

# Brad Wynne

## List of Publications by Year in descending order

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57  
papers

1,495  
citations

394421

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330143

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61  
docs citations

61  
times ranked

1093  
citing authors

#	ARTICLE	IF	CITATIONS
1	Twin recrystallization mechanisms and exceptional contribution to texture evolution during annealing in a magnesium alloy. <i>Acta Materialia</i> , 2017, 126, 132-144.	7.9	210
2	Individual effect of recrystallisation nucleation sites on texture weakening in a magnesium alloy: Part 1- double twins. <i>Acta Materialia</i> , 2017, 135, 14-24.	7.9	145
3	Development of Microstructure and Crystallographic Texture during Stationary Shoulder Friction Stir Welding of Ti-6Al-4V. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2011, 42, 2278-2289.	2.2	122
4	Basal slip mediated tension twin variant selection in magnesium WE43 alloy. <i>Acta Materialia</i> , 2019, 170, 1-14.	7.9	113
5	Individual effect of recrystallisation nucleation sites on texture weakening in a magnesium alloy: Part 2- shear bands. <i>Acta Materialia</i> , 2018, 145, 399-412.	7.9	104
6	Effect of composition and austenite deformation on the transformation characteristics of low-carbon and ultralow-carbon microalloyed steels. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2002, 33, 1331-1349.	2.2	99
7	Exploring the mechanism of "Rare Earth" texture evolution in a lean Mg-Zn-Ca alloy. <i>Scientific Reports</i> , 2019, 9, 7152.	3.3	65
8	The Use of Bobbin Tools for Friction Stir Welding of Aluminium Alloys. <i>Materials Science Forum</i> , 0, 638-642, 1179-1184.	0.3	57
9	Effect of Tool Geometry and Heat Input on the Hardness, Grain Structure, and Crystallographic Texture of Thick-Section Friction Stir-Welded Aluminium. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2019, 50, 271-284.	2.2	47
10	Effect of friction stir welding speed on mechanical properties and microstructure of nickel based super alloy Inconel 718. <i>Science and Technology of Welding and Joining</i> , 2013, 18, 680-687.	3.1	38
11	Conditions for the occurrence of acicular ferrite transformation in HSLA steels. <i>Journal of Materials Science</i> , 2018, 53, 3785-3804.	3.7	38
12	EBSID investigation of the microstructure and texture characteristics of hot deformed duplex stainless steel. <i>Journal of Microscopy</i> , 2006, 222, 85-96.	1.8	29
13	Effect of deformation twinning on crystallographic texture evolution in a Mg-6.6Zn-0.2Ca (ZX70) alloy during recrystallisation. <i>Journal of Alloys and Compounds</i> , 2019, 774, 556-564.	5.5	28
14	Effect of strain reversal on the dynamic spheroidization of Ti-6Al-4V during hot deformation. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2004, 35, 2993-3001.	2.2	27
15	The Effect of Simulated Thermomechanical Processing on the Transformation Behavior and Microstructure of a Low-Carbon Mo-Nb Linepipe Steel. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2015, 46, 407-425.	2.2	27
16	Grain size measurement by EBSD in complex hot deformed metal alloy microstructures. <i>Journal of Microscopy</i> , 2007, 227, 298-308.	1.8	24
17	Constitutive equations of flow stress of magnesium AZ31 under dynamically recrystallizing conditions. <i>Journal of Materials Processing Technology</i> , 2014, 214, 1408-1417.	6.3	24
18	Subsurface deformation during precision turning of a near-alpha titanium alloy. <i>Scripta Materialia</i> , 2012, 67, 842-845.	5.2	23

