

Kevin J Laws

List of Publications by Year in descending order

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66
papers

1,488
citations

377584

21
h-index

371746

37
g-index

70
all docs

70
docs citations

70
times ranked

1965
citing authors

#	ARTICLE	IF	CITATIONS
1	Thermodynamic modelling to predict phase stability in BCC + B2 Al-Ti-Co-Ni-Fe-Cr high entropy alloys. <i>Materials Chemistry and Physics</i> , 2022, 276, 125395.	2.0	6
2	Assessing Mg-Sc (rare earth) ternary phase stability via constituent binary cluster expansions. <i>Computational Materials Science</i> , 2022, 207, 111240.	1.4	1
3	Predicting ductility in quaternary B2-like alloys. <i>Physical Review Materials</i> , 2021, 5, .	0.9	1
4	Corrosion performance of Ni-based structural alloys for applications in molten-salt based energy systems: Experiment & numerical validation. <i>Corrosion Science</i> , 2021, 190, 109607.	3.0	7
5	Solvent-rich magnesium-based bulk metallic glasses in the Mg-Pd-Ca and Mg-Pd-Yb alloy systems. <i>Scripta Materialia</i> , 2021, 204, 114120.	2.6	2
6	Zr-Co-Al bulk metallic glass composites containing B2 ZrCo via rapid quenching and annealing. <i>Journal of Alloys and Compounds</i> , 2020, 820, 153079.	2.8	18
7	Transition towards ultrastable metallic glasses in Zr-based thin films. <i>Applied Surface Science</i> , 2020, 533, 147453.	3.1	11
8	A High-Throughput Structural and Electrochemical Study of Metallic Glass Formation in Ni-Ti-Al. <i>ACS Combinatorial Science</i> , 2020, 22, 330-338.	3.8	31
9	Accelerated discovery of metallic glasses through iteration of machine learning and high-throughput experiments. <i>Science Advances</i> , 2018, 4, eaq1566.	4.7	354
10	EXAFS and molecular dynamics simulation studies of Cu-Zr metallic glass: Short-to-medium range order and glass forming ability. <i>Materials Characterization</i> , 2018, 141, 41-48.	1.9	18
11	Atomistic origin of stress overshoots and serrations in a CuZr metallic glass. <i>Materialia</i> , 2018, 1, 121-127.	1.3	10
12	General trends between solute segregation tendency and grain boundary character in aluminum - An ab initio study. <i>Acta Materialia</i> , 2018, 158, 257-268.	3.8	49
13	A blended NPT/NVT scheme for simulating metallic glasses. <i>Computational Materials Science</i> , 2017, 130, 130-137.	1.4	5
14	Exceptionally broad bulk metallic glass formation in the Mg-Cu-Yb system. <i>Acta Materialia</i> , 2017, 128, 188-196.	3.8	17
15	Amorphous phase stability and the interplay between electronic structure and topology. <i>Acta Materialia</i> , 2017, 131, 131-140.	3.8	12
16	Stacking fault energies of nondilute binary alloys using special quasirandom structures. <i>Physical Review B</i> , 2017, 95, .	1.1	9
17	Formation of a phosphate conversion coating on bioresorbable Mg-based metallic glasses and its effect on corrosion performance. <i>Corrosion Science</i> , 2017, 129, 214-225.	3.0	37
18	Ab initio study of the likely orientation relationships of interphase and homophase interfaces in a two-phase HCP + BCC Mg-Li alloy. <i>Computational Materials Science</i> , 2017, 139, 406-411.	1.4	10

