Damon Kent

List of Publications by Year
in descending order

80 papers	3,811 citations	126708 33 h-index	128067 60 g-index
84 all docs	84 docs citations	84 times ranked	3500 citing authors

#	Article	IF	Citations
1	Controlling the microstructure and properties of wire arc additive manufactured Tiâ€“6Alâ€“4V with trace boron additions. Acta Materialia, 2015, 91, 289-303.	3.8	280
2	Recent developments and opportunities in additive manufacturing of titanium-based matrix composites: A review. International Journal of Machine Tools and Manufacture, 2018, 133, 85-102.	6.2	273
3	Nanoindentation and wear properties of Ti and Ti-TiB composite materials produced by selective laser melting. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2017, 688, 20-26.	2.6	225
4	Comparative study of commercially pure titanium produced by laser engineered net shaping, selective laser melting and casting processes. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2017, 705, 385-393.	2.6	176
5	A comparison of cryogenic and high pressure emulsion cooling technologies on tool life and chip morphology in Tiâ€“6Alâ€“4V cutting. Journal of Materials Processing Technology, 2012, 212, 752-765.	3.1	172
6	New insights into the phase transformations to isothermal Ï‰ and Ï‰-assisted Î± in near Î²-Ti alloys. Acta Materialia, 2016, 106, 353-366.	3.8	155
7	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.	2.8	138
8	Mechanical properties and biocompatibility of porous titanium scaffolds for bone tissue engineering. Journal of the Mechanical Behavior of Biomedical Materials, 2017, 75, 169-174.	1.5	128
9	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.	2.8	124
10	Additively manufactured iron-manganese for biodegradable porous load-bearing bone scaffold applications. Acta Biomaterialia, 2020, 103, 346-360.	4.1	111
11	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.	2.6	90
12	The dynamic response of a Î² titanium alloy to high strain rates and elevated temperatures. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2014, 607, 417-426.	2.6	86
13	The mechanism of Ï‰-assisted Î± phase formation in near Î²-Ti alloys. Scripta Materialia, 2015, 104, 75-78.	2.6	75
14	Ultrahigh strain hardening in a transformation-induced plasticity and twinning-induced plasticity titanium alloy. Scripta Materialia, 2020, 187, 285-290.	2.6	75
15	Tool life and wear mechanisms in laser assisted milling Tiâ€“6Alâ€“4V. Wear, 2015, 322-323, 151-163.	1.5	74
16	The dynamic response of a metastable Î² Tiâ€“Nb alloy to high strain rates at room and elevated temperatures. Acta Materialia, 2016, 105, 104-113.	3.8	71
17	Effects of deformation twinning on the mechanical properties of biodegradable Zn-Mg alloys. Bioactive Materials, 2019, 4, 8-16.	8.6	70
18	Simultaneously enhanced strength and ductility in a metastable Î²-Ti alloy by stress-induced hierarchical twin structure. Scripta Materialia, 2020, 184, 6-11.	2.6	64

