Brian G Falzon

List of Publications by Year
in descending order

99 papers	4,004 citations	136950 32 h-index	128289 60 g-index
100 all docs	100 docs citations	100 times ranked	2551 citing authors

#	Article	IF	Citations
1	Influence on fracture toughness arising from controlled morphology of multiphase toughened epoxy resins in the presence of fibre reinforcement. Composites Science and Technology, 2022, 217, 109095.	7.8	21
2	Synergistic enhancement of fracture toughness in multiphase epoxy matrices modified by thermoplastic and carbon nanotubes. Composites Science and Technology, 2021, 201, 108523.	7.8	42
3	A crystal plasticity phenomenological model to capture the non-linear shear response of carbon fibre reinforced composites. International Journal of Lightweight Materials and Manufacture, 2021, 4, 99-109.	2.1	5
4	Micromechanical modelling of interlaminar damage propagation and migration. , 2021, , 307-347.		1
5	Modelling the longitudinal failure of fibre-reinforced composites at microscale. , 2021, , 349-378.		2
6	On the importance of finite element mesh alignment along the fibre direction for modelling damage in fibre-reinforced polymer composite laminates. Composite Structures, 2021, 278, 114694.	5.8	7
7	On the importance of nesting considerations for accurate computational damage modelling in 2D woven composite materials. Computational Materials Science, 2020, 172, 109323.	3.0	26
8	Welding of thermoplastics by means of carbon-nanotube web. Composites Communications, 2020, 17, 56-60.	6.3	12
9	Modelling damage in fibre-reinforced thermoplastic composite laminates subjected to three-point bend loading. Composite Structures, 2020, 236, 111889.	5.8	29
10	Micromechanical modelling of the longitudinal compressive and tensile failure of unidirectional composites: The effect of fibre misalignment introduced via a stochastic process. International Journal of Solids and Structures, 2020, 203, 157-176.	2.7	31
11	Assessing the current modelling approach for predicting the crashworthiness of Formula One composite structures. Composites Part B: Engineering, 2020, 201, 108242.	12.0	27
12	Experimental determination of mode I fracture parameters in orthotropic materials by means of Digital Image Correlation. Theoretical and Applied Fracture Mechanics, 2020, 108, 102663.	4.7	18
13	Effects of Impactor Geometry on the Low-Velocity Impact Behaviour of Fibre-Reinforced Composites: An Experimental and Theoretical Investigation. Applied Composite Materials, 2020, 27, 533-553.	2.5	26
14	Modelling electro-impulse de-icing process in leading edge structure and impact fatigue life prediction of rivet holes in critical areas. Proceedings of the Institution of Mechanical Engineers, Part G: Journal of Aerospace Engineering, 2020, 234, 1117-1131.	1.3	4
15	Phase morphology and fracture behaviour of CNT and thermoplastic modified epoxy ternary nanocomposite by different processing methods. AIP Conference Proceedings, 2020, , .	0.4	2
16	Investigation on the influence of multi-step processing on the mechanical and thermal properties of cellulose reinforced EVOH composites. AIP Conference Proceedings, 2020, , .	0.4	2
17	Compressive intralaminar fracture toughness and residual strength of 2D woven carbon fibre reinforced composites: New developments on using the size effect method. Theoretical and Applied Fracture Mechanics, 2020, 106, 102487.	4.7	18
18	High performance multiscale glass fibre epoxy composites integrated with cellulose nanocrystals for advanced structural applications. Composites Part A: Applied Science and Manufacturing, 2020, 131, 105801.	7.6	32

