

Louis McCartney

List of Publications by Year in descending order

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75
papers

2,063
citations

279798

23
h-index

243625

44
g-index

75
all docs

75
docs citations

75
times ranked

903
citing authors

#	ARTICLE	IF	CITATIONS
1	Verification of a 3D analytical model of multilayered piezoelectric systems using finite element analysis. <i>Journal of Applied Physics</i> , 2019, 125, 184503.	2.5	3
2	Theory of variational stress transfer in general symmetric composite laminates containing non-uniformly spaced ply cracks. <i>Composites Part A: Applied Science and Manufacturing</i> , 2018, 107, 374-386.	7.6	19
3	Comparison of Variational and Generalized Plane Strain approaches for matrix cracking in general symmetric laminates. <i>International Journal of Damage Mechanics</i> , 2018, 27, 507-540.	4.2	22
4	Electrode size and boundary condition independent measurement of the effective piezoelectric coefficient of thin films. <i>APL Materials</i> , 2015, 3, .	5.1	15
5	Analytical Methods of Predicting Performance of Composite Materials. <i>CISM International Centre for Mechanical Sciences, Courses and Lectures</i> , 2015, , 191-254.	0.6	2
6	Methods for determining piezoelectric properties of thin epitaxial films: Theoretical foundations. <i>Journal of Applied Physics</i> , 2014, 116, .	2.5	15
7	Energy methods for modelling damage in laminates. <i>Journal of Composite Materials</i> , 2013, 47, 2613-2640.	2.4	22
8	Derivations of energy-based modelling for ply cracking in general symmetric laminates. <i>Journal of Composite Materials</i> , 2013, 47, 2641-2673.	2.4	20
9	Energy-based delamination theory for biaxial loading in the presence of thermal stresses. <i>Composites Science and Technology</i> , 2012, 72, 1753-1766.	7.8	7
10	A novel method of determining residual stress distributions in plates using the incremental slitting technique. <i>Journal of Strain Analysis for Engineering Design</i> , 2011, 46, 280-297.	1.8	9
11	Modeling nonlinear viscoelasticity in polymers for design using finite element analysis. <i>Polymer Engineering and Science</i> , 2011, 51, 2210-2219.	3.1	4
12	Maxwell's far-field methodology predicting elastic properties of multiphase composites reinforced with aligned transversely isotropic spheroids. <i>Philosophical Magazine</i> , 2010, 90, 4175-4207.	1.6	62
13	A collection of papers on Materials Science to celebrate the 80 th birthday of Professor Anthony Kelly, CBE, FRS. <i>Philosophical Magazine</i> , 2010, 90, 4075-4080.	1.6	0
14	Modelling long term deformation behaviour of polymers for finite element analysis. <i>Plastics, Rubber and Composites</i> , 2009, 38, 433-443.	2.0	4
15	BEM analysis of damage progress in 0/90 laminates. <i>Engineering Analysis With Boundary Elements</i> , 2009, 33, 762-769.	3.7	8
16	Energy methods for fatigue damage modelling of laminates. <i>Composites Science and Technology</i> , 2008, 68, 2601-2615.	7.8	20
17	A software tool for lifetime prediction of thermal barrier coating systems. <i>Materials and Corrosion - Werkstoffe Und Korrosion</i> , 2008, 59, 556-565.	1.5	18
18	Stress state characterization of delamination cracks in [0/90] symmetric laminates by BEM. <i>International Journal of Solids and Structures</i> , 2008, 45, 1632-1662.	2.7	27