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19	Refractory metals as structural materials for fusion high heat flux components. <i>Journal of Nuclear Materials</i> , 2018, 512, 169-183.	2.7	22
20	Hot working and crystallographic texture analysis of magnesium AZ alloys. <i>Materials Science and Technology</i> , 2011, 27, 461-477.	1.6	21
21	Microstructure and texture evolution of stationary shoulder friction stir welded Ti6Al4V alloy. <i>Science and Technology of Welding and Joining</i> , 2015, 20, 594-600.	3.1	20
22	Mapping microstructure inhomogeneity using electron backscatter diffraction in 316L stainless steel subjected to hot plane strain compression tests. <i>Materials Science and Technology</i> , 2010, 26, 1477-1486.	1.6	18
23	Development of Microstructure and Crystallographic Texture in a Double-Sided Friction Stir Welded Microalloyed Steel. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2017, 48, 362-378.	2.2	18
24	Variant selection in stationary shoulder friction stir welded Ti-6Al-4V alloy. <i>Journal of Materials Science and Technology</i> , 2018, 34, 198-208.	10.7	16
25	An analysis of microband orientation in a commercial purity aluminium alloy subjected to forward and reverse torsion using Electron Backscatter Diffraction (EBSD). <i>Journal of Microscopy</i> , 2006, 222, 97-104.	1.8	15
26	The Impact of Strain Reversal on Microstructure Evolution and Orientation Relationships in Ti-6Al-4V with an Initial Alpha Colony Microstructure. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2014, 45, 5997-6007.	2.2	15
27	The Use of Fe-30% Ni and Fe-30% Ni-Nb Alloys as Model Systems for Studying the Microstructural Evolution during the Hot Deformation of Austenite. <i>Materials and Manufacturing Processes</i> , 2011, 26, 127-131.	4.7	12
28	Hydrogen Degassing in a Vacuum Arc Degasser Using a Three-Phase Eulerian Method and Discrete Population Balance Model. <i>Steel Research International</i> , 2018, 89, 1700550.	1.8	12
29	Exploring complex high heat flux geometries for fusion applications enabled by additive manufacturing. <i>Fusion Engineering and Design</i> , 2018, 136, 454-460.	1.9	11
30	Influence of Strain History and Cooling Rate on the Austenite Decomposition Behavior and Phase Transformation Products in a Microalloyed Steel. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2014, 45, 3619-3630.	2.2	8
31	Modeling the Effect of Plug Positions and Ladle Aspect Ratio on Hydrogen Removal in the Vacuum Arc Degasser. <i>Steel Research International</i> , 2018, 89, 1700551.	1.8	8
32	EBSD investigation of the effect of strain path changes on the microstructure and texture of duplex stainless steel during hot deformation. <i>Journal of Physics: Conference Series</i> , 2006, 26, 331-334.	0.4	7
33	The Effect of Strain Path Reversal during Austenite Deformation on Phase Transformation in a Microalloyed Steel Subjected to Accelerated Cooling. <i>Materials Science Forum</i> , 0, 715-716, 667-672.	0.3	7
34	An analysis of the microstructure of spark plasma sintered and hot isostatically pressed V 4Cr 4Ti 1.8Y 0.4Ti3SiC2 alloy and its thermal stability. <i>Journal of Alloys and Compounds</i> , 2016, 680, 506-511.	5.5	7
35	Validation of neutron texture data on GEM at ISIS using electron backscattered diffraction. <i>Measurement Science and Technology</i> , 2008, 19, 034002.	2.6	6
36	The effect of thermomechanical controlled processing on recrystallisation and subsequent deformation-induced ferrite transformation textures in microalloyed steels. <i>Journal of Materials Science</i> , 2018, 53, 6922-6938.	3.7	6

