Dan Zenkert

List of Publications by Year
in descending order

88 papers	3,520 citations	101543 36 h-index	144013 57 g-index
90 all docs	90 docs citations	90 times ranked	2012 citing authors

#	Article	IF	Citations
1	Indentation study of foam core sandwich composite panels. Composite Structures, 2005, 69, 95-102.	5.8	150
2	Fatigue of foam core sandwich beamsâ€"1: undamaged specimens. International Journal of Fatigue, 1997, 19, 551-561.	5.7	143
3	PAN-Based Carbon Fiber Negative Electrodes for Structural Lithium-Ion Batteries. Journal of the Electrochemical Society, 2011, 158, A1455.	2.9	140
4	Structural battery composites: a review. Functional Composites and Structures, 2019, 1, 042001.	3.4	133
5	Corrugated all-composite sandwich structures. Part 1: Modeling. Composites Science and Technology, 2009, 69, 913-919.	7.8	112
6	Corrugated all-composite sandwich structures. Part 2: Failure mechanisms and experimental programme. Composites Science and Technology, 2009, 69, 920-925.	7.8	102
7	Structural lithium ion battery electrolytesviareaction induced phase-separation. Journal of Materials Chemistry A, 2017, 5, 25652-25659.	10.3	96
8	Multifunctional performance of a carbon fiber UD lamina electrode for structural batteries. Composites Science and Technology, 2018, 168, 81-87.	7.8	96
9	Damage tolerance assessment of composite sandwich panels with localised damage. Composites Science and Technology, 2005, 65, 2597-2611.	7.8	94
10	Fatigue of foam core sandwich beamsâ€"2: effect of initial damage. International Journal of Fatigue, 1997, 19, 563-578.	5.7	87
11	Tension, compression and shear fatigue of a closed cell polymer foam. Composites Science and Technology, 2009, 69, 785-792.	7.8	87
12	Lithium iron phosphate coated carbon fiber electrodes for structural lithium ion batteries. Composites Science and Technology, 2018, 162, 235-243.	7.8	87
13	Failure mechanisms in composite panels subjected to underwater impulsive loads. Journal of the Mechanics and Physics of Solids, 2011, 59, 1623-1646.	4.8	84
14	Impact of electrochemical cycling on the tensile properties of carbon fibres for structural lithium-ion composite batteries. Composites Science and Technology, 2012, 72, 792-798.	7.8	84
15	Compression-after-Impact Strength of Sandwich Panels with Core Crushing Damage. Applied Composite Materials, 2005, 12, 149-164.	2.5	81
16	A Structural Battery and its Multifunctional Performance. Advanced Energy and Sustainability Research, 2021, 2, 2000093.	5.8	74
17	Expansion of carbon fibres induced by lithium intercalation for structural electrode applications. Carbon, 2013, 59, 246-254.	10.3	71
18	Bicontinuous Electrolytes via Thermally Initiated Polymerization for Structural Lithium Ion Batteries. ACS Applied Energy Materials, 2019, 2, 4362-4369.	5.1	71

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19	Strength of sandwich beams with interface debondings. Composite Structures, 1991, 17, 331-350.	5.8	70
20	Failure Mechanisms and Modelling of Impact Damage in Sandwich Beams - A 2D Approach: Part I - Experimental Investigation. Journal of Sandwich Structures and Materials, 2003, 5, 7-31.	3.5	68
21	Static indentation and unloading response of sandwich beams. Composites Part B: Engineering, 2004, 35, 511-522.	12.0	66
22	The effect of lithium-intercalation on the mechanical properties of carbon fibres. Carbon, 2014, 68, 725-733.	10.3	66
23	Graphitic microstructure and performance of carbon fibre Li-ion structural battery electrodes. Multifunctional Materials, 2018, 1, 015003.	3.7	65
24	Model of a structural battery and its potential for system level mass savings. Multifunctional Materials, 2019, 2, 035002.	3.7	60
25	Integrated cost/weight optimization of aircraft structures. Structural and Multidisciplinary Optimization, 2010, 41, 325-334.	3.5	59
26	A material selection approach to evaluate material substitution for minimizing the life cycle environmental impact of vehicles. Materials and Design, 2015, 83, 704-712.	7.0	57
27	Compression properties of novel thermoplastic carbon fibre and poly-ethylene terephthalate fibre composite lattice structures. Materials & Design, 2015, 65, 1110-1120.	5.1	55
28	Piezo-Electrochemical Energy Harvesting with Lithium-Intercalating Carbon Fibers. ACS Applied Materials & Interfaces, 2015, 7, 13898-13904.	8.0	49
29	PVC sandwich core materials: Mode I fracture toughness. Composites Science and Technology, 1989, 34, 225-242.	7.8	47
30	Cost optimization of composite aircraft structures including variable laminate qualities. Composites Science and Technology, 2008, 68, 2748-2754.	7.8	46
31	Failure mode shifts during constant amplitude fatigue loading of GFRP/foam core sandwich beams. International Journal of Fatigue, 2011, 33, 217-222.	5.7	44
32	Fatigue of Closed Cell Foams. Journal of Sandwich Structures and Materials, 2006, 8, 517-538.	3.5	41
33	Testing and analysis of ultra thick composites. Composites Part B: Engineering, 2010, 41, 326-336.	12.0	40
34	Compression and tensile properties of self-reinforced poly(ethylene terephthalate)-composites. Polymer Testing, 2013, 32, 221-230.	4.8	40
35	Impact response of ductile self-reinforced composite corrugated sandwich beams. Composites Part B: Engineering, 2016, 99, 121-131.	12.0	40
36	Dynamic compression response of self-reinforced poly(ethylene terephthalate) composites and corrugated sandwich cores. Composites Part A: Applied Science and Manufacturing, 2015, 77, 96-105.	7.6	37

