Nicole Ellen Stanford

List of Publications by Year
in descending order

124 papers	7,827 citations	50170 46 h-index	51492 86 g-index
124 all docs	124 docs citations	124 times ranked	3794 citing authors

#	Article	IF	Citations
1	The origin of â€œrare earthâ€•texture development in extruded Mg-based alloys and its effect on tensile ductility. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2008, 496, 399-408.	2.6	703
2	Effect of precipitate shape on slip and twinning in magnesium alloys. Acta Materialia, 2011, 59, 1945-1956.	3.8	344
3	Micro-alloying Mg with Y, Ce, Gd and La for texture modificationâ€”A comparative study. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2010, 527, 2669-2677.	2.6	331
4	Effect of microalloying with rare-earth elements on the texture of extruded magnesium-based alloys. Scripta Materialia, 2008, 59, 772-775.	2.6	309
5	Magnesium extrusion alloys: a review of developments and prospects. International Materials Reviews, 2019, 64, 27-62.	9.4	295
6	The effect of Gd on the recrystallisation, texture and deformation behaviour of magnesium-based alloys. Acta Materialia, 2010, 58, 6773-6783.	3.8	293
7	Effect of composition on the texture and deformation behaviour of wrought Mg alloys. Scripta Materialia, 2008, 58, 179-182.	2.6	278
8	Crystallographic variant selection in Tiâ€“6Alâ€“4V. Acta Materialia, 2004, 52, 5215-5224.	3.8	257
9	Comparative study of the microstructures and mechanical properties of direct laser fabricated and arc-melted Al x CoCrFeNi high entropy alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2015, 633, 184-193.	2.6	250
10	Effect of particles on the formation of deformation twins in a magnesium-based alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2009, 516, 226-234.	2.6	217
11	Solute strengthening of prismatic slip, basal slip and twinning in Mg and Mgâ€“Zn binary alloys. International Journal of Plasticity, 2013, 47, 165-181.	4.1	214
12	Solute segregation and texture modification in an extruded magnesium alloy containing gadolinium. Scripta Materialia, 2011, 65, 919-921.	2.6	207
13	Effect of plate-shaped particle distributions on the deformation behaviour of magnesium alloy AZ91 in tension and compression. Acta Materialia, 2012, 60, 218-228.	3.8	190
14	Understanding the mechanical behaviour and the large strength/ductility differences between FCC and BCC AlxCoCrFeNi high entropy alloys. Journal of Alloys and Compounds, 2017, 726, 885-895.	2.8	160
15	The effect of high yttrium solute concentration on the twinning behaviour of magnesium alloys. Acta Materialia, 2015, 82, 447-456.	3.8	129
16	Effect of particles in promoting twin nucleation in a Mgâ€“5wt.% Zn alloy. Scripta Materialia, 2010, 63, 823-826.	2.6	128
17	Deformation mechanisms and plastic anisotropy in magnesium alloy AZ31. Acta Materialia, 2011, 59, 4866-4874.	3.8	120
18	The effect of calcium on the texture, microstructure and mechanical properties of extruded Mgâ€“Mnâ€“Ca alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2010, 528, 314-322.	2.6	118

