

Hai-Jun Jin

List of Publications by Year in descending order

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53
papers

2,368
citations

236925

25
h-index

206112

48
g-index

53
all docs

53
docs citations

53
times ranked

1680
citing authors

#	ARTICLE	IF	CITATIONS
1	Nanoporous Au-Pt Alloys As Large Strain Electrochemical Actuators. Nano Letters, 2010, 10, 187-194.	9.1	286
2	Nanoporous Metals by Alloy Corrosion: Formation and Mechanical Properties. MRS Bulletin, 2009, 34, 577-586.	3.5	264
3	Deforming nanoporous metal: Role of lattice coherency. Acta Materialia, 2009, 57, 2665-2672.	7.9	198
4	A Material with Electrically Tunable Strength and Flow Stress. Science, 2011, 332, 1179-1182.	12.6	165
5	Bulk Nanoporous Metal for Actuation. Advanced Engineering Materials, 2010, 12, 714-723.	3.5	112
6	Sign-inverted surface stress-charge response in nanoporous gold. Surface Science, 2008, 602, 3588-3594.	1.9	109
7	Interpreting anomalous low-strength and low-stiffness of nanoporous gold: Quantification of network connectivity. Acta Materialia, 2016, 118, 77-87.	7.9	104
8	Mechanical response of nanoporous metals: A story of size, surface stress, and severed struts. MRS Bulletin, 2018, 43, 35-42.	3.5	81
9	Primary and Secondary Dealloying of Au(Pt)-Ag: Structural and Compositional Evolutions, and Volume Shrinkage. Journal of the Electrochemical Society, 2014, 161, C517-C526.	2.9	71
10	Porous Gold with a Nested Network Architecture and Ultrafine Structure. Advanced Functional Materials, 2015, 25, 2530-2536.	14.9	65
11	Macroscopically Strong Nanoporous Pt Prepared by Dealloying. Advanced Engineering Materials, 2007, 9, 849-854.	3.5	58
12	Electrical stiffness modulation confirming the impact of surface excess elasticity on the mechanics of nanomaterials. Acta Materialia, 2014, 76, 272-280.	7.9	54
13	Scaling equation for the elastic modulus of nanoporous gold with fixed network connectivity. Applied Physics Letters, 2017, 110, .	3.3	52
14	Catalytic activity of nanostructured Au: Scale effects versus bimetallic/bifunctional effects in low-temperature CO oxidation on nanoporous Au. Beilstein Journal of Nanotechnology, 2013, 4, 111-128.	2.8	43
15	Pressure effect on the structural relaxation and glass transition in metallic glasses. Acta Materialia, 2003, 51, 6219-6231.	7.9	41
16	Electrically Tunable Nanoporous Carbon Hybrid Actuators. Advanced Functional Materials, 2012, 22, 3029-3034.	14.9	39
17	Crack Mitigation during Dealloying of Au ₂₅ C ₇₅ . Advanced Engineering Materials, 2014, 16, 389-398.	3.5	37
18	Dynamic studies of CO oxidation on nanoporous Au using a TAP reactor. Journal of Catalysis, 2011, 278, 219-227.	6.2	36