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37	Multi-objective optimisation of vehicle bodies made of FRP sandwich structures. Composite Structures, 2014, 111, 75-84.	5.8	36
38	Poly(vinyl chloride) sandwich core materials: Fracture behaviour under mode II loading and mixed-mode conditions. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1989, 108, 233-240.	5.6	35
39	Piezo-electrochemical effect in lithium-intercalated carbon fibres. Electrochemistry Communications, 2013, 35, 65-67.	4.7	34
40	A Structural Battery and its Multifunctional Performance. Advanced Energy and Sustainability Research, 2021, 2, 2170008.	5.8	32
41	Strength of sandwich beams with mid-plane debondings in the core. Composite Structures, 1990, 15, 279-299.	5.8	31
42	A model to analyse deformations and stresses in structural batteries due to electrode expansions. Composite Structures, 2017, 179, 580-589.	5.8	31
43	Failure Mechanisms and Modelling of Impact Damage in Sandwich Beams - A 2D Approach: Part II - Analysis and Modelling. Journal of Sandwich Structures and Materials, 2003, 5, 33-51.	3.5	30
44	Bending energy absorption of self-reinforced poly(ethylene terephthalate) composite sandwich beams. Composite Structures, 2016, 140, 582-589.	5.8	30
45	Imperfection-induced Wrinkling Material Failure in Sandwich Panels. Journal of Sandwich Structures and Materials, 2005, 7, 195-219.	3.5	26
46	Simple and efficient prediction of bearing failure in single shear, composite lap joints. Composite Structures, 2013, 105, 35-44.	5.8	26
47	Lignin Based Electrospun Carbon Fiber Anode for Sodium Ion Batteries. Journal of the Electrochemical Society, 2019, 166, A1984-A1990.	2.9	25
48	Characterization of the adhesive properties between structural battery electrolytes and carbon fibers. Composites Science and Technology, 2020, 188, 107962.	7.8	25
49	Shape-morphing carbon fiber composite using electrochemical actuation. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 7658-7664.	7.1	25
50	Fatigue of Undamaged and Damaged Honeycomb Sandwich Beams. Journal of Sandwich Structures and Materials, 2000, 2, 50-74.	3.5	24
51	Effects of Anisotropy and Multiaxial Loading on the Wrinkling of Sandwich Panels. Journal of Sandwich Structures and Materials, 2005, 7, 177-194.	3.5	24
52	Cost/weight optimization of composite prepreg structures for best draping strategy. Composites Part A: Applied Science and Manufacturing, 2010, 41, 464-472.	7.6	23
53	On Mode I Fatigue Crack Growth in Foam Core Materials for Sandwich Structures. Journal of Sandwich Structures and Materials, 2000, 2, 103-116.	3.5	22
54	Effects of manufacturing constraints on the cost and weight efficiency of integral and differential automotive composite structures. Composite Structures, 2015, 134, 572-578.	5.8	21