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19	Electron-band theory inspired design of magnesium-precious metal bulk metallic glasses with high thermal stability and extended ductility. <i>Scientific Reports</i> , 2017, 7, 3400.	1.6	9
20	Stabilisation of Disordered bcc Phases in Magnesium-Rare Earth Alloys. <i>Minerals, Metals and Materials Series</i> , 2017, , 497-503.	0.3	0
21	Softening of phonon spectra in metallic glasses. <i>Npj Computational Materials</i> , 2016, 2, .	3.5	7
22	An atomic-scale insight into the effects of hydrogen microalloying on the glass-forming ability and ductility of Zr-based bulk metallic glasses. <i>Computational Materials Science</i> , 2016, 125, 197-205.	1.4	11
23	Investigating the Passivity and Dissolution of a Corrosion Resistant Mg-33at.%Li Alloy in Aqueous Chloride Using Online ICP-MS. <i>Journal of the Electrochemical Society</i> , 2016, 163, C324-C329.	1.3	61
24	Examining the elemental contribution towards the biodegradation of Mg-Zn-Ca ternary metallic glasses. <i>Journal of Materials Chemistry B</i> , 2016, 4, 2679-2690.	2.9	16
25	Alloy design strategies for sustained ductility in Mg-based amorphous alloys - Tackling structural relaxation. <i>Acta Materialia</i> , 2016, 103, 735-745.	3.8	32
26	Supercooled liquid fusion of carbon fibre-bulk metallic glass composites with superplastic forming properties. <i>Scripta Materialia</i> , 2016, 111, 127-130.	2.6	9
27	Developments in High Magnesium-Content Bulk Metallic Glasses and Future Possibilities. , 2016, , 13-14.		0
28	High entropy brasses and bronzes - Microstructure, phase evolution and properties. <i>Journal of Alloys and Compounds</i> , 2015, 650, 949-961.	2.8	46
29	Dynamic properties of major shear bands in Zr-Cu-Al bulk metallic glasses. <i>Acta Materialia</i> , 2015, 96, 428-436.	3.8	28
30	Heterogeneous nucleation at inoculant particles in a glass forming alloy: An ab initio molecular dynamics investigation of interfacial properties and local chemical bonding. <i>Computational Materials Science</i> , 2015, 108, 94-102.	1.4	10
31	A first principles molecular dynamics study of the relationship between atomic structure and elastic properties of Mg-Zn-Ca amorphous alloys. <i>Computational Materials Science</i> , 2015, 96, 246-255.	1.4	19
32	Recent progress in high Bs and low Hc Fe-based nanocrystalline alloys. <i>Nanotechnology Reviews</i> , 2014, 3, .	2.6	8
33	Fabrication of an In Situ Bulk Metallic Glass Composite with High Magnesium Content. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2014, 45, 2352-2356.	1.1	6
34	Ultra magnesium-rich, low-density Mg-Ni-Ca bulk metallic glasses. <i>Scripta Materialia</i> , 2014, 88, 37-40.	2.6	21
35	Recent developments in ductile bulk metallic glass composites. <i>MRS Communications</i> , 2013, 3, 1-12.	0.8	29
36	Quantitative <i>in vitro</i> assessment of Mg ₆₅ Zn ₃₀ Ca ₅ degradation and its effect on cell viability. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , 2013, 101B, 43-49.	1.6	19

