

# Damon Kent

## List of Publications by Year in descending order

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80  
papers

3,811  
citations

126907  
33  
h-index

128289  
60  
g-index

84  
all docs

84  
docs citations

84  
times ranked

3500  
citing authors

#	ARTICLE	IF	CITATIONS
1	Degradation of differently processed Mg-based implants leads to distinct foreign body reactions (FBRs) through dissimilar signaling pathways. Journal of Magnesium and Alloys, 2023, 11, 2106-2124.	11.9	0
2	Effect of Mg on dynamic recrystallization of Zn-Mg alloys during room-temperature compression. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2022, 830, 142243.	5.6	16
3	Metastable Ti-Fe-Ge alloys with high elastic admissible strain. Materialia, 2022, 21, 101304.	2.7	1
4	Sugar as an Analogue for Snow in Penetration Testing: A Preliminary Comparison. , 2022, 1, 33-46.		0
5	The characterisation and formation of novel microstructural features in a Ti-Nb-Zr-Mo-Sn alloy manufactured by Laser Engineered Net Shaping (LENS). Additive Manufacturing, 2021, 37, 101705.	3.0	5
6	Microstructural evolution and mechanical properties of bulk and porous low-cost Ti-Mo-Fe alloys produced by powder metallurgy. Journal of Alloys and Compounds, 2021, 853, 156768.	5.5	44
7	High stability and high strength $\beta$ -titanium alloys for additive manufacturing. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2021, 816, 141326.	5.6	15
8	The effects of Bi substitution for Sn on mechanical properties of Sn-based lead-free solders. Journal of Materials Science: Materials in Electronics, 2021, 32, 22155-22167.	2.2	4
9	Influence of strain rate and crystallographic orientation on dynamic recrystallization of pure Zn during room-temperature compression. Journal of Materials Science and Technology, 2021, 86, 237-250.	10.7	30
10	Improved biodegradable magnesium alloys through advanced solidification processing. Scripta Materialia, 2020, 177, 234-240.	5.2	20
11	Effect of Fe addition on properties of Ti-6Al-xFe manufactured by blended elemental process. Journal of the Mechanical Behavior of Biomedical Materials, 2020, 102, 103518.	3.1	21
12	Additively manufactured iron-manganese for biodegradable porous load-bearing bone scaffold applications. Acta Biomaterialia, 2020, 103, 346-360.	8.3	111
13	Properties of Powder Metallurgy-Fabricated Oxygen-Containing Beta Ti-Nb-Mo-Sn-Fe Alloys for Biomedical Applications. Advanced Engineering Materials, 2020, 22, 1901229.	3.5	5
14	Activation of homogeneous precursors for formation of uniform and refined $\beta$ precipitates in a high-strength $\beta$ -Ti alloy. Materialia, 2020, 9, 100557.	2.7	13
15	Eutectic modification of Fe-enriched high-entropy alloys through minor addition of boron. Journal of Materials Science, 2020, 55, 14571-14587.	3.7	14
16	Spheroidization behaviour of a Fe-enriched eutectic high-entropy alloy. Journal of Materials Science and Technology, 2020, 51, 173-179.	10.7	26
17	High strength heat-treatable $\beta$ -titanium alloy for additive manufacturing. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 791, 139646.	5.6	27
18	High-temperature age-hardening of a novel cost-effective Fe <sub>45</sub> Ni <sub>25</sub> Cr <sub>25</sub> Mo <sub>5</sub> high entropy alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 788, 139580.	5.6	17