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19	Progressive failure in interply hybrid composites of self-reinforced polypropylene and glass fibre. Polymer, 2020, 195, 122411.	3.8	11
20	Thermosetting Composite Materials in Aerostructures. , 2020, , 57-86.		6
21	Effect of precursor pH on AuNP/MWCNT nanocomposites synthesized by plasma-induced non-equilibrium electrochemistry. Journal Physics D: Applied Physics, 2020, 53, 425207.	2.8	4
22	Infrared Thermography assisted evaluation of static and fatigue Mode II fracture toughness in FRP composites. Composite Structures, 2019, 226, 111220.	5.8	19
23	Phase morphology and mechanical properties of polyetherimide modified epoxy resins: A comparative study. Polymer, 2019, 179, 121640.	3.8	35
24	An experimental and numerical study on the crush behaviour of hybrid unidirectional/woven carbon-fibre reinforced composite laminates. International Journal of Mechanical Sciences, 2019, 164, 105160.	6.7	38
25	Compressive failure of woven fabric reinforced thermoplastic composites with an open-hole: An experimental and numerical study. Composite Structures, 2019, 213, 108-117.	5.8	37
26	Microplasma assisted synthesis of gold nanoparticle/graphene oxide nanocomposites and their potential application in SERS sensing. Nanotechnology, 2019, 30, 455603.	2.6	10
27	Ultrasensitive embedded sensor for composite joints based on a highly aligned carbon nanotube web. Carbon, 2019, 149, 380-389.	10.3	30
28	Atmospheric Pressure Plasma-Synthesized Gold Nanoparticle/Carbon Nanotube Hybrids for Photothermal Conversion. Langmuir, 2019, 35, 4577-4588.	3.5	25
29	Mode I intralaminar fracture toughness of 2D woven carbon fibre reinforced composites: A comparison of stable and unstable crack propagation techniques. Engineering Fracture Mechanics, 2019, 214, 427-448.	4.3	22
30	Micromechanical analysis of interlaminar crack propagation between angled plies in mode I tests. Composite Structures, 2019, 220, 827-841.	5.8	18
31	Enhancing the fracture toughness of hierarchical composites through aminoâ€'functionalised carbon nanotube webs. Composites Part B: Engineering, 2019, 165, 537-544.	12.0	40
32	Thermoresponsive nanocomposites incorporating microplasma synthesized magnetic nanoparticlesâ€"Synthesis and potential applications. Plasma Processes and Polymers, 2019, 16, 1800128.	3.0	15
33	Orthotropic electro-thermal behaviour of highly-aligned carbon nanotube web based composites. Composites Science and Technology, 2019, 170, 157-164.	7.8	18
34	An advanced anti-icing/de-icing system utilizing highly aligned carbon nanotube webs. Carbon, 2018, 136, 130-138.	10.3	106
35	Aligned carbon nanotube webs embedded in a composite laminate: A route towards a highly tunable electro-thermal system. Carbon, 2018, 129, 486-494.	10.3	48
36	Permeability characterization of sheared carbon fiber textile preform. Polymer Composites, 2018, 39, 2287-2298.	4.6	10

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37	Experimental and numerical studies on the impact response of damage-tolerant hybrid unidirectional/woven carbon-fibre reinforced composite laminates. Composites Part B: Engineering, 2018, 136, 101-118.	12.0	137
38	Predicting the Compression-After-Impact (CAI) strength of damage-tolerant hybrid unidirectional/woven carbon-fibre reinforced composite laminates. Composites Part A: Applied Science and Manufacturing, 2018, 105, 189-202.	7.6	86
39	The role of interfacial properties on the intralaminar and interlaminar damage behaviour of unidirectional composite laminates: Experimental characterization and multiscale modelling. Composites Part B: Engineering, 2018, 138, 206-221.	12.0	90
40	Metal nanoparticleâ€hydrogel nanocomposites for biomedical applications â€“ An atmospheric pressure plasma synthesis approach. Plasma Processes and Polymers, 2018, 15, 1800112.	3.0	34
41	An experimental method to determine the intralaminar fracture toughness of high-strength carbon-fibre reinforced composite aerostructures. Aeronautical Journal, 2018, 122, 1352-1370.	1.6	22
42	Enhancing the electrical conductivity of carbon fibre thin-ply laminates with directly grown aligned carbon nanotubes. Composite Structures, 2018, 206, 272-278.	5.8	26
43	The effect of processing on the mechanical properties of self-reinforced composites. AIP Conference Proceedings, 2018, , .	0.4	3
44	Virtual Testing of Composite Structures: Progress and Challenges in Predicting Damage, Residual Strength and Crashworthiness. , 2017, , 699-743.		1
45	Axisymmetric structural optimization design and void control for selective laser melting. Structural and Multidisciplinary Optimization, 2017, 56, 1027-1043.	3.5	8
46	Comment on â€œA tensorial based progressive damage model for fibre reinforced polymersâ€• Composite Structures, 2017, 176, 877-882.	5.8	19
47	Simulating Resin Infusion through Textile Reinforcement Materials for the Manufacture of Complex Composite Structures. Engineering, 2017, 3, 596-607.	6.7	36
48	Predicting Impact Damage, Residual Strength and Crashworthiness of Composite Structures. SAE International Journal of Materials and Manufacturing, 2016, 9, 718-728.	0.3	9
49	The role of material characterisation in the crush modelling of thermoplastic composite structures. Composite Structures, 2016, 153, 914-927.	5.8	47
50	Modelling the crush behaviour of thermoplastic composites. Composites Science and Technology, 2016, 134, 57-71.	7.8	83
51	Crack propagation in non-homogenous materials: Evaluation of mixed-mode SIFs, T-stress and kinking angle using a variant of EFG Method. Engineering Analysis With Boundary Elements, 2016, 72, 11-26.	3.7	35
52	Implementing a structural continuity constraint and a halting method for the topology optimization of energy absorbers. Structural and Multidisciplinary Optimization, 2016, 54, 429-448.	3.5	6
53	Validation of a 3D damage model for predicting the response of composite structures under crushing loads. Composite Structures, 2016, 147, 65-73.	5.8	37
54	Modelling the nonlinear behaviour and fracture process of AS4/PEKK thermoplastic composite under shear loading. Composites Science and Technology, 2016, 126, 60-77.	7.8	71