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19	Tension/compression asymmetry in additive manufactured face centered cubic high entropy alloy. Scripta Materialia, 2017, 129, 30-34.	2.6	109
20	Effect of hot isostatic pressing on the microstructure and mechanical properties of additive manufactured AlxCoCrFeNi high entropy alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2018, 733, 59-70.	2.6	109
21	Slip mode dependency of dislocation shearing and looping of precipitates in Mg alloy WE43. Acta Materialia, 2018, 146, 55-62.	3.8	108
22	The effect of rare earth elements on the behaviour of magnesium-based alloys: Part 2 â€“ recrystallisation and texture development. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2013, 565, 469-475.	2.6	93
23	Investigation of precipitate hardening of slip and twinning in Mg5%Zn by micropillar compression. Acta Materialia, 2015, 100, 53-63.	3.8	93
24	Effect of Al and Gd Solutes on the Strain Rate Sensitivity of Magnesium Alloys. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2010, 41, 734-743.	1.1	91
25	Effect of Precipitate Shape and Habit on Mechanical Asymmetry in Magnesium Alloys. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2013, 44, 2984-2995.	1.1	91
26	Quantitative measurement of strain partitioning and slip systems in a dual-phase steel. Scripta Materialia, 2013, 69, 13-16.	2.6	88
27	Texture selection mechanisms in uniaxially extruded magnesium alloys. Scripta Materialia, 2010, 63, 721-724.	2.6	84
28	Deformation Twinning and the Hallâ€“Petch Relation in Commercial Purity Ti. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2008, 39, 934-944.	1.1	76
29	Evaluating the effect of yttrium as a solute strengthener in magnesium using in situ neutron diffraction. Acta Materialia, 2014, 78, 1-13.	3.8	71
30	Strain partitioning in dual-phase steels containing tempered martensite. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2014, 611, 90-99.	2.6	71
31	Plastic relaxation of the internal stress induced by twinning. Acta Materialia, 2013, 61, 7859-7867.	3.8	70
32	Thermo-mechanical processing and the shape memory effect in an Feâ€“Mnâ€“Si-based shape memory alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2006, 422, 352-359.	2.6	69
33	The effect of rare earth elements on the behaviour of magnesium-based alloys: Part 1â€”Hot deformation behaviour. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2013, 565, 459-468.	2.6	67
34	Influence of cooling rate on the microstructure and corrosion behavior of Alâ€“Fe alloys. Corrosion Science, 2015, 100, 396-403.	3.0	61
35	In situ observations of WidmanstÃtten ferrite formation in a low-carbon steel. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2005, 407, 127-134.	2.6	60
36	The effect of low cycle fatigue, ratcheting and mean stress relaxation on stressâ€“strain response and microstructural development in a dual phase steel. International Journal of Fatigue, 2015, 80, 341-348.	2.8	59

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37	Twinning in magnesium-based lamellar microstructures. Scripta Materialia, 2012, 67, 704-707.	2.6	58
38	Role of microstructure in the low cycle fatigue of multi-phase steels. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2012, 534, 288-296.	2.6	58
39	Microstructures and mechanical properties of dual phase steel produced by laboratory simulated strip casting. Materials and Design, 2015, 88, 537-549.	3.3	58
40	Site-specific atomic-scale characterisation of retained austenite in a strip cast TRIP steel. Acta Materialia, 2017, 134, 1-15.	3.8	58
41	Effect of martensite volume fraction on low cycle fatigue behaviour of dual phase steels: Experimental and microstructural investigation. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2015, 638, 296-304.	2.6	57
42	Dependence of deformation behavior on grain size and strain rate in an ultrahigh strength-ductile Mn-based TRIP alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 653, 35-42.	2.6	57
43	Seeding of single crystal superalloysâ€“â€“role of seed melt-back on casting defects. Scripta Materialia, 2004, 50, 159-163.	2.6	55
44	Fine grained AZ31 produced by conventional thermo-mechanical processing. Journal of Alloys and Compounds, 2008, 466, 182-188.	2.8	53
45	Deformation mechanisms in Mg alloys and the challenge of extending room-temperature plasticity. Jom, 2009, 61, 19-24.	0.9	49
46	General trends between solute segregation tendency and grain boundary character in aluminum - An ab inito study. Acta Materialia, 2018, 158, 257-268.	3.8	49
47	Processing and properties of Mgâ€“6Gdâ€“1Znâ€“0.6Zr. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2011, 528, 3659-3665.	2.6	47
48	Processing and properties of Mgâ€“6Gdâ€“1Znâ€“0.6Zr: Part 1 â€“ Recrystallisation and texture development. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2011, 528, 3653-3658.	2.6	47
49	The Effect of Mn-rich Precipitates on the Strength of AZ31 Extrudates. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2013, 44, 4830-4843.	1.1	47
50	Influence of microstructure on strain distribution in Mgâ€“3Alâ€“1Zn. Scripta Materialia, 2007, 57, 1125-1128.	2.6	46
51	Effect of Si on the reversibility of stress-induced martensite in Feâ€“Mnâ€“Si shape memory alloys. Acta Materialia, 2010, 58, 6752-6762.	3.8	42
52	Re-examination of the effect of NbC precipitation on shape memory in Feâ€“Mnâ€“Si-based alloys. Scripta Materialia, 2008, 58, 583-586.	2.6	41
53	Effect of NbC and TiC precipitation on shape memory in an iron-based alloy. Journal of Materials Science, 2006, 41, 4883-4891.	1.7	40
54	Correlation of tensile test properties with those predicted by the shear punch test. Materials & Design, 2013, 47, 258-266.	5.1	40