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55	Notch and strain rate sensitivity of non-crimp fabric composites. Composites Science and Technology, 2009, 69, 793-800.	7.8	20
56	Impact of carbon fibre/epoxy corrugated cores. Composite Structures, 2012, 94, 3300-3308.	5.8	19
57	Tensile strength of UD-composite laminates with multiple holes. Composites Science and Technology, 2010, 70, 1280-1287.	7.8	18
58	FRACTURE INITIATION IN FOAM-CORE SANDWICH STRUCTURES DUE TO SINGULAR STRESSES AT CORNERS OF FLAWED BUTT JOINTS. Mechanics of Advanced Materials and Structures, 1997, 4, 1-21.	2.6	17
59	Multifunctional Performance of Sodiated Carbon Fibers. Journal of the Electrochemical Society, 2018, 165, B616-B622.	2.9	16
60	Analysis of Three-Dimensional Quadratic Failure Criteria for Thick Composites using the Direct Micromechanics Method. Journal of Composite Materials, 2008, 42, 635-654.	2.4	15
61	Cost and weight efficient partitioning of composite automotive structures. Polymer Composites, 2017, 38, 2174-2181.	4.6	15
62	Prospective Life Cycle Assessment of a Structural Battery. Sustainability, 2019, 11, 5679.	3.2	12
63	Potassium-insertion in polyacrylonitrile-based carbon fibres for multifunctional energy storage, morphing, and strain-sensing. Carbon, 2021, 171, 671-680.	10.3	12
64	A screen-printing method for manufacturing of current collectors for structural batteries. Multifunctional Materials, 2021, 4, 035002.	3.7	12
65	Fatigue Behavior of Foam Core Sandwich Beams with Sub-Interface Impact Damage. Journal of Sandwich Structures and Materials, 2003, 5, 147-160.	3.5	11
66	A residual performance methodology to evaluate multifunctional systems. Multifunctional Materials, 2020, 3, 025002.	3.7	11
67	Multifunctional Carbon Fiber Composites: A Structural, Energy Harvesting, Strain-Sensing Material. ACS Applied Materials & Interfaces, 2022, 14, 33871-33880.	8.0	11
68	Manufacturing process adaptation for integrated cost/weight optimisation of aircraft structures. Plastics, Rubber and Composites, 2009, 38, 162-166.	2.0	9
69	Buckling of laser-welded sandwich panels. Part 2: Elastic buckling normal to the webs. Proceedings of the Institution of Mechanical Engineers Part M: Journal of Engineering for the Maritime Environment, 2006, 220, 81-94.	0.5	8
70	Residual strength of GRP laminates with multiple randomly distributed fragment impacts. Composites Part A: Applied Science and Manufacturing, 2014, 60, 66-74.	7.6	8
71	Material Selection for a Curved C-Spar Based on Cost Optimization. Journal of Aircraft, 2011, 48, 797-804.	2.4	7
72	Integral versus differential design for high-volume manufacturing of composite structures. Journal of Composite Materials, 2015, 49, 2897-2908.	2.4	7

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73	Testing of Sandwich Panels Under Uniform Pressure. Journal of Testing and Evaluation, 1998, 26, 101-108.	0.7	7
74	Fracture of Defect Foam Core Sandwich Beams. Journal of Testing and Evaluation, 1990, 18, 390-395.	0.7	7
75	Buckling of laser-welded sandwich panels. Part 1: Elastic buckling parallel to the webs. Proceedings of the Institution of Mechanical Engineers Part M: Journal of Engineering for the Maritime Environment, 2006, 220, 67-79.	0.5	5
76	Buckling of laser-welded sandwich panels: Ultimate strength and experiments. Proceedings of the Institution of Mechanical Engineers Part M: Journal of Engineering for the Maritime Environment, 2010, 224, 29-45.	0.5	5
77	Method for the cost-efficient and weight-efficient material diversity and partitioning of a carbon fibre composite body structure. Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering, 2016, 230, 49-60.	1.9	5
78	Effect of Manufacture-Induced Flaws on the Strength of Foam Core Sandwich Beams. , 1992, , 137-151.		5
79	DP-Sandwichâ€"The utilization of thin high-strength steel sheets in compression. Thin-Walled Structures, 1989, 7, 99-117.	5.3	2
80	A test specimen with constant stress intensity factor for prescribed displacement. International Journal of Fracture, 1993, 61, 173-181.	2.2	1
81	Draping simulation-supported framework for cost- and weight- effective composite design. International Journal of Automotive Composites, 2017, 3, 1.	0.1	1
82	Fatigue of Closed Cell Foams. , 2005, , 171-181.		1
83	Blister propagation in sandwich panels. Journal of Sandwich Structures and Materials, 2019, 21, 1683-1699.	3.5	0
84	Lignin Based Electrospun Carbon Fibers in Sodium Ion Batteries, Oral Presentation. ECS Meeting Abstracts, 2018, , .	0.0	0
85	Performance of Carbon Fibers with Various Coatings in Composite Lithium-Ion Structural Batteries. ECS Meeting Abstracts, 2019, , .	0.0	0
86	Alkali Ions Transport into Lignin-Based Hard Carbon Fibers. ECS Meeting Abstracts, 2021, MA2021-02, 227-227.	0.0	0
87	Sodiated Carbon Fibres for Use in Future Multifunctional Structures. ECS Meeting Abstracts, 2018, MA2018-01, 1986-1986.	0.0	0
88	Carbon Fiber Based Positive Electrodes in Laminated Structural Li-Ion Batteries. ECS Meeting Abstracts, 2020, MA2020-02, 983-983.	0.0	0