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55	Predicting the crushing behaviour of composite material using high-fidelity finite element modelling. International Journal of Crashworthiness, 2015, 20, 60-77.	1.9	54
56	Crush responses of composite cylinder under quasi-static and dynamic loading. Composite Structures, 2015, 131, 90-98.	5.8	87
57	Development and evaluation of a novel integrated anti-icing/de-icing technology for carbon fibre composite aerostructures using an electro-conductive textile. Composites Part A: Applied Science and Manufacturing, 2015, 68, 323-335.	7.6	55
58	Predicting low velocity impact damage and Compression-After-Impact (CAI) behaviour of composite laminates. Composites Part A: Applied Science and Manufacturing, 2015, 71, 212-226.	7.6	344
59	Finite element modelling of composite structures under crushing load. Composite Structures, 2015, 131, 215-228.	5.8	79
60	Numerical prediction of the low-velocity impact damage and compression after impact strength of composite laminates. IOP Conference Series: Materials Science and Engineering, 2015, 74, 012015.	0.6	1
61	Implementation of a Non-Orthogonal Constitutive Model for the Finite Element Simulation of Textile Composite Draping. Applied Mechanics and Materials, 2014, 553, 76-81.	0.2	8
62	Efficiency improvement study for small wind turbines through flow control. Sustainable Energy Technologies and Assessments, 2014, 7, 195-208.	2.7	19
63	Study of localized damage in composite laminates using microâ€“macro approach. Composite Structures, 2014, 113, 1-11.	5.8	12
64	Modelling matrix damage and fibreâ€“matrix interfacial decohesion in composite laminates via a multi-fibre multi-layer representative volume element (M2RVE). International Journal of Solids and Structures, 2014, 51, 449-461.	2.7	41
65	Modified crack closure integral technique for extraction of SIFs in meshfree methods. Finite Elements in Analysis and Design, 2014, 78, 25-39.	3.2	17
66	An investigation of Mode I and Mode II fracture toughness enhancement using aligned carbon nanotubes forests at the crack interface. Composite Structures, 2013, 106, 65-73.	5.8	76
67	Integrating Allowable Design Strains in Composites with Whole Life Value. Procedia CIRP, 2013, 11, 278-283.	1.9	2
68	Investigating the use of compliant webs in the damage-tolerant design of stiffener run-outs. Composites Part B: Engineering, 2013, 45, 70-77.	12.0	9
69	Identification of Dynamics of Surface Suction Over an Airfoil at Low Reynolds Numbers. , 2013, , .		0
70	The use of a genetic algorithm to improve the postbuckling strength of stiffened composite panels susceptible to secondary instabilities. Composite Structures, 2012, 94, 883-895.	5.8	19
71	Optimization of Composite Structures to Delay Mode Jump Instabilities. AIAA Journal, 2011, 49, 703-711.	2.6	1
72	Design of composite stiffener run-outs for damage tolerance. Finite Elements in Analysis and Design, 2011, 47, 949-954.	3.2	14