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19	Pseudoelastic behaviour of a Î² Tiâ€“25Nbâ€“3Zrâ€“3Moâ€“2Sn alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2010, 527, 2246-2252.	2.6	63
20	Constitutive modelling of the flow behaviour of a Î² titanium alloy at high strain rates and elevated temperatures using the Johnsonâ€“Cook and modified Zerilliâ€“Armstrong models. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2014, 612, 71-79.	2.6	62
21	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.	2.8	59
22	Trace Carbon Addition to Refine Microstructure and Enhance Properties of Additive-Manufactured Ti-6Al-4V. Jom, 2018, 70, 1670-1676.	0.9	57
23	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.	1.5	56
24	Influence of ageing temperature and heating rate on the properties and microstructure of Î² Ti alloy, Tiâ€“6Crâ€“5Moâ€“5Vâ€“4Al. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2012, 531, 98-106.	2.6	53
25	Effects of phase stability and processing on the mechanical properties of Tiâ€“Nb based Î² Ti alloys. Journal of the Mechanical Behavior of Biomedical Materials, 2013, 28, 15-25.	1.5	53
26	On the deformation mechanisms and strain rate sensitivity of a metastable Î² Tiâ€“Nb alloy. Scripta Materialia, 2015, 107, 34-37.	2.6	52
27	Microstructural evolution and mechanical properties of bulk and porous low-cost Tiâ€“Moâ€“Fe alloys produced by powder metallurgy. Journal of Alloys and Compounds, 2021, 853, 156768.	2.8	44
28	Powder injection moulding of an Alâ€“AlN metal matrix composite. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2009, 513-514, 352-356.	2.6	43
29	Comparative Study of Pure Iron Manufactured by Selective Laser Melting, Laser Metal Deposition, and Casting Processes. Advanced Engineering Materials, 2019, 21, 1900049.	1.6	39
30	Microstructural characteristics of adiabatic shear localization in a metastable beta titanium alloy deformed at high strain rate and elevated temperatures. Materials Characterization, 2015, 102, 103-113.	1.9	38
31	The role of Ï‰ in the precipitation of Î± in near-Î² Ti alloys. Scripta Materialia, 2016, 117, 92-95.	2.6	37
32	Age hardening of a sintered Alâ€“Cuâ€“Mgâ€“Siâ€“(Sn) alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2005, 405, 65-73.	2.6	34
33	Manufacturing of biocompatible porous titanium scaffolds using a novel spherical sugar pellet space holder. Materials Letters, 2017, 195, 92-95.	1.3	34
34	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.	3.8	32
35	Nucleation driving force for Ï‰-assisted formation of Î± and associated Ï‰ morphology in Î²-Ti alloys. Scripta Materialia, 2018, 155, 149-154.	2.6	31
36	Composition of the nanosized orthorhombic Oâ€² phase and its direct transformation to fine Î± during ageing in metastable Î²-Ti alloys. Scripta Materialia, 2019, 170, 183-188.	2.6	30

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37	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.	5.6	30
38	Strengthening of cast Tiâ€"25Nbâ€"3Moâ€"3Zrâ€"2Sn alloy through precipitation of Î± in two discrete crystallographic orientations. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2010, 527, 6601-6606.	2.6	29
39	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.	2.6	28
40	High strength heat-treatable Î²-titanium alloy for additive manufacturing. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 791, 139646.	2.6	27
41	Sintering and biocompatibility of blended elemental Ti-xNb alloys. Journal of the Mechanical Behavior of Biomedical Materials, 2020, 104, 103691.	1.5	27
42	Spheroidization behaviour of a Fe-enriched eutectic high-entropy alloy. Journal of Materials Science and Technology, 2020, 51, 173-179.	5.6	26
43	A new understanding of the wear processes during laser assisted milling 17-4 precipitation hardened stainless steel. Wear, 2015, 328-329, 518-530.	1.5	25
44	A novel method for the production of aluminium nitride. Scripta Materialia, 2006, 54, 2125-2129.	2.6	23
45	Precipitation of the Î±-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.	2.6	22
46	An investigation of the mechanical behaviour of fine tubes fabricated from a Tiâ€"25Nbâ€"3Moâ€"3Zrâ€"2Sn alloy. Materials and Design, 2015, 85, 256-265.	3.3	22
47	Microstructure, elastic deformation behavior and mechanical properties of biomedical Î²-type titanium alloy thin-tube used for stents. Journal of the Mechanical Behavior of Biomedical Materials, 2015, 45, 132-141.	1.5	22
48	A morphological study of nitride formed on Al at low temperature in the presence of Mg. Acta Materialia, 2011, 59, 2469-2480.	3.8	21
49	Manufacturing of graded titanium scaffolds using a novel space holder technique. Bioactive Materials, 2017, 2, 248-252.	8.6	21
50	Effect of Fe addition on properties of Tiâ€"6Al-xFe manufactured by blended elemental process. Journal of the Mechanical Behavior of Biomedical Materials, 2020, 102, 103518.	1.5	21
51	Improved biodegradable magnesium alloys through advanced solidification processing. Scripta Materialia, 2020, 177, 234-240.	2.6	20
52	Comparison of the Microstructure and Biocorrosion Properties of Additively Manufactured and Conventionally Fabricated near Î² Tiâ€"25Nbâ€"3Zrâ€"3Moâ€"2Sn Alloy. ACS Biomaterials Science and Engineering, 2019, 5, 5844-5856.	2.6	19
53	Thermal stability of an ultrafine grain Î²-Ti alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2012, 556, 582-587.	2.6	18
54	The cold-rolling behaviour of AZ31 tubes for fabrication of biodegradable stents. Journal of the Mechanical Behavior of Biomedical Materials, 2014, 39, 292-303.	1.5	18