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55	Quantification of precipitate hardening of twin nucleation and growth in Mg and Mg-5Zn using micro-pillar compression. Acta Materialia, 2019, 163, 68-77.	3.8	38
56	Observation of {11<ovl>2</ovl>1} twinning in a Mg-based alloy. Philosophical Magazine Letters, 2008, 88, 379-386.	0.5	37
57	Crystallographic variant selection in Î±â€“Î² brass. Acta Materialia, 2005, 53, 859-867.	3.8	33
58	Strength and biaxial formability of cryo-rolled 2024 aluminium subject to concurrent recovery and precipitation. Acta Materialia, 2013, 61, 5278-5289.	3.8	33
59	Effect of deformation on microstructure and mechanical properties of dual phase steel produced via strip casting simulation. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 651, 291-305.	2.6	32
60	Effect of Alloying Additions on the SFE, Neel Temperature and Shape Memory Effect in Fe-Mn-Si-based Alloys. ISIJ International, 2007, 47, 883-889.	0.6	30
61	Atom Probe Tomography of Solute Distributions in Mg-Based Alloys. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2009, 40, 2480-2487.	1.1	29
62	Quantitative examination of carbide and sulphide precipitates in chemically complex steels processed by direct strip casting. Materials Characterization, 2016, 112, 259-268.	1.9	29
63	Effect of second-phase particles on shape memory in Feâ€“Mnâ€“Si-based alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2007, 454-455, 407-415.	2.6	27
64	Effect of coiling treatment on microstructural development and precipitate strengthening of a strip cast steel. Acta Materialia, 2016, 115, 167-177.	3.8	27
65	Austenite stability in Feâ€“Mnâ€“Si-based shape memory alloys. Journal of Alloys and Compounds, 2007, 430, 107-115.	2.8	24
66	Deformation and annealing of (011)[011Ì„] oriented Al single crystals. Acta Materialia, 2003, 51, 665-676.	3.8	23
67	The formation of randomly textured magnesium alloy sheet through rapid solidification. Acta Materialia, 2010, 58, 3642-3654.	3.8	23
68	Formability of cryo-rolled aluminium in uniaxial and biaxial tension. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2012, 555, 148-153.	2.6	22
69	Effect of martensite morphology on low cycle fatigue behaviour of dual phase steels: Experimental and microstructural investigation. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2015, 644, 53-60.	2.6	22
70	Austenite plasticity mechanisms and their behavior during cyclic loading. International Journal of Fatigue, 2018, 106, 185-195.	2.8	22
71	In-situ observations of phase transformations in titanium. Jom, 2006, 58, 67-69.	0.9	21
72	The role of shear banding on the fatigue ductility of ultrafine-grained aluminium. Scripta Materialia, 2013, 68, 269-272.	2.6	21