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37	Effect of the Degree of Crystallinity on the Electrochemical Behavior of Mg ₆₅ Cu ₂₅ Y ₁₀ and Mg ₇₀ Zn ₂₅ Ca ₅ Bulk Metallic Glasses. <i>Corrosion</i> , 2013, 69, 781-792.	0.5	8
38	Thermoplastic formability of CaMgZn bulk metallic glasses for biomedical applications. <i>International Journal of Materials and Product Technology</i> , 2013, 47, 233.	0.1	1
39	Effect of transition metals in the development of Al-Cu-Mg based metallic glass. <i>Materials Research Innovations</i> , 2013, 17, s67-s72.	1.0	1
40	Locating new Mg-based bulk metallic glasses free of rare earth elements. <i>Journal of Alloys and Compounds</i> , 2012, 542, 105-110.	2.8	24
41	Synthesis of Ag-based bulk metallic glass in the Ag-Mg-Ca [Cu] alloy system. <i>Journal of Alloys and Compounds</i> , 2012, 513, 10-13.	2.8	22
42	Analysis of dynamic segregation and crystallisation in Mg ₆₅ Cu ₂₅ Y ₁₀ bulk metallic glass using atom probe tomography. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2012, 556, 558-566.	2.6	11
43	Partial Coordination Numbers in Binary Metallic Glasses. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2012, 43, 2649-2661.	1.1	15
44	Ca-Mg-Zn bulk metallic glasses as bioresorbable metals. <i>Acta Biomaterialia</i> , 2012, 8, 2375-2383.	4.1	85
45	In situ formation of crystalline flakes in Mg-based metallic glass composites by controlled inoculation. <i>Acta Materialia</i> , 2011, 59, 7776-7786.	3.8	13
46	Prediction of Glass-Forming Compositions in Metallic Systems: Copper-Based Bulk Metallic Glasses in the Cu-Mg-Ca System. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2010, 41, 1699-1705.	1.1	25
47	Phase redistribution in an in situ Mg-based bulk metallic glass composite during deformation in the supercooled liquid region. <i>Scripta Materialia</i> , 2010, 63, 556-559.	2.6	10
48	Corrigendum to: "Phase redistribution in an in situ Mg-based bulk metallic glass composite during deformation in the supercooled liquid region" [Scripta Materialia 63 (2010) 556-559]. <i>Scripta Materialia</i> , 2010, 63, 903.	2.6	0
49	The Prediction of Glass-Forming Compositions in Metallic Systems - The Development of New Bulk Metallic Glasses. <i>Materials Science Forum</i> , 2010, 638-642, 1637-1641.	0.3	13
50	Viscosity-related properties of Mg ₆₅ Cu ₂₅ Y ₁₀ bulk metallic glass determined by uniaxial tension in the supercooled liquid region. <i>Journal of Alloys and Compounds</i> , 2010, 496, 582-588.	2.8	6
51	Influence of Casting Parameters on the Critical Casting Size of Bulk Metallic Glass. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2009, 40, 2377-2387.	1.1	57
52	Synthesis of copper-based bulk metallic glasses in the ternary Cu-Mg-Ca system. <i>Journal of Alloys and Compounds</i> , 2009, 486, L27-L29.	2.8	16
53	Mechanical stability of Ca ₆₅ Mg ₁₅ Zn ₂₀ bulk metallic glass during deformation in the supercooled liquid region. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2008, 480, 198-204.	2.6	22
54	Effect of loading rate on the serrated flow of a bulk metallic glass during nanoindentation. <i>Acta Materialia</i> , 2008, 56, 4829-4835.	3.8	54

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55	Large-scale production of Ca ₆₅ Mg ₁₅ Zn ₂₀ bulk metallic glass samples by low-pressure die-casting. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2008, 475, 348-354.	2.6	37
56	Elevated temperature flow behaviour of a Mg-based bulk metallic glass. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2007, 471, 130-134.	2.6	25
57	Superplastic flow of a Mg-based bulk metallic glass in the supercooled liquid region. Journal of Non-Crystalline Solids, 2006, 352, 3896-3902.	1.5	41
58	Static and dynamic crystallization in Mg-Cu-Y bulk metallic glass. Journal of Non-Crystalline Solids, 2006, 352, 3887-3895.	1.5	38
59	Effect of die-casting parameters on the production of high quality bulk metallic glass samples. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2006, 425, 114-120.	2.6	33
60	The Application of 3D-EBSD for Investigating Texture Development in Metals and Alloys. Materials Science Forum, 0, 702-703, 469-474.	0.3	0
61	The Redistribution and Alignment of Crystalline Flakes in a Bulk Metallic Glass Composite during Thermoplastic Forming. Materials Science Forum, 0, 702-703, 971-974.	0.3	0
62	3D-EBSD Studies of Deformation, Recrystallization and Phase Transformations. Materials Science Forum, 0, 715-716, 41-50.	0.3	2
63	Optimization of Glass Forming Ability of Al-Ni-Si Alloys by a Thermodynamic and Kinetic Approach. Materials Science Forum, 0, 773-774, 466-470.	0.3	0
64	Production of Mg-Based Bulk Metallic Glass Composites with High Magnesium Content. Materials Science Forum, 0, 773-774, 263-267.	0.3	0
65	Fabrication of Bulk Metallic Glass Composites at Low Processing Temperatures. Materials Science Forum, 0, 773-774, 461-465.	0.3	0
66	Crystallization Kinetics and Fragility of Al-Based Amorphous Alloy. Materials Science Forum, 0, 1010, 3-8.	0.3	0