Amin Farrokhabadi

List of Publications by Year
in descending order

76 papers	1,163 citations	361413 20 h-index	526287 27 g-index
76 all docs	76 docs citations	76 times ranked	686 citing authors

#	Article	IF	Citations
1	Characterization of compressive behavior of PVC foam infilled composite sandwich panels with different corrugated core shapes. Thin-Walled Structures, 2019, 135, 160-172.	5.3	62
2	Experimental and numerical analysis of novel multi-layer sandwich panels under three point bending load. Composite Structures, 2020, 250, 112631.	5.8	50
3	A numerical method to evaluate the material properties degradation in composite RVEs due to fiber-matrix debonding and induced matrix cracking. Finite Elements in Analysis and Design, 2018, 146, 84-95.	3.2	41
4	Analytical solution of piezoelectric energy harvester patch for various thin multilayer composite beams. Composite Structures, 2016, 154, 694-706.	5.8	39
5	Theoretical modeling of the Casimir force-induced instability in freestanding nanowires with circular cross-section. Physica E: Low-Dimensional Systems and Nanostructures, 2014, 63, 67-80.	2.7	35
6	Modeling the static response and pull-in instability of CNT nanotweezers under the Coulomb and van der Waals attractions. Physica E: Low-Dimensional Systems and Nanostructures, 2013, 53, 137-145.	2.7	33
7	A generalized micromechanical approach for the analysis of transverse crack and induced delamination in composite laminates. Composite Structures, 2011, 93, 443-455.	5.8	31
8	Modeling the instability of CNT tweezers using a continuum model. Microsystem Technologies, 2014, 20, 291-302.	2.0	30
9	Pull-in instability of double clamped microbeams under dispersion forces in the presence of thermal and residual stress effects using nonlocal elasticity theory. Microsystem Technologies, 2017, 23, 839-848.	2.0	30
10	The influence of dispersion forces on the size-dependent pull-in instability of general cantilever nano-beams containing geometrical non-linearity. International Journal of Mechanical Sciences, 2016, 119, 114-124.	6.7	28
11	Investigation of novel multi-layer sandwich panels under quasi-static indentation loading using experimental and numerical analyses. Thin-Walled Structures, 2021, 160, 107326.	5.3	27
12	Damage analysis of laminated composites using a new coupled micro–meso approach. Fatigue and Fracture of Engineering Materials and Structures, 2010, 33, 420-435.	3.4	25
13	Development a refined numerical model for evaluating the matrix cracking and induced delamination formation in cross-ply composite laminates. Composite Structures, 2018, 200, 12-24.	5.8	25
14	The influence of the surface energy on the instability behavior of NEMS structures in presence of intermolecular attractions. International Journal of Mechanical Sciences, 2015, 101-102, 437-448.	6.7	24
15	Modeling the size dependent instability of NEMS sensor/actuator made of nano-wire with circular cross-section. Microsystem Technologies, 2015, 21, 355-364.	2.0	24
16	Nonlinear stability analysis of piecewise actuated piezoelectric microstructures. International Journal of Mechanical Sciences, 2019, 160, 200-208.	6.7	24
17	Investigation of the energy absorption capacity of foam-filled 3D-printed glass fiber reinforced thermoplastic auxetic honeycomb structures. Mechanics of Advanced Materials and Structures, 2023, 30, 758-769.	2.6	24
18	Micromechanical prediction of damage due to transverse ply cracking under fatigue loading in composite laminates. Journal of Reinforced Plastics and Composites, 2017, 36, 377-395.	3.1	23