#	ARTICLE	IF	CITATIONS
19	Adsorption-driven tuning of the electrical resistance of nanoporous gold. <i>Journal of Applied Physics</i> , 2010, 108, .	2.5	34
20	Three-Dimensional Atomic Structure of Grain Boundaries Resolved by Atomic-Resolution Electron Tomography. <i>Matter</i> , 2020, 3, 1999-2011.	10.0	34
21	Nanoporous Aluminum by Galvanic Replacement: Dealloying and Inward-Growth Plating. <i>Journal of the Electrochemical Society</i> , 2018, 165, C492-C496.	2.9	33
22	Different measures for the capillarity-driven deformation of a nanoporous metal. <i>Europhysics Letters</i> , 2010, 89, 66001.	2.0	31
23	Size-Dependent Grain-Boundary Structure with Improved Conductive and Mechanical Stabilities in Sub-10-nm Gold Crystals. <i>Physical Review Letters</i> , 2018, 120, 186102.	7.8	29
24	A universal scaling relationship between the strength and Young's modulus of dealloyed porous Fe _{0.80} Cr _{0.20} . <i>Acta Materialia</i> , 2020, 186, 105-115.	7.9	28
25	Metallic Nanoporous Aluminum-Magnesium Alloy for UV-Enhanced Spectroscopy. <i>Journal of Physical Chemistry C</i> , 2019, 123, 20287-20296.	3.1	27
26	Effect of plastic deformation on thermal stability in metallic glasses. <i>Scripta Materialia</i> , 2001, 44, 1083-1087.	5.2	22
27	Shear stress induced reduction of glass transition temperature in a bulk metallic glass. <i>Acta Materialia</i> , 2005, 53, 3013-3020.	7.9	22
28	Electrochemical control of creep in nanoporous gold. <i>Applied Physics Letters</i> , 2013, 103, .	3.3	22
29	Corrosion-Induced Strengthening: Development of High-Strength Nanoporous Metals. <i>Advanced Engineering Materials</i> , 2016, 18, 1050-1058.	3.5	22
30	Defects evolution in nanoporous Au(Pt) during dealloying. <i>Scripta Materialia</i> , 2016, 113, 68-70.	5.2	21
31	Light, strong, and stable nanoporous aluminum with native oxide shell. <i>Science Advances</i> , 2021, 7, .	10.3	21
32	Galvanic Replacement Reaction as a Route to Prepare Nanoporous Aluminum for UV Plasmonics. <i>Nanomaterials</i> , 2020, 10, 102.	4.1	20
33	A critical relative density and a break-and-reconnect model for annealing-induced densification in nanoporous gold. <i>Acta Materialia</i> , 2021, 209, 116806.	7.9	16
34	Surface Triple Junctions Govern the Strength of a Nanoscale Solid. <i>Physical Review Letters</i> , 2021, 126, 235501.	7.8	16
35	Transition from Homogeneous to Localized Deformation in Nanoporous Gold. <i>Physical Review Letters</i> , 2021, 127, 095501.	7.8	16
36	Multilayer-structured gold/nanoporous gold composite for high performance linear actuation. <i>Applied Physics Letters</i> , 2014, 104, .	3.3	14

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37	Surface-driven actuation: Sign reversal under load and surface load-memory effect. <i>Physical Review Materials</i> , 2019, 3, .	2.4	12
38	Pressure-enhanced thermal stability against eutectic crystallization in Al-based metallic glasses. <i>Scripta Materialia</i> , 2001, 45, 1091-1097.	5.2	11
39	Pressure effect on glass transition in a Zr ₆₅ Al _{7.5} Cu _{27.5} metallic glass. <i>Applied Physics Letters</i> , 2003, 83, 3284-3286.	3.3	11
40	Responsive nanoporous metals: recoverable modulations on strength and shape by watering. <i>Nanotechnology</i> , 2016, 27, 325501.	2.6	11
41	Extrinsic Parting Limit for Dealloying of Cu-Rh. <i>Journal of the Electrochemical Society</i> , 2018, 165, C999-C1006.	2.9	11
42	Anomalous low strain induced by surface charge in nanoporous gold with low relative density. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 19217-19224.	2.8	10
43	From liquid metal dealloying to liquid metal expulsion. <i>Journal of Materials Science</i> , 2020, 55, 8337-8345.	3.7	10
44	Monolayer oxide enhanced flow stress in nanoporous gold: the size dependence. <i>Materials Research Letters</i> , 2018, 6, 508-514.	8.7	9
45	High-strength hierarchical-structured bulk nanoporous Cu prepared by dealloying and spark plasma sintering. <i>Scripta Materialia</i> , 2021, 203, 114114.	5.2	7
46	Evolution of a bicontinuous structure in peritectic melting: The simplest form of dealloying. <i>Physical Review Materials</i> , 2019, 3, .	2.4	7
47	Compression stress induced flow temperature reduction in a bulk Zr _{41.2} Ti _{13.8} Cu _{12.5} Ni _{10.0} Be _{22.5} metallic glass. <i>Scripta Materialia</i> , 2002, 47, 787-791.	5.2	6
48	Synthesis and mechanical properties of porous metals with inverted dealloying structure. <i>Scripta Materialia</i> , 2022, 210, 114483.	5.2	6
49	Sealing-free fast-response paraffin/nanoporous gold hybrid actuator. <i>Nanotechnology</i> , 2017, 28, 385501.	2.6	5
50	Mechanical properties of unidirectional nanoporous gold under compression. <i>Acta Materialia</i> , 2022, 235, 118078.	7.9	5
51	Functionalized nanoporous gold membrane for pancreatic islet cells encapsulation. <i>Materials Letters</i> , 2021, 301, 130224.	2.6	3
52	Passivation of Cu-Rh Alloys. <i>Journal of the Electrochemical Society</i> , 2021, 168, 071505.	2.9	1
53	An indirect approach to measure glass transition temperature in metallic glasses. <i>International Journal of Materials Research</i> , 2006, 97, 388-394.	0.3	0