribological and mechanical behavior of nanostructured Al/Ti multilayers. Surface and Coatings Technology, 2015, 275, 374-383.	4.8	32
6	Corrosion resistance of Al and Al–Mn thin films. Thin Solid Films, 2016, 615, 391-401.	1.8	27
7	Influence of chemical heterogeneity and microstructure on the corrosion resistance of biodegradable WE43 magnesium alloys. Journal of Materials Chemistry B, 2019, 7, 6399-6411.	5.8	25
8	The effects of Mn concentration on the tribocorrosion resistance of Al–Mn alloys. Wear, 2017, 380-381, 191-202.	3.1	22
9	Multiphysics modeling and uncertainty quantification of tribocorrosion in aluminum alloys. Corrosion Science, 2021, 178, 109095.	6.6	22
10	The origin of passivity in aluminum-manganese solid solutions. Corrosion Science, 2020, 173, 108749.	6.6	22
11	Microstructural heterogeneity and mechanical anisotropy of 18Ni-330 maraging steel fabricated by selective laser melting: The effect of build orientation and height. Journal of Materials Research, 2020, 35, 2065-2076.	2.6	20
12	Functionalized Polyesters via Stereoselective Electrochemical Ring-Opening Polymerization of *O*-Carboxyanhydrides. ACS Macro Letters, 2020, 9, 1114-1118.	4.8	19
13	Tuning nanoscale grain size distribution in multilayered Al–Mn alloys. Scripta Materialia, 2012, 66, 194-197.	5.2	15
14	Ultrahigh tribocorrosion resistance of metals enabled by nano-layering. Acta Materialia, 2021, 206, 116609.	7.9	15
15	Effects of nanoscale chemical heterogeneity on the wear, corrosion, and tribocorrosion resistance of Zr-based thin film metallic glasses. Surface and Coatings Technology, 2020, 402, 126324.	4.8	13
16	Effects of alloying concentration on the aqueous corrosion and passivation of aluminum-manganese-molybdenum concentrated alloys. Corrosion Science, 2022, 198, 110137.	6.6	13
17	Corrosion and tribocorrosion mitigation of perhydropolysilazane-derived coatings on low carbon steel. Corrosion Science, 2020, 177, 108946.	6.6	12
18	Effect of scratching frequency on the tribocorrosion resistance of Al-Mn amorphous thin films. Wear, 2019, 426-427, 1457-1465.	3.1	11

#	Article	IF	Citations
19	Optimizing ductility and fracture of amorphous metal thin films on polyimide using multilayers. International Journal of Fracture, 2017, 204, 129-142.	2.2	10
20	Modeling the effects of individual layer thickness and orientation on the tribocorrosion behavior of Al/Cu nanostructured metallic multilayers. Wear, 2021, 477, 203849.	3.1	10
21	Bayesian latent degradation performance modeling and quantification of corroding aluminum alloys. Reliability Engineering and System Safety, 2018, 178, 84-96.	8.9	8
22	Enabling High-Performance Surfaces of Biodegradable Magnesium Alloys via Femtosecond Laser Shock Peening with Ultralow Pulse Energy. ACS Applied Bio Materials, 2021, 4, 7903-7912.	4.6	8
23	Effect of annealing treatment on the dry sliding wear behavior of copper. Wear, 2019, 426-427, 1187-1194.	3.1	7
24	Effects of processing temperature on the corrosion and tribocorrosion resistance of perhydropolysilazane-derived coatings on AISI 304 steel. Surface and Coatings Technology, 2022, 439, 128463.	4.8	7
25	Influence of Iron Boride Coating on Flow—Accelerated Corrosion of Carbon Steel. Advanced Engineering Materials, 2020, 22, 2000354.	3.5	6
26	Determining Tribocorrosion Rate and Wear-Corrosion Synergy of Bulk and Thin Film Aluminum Alloys. Journal of Visualized Experiments, 2018, , .	0.3	5
27	Mitigating early fracture of amorphous metallic thin films on flexible substrates by tuning substrate roughness and buffer layer properties. Thin Solid Films, 2019, 689, 137493.	1.8	5
28	Microstructure and mechanical properties of electrodeposited $Al1−xMnx/Al1−yMny$ nanostructured multilayers. Journal of Materials Research, 2014, 29, 2229-2239.	2.6	4
29	Correlating corrosion inhibition to grain size in electrodeposited Ni-18Co. Emergent Materials, 2020, 3, 989-997.	5.7	4
30	A hierarchical modeling approach for degradation data with mixed-type covariates and latent heterogeneity. Reliability Engineering and System Safety, 2021, 216, 107928.	8.9	4
31	Sequential selection for accelerated life testing via approximate Bayesian inference. Naval Research Logistics, 2022, 69, 336-351.	2.2	3
32	Fabrication and deformation of aluminum—manganese microsandwich structure. Journal of Materials Research, 2016, 31, 480-487.	2.6	2
33	NP-ODE: Neural process aided ordinary differential equations for uncertainty quantification of finite element analysis. IISE Transactions, 0, , 1-16.	2.4	1
34	Investigation of Crystalline and Amorphous Forms of Aluminum and Its Alloys: Computational Modeling and Experiment. Nano, 2018, 13, 1850026.	1.0	0
35	Effects of Magnetic Field on the Corrosion Reactions of A572 Steel in NaCl Aqueous Solution. Journal of Materials Engineering and Performance, 0, , 1.	2.5	0
36	Finite Element Modeling of Electrochemical Polishing of Niobium in Hydrofluoric-Sulfuric Acid Electrolyte. Journal of the Electrochemical Society, 2022, 169, 063507.	2.9	0