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19	Investigation of debonding growth between composite skins and corrugated foam-composite core in sandwich panels under bending loading. Engineering Fracture Mechanics, 2020, 230, 106987.	4.3	22
20	A theoretical model for investigating the effect of vacuum fluctuations on the electromechanical stability of nanotweezers. Indian Journal of Physics, 2015, 89, 599-609.	1.8	21
21	Consideration of concurrent transverse cracking and induced delamination propagation using a generalized micro€meso approach and experimental validation. Fatigue and Fracture of Engineering Materials and Structures, 2012, 35, 885-901.	3.4	20
22	Development of a Damage Analysis Method in Laminated Composites Using Finite Fracture Toughness of Single Lamina. Mechanics of Advanced Materials and Structures, 2013, 20, 177-188.	2.6	20
23	An improved model for the cantilever NEMS actuator including the surface energy, fringing field and Casimir effects. Physica E: Low-Dimensional Systems and Nanostructures, 2016, 75, 202-209.	2.7	20
24	Reliability analysis of metal€composite adhesive joints under debonding modes I, II, and I/II using the results of experimental and FEM analyses. Fatigue and Fracture of Engineering Materials and Structures, 2019, 42, 2644-2662.	3.4	20
25	Investigation of the equivalent material properties and failure stress of the re-entrant composite lattice structures using an analytical model. Composite Structures, 2021, 257, 113161.	5.8	19
26	Numerical investigation of matrix cracking propagation in cross€ply laminated composites subjected to three€point bending load using concurrent multiscale model. Fatigue and Fracture of Engineering Materials and Structures, 2020, 43, 1159-1169.	3.4	18
27	Evaluation of the equivalent mechanical properties in a novel composite cruciform honeycomb using analytical and numerical methods. Composite Structures, 2021, 275, 114410.	5.8	18
28	Failure analysis of (Â±55Â°)9 filament-wound GRE pipes using acoustic emission technique. Engineering Failure Analysis, 2016, 62, 178-187.	4.0	17
29	An energy based approach for reliability analysis of delamination growth under mode I, mode II and mixed mode I/II loading in composite laminates. International Journal of Mechanical Sciences, 2018, 145, 287-298.	6.7	17
30	Dynamic pull-in of thermal cantilever nanoswitches subjected to dispersion and axial forces using nonlocal elasticity theory. Microsystem Technologies, 2019, 25, 19-30.	2.0	17
31	A solution method based on Lagrange multipliers and Legendre polynomial series for free vibration analysis of laminated plates sandwiched by two MFC layers. Journal of Sound and Vibration, 2019, 447, 42-60.	3.9	17
32	Experimental and analytical studies of mechanical properties of additively manufactured lattice structure based on octagonal bipyramid cubic unit cell. Additive Manufacturing, 2021, 48, 102403.	3.0	17
33	Effects of size-dependent elasticity on stability of nanotweezers. Applied Mathematics and Mechanics (English Edition), 2014, 35, 1573-1590.	3.6	16
34	Modeling the influence of the Casimir force on the pull-in instability of nanowire-fabricated nanotweezers. International Journal of Modern Physics B, 2015, 29, 1450245.	2.0	15
35	Theoretical modeling of the effect of Casimir attraction on the electrostatic instability of nanowire-fabricated actuators. Physica E: Low-Dimensional Systems and Nanostructures, 2015, 68, 149-158.	2.7	15
36	Introducing the new lattice structure based on the representative element double octagonal bipyramid. Aerospace Science and Technology, 2022, 121, 107383.	4.8	15

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37	Modeling, analysis, and control of MFC sandwiched laminate panel flutter with general layups and arbitrary boundary conditions. Composite Structures, 2019, 223, 110940.	5.8	14
38	Casimir force-induced instability in freestanding nanotweezers and nanoactuators made of cylindrical nanowires. International Journal of Modern Physics B, 2014, 28, 1450129.	2.0	13
39	A simplified micromechanics model for predicting the stiffness degradation in symmetric composite laminates. Fatigue and Fracture of Engineering Materials and Structures, 2015, 38, 1334-1346.	3.4	13
40	The effect of the arrangement of corrugated composite on the R-curve of the sandwich structures with hybrid corrugated/foam core under mode I loading. Theoretical and Applied Fracture Mechanics, 2018, 96, 326-333.	4.7	12
41	Assessment of fiber-reinforcement and foam-filling in the directional energy absorption performance of a 3D printed accordion cellular structure. Composite Structures, 2022, 297, 115945.	5.8	12
42	A generalized plane-strain crack density-based model for evaluating the finite fracture toughness of composite laminates. Mechanics of Advanced Materials and Structures, 2017, 24, 131-141.	2.6	11
43	Predicting the matrix cracking formation in symmetric composite laminates subjected to bending loads. Composite Structures, 2019, 223, 110945.	5.8	10
44	A New Self Healing Method in Composite Laminates Using the Hollow Glass Fiber. Key Engineering Materials, 0, 471-472, 548-551.	0.4	9
45	A computational continuum damage mechanics model for predicting transverse cracking and splitting evolution in open hole cross€ply composite laminates. Fatigue and Fracture of Engineering Materials and Structures, 2017, 40, 375-390.	3.4	9
46	A thermosensitive electromechanical model for detecting biological particles. Scientific Reports, 2019, 9, 11706.	3.3	9
47	Prediction of debonding growth in two-dimensional RVEs using an extended interface element based on continuum damage mechanics concept. Composite Structures, 2020, 238, 111981.	5.8	9
48	In situ strength analysis of cross€ply composite laminates containing defects and interleaved woven layer using a computational micromechanics approach. Fatigue and Fracture of Engineering Materials and Structures, 2021, 44, 1225-1240.	3.4	9
49	Micromechanical investigation of cross-ply carbon composite laminates with glass microtubes using CZM and XFEM. Mechanics of Advanced Materials and Structures, 2022, 29, 5624-5636.	2.6	9
50	Size-dependent dynamic analysis of rectangular nanoplates in the presence of electrostatic, Casimir and thermal forces. Applied Mathematical Modelling, 2017, 50, 604-620.	4.2	8
51	Experimental and numerical investigation of skin/lattice stiffener debonding growth in composite panels under bending loading. Engineering Fracture Mechanics, 2018, 190, 471-490.	4.3	8
52	Development of an integrated micro macro model for anticipating matrix cracking evolution and fiber breakage in the laminated composite containing an open hole. Engineering Fracture Mechanics, 2019, 211, 161-179.	4.3	8
53	Predicting the debonding formation and induced matrix cracking evolution in open-hole composite laminates using a semi-consequence micro-macro model. Composite Structures, 2019, 210, 274-293.	5.8	8
54	The Effect of Core Shape on the Bending Response of Sandwich Panels with Filled and Unfilled Sine and Square Corrugated Cores. Journal of Failure Analysis and Prevention, 2021, 21, 537-546.	0.9	8