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73	Effect of orientation stability on recrystallization textures of deformed aluminium single crystals. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2003, 348, 154-162.	2.6	20
74	Shear bands evolution in ultrafine-grained aluminium under cyclic loading. Scripta Materialia, 2013, 68, 821-824.	2.6	20
75	Rapid synthesis of Bi and Sb sulfides using electric discharge assisted mechanical milling. Journal of Alloys and Compounds, 2008, 455, 285-288.	2.8	18
76	Static recrystallization of strip cast alloys in the presence of complex nano-sulfide and nitride precipitates. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2013, 581, 39-47.	2.6	18
77	Effect of hot working on dynamic recrystallisation study of as-cast austenitic stainless steel. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2012, 556, 685-695.	2.6	17
78	Anisotropic compressive behaviour of turbostratic graphite in carbon fibre. Applied Materials Today, 2017, 9, 196-203.	2.3	17
79	Emerging Hot Topics and Research Questions in Wrought Magnesium Alloy Development. Jom, 2020, 72, 2561-2567.	0.9	17
80	The electronic origins of the â€œrare earthâ€•texture effect in magnesium alloys. Scientific Reports, 2021, 11, 14159.	1.6	17
81	A critical assessment of work hardening in TWIP steels through micropillar compression. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2017, 696, 42-51.	2.6	15
82	Na Partitioning During Thermomechanical Processing of an Mg-Sn-Zn-Na Alloy. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2013, 44, 5216-5225.	1.1	14
83	Effect of Cooling Rate on Phase Transformations in a High-Strength Low-Alloy Steel Studied from the Liquid Phase. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2015, 46, 5561-5571.	1.1	14
84	Suppression of Ms temperature by carbon partitioning from carbon-supersaturated ferrite to metastable austenite during intercritical annealing. Materials & Design, 2013, 51, 409-414.	5.1	13
85	Effect of molybdenum on phase transformation and microstructural evolution of strip cast steels containing niobium. Journal of Materials Science, 2019, 54, 1769-1784.	1.7	12
86	Enhanced strength-ductility of medium Mn steel by quenching, partitioning and tempering. Materials Science and Technology, 2020, 36, 584-597.	0.8	12
87	Observations using atomic force microscopy of surface-relief associated with deformation in cube-oriented single crystals. Scripta Materialia, 2001, 44, 941-946.	2.6	11
88	A critical assessment of deformation twinning and epsilon martensite formation in austenitic alloys during complex forming operations. Materials Characterization, 2018, 145, 423-434.	1.9	11
89	Local topology and its effects on grain boundary and solute segregation in HCP magnesium. Materialia, 2019, 6, 100258.	1.3	11
90	Grain Refinement of an Extruded Mg Alloy via Na Microalloying. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2013, 44, 2466-2469.	1.1	10

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91	The effect of molybdenum on interphase precipitation at 700ÂÂ°C in a strip-cast low-carbon niobium steel. Materials Characterization, 2020, 166, 110444.	1.9	10
92	The Martensitic Transformation Texture in Ti-6Al-4V. Materials Science Forum, 2005, 495-497, 669-674.	0.3	9
93	Optimization of Alloy Design and Hot Rolling Conditions for Shape Memory in Feâ€“Mnâ€“Si-based Alloys. ISIJ International, 2006, 46, 1703-1711.	0.6	9
94	The effect of molybdenum on clustering and precipitation behaviour of strip-cast steels containing niobium. Materialia, 2019, 8, 100462.	1.3	9
95	Martensitic surface relief in an Feâ€“Mnâ€“Si-based alloy strained by bending. Scripta Materialia, 2005, 53, 739-744.	2.6	8
96	Reduction of PbS and Sb2S3 with elemental Fe and Mg in dusty plasma environment created during electrical discharge assisted mechanical milling (EDAMM). Journal of Alloys and Compounds, 2009, 467, 477-484.	2.8	8
97	Complex precipitation phenomena in strip cast steels with high sulfur and copper contents. Journal of Applied Crystallography, 2016, 49, 1777-1785.	1.9	8
98	Solidification Behaviour and Microstructural Development of Iron-based Alloys under Conditions Pertinent to Strip Casting â€“ 200 Series Stainless Steels. ISIJ International, 2013, 53, 2152-2159.	0.6	7
99	Rapid Formation of Diamond-Like Nano-Carbons in a Gas Bubble Discharge in Liquid Ethanol. Plasma Chemistry and Plasma Processing, 2018, 38, 75-87.	1.1	7
100	Martensite/particle interactions and the shape memory effect in an Feâ€“Mnâ€“Si-based alloy. Journal of Materials Science, 2007, 42, 4334-4343.	1.7	6
101	Recrystallisation of Magnesium Alloys Containing Rare-Earth Elements. Materials Science Forum, 2013, 753, 297-300.	0.3	6
102	The Microstructure, Antimicrobial Properties, and Corrosion Resistance of Cuâ€Bearing Strip Cast Steel. Advanced Engineering Materials, 2020, 22, 1901265.	1.6	6
103	Characterisation of Niâ€“Ti thin films produced by filtered arc deposition. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2008, 473, 172-179.	2.6	5
104	Castability and Microstructural Development of Iron-based Alloys under Conditions Pertinent to Strip Casting â€“ Specialty Feâ€“Crâ€“Al Alloys. ISIJ International, 2013, 53, 1803-1811.	0.6	5
105	Static recrystallisation of steels produced by direct strip casting â€“ The effect of carbon and vanadium concentration. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2016, 671, 147-157.	2.6	5
106	The Effect of Nb Micro-alloying on the Bainitic Phase Transformation Under Strip Casting Conditions. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2018, 49, 1021-1025.	1.1	5
107	The contrasting fracture behaviour of twin boundaries and general boundaries â€“ A first principles study based on experimental observation. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 781, 139225.	2.6	5
108	Grain boundary kinetics in magnesium alloys from first principles. Computational Materials Science, 2022, 210, 111042.	1.4	5