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19	Experimental determination of the magnetoelectric coupling coefficient via piezoelectric measurements. <i>Measurement Science and Technology</i> , 2008, 19, 045106.	2.6	32
20	Multiscale Modeling of Composites Using Analytical Methods. , 2008, , 271-316.		3
21	Maxwell's far-field methodology applied to the prediction of properties of multi-phase isotropic particulate composites. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2008, 464, 423-446.	2.1	64
22	Effective thermal and elastic properties of $[\pm\hat{\theta}/\hat{\theta}]_s$ laminates. <i>Composites Science and Technology</i> , 2007, 67, 646-661.	7.8	21
23	A physics-based life prediction methodology for thermal barrier coating systems. <i>Acta Materialia</i> , 2007, 55, 1491-1503.	7.9	116
24	A model to predict the evolution of pitting corrosion and the pit-to-crack transition incorporating statistically distributed input parameters. <i>Corrosion Science</i> , 2006, 48, 2084-2105.	6.6	119
25	Composite materials of controlled thermal expansion. <i>Composites Science and Technology</i> , 2006, 66, 154-159.	7.8	47
26	Effect of Off $\hat{\theta}$ Axis Matrix Cracking on Stiffness of Symmetric Angle-Ply Composite Laminates. <i>International Journal of Fracture</i> , 2006, 139, 529-536.	2.2	23
27	Modelling of the evolution of stress corrosion cracks from corrosion pits. <i>Scripta Materialia</i> , 2006, 54, 575-578.	5.2	59
28	Prediction of the reflected spectra from chirped fibre Bragg gratings embedded within cracked crossply laminates. <i>Measurement Science and Technology</i> , 2006, 17, 1609-1614.	2.6	19
29	Energy-based prediction of failure in general symmetric laminates. <i>Engineering Fracture Mechanics</i> , 2005, 72, 909-930.	4.3	24
30	Controlling thermal expansion to obtain negative expansivity using laminated composites. <i>Composites Science and Technology</i> , 2005, 65, 47-59.	7.8	33
31	Prediction of dislocation formation in epitaxial multilayers subject to in-plane loading. <i>Philosophical Magazine</i> , 2005, 85, 1575-1610.	1.6	0
32	Energy-based prediction of progressive ply cracking and strength of general symmetric laminates using an homogenisation method. <i>Composites Part A: Applied Science and Manufacturing</i> , 2005, 36, 119-128.	7.6	20
33	Physically based damage models for laminated composites. <i>Proceedings of the Institution of Mechanical Engineers, Part L: Journal of Materials: Design and Applications</i> , 2003, 217, 163-199.	1.1	5
34	Prediction of ply crack formation and failure in laminates. <i>Composites Science and Technology</i> , 2002, 62, 1619-1631.	7.8	38
35	Predicting the effect of non-uniform ply cracking on the thermoelastic properties of cross-ply laminates. <i>Composites Science and Technology</i> , 2002, 62, 1841-1856.	7.8	57
36	Modelling Failure Mechanisms in Laminated Composites. <i>Solid Mechanics and Its Applications</i> , 2002, , 31-40.	0.2	0

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37	Comparison of models for transverse ply cracks in composite laminates. Composites Science and Technology, 2000, 60, 2347-2359.	7.8	73
38	Model to predict effects of triaxial loading on ply cracking in general symmetric laminates. Composites Science and Technology, 2000, 60, 2255-2279.	7.8	120
39	PREDICTING TRANSVERSE CRACK FORMATION IN CROSS-PLY LAMINATES. Composites Science and Technology, 1998, 58, 1069-1081.	7.8	139
40	The prediction of cracking in biaxially loaded cross-ply laminates having brittle matrices. Composites, 1993, 24, 84-92.	0.7	34
41	Theory of stress transfer in a 90° cross-ply laminate containing a parallel array of transverse cracks. Journal of the Mechanics and Physics of Solids, 1992, 40, 27-68.	4.8	194
42	Mechanical property test procedures for metal matrix composites. Materials Science and Technology, 1989, 5, 105-117.	1.6	22
43	Crack-growth predictions for viscoelastic materials exhibiting non-uniform craze deformation. International Journal of Fracture, 1988, 37, 279-301.	2.2	13
44	A new boundary element technique for solving plane problems of linear elasticity: improved theory and an application to fracture mechanics. Applied Mathematical Modelling, 1984, 8, 243-250.	4.2	2
45	Measurement and analysis of slow crack growth in a viscoelastic material. Polymer Testing, 1984, 4, 253-272.	4.8	2
46	Viscoelastic crack growth. International Journal of Fracture, 1983, 23, R11-R13.	2.2	9
47	General solution of a certain mixed boundary value crack problem. International Journal of Engineering Science, 1983, 21, 131-142.	5.0	3
48	A new boundary element technique for solving plane problems of linear elasticity: 1. Theory. Applied Mathematical Modelling, 1983, 7, 441-451.	4.2	3
49	Statistical Theory of the Strength of Fiber Bundles. Journal of Applied Mechanics, Transactions ASME, 1983, 50, 601-608.	2.2	78
50	Time-dependent strength of large bundles of fibres loaded in corrosive environments. Fibre Science and Technology, 1982, 16, 95-109.	0.2	4
51	On the energy balance approach to fracture in creeping materials. International Journal of Fracture, 1982, 19, 99-113.	2.2	6
52	Statistics for static strength of fibre bundles. Metal Science, 1981, 15, 471-474.	0.7	4
53	Response to discussion concerning kinetic criteria for crack in viscoelastic materials. International Journal of Fracture, 1981, 17, R161-R161.	2.2	7
54	Constitutive relations describing creep deformation for multi-axial time-dependent stress states. Journal of the Mechanics and Physics of Solids, 1981, 29, 13-33.	4.8	5