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37	On the Effect of Strain Reversal on Static Recrystallisation and Strain-Induced Precipitation Process Kinetics in Microalloyed Steels. <i>Materials Science Forum</i> , 2012, 715-716, 655-660.	0.3	5
38	Effect of stress on transformation plasticity and texture in a tool steel. <i>Scripta Materialia</i> , 2007, 57, 473-476.	5.2	4
39	Combined Discrete/Finite Element Multiscale Approach for Modelling of the Tool/Workpiece Interface during High Shear Processing: Hot Rolling and Friction Stir Welding Applications. <i>Materials Science Forum</i> , 2010, 638-642, 2622-2627.	0.3	4
40	Quantifying Crystallographic Texture Variation in a Titanium Billet. <i>IOP Conference Series: Materials Science and Engineering</i> , 2018, 375, 012019.	0.6	4
41	An Analysis of Deformation Microstructure and Subsequent Recrystallisation in Hot Deformed Aluminium Alloy AA5052 Using Forward and Reverse Torsion. <i>Materials Science Forum</i> , 2007, 550, 223-228.	0.3	3
42	Effect of Dwell Time on Friction Stir Spot Welded Dual Phase Steel. <i>Advanced Materials Research</i> , 0, 83-86, 1143-1150.	0.3	3
43	Influence of strain reversal on dynamic transformation in microalloyed steels deformed above the Ae3 temperature. <i>Journal of Materials Science</i> , 2017, 52, 12427-12444.	3.7	3
44	Crystallographic Texture Investigation of Thick Section Friction Stir Welded AA6082 and AA5083 Using EBSD. <i>Key Engineering Materials</i> , 2018, 786, 44-51.	0.4	3
45	Influence of Surface Finish on Small Punch Testing of 9Cr Eurofer-97 Steel. <i>Journal of Testing and Evaluation</i> , 2020, 48, 1310-1318.	0.7	3
46	Effect of roll pass schedule on through thickness texture development in Al-Mn alloy. <i>Materials Science and Technology</i> , 2003, 19, 477-482.	1.6	2
47	An Analysis of Strain Path Effects on Static Recrystallisation in Hot Worked Aluminium Alloy AA5052 Using Forward and Reverse Torsion. <i>Materials Science Forum</i> , 2007, 558-559, 407-412.	0.3	2
48	Effect of Austenite Deformation on Recrystallisation Behaviour in an X-70 Microalloyed Steel. <i>Advanced Materials Research</i> , 0, 89-91, 721-726.	0.3	2
49	Influence of Strain Path on Microstructure Evolution of Low Carbon Steels. <i>Materials Science Forum</i> , 2010, 638-642, 3418-3423.	0.3	2
50	Use of controlled heat treatment to predict mechanical properties in steel components. <i>Ironmaking and Steelmaking</i> , 2016, 43, 351-357.	2.1	2
51	A Parametric Study on the Effects of Process Conditions on Dehydrogenation, Wall Shear and Slag Entrainment in the Vacuum Arc Degasser Using Mathematical Modelling. <i>ISIJ International</i> , 2018, 58, 1679-1686.	1.4	1
52	Response to comments on: "Effect of stress on transformation plasticity and texture in a tool steel". <i>Scripta Materialia</i> , 2008, 58, 937.	5.2	0
53	The Use of Model Systems Based on Fe-30%Ni for Studying the Microstructural Evolution during the Hot Deformation of Austenite. <i>Materials Science Forum</i> , 2010, 638-642, 2694-2699.	0.3	0
54	An Investigation of the Dynamic Recrystallisation Behaviour of Magnesium AZ31 Alloy at 450°C Using Plane Strain Compression Testing as a Tool. <i>Materials Science Forum</i> , 0, 715-716, 164-169.	0.3	0

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55	Constitutive Equation Development to Model the Hot Forging of ZERON®100 Super Duplex Stainless Steel and Associated Microstructural Evolution. Key Engineering Materials, 2016, 716, 632-642.	0.4	0
56	On the use of model alloys as a way to understand the effects of complex deformation conditions on austenite microstructure evolution during hot metal forming processes. Advances in Materials and Processing Technologies, 2016, 2, 143-151.	1.4	0
57	Microstructure and modelling of shear forming. AIP Conference Proceedings, 2019, , .	0.4	0