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55	Thermal analysis of precipitation reactions in a Tiâ€“25Nbâ€“3Moâ€“3Zrâ€“2Sn alloy. Applied Physics A: Materials Science and Processing, 2012, 107, 835-841.	1.1	17
56	High-temperature age-hardening of a novel cost-effective Fe45Ni25Cr25Mo5 high entropy alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 788, 139580.	2.6	17
57	Evolution of the microstructure and mechanical properties during fabrication of mini-tubes from a biomedical Î²-titanium alloy. Journal of the Mechanical Behavior of Biomedical Materials, 2015, 42, 207-218.	1.5	16
58	Biocompatible porous titanium scaffolds produced using a novel space holder technique. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2018, 106, 2796-2806.	1.6	16
59	Effect of Mg on dynamic recrystallization of Znâ€“Mg alloys during room-temperature compression. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2022, 830, 142243.	2.6	16
60	High stability and high strength Î²-titanium alloys for additive manufacturing. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2021, 816, 141326.	2.6	15
61	Eutectic modification of Fe-enriched high-entropy alloys through minor addition of boron. Journal of Materials Science, 2020, 55, 14571-14587.	1.7	14
62	Activation of homogeneous precursors for formation of uniform and refined Î± precipitates in a high-strength Î²-Ti alloy. Materialia, 2020, 9, 100557.	1.3	13
63	Insights into Machining of a Î² Titanium Biomedical Alloy from Chip Microstructures. Metals, 2018, 8, 710.	1.0	10
64	The Effect of Temperature on the Microstructure of a Metastable Î² Ti Alloy. Materials Science Forum, 2010, 654-656, 847-850.	0.3	9
65	Formation of aluminium nitride during sintering of powder injection moulded aluminium. Powder Metallurgy, 2010, 53, 118-124.	0.9	7
66	Powder Injection Molding of Al-(Steel and Magnet) Hybrid Components. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2009, 40, 2785-2788.	1.1	6
67	Properties of Powder Metallurgyâ€Fabricated Oxygenâ€Containing Beta Tiâ€“Nbâ€“Moâ€“Snâ€“Fe Alloys for Biomedical Applications. Advanced Engineering Materials, 2020, 22, 1901229.	1.6	5
68	The characterisation and formation of novel microstructural features in a Tiâˆ’Nbâˆ’Zrâˆ’Moâˆ’Sn alloy manufactured by Laser Engineered Net Shaping (LENS). Additive Manufacturing, 2021, 37, 101705.	1.7	5
69	Novel Aluminium Nitride Surface Coatings Formed on Aluminium. Materials Science Forum, 2007, 561-565, 571-575.	0.3	4
70	The Aging Response of a Metastable Î² Ti Alloy, BTi-6554. Materials Science Forum, 0, 690, 29-32.	0.3	4
71	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.	1.1	4
72	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

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73	Formation of Aluminium Nitride during Sintering of Powder Injection Moulded Aluminium. Materials Science Forum, 2009, 618-619, 631-634.	0.3	1
74	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
75	Role of germanium in microstructural development of powder metallurgy Ti-20Cr-xGe alloys. Materials Letters, 2020, 274, 127964.	1.3	1
76	Metastable Ti-Fe-Ge alloys with high elastic admissible strain. Materialia, 2022, 21, 101304.	1.3	1
77	Microstructure and Mechanical Properties of Cast Ti25Nb3Mo3Zr2Sn Alloy. Advanced Materials Research, 2010, 97-101, 488-491.	0.3	0
78	Influence of Heat Treatment on the Pseudoelastic Behaviour of a Î² Ti-25Nb-3Zr-3Mo-2Sn Alloy. Materials Science Forum, 2010, 654-656, 871-874.	0.3	0
79	Sugar as an Analogue for Snow in Penetration Testing: A Preliminary Comparison. , 2022, 1, 33-46.		0
80	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.	5.5	0