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55	Response: Further discussion of ?crack growth laws for a variety of visco-elastic solids using energy and COD fracture criteria,?. International Journal of Fracture, 1980, 16, R109-R110.	2.2	1
56	Discussion: "A rate-dependent criterion for crack growth," by R. M. christensen. International Journal of Fracture, 1980, 16, R229-R232.	2.2	10
57	Derivation of crack growth laws for linear viscoelastic solids based upon the concept of a fracture process zone. International Journal of Fracture, 1980, 16, 375-382.	2.2	11
58	Response: Discussion of ?Crack growth laws for a variety of visco-elastic solids using energy and COD fracture criteria,?. International Journal of Fracture, 1980, 16, R27-R30.	2.2	2
59	Discussion: ?The use of the J-integral in thermal stress crack problems,?. International Journal of Fracture, 1979, 15, R217-R221.	2.2	25
60	Extensions of a statistical approach to fracture. International Journal of Fracture, 1979, 15, 477-487.	2.2	44
61	A note on closure during fatigue crack growth. International Journal of Fracture, 1979, 15, R21-R24.	2.2	7
62	CAN SAFETY FACTORS BE REDUCED SAFELY WHEN DESIGNING AGAINST FATIGUE?. Fatigue and Fracture of Engineering Materials and Structures, 1979, 2, 387-400.	3.4	15
63	A new approach to Weibull's statistical theory of brittle fracture. International Journal of Fracture, 1979, 15, 365-375.	2.2	55
64	Theory of stable crack growth in an elastic-perfectly plastic material. International Journal of Fracture, 1978, 14, 429-438.	2.2	9
65	Crack propagation in linear viscoelastic solids: some new results. International Journal of Fracture, 1978, 14, 547-554.	2.2	23
66	Prediction of fatigue crack growth rates: theory, mechanisms, and experimental results. Metal Science, 1977, 11, 351-361.	0.7	60
67	A numerical method of processing fatigue crack propagation data. Engineering Fracture Mechanics, 1977, 9, 265-272.	4.3	8
68	A new method of analysing fatigue crack propagation data. Engineering Fracture Mechanics, 1977, 9, 273-290.	4.3	8
69	Cavities under stress at high temperatures. Acta Metallurgica, 1977, 25, 221-230.	2.1	26
70	Crack propagation, resulting from a monotonic increasing applied stress, in a linear viscoelastic material. International Journal of Fracture, 1977, 13, 641-654.	2.2	47
71	No timeâ€”gentlemen please!. Philosophical Magazine and Journal, 1976, 33, 689-695.	1.7	11
72	Strain/Time Relations Describing Creep. Journal of Mechanical Engineering Science, 1976, 18, 39-45.	0.2	2

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73	The effect of periodic-random loading on fatigue crack growth. International Journal of Fracture, 1976, 12, 273-288.	2.2	9
74	Vacancy diffusion in a crystal. Acta Metallurgica, 1975, 23, 769-777.	2.1	2
75	Creep under Varying Load. Metal Science J, 1973, 7, 196-204.	0.9	13