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19	Ultrahigh strain hardening in a transformation-induced plasticity and twinning-induced plasticity titanium alloy. Scripta Materialia, 2020, 187, 285-290.	5.2	75
20	Sintering and biocompatibility of blended elemental Ti-xNb alloys. Journal of the Mechanical Behavior of Biomedical Materials, 2020, 104, 103691.	3.1	27
21	Additive manufacturing of low-cost porous titanium-based composites for biomedical applications: Advantages, challenges and opinion for future development. Journal of Alloys and Compounds, 2020, 827, 154263.	5.5	124
22	Dynamic recrystallization of pure zinc during high strain-rate compression at ambient temperature. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 784, 139325.	5.6	28
23	Simultaneously enhanced strength and ductility in a metastable $\beta$ -Ti alloy by stress-induced hierarchical twin structure. Scripta Materialia, 2020, 184, 6-11.	5.2	64
24	Role of germanium in microstructural development of powder metallurgy Ti-20Cr-xGe alloys. Materials Letters, 2020, 274, 127964.	2.6	1
25	Comparison of the Microstructure and Biocorrosion Properties of Additively Manufactured and Conventionally Fabricated near $\beta$ Ti-25Nb-3Zr-3Mo-2Sn Alloy. ACS Biomaterials Science and Engineering, 2019, 5, 5844-5856.	5.2	19
26	Evaluation of the mechanical and wear properties of titanium produced by three different additive manufacturing methods for biomedical application. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2019, 760, 339-345.	5.6	90
27	Composition of the nanosized orthorhombic $\alpha''$ phase and its direct transformation to fine $\alpha$ during ageing in metastable $\beta$ -Ti alloys. Scripta Materialia, 2019, 170, 183-188.	5.2	30
28	Comparative Study of Pure Iron Manufactured by Selective Laser Melting, Laser Metal Deposition, and Casting Processes. Advanced Engineering Materials, 2019, 21, 1900049.	3.5	39
29	Microstructure, phase composition and mechanical properties of new, low cost Ti-Mn-Nb alloys for biomedical applications. Journal of Alloys and Compounds, 2019, 787, 570-577.	5.5	59
30	Effects of deformation twinning on the mechanical properties of biodegradable Zn-Mg alloys. Bioactive Materials, 2019, 4, 8-16.	15.6	70
31	A biocompatible thermoset polymer binder for Direct Ink Writing of porous titanium scaffolds for bone tissue engineering. Materials Science and Engineering C, 2019, 95, 160-165.	7.3	32
32	Biocompatible porous titanium scaffolds produced using a novel space holder technique. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2018, 106, 2796-2806.	3.4	16
33	Optimising the mechanical properties of Ti-6Al-4V components produced by wire + arc additive manufacturing with post-process heat treatments. Journal of Alloys and Compounds, 2018, 753, 247-255.	5.5	138
34	Insights into Machining of a $\beta$ Titanium Biomedical Alloy from Chip Microstructures. Metals, 2018, 8, 710.	2.3	10
35	Trace Carbon Addition to Refine Microstructure and Enhance Properties of Additive-Manufactured Ti-6Al-4V. Jom, 2018, 70, 1670-1676.	1.9	57
36	Nucleation driving force for $\gamma$ -assisted formation of $\alpha$ and associated $\gamma$ morphology in $\beta$ -Ti alloys. Scripta Materialia, 2018, 155, 149-154.	5.2	31

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37	Recent developments and opportunities in additive manufacturing of titanium-based matrix composites: A review. <i>International Journal of Machine Tools and Manufacture</i> , 2018, 133, 85-102.	13.4	273
38	Nanoindentation and wear properties of Ti and Ti-TiB composite materials produced by selective laser melting. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2017, 688, 20-26.	5.6	225
39	Manufacturing of biocompatible porous titanium scaffolds using a novel spherical sugar pellet space holder. <i>Materials Letters</i> , 2017, 195, 92-95.	2.6	34
40	Comparative study of commercially pure titanium produced by laser engineered net shaping, selective laser melting and casting processes. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2017, 705, 385-393.	5.6	176
41	Mechanical properties and biocompatibility of porous titanium scaffolds for bone tissue engineering. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2017, 75, 169-174.	3.1	128
42	Manufacturing of graded titanium scaffolds using a novel space holder technique. <i>Bioactive Materials</i> , 2017, 2, 248-252.	15.6	21
43	The role of $\beta$ in the precipitation of $\alpha$ in near- $\beta$ Ti alloys. <i>Scripta Materialia</i> , 2016, 117, 92-95.	5.2	37
44	New insights into the phase transformations to isothermal $\beta$ and $\beta$ -assisted $\alpha$ in near $\beta$ -Ti alloys. <i>Acta Materialia</i> , 2016, 106, 353-366.	7.9	155
45	The dynamic response of a metastable $\beta$ Ti- $\text{Nb}$ alloy to high strain rates at room and elevated temperatures. <i>Acta Materialia</i> , 2016, 105, 104-113.	7.9	71
46	An investigation of the mechanical behaviour of fine tubes fabricated from a Ti-25Nb-3Mo-3Zr-2Sn alloy. <i>Materials and Design</i> , 2015, 85, 256-265.	7.0	22
47	A new understanding of the wear processes during laser assisted milling 17-4 precipitation hardened stainless steel. <i>Wear</i> , 2015, 328-329, 518-530.	3.1	25
48	On the deformation mechanisms and strain rate sensitivity of a metastable $\beta$ Ti- $\text{Nb}$ alloy. <i>Scripta Materialia</i> , 2015, 107, 34-37.	5.2	52
49	Microstructure, elastic deformation behavior and mechanical properties of biomedical $\beta$ -type titanium alloy thin-tube used for stents. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2015, 45, 132-141.	3.1	22
50	Microstructural characteristics of adiabatic shear localization in a metastable beta titanium alloy deformed at high strain rate and elevated temperatures. <i>Materials Characterization</i> , 2015, 102, 103-113.	4.4	38
51	Controlling the microstructure and properties of wire arc additive manufactured Ti-6Al-4V with trace boron additions. <i>Acta Materialia</i> , 2015, 91, 289-303.	7.9	280
52	The mechanism of $\beta$ -assisted $\alpha$ phase formation in near $\beta$ -Ti alloys. <i>Scripta Materialia</i> , 2015, 104, 75-78.	5.2	75
53	Evolution of the microstructure and mechanical properties during fabrication of mini-tubes from a biomedical $\beta$ -titanium alloy. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2015, 42, 207-218.	3.1	16
54	Tool life and wear mechanisms in laser assisted milling Ti-6Al-4V. <i>Wear</i> , 2015, 322-323, 151-163.	3.1	74