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109	Static recrystallisation study of as-cast austenitic stainless steel. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2013, 576, 118-125.	2.6	4
110	Cryo-Rolling and Formability of 2024 Aluminium. Materials Science Forum, 2013, 765, 434-438.	0.3	4
111	Oxygenation of conducting polymers facilitated by structureâ€breaking anions. Journal of Polymer Science, 2021, 59, 745-753.	2.0	4
112	Rapid synthesis of TiCâ€“Fe3C composite by electric discharge assisted mechanical milling of ilmenite (FeTiO3) with graphite. Journal of Alloys and Compounds, 2008, 459, 498-500.	2.8	3
113	Atomic Scale Simulation of Deformation in Magnesium Single Crystals. Materials Science Forum, 2010, 638-642, 1585-1590.	0.3	3
114	Wetting Behavior and Evolution of Microstructure of Snâ€“3.5Ag Solder Alloy on Electroplated 304 Stainless Steel Substrates. Transactions of the Indian Institute of Metals, 2012, 65, 713-717.	0.7	3
115	Recrystallization Kinetic Behavior of Copper-Bearing Strip Cast Steel. Steel Research International, 2013, 84, 1273-1280.	1.0	2
116	The Effect of Molybdenum on Precipitation Behaviour in Austenite of Strip-Cast Steels Containing Niobium. Metals, 2020, 10, 1330.	1.0	2
117	Effect of quenching temperature on reversible martensitic transformation in a Cuâ€“Alâ€“Be alloy. Philosophical Magazine Letters, 2007, 87, 483-492.	0.5	1
118	Influence of Coiling on Microstructural Evolution and Mechanical Properties of Strip-Cast Low-Carbon Low-Niobium Steel. Materials Science Forum, 2016, 879, 1182-1187.	0.3	1
119	Introducing Alloys: A Journal for Fundamental and Applied Research. , 2022, 1, 1-2.		1
120	The microstructure of high manganese TWIP steels produced via simulated direct strip casting. Materials Science and Technology, 2022, 38, 30-38.	0.8	1
121	Fine Grained AZ31 by Conventional Thermo-Mechanical Processing. Materials Science Forum, 0, 618-619, 239-244.	0.3	0
122	The Effect of Molybdenum on Clustering and Precipitation Behaviour of Strip-Cast Steels Containing Niobium. SSRN Electronic Journal, 2019, , .	0.4	0
123	The Effect of Direct Strip Casting on the Kinetics of Phase Transformation of a Dual Phase Steel. Metals, 2022, 12, 170.	1.0	0
124	The Energetics and Topology of Grain Boundaries in Magnesium: An Ab Initio Study. , 2022, 1, 15-30.		0