Calvin Rans

List of Publications by Year
in descending order

58	2,108	218677	243625
papers	citations	26 h-index	44 g-index

58	58	58	1211
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Improving the quality of continuous ultrasonically welded thermoplastic composite joints by adding a consolidator to the welding setup. Composites Part A: Applied Science and Manufacturing, 2022, 155, 106808.	7.6	14
2	Accuracy of strain measurement systems on a non-isotropic material and its uncertainty on finite element analysis. Journal of Strain Analysis for Engineering Design, 2021, 56, 76-95.	1.8	3
3	The influence of grit blasting and UV/Ozone treatments on Ti-Ti adhesive bonds and their durability after sol-gel and primer application. International Journal of Adhesion and Adhesives, 2021, 104, 102750.	2.9	6
4	Fatigue crack growth of butt welded joints subjected to mixed mode loading and overloading. Engineering Fracture Mechanics, 2021, 241, 107376.	4.3	14
5	Modelling the Variability and the Anisotropic Behaviour of Crack Growth in SLM Ti-6Al-4V. Materials, 2021, 14, 1400.	2.9	20
6	Enhancing weld attributes in ultrasonic spot welding of carbon fibre-reinforced thermoplastic composites: Effect of sonotrode configurations and process control. Composites Part B: Engineering, 2021, 211, 108648.	12.0	17
7	Fatigue performance of auxetic meta-biomaterials. Acta Biomaterialia, 2021, 126, 511-523.	8.3	44
8	The dangers of single-lap shear testing in understanding polymer composite welded joints. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2021, 379, 20200296.	3.4	6
9	Effect of surface morphology on the Tiâ€“Ti adhesive bond performance of Ti6Al4V parts fabricated by selective laser melting. International Journal of Adhesion and Adhesives, 2021, 110, 102918.	2.9	12
10	A Study on Through-the-Thickness Heating in Continuous Ultrasonic Welding of Thermoplastic Composites. Materials, 2021, 14, 6620.	2.9	11
11	Residual stress evaluation of adhesively bonded composite using central cut plies specimens. Journal of Adhesion, 2020, 96, 1355-1384.	3.0	2
12	Experimental evaluation of fatigue behaviour of thin Al5456 welded joints. Fatigue and Fracture of Engineering Materials and Structures, 2020, 43, 965-977.	3.4	8
13	Two engineering models for predicting the retardation of fatigue crack growth caused by mixed mode overload. International Journal of Fatigue, 2020, 132, 105378.	5.7	11
14	Continuous ultrasonic welding of thermoplastic composites: Enhancing the weld uniformity by changing the energy director. Journal of Composite Materials, 2020, 54, 2023-2035.	2.4	33
15	On differences and similarities between static and continuous ultrasonic welding of thermoplastic composites. Composites Part B: Engineering, 2020, 203, 108466.	12.0	34
16	Fatigue crack growth of Al 5083-H111 subjected to mixed-mode loading. Journal of the Brazilian Society of Mechanical Sciences and Engineering, 2020, 42, 1.	1.6	4
17	Further Studies into Crack Growth in Additively Manufactured Materials. Materials, 2020, 13, 2223.	2.9	28
18	Ultrasonic welding of epoxy- to polyetheretherketone- based composites: Investigation on the material of the energy director and the thickness of the coupling layer. Journal of Composite Materials, 2020, 54, 3081-3098.	2.4	16

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19	Effect of residual stress redistribution and weld reinforcement geometry on fatigue crack growth of butt welded joints. International Journal of Fatigue, 2020, 139, 105780.	5.7	28
20	Ultrasonic Welding of Thermoplastic Composites. Frontiers in Materials, 2019, 6, .	2.4	55
21	On sequential ultrasonic spot welding as an alternative to mechanical fastening in thermoplastic composite assemblies: A study on single-column multi-row single-lap shear joints. Composites Part A: Applied Science and Manufacturing, 2019, 120, 1-11.	7.6	27
22	Evaluation of mode II fatigue disbonding using Central Cut Plies specimen and distributed strain sensing technology. Journal of Adhesion, 2019, 95, 259-285.	3.0	6
23	Isolated and modulated effects of topology and material type on the mechanical properties of additively manufactured porous biomaterials. Journal of the Mechanical Behavior of Biomedical Materials, 2018, 79, 254-263.	3.1	88
24	Towards robust sequential ultrasonic spot welding of thermoplastic composites: Welding process control strategy for consistent weld quality. Composites Part A: Applied Science and Manufacturing, 2018, 109, 355-367.	7.6	39
25	Analytical solutions for crack opening displacements of eccentric cracks in thin-walled metallic plates. Thin-Walled Structures, 2018, 123, 371-381.	5.3	6
26	Fatigue performance of additively manufactured meta-biomaterials: The effects of topology and material type. Acta Biomaterialia, 2018, 65, 292-304.	8.3	144
27	Theoretical analysis of fatigue failure in mechanically fastened Fibre Metal Laminate joints containing multiple cracks. Engineering Failure Analysis, 2018, 91, 151-164.	4.0	16
28	Beyond the orthogonal: on the influence of build orientation on fatigue crack growth in SLM Ti-6Al-4V. International Journal of Fatigue, 2018, 116, 344-354.	5.7	36
29	On the effect of flat energy directors thickness on heat generation during ultrasonic welding of thermoplastic composites. Composite Interfaces, 2017, 24, 203-214.	2.3	68
30	Effects of applied stress ratio on the fatigue behavior of additively manufactured porous biomaterials under compressive loading. Journal of the Mechanical Behavior of Biomedical Materials, 2017, 70, 7-16.	3.1	54
31	Mechanical behaviour of thermoplastic composites spot-welded and mechanically fastened joints: A preliminary comparison. Composites Part B: Engineering, 2017, 112, 224-234.	12.0	61
32	Prediction methodology for fatigue crack growth behaviour in Fibre Metal Laminates subjected to tension and pin loading. Composite Structures, 2017, 182, 176-182.	5.8	13
33	Analytical prediction model for fatigue crack growth in Fibre Metal Laminates with MSD scenario. International Journal of Fatigue, 2017, 104, 263-272.	5.7	9
34	Analytical prediction model for non-symmetric fatigue crack growth in Fibre Metal Laminates. International Journal of Fatigue, 2017, 103, 546-556.	5.7	17
35	Ultrasonic welding of CF/PPS composites with integrated triangular energy directors: melting, flow and weld strength development. Composite Interfaces, 2017, 24, 515-528.	2.3	38
36	An experimental investigation into pin loading effects on fatigue crack growth in Fibre Metal Laminates. Procedia Structural Integrity, 2016, 2, 3361-3368.	0.8	11