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55	Precipitation of the $\beta$ -phase in an ultrafine grained beta-titanium alloy processed by severe plastic deformation. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2014, 605, 144-150.	5.6	22
56	The cold-rolling behaviour of AZ31 tubes for fabrication of biodegradable stents. Journal of the Mechanical Behavior of Biomedical Materials, 2014, 39, 292-303.	3.1	18
57	The dynamic response of a $\beta$ titanium alloy to high strain rates and elevated temperatures. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2014, 607, 417-426.	5.6	86
58	Constitutive modelling of the flow behaviour of a $\beta$ titanium alloy at high strain rates and elevated temperatures using the Johnson-Cook and modified Zerilli-Armstrong models. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2014, 612, 71-79.	5.6	62
59	Effects of phase stability and processing on the mechanical properties of Ti-Nb based $\beta$ Ti alloys. Journal of the Mechanical Behavior of Biomedical Materials, 2013, 28, 15-25.	3.1	53
60	Thermal stability of an ultrafine grain $\beta$ -Ti alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2012, 556, 582-587.	5.6	18
61	Thermal analysis of precipitation reactions in a Ti-25Nb-3Mo-3Zr-2Sn alloy. Applied Physics A: Materials Science and Processing, 2012, 107, 835-841.	2.3	17
62	Influence of ageing temperature and heating rate on the properties and microstructure of $\beta$ Ti alloy, Ti-6Cr-5Mo-5V-4Al. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2012, 531, 98-106.	5.6	53
63	A comparison of cryogenic and high pressure emulsion cooling technologies on tool life and chip morphology in Ti-6Al-4V cutting. Journal of Materials Processing Technology, 2012, 212, 752-765.	6.3	172
64	Strength enhancement of a biomedical titanium alloy through a modified accumulative roll bonding technique. Journal of the Mechanical Behavior of Biomedical Materials, 2011, 4, 405-416.	3.1	56
65	A morphological study of nitride formed on Al at low temperature in the presence of Mg. Acta Materialia, 2011, 59, 2469-2480.	7.9	21
66	Formation of aluminium nitride during sintering of powder injection moulded aluminium. Powder Metallurgy, 2010, 53, 118-124.	1.7	7
67	Pseudoelastic behaviour of a $\beta$ Ti-25Nb-3Zr-3Mo-2Sn alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2010, 527, 2246-2252.	5.6	63
68	Strengthening of cast Ti-25Nb-3Mo-3Zr-2Sn alloy through precipitation of $\beta$ in two discrete crystallographic orientations. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2010, 527, 6601-6606.	5.6	29
69	Microstructure and Mechanical Properties of Cast Ti25Nb3Mo3Zr2Sn Alloy. Advanced Materials Research, 2010, 97-101, 488-491.	0.3	0
70	The Effect of Temperature on the Microstructure of a Metastable $\beta$ Ti Alloy. Materials Science Forum, 2010, 654-656, 847-850.	0.3	9
71	Influence of Heat Treatment on the Pseudoelastic Behaviour of a $\beta$ Ti-25Nb-3Zr-3Mo-2Sn Alloy. Materials Science Forum, 2010, 654-656, 871-874.	0.3	0
72	Formation of Aluminium Nitride during Sintering of Powder Injection Moulded Aluminium. Materials Science Forum, 2009, 618-619, 631-634.	0.3	1

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73	Powder injection moulding of an Al–AlN metal matrix composite. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2009, 513-514, 352-356.	5.6	43
74	Powder Injection Molding of Al-(Steel and Magnet) Hybrid Components. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2009, 40, 2785-2788.	2.2	6
75	Novel Aluminium Nitride Surface Coatings Formed on Aluminium. Materials Science Forum, 2007, 561-565, 571-575.	0.3	4
76	A novel method for the production of aluminium nitride. Scripta Materialia, 2006, 54, 2125-2129.	5.2	23
77	Age hardening of a sintered Al–Cu–Mg–Si (Sn) alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2005, 405, 65-73.	5.6	34
78	The <i>In Situ</i> Fabrication of Al-AlN Composites from Metal Powders and their Resistance to Wear and Cavitation. Materials Science Forum, 0, 618-619, 617-620.	0.3	3
79	The Aging Response of a Metastable $\beta^2$ Ti Alloy, BTi-6554. Materials Science Forum, 0, 690, 29-32.	0.3	4
80	The Effect of HIPping on the Microstructure and Tensile Properties of Cast BTi-6554 Alloy. Materials Science Forum, 0, 690, 33-36.	0.3	1