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55	EFFECT OF SURFACE LAYER ON ELECTROMECHANICAL STABILITY OF TWEEZERS AND CANTILEVERS FABRICATED FROM CONDUCTIVE CYLINDRICAL NANOWIRES. Surface Review and Letters, 2016, 23, 1550101.	1.1	7
56	Assessment of delamination growth due to matrix cracking in hybrid Glass-Kevlar composite laminates using experimental, numerical and analytical methods. Engineering Fracture Mechanics, 2021, 247, 107691.	4.3	7
57	Design and characterization of an orthotropic accordion cellular honeycomb as one-dimensional morphing structures with enhanced properties. Journal of Sandwich Structures and Materials, 2022, 24, 1726-1745.	3.5	7
58	Prediction of induced delamination development in [Î¸/90]s composite laminates using a computational analytical approach. Composite Structures, 2018, 203, 903-916.	5.8	6
59	A failure criterion to predict the onset of matrix cracking induced delamination in general composite laminates. Composite Structures, 2020, 235, 111564.	5.8	6
60	Finite element reliability analysis of edge delamination onset due to interlaminar stresses in composite laminates. Composite Structures, 2022, 288, 115410.	5.8	6
61	Size-dependent dynamic instability of double-clamped nanobeams under dispersion forces in the presence of thermal stress effects. Microsystem Technologies, 2017, 23, 3685-3699.	2.0	5
62	A new semi-analytical solution method for free vibration analysis of composite rectangular plates with general edge constraints coupled with single piezoelectric layer. Journal of Intelligent Material Systems and Structures, 2018, 29, 3873-3889.	2.5	5
63	The effect of staggered matrix crack induced delamination growth on the mechanical properties of cross-ply laminates. Composite Structures, 2021, 272, 114196.	5.8	5
64	Implementation of a micro-meso approach for progressive damage analysis of composite laminates. Structural Engineering and Mechanics, 2012, 43, 657-678.	1.0	5
65	Transverse crack density evolution in a single orthotropic lamina under multi-axial stresses using analytical method. Procedia Engineering, 2009, 1, 109-112.	1.2	4
66	Fatigue Performance Analysis of GRE Composite Pipes by Conducting Tension-Tension Tests on the Rings Cut from the Pipe. Journal of Testing and Evaluation, 2021, 49, 2767-2778.	0.7	4
67	Failure Analysis of (Â±â‰55Â°)9 Filament-Wound GRE Pipes Using Explicit Finite Element Method: A Comparison with the Experimental Method. Journal of Failure Analysis and Prevention, 2018, 18, 1526-1533.	0.9	3
68	Determining of a closed-form relation for evolution of crack density and induced delamination in off-axis composite laminates under uniaxial loading condition. Mechanics of Advanced Materials and Structures, 2020, 27, 859-868.	2.6	3
69	Cumulative acoustic emission energy for damage detection in composites reinforced by carbon fibers within low-cycle fatigue regime at various displacement amplitudes and rates. Polymers and Polymer Composites, 2021, 29, S36-S48.	1.9	3
70	A variational approach for predicting initiation of matrix cracking and induced delamination in symmetric composite laminates under in-plane loading. Science and Engineering of Composite Materials, 2018, 25, 855-868.	1.4	2
71	Anticipating the induced delamination formation in composite laminates subjected to bending loads. Fatigue and Fracture of Engineering Materials and Structures, 2021, 44, 3108-3120.	3.4	2
72	Propose a generic framework for probabilistic prediction of the onset and growth of matrix cracking induced delamination in composite laminates. Engineering Fracture Mechanics, 2022, 261, 108262.	4.3	2

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73	Analysis of damage events in quasi-isotropic laminates using a generalized micromechanics approach. Procedia Engineering, 2011, 10, 236-241.	1.2	1
74	Failure Analysis of Glass-Reinforced Epoxy Pipes Under Internal Hydrostatic Pressure: A Comparison With the Split Disk Test Method. Journal of Pressure Vessel Technology, Transactions of the ASME, 2018, 140, .	0.6	1
75	Optimum power of a nonlinear piezomagnetoelastic energy harvester with using multidisciplinary optimization algorithms. Journal of Intelligent Material Systems and Structures, 2021, 32, 889-903.	2.5	1
76	Progressive Damage Analyses of Composite Laminates Exhibiting Free Edge Effects Using a New Micro-Meso Approach. Key Engineering Materials, 0, 471-472, 263-267.	0.4	0