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37	Forensic Engineering: Learning by Accident Teaching Investigation Skills to Graduate Students using Real-Life Accident Simulations. , 2015, , .		1
38	In situ monitoring of ultrasonic welding of thermoplastic composites through power and displacement data. Journal of Thermoplastic Composite Materials, 2015, 28, 66-85.	4.2	87
39	On the onset of the asymptotic stable fracture region in the mode II fatigue delamination growth behaviour of composites. Journal of Composite Materials, 2015, 49, 685-697.	2.4	12
40	Predicting the influence of discretely notched layers on fatigue crack growth in fibre metal laminates. Engineering Fracture Mechanics, 2015, 145, 1-14.	4.3	17
41	Finite Element Modeling of Fatigue in Fiberâ€“Metal Laminates. AIAA Journal, 2015, 53, 2228-2236.	2.6	4
42	Modeling of the heating phenomena in ultrasonic welding of thermoplastic composites with flat energy directors. Journal of Materials Processing Technology, 2014, 214, 1361-1371.	6.3	99
43	Strength development versus process data in ultrasonic welding of thermoplastic composites with flat energy directors and its application to the definition of optimum processing parameters. Composites Part A: Applied Science and Manufacturing, 2014, 65, 27-37.	7.6	103
44	Process and performance evaluation of ultrasonic, induction and resistance welding of advanced thermoplastic composites. Journal of Thermoplastic Composite Materials, 2013, 26, 1007-1024.	4.2	139
45	Analytical prediction of Mode I stress intensity factors for cracked panels containing bonded stiffeners. Engineering Fracture Mechanics, 2013, 97, 12-29.	4.3	14
46	Characterizing fatigue delamination growth behaviour using specimens with multiple delaminations: The effect of unequal delamination lengths. Engineering Fracture Mechanics, 2013, 109, 150-160.	4.3	20
47	Applicability of AZ31B-H24 magnesium in Fibre Metal Laminates â€“ An experimental impact research. Composites Part A: Applied Science and Manufacturing, 2012, 43, 1578-1586.	7.6	80
48	Misinterpreting the results: How similitude can improve our understanding of fatigue delamination growth. Composites Science and Technology, 2011, 71, 230-238.	7.8	137
49	Predicting the influence of temperature on fatigue crack propagation in Fibre Metal Laminates. Engineering Fracture Mechanics, 2011, 78, 2193-2201.	4.3	34
50	Fatigue Behavior of Fiber/Metal Laminate Panels Containing Internal Carbon Tear Straps. Journal of Aircraft, 2011, 48, 2122-2129.	2.4	6
51	Ultrasonic welding of advanced thermoplastic composites: An investigation on energyâ€directing surfaces. Advances in Polymer Technology, 2010, 29, 112-121.	1.7	91
52	Application of a modified Wheeler model to predict fatigue crack growth in Fibre Metal Laminates under variable amplitude loading. Engineering Fracture Mechanics, 2010, 77, 1400-1416.	4.3	41
53	Assessing the effects of riveting induced residual stresses on fatigue crack behaviour in lap joints by means of fractography. International Journal of Fatigue, 2009, 31, 300-308.	5.7	18
54	The meaning of threshold fatigue in fibre metal laminates. International Journal of Fatigue, 2009, 31, 213-222.	5.7	24

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55	The applicability of magnesium based Fibre Metal Laminates in aerospace structures. Composites Science and Technology, 2008, 68, 2983-2993.	7.8	107
56	Riveting Process Induced Residual Stresses Around Solid Rivets in Mechanical Joints. Journal of Aircraft, 2007, 44, 323-329.	2.4	63
57	Effects of Rivet Installation on Residual Stresses and Secondary Bending Stresses in a Riveted Lap Joint. , 2007, , .		5
58	Avoiding knife-edge countersinks in GLARE through dimpling. Fatigue and Fracture of Engineering Materials and Structures, 2005, 28, 633-640.	3.4	7