

Wenjun Cai

List of Publications by Year in descending order

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36
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citing authors

#	ARTICLE	IF	CITATIONS
1	Solid-state additive manufacturing of aluminum and copper using additive friction stir deposition: Process-microstructure linkages. <i>Materialia</i> , 2021, 15, 100967.	1.3	87
2	Multiscale characterization of microstructures and mechanical properties of Inconel 718 fabricated by selective laser melting. <i>Journal of Alloys and Compounds</i> , 2019, 784, 182-194.	2.8	80
3	Abrasive wear response of nanocrystalline Ni-W alloys across the Hall-Petch breakdown. <i>Wear</i> , 2013, 298-299, 120-126.	1.5	59
4	Spatially expandable fiber-based probes as a multifunctional deep brain interface. <i>Nature Communications</i> , 2020, 11, 6115.	5.8	44
5	Tribological and mechanical behavior of nanostructured Al/Ti multilayers. <i>Surface and Coatings Technology</i> , 2015, 275, 374-383.	2.2	32
6	Corrosion resistance of Al and Al-Mn thin films. <i>Thin Solid Films</i> , 2016, 615, 391-401.	0.8	27
7	Influence of chemical heterogeneity and microstructure on the corrosion resistance of biodegradable WE43 magnesium alloys. <i>Journal of Materials Chemistry B</i> , 2019, 7, 6399-6411.	2.9	25
8	The effects of Mn concentration on the tribocorrosion resistance of Al-Mn alloys. <i>Wear</i> , 2017, 380-381, 191-202.	1.5	22
9	Multiphysics modeling and uncertainty quantification of tribocorrosion in aluminum alloys. <i>Corrosion Science</i> , 2021, 178, 109095.	3.0	22
10	The origin of passivity in aluminum-manganese solid solutions. <i>Corrosion Science</i> , 2020, 173, 108749.	3.0	22
11	Microstructural heterogeneity and mechanical anisotropy of 18Ni-330 maraging steel fabricated by selective laser melting: The effect of build orientation and height. <i>Journal of Materials Research</i> , 2020, 35, 2065-2076.	1.2	20
12	Functionalized Polyesters via Stereoselective Electrochemical Ring-Opening Polymerization of <i>α</i> -Carboxyanhydrides. <i>ACS Macro Letters</i> , 2020, 9, 1114-1118.	2.3	19
13	Tuning nanoscale grain size distribution in multilayered Al-Mn alloys. <i>Scripta Materialia</i> , 2012, 66, 194-197.	2.6	15
14	Ultra-high tribocorrosion resistance of metals enabled by nano-layering. <i>Acta Materialia</i> , 2021, 206, 116609.	3.8	15
15	Effects of nanoscale chemical heterogeneity on the wear, corrosion, and tribocorrosion resistance of Zr-based thin film metallic glasses. <i>Surface and Coatings Technology</i> , 2020, 402, 126324.	2.2	13
16	Effects of alloying concentration on the aqueous corrosion and passivation of aluminum-manganese-molybdenum concentrated alloys. <i>Corrosion Science</i> , 2022, 198, 110137.	3.0	13
17	Corrosion and tribocorrosion mitigation of perhydropolysilazane-derived coatings on low carbon steel. <i>Corrosion Science</i> , 2020, 177, 108946.	3.0	12
18	Effect of scratching frequency on the tribocorrosion resistance of Al-Mn amorphous thin films. <i>Wear</i> , 2019, 426-427, 1457-1465.	1.5	11

#	ARTICLE	IF	CITATIONS
19	Optimizing ductility and fracture of amorphous metal thin films on polyimide using multilayers. <i>International Journal of Fracture</i> , 2017, 204, 129-142.	1.1	10
20	Modeling the effects of individual layer thickness and orientation on the tribocorrosion behavior of Al/Cu nanostructured metallic multilayers. <i>Wear</i> , 2021, 477, 203849.	1.5	10
21	Bayesian latent degradation performance modeling and quantification of corroding aluminum alloys. <i>Reliability Engineering and System Safety</i> , 2018, 178, 84-96.	5.1	8
22	Enabling High-Performance Surfaces of Biodegradable Magnesium Alloys via Femtosecond Laser Shock Peening with Ultralow Pulse Energy. <i>ACS Applied Bio Materials</i> , 2021, 4, 7903-7912.	2.3	8
23	Effect of annealing treatment on the dry sliding wear behavior of copper. <i>Wear</i> , 2019, 426-427, 1187-1194.	1.5	7
24	Effects of processing temperature on the corrosion and tribocorrosion resistance of perhydropolysilazane-derived coatings on AISI 304 steel. <i>Surface and Coatings Technology</i> , 2022, 439, 128463.	2.2	7
25	Influence of Iron Boride Coating on Flow-Accelerated Corrosion of Carbon Steel. <i>Advanced Engineering Materials</i> , 2020, 22, 2000354.	1.6	6
26	Determining Tribocorrosion Rate and Wear-Corrosion Synergy of Bulk and Thin Film Aluminum Alloys. <i>Journal of Visualized Experiments</i> , 2018, , .	0.2	5
27	Mitigating early fracture of amorphous metallic thin films on flexible substrates by tuning substrate roughness and buffer layer properties. <i>Thin Solid Films</i> , 2019, 689, 137493.	0.8	5
28	Microstructure and mechanical properties of electrodeposited Al _{1-x} Mnx/Al _{1-y} Mny nanostructured multilayers. <i>Journal of Materials Research</i> , 2014, 29, 2229-2239.	1.2	4
29	Correlating corrosion inhibition to grain size in electrodeposited Ni-18Co. <i>Emergent Materials</i> , 2020, 3, 989-997.	3.2	4
30	A hierarchical modeling approach for degradation data with mixed-type covariates and latent heterogeneity. <i>Reliability Engineering and System Safety</i> , 2021, 216, 107928.	5.1	4
31	Sequential selection for accelerated life testing via approximate Bayesian inference. <i>Naval Research Logistics</i> , 2022, 69, 336-351.	1.4	3
32	Fabrication and deformation of aluminum-manganese microsandwich structure. <i>Journal of Materials Research</i> , 2016, 31, 480-487.	1.2	2
33	NP-ODE: Neural process aided ordinary differential equations for uncertainty quantification of finite element analysis. <i>IISE Transactions</i> , 0, , 1-16.	1.6	1
34	Investigation of Crystalline and Amorphous Forms of Aluminum and Its Alloys: Computational Modeling and Experiment. <i>Nano</i> , 2018, 13, 1850026.	0.5	0
35	Effects of Magnetic Field on the Corrosion Reactions of A572 Steel in NaCl Aqueous Solution. <i>Journal of Materials Engineering and Performance</i> , 0, , 1.	1.2	0
36	Finite Element Modeling of Electrochemical Polishing of Niobium in Hydrofluoric-Sulfuric Acid Electrolyte. <i>Journal of the Electrochemical Society</i> , 2022, 169, 063507.	1.3	0