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73	Numerical analysis of intralaminar failure mechanisms in composite structures. Part II: Applications. Composite Structures, 2011, 93, 1047-1053.	5.8	69
74	Numerical analysis of intralaminar failure mechanisms in composite structures. Part I: FE implementation. Composite Structures, 2011, 93, 1039-1046.	5.8	107
75	Efficient modelling and optimisation of hybrid multilayered plates subject to ballistic impact. International Journal of Impact Engineering, 2010, 37, 605-624.	5.0	23
76	Predicting low-velocity impact damage on a stiffened composite panel. Composites Part A: Applied Science and Manufacturing, 2010, 41, 737-749.	7.6	277
77	Element-Free Galerkin modelling of composite damage. Composites Science and Technology, 2009, 69, 2640-2648.	7.8	25
78	A progressive failure model for composite laminates subjected to low velocity impact damage. Computers and Structures, 2008, 86, 1232-1252.	4.4	340
79	On the application of genetic algorithms for optimising composites against impact loading. International Journal of Impact Engineering, 2008, 35, 1293-1302.	5.0	32
80	Optimization Strategy for Minimizing Damage in Postbuckling Stiffened Panels. AIAA Journal, 2007, 45, 2520-2528.	2.6	35
81	Intralaminar toughness characterisation of unbalanced hybrid plain weave laminates. Composites Part A: Applied Science and Manufacturing, 2007, 38, 1597-1611.	7.6	38
82	Numerical Analysis of Stiffener Runout Sections. Applied Composite Materials, 2007, 14, 145-158.	2.5	15
83	A correction to the analytical solution of the mixed-mode bending (MMB) problem. Composites Science and Technology, 2007, 67, 662-668.	7.8	19
84	A 3-D micromechanical model for predicting the elastic behaviour of woven laminates. Composites Science and Technology, 2007, 67, 2467-2477.	7.8	56
85	Delamination threshold load for dynamic impact on plates. International Journal of Solids and Structures, 2006, 43, 3124-3141.	2.7	134
86	An automated hybrid procedure for capturing mode-jumping in postbuckling composite stiffened structures. Composite Structures, 2006, 73, 186-195.	5.8	16
87	Structural testing and numerical simulation of a 34m composite wind turbine blade. Composite Structures, 2006, 76, 52-61.	5.8	189
88	A pseudo-transient solution strategy for the analysis of delamination by means of interface elements. Finite Elements in Analysis and Design, 2006, 42, 698-708.	3.2	22
89	Web-assisted first-year undergraduate teaching in engineering. Computer Applications in Engineering Education, 2005, 13, 125-132.	3.4	5
90	Stiffener debonding mechanisms in post-buckled CFRP aerospace panels. Composites Part A: Applied Science and Manufacturing, 2005, 36, 934-946.	7.6	71

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91	Predicting the ultimate load of a CFRP wingbox. Composites Part A: Applied Science and Manufacturing, 2004, 35, 895-903.	7.6	2
92	Capturing mode-switching in postbuckling composite panels using a modified explicit procedure. Composite Structures, 2003, 60, 447-453.	5.8	29
93	The Behavior of Compressively Loaded Stiffener Runout Specimens â€“ Part I: Experiments. Journal of Composite Materials, 2003, 37, 381-400.	2.4	17
94	The Behavior of Compressively Loaded Stiffener Runout Specimens â€“ Part II: Finite Element Analysis. Journal of Composite Materials, 2003, 37, 481-501.	2.4	18
95	The behaviour of damage tolerant hat-stiffened composite panels loaded in uniaxial compression. Composites Part A: Applied Science and Manufacturing, 2001, 32, 1255-1262.	7.6	31
96	Failure of thick-skinned stiffener runout sections loaded in uniaxial compression. Composite Structures, 2001, 53, 223-233.	5.8	30
97	Fracture mechanics using a 3D composite element. Composite Structures, 1999, 45, 29-39.	5.8	17
98	An Application of Bi-Directional Evolutionary Structural Optimisation for Optimising Energy Absorbing Structures Using a Material Damage Model. Applied Mechanics and Materials, 0, 553, 836-841.	0.2	2
99	A repairable carbon nanotube web-based electro-thermal heater and damage sensor for aerospace applications. Aeronautical Journal, 0, , 1-11.	1.6	0