

X-Q He

List of Publications by Year in descending order

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129
papers

6,110
citations

76326

40
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76900

74
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129
all docs

129
docs citations

129
times ranked

3380
citing authors

#	ARTICLE	IF	CITATIONS
1	Active control of FGM plates with integrated piezoelectric sensors and actuators. <i>International Journal of Solids and Structures</i> , 2001, 38, 1641-1655.	2.7	371
2	Nonlocal shell model for elastic wave propagation in single- and double-walled carbon nanotubes. <i>Journal of the Mechanics and Physics of Solids</i> , 2008, 56, 3475-3485.	4.8	369
3	On the study of elastic and plastic properties of multi-walled carbon nanotubes under axial tension using molecular dynamics simulation. <i>Acta Materialia</i> , 2004, 52, 2521-2527.	7.9	345
4	Buckling analysis of multi-walled carbon nanotubes: a continuum model accounting for van der Waals interaction. <i>Journal of the Mechanics and Physics of Solids</i> , 2005, 53, 303-326.	4.8	345
5	Vibration of nonlocal Timoshenko beams. <i>Nanotechnology</i> , 2007, 18, 105401.	2.6	338
6	Predicting nanovibration of multi-layered graphene sheets embedded in an elastic matrix. <i>Acta Materialia</i> , 2006, 54, 4229-4236.	7.9	201
7	Resonance analysis of multi-layered graphene sheets used as nanoscale resonators. <i>Nanotechnology</i> , 2005, 16, 2086-2091.	2.6	184
8	Geometrically nonlinear free vibration of shear deformable piezoelectric carbon nanotube/fiber/polymer multiscale laminated composite plates. <i>Journal of Sound and Vibration</i> , 2014, 333, 3236-3251.	3.9	127
9	Non-linear dynamic stability of piezoelectric functionally graded carbon nanotube-reinforced composite plates with initial geometric imperfection. <i>International Journal of Non-Linear Mechanics</i> , 2014, 59, 37-51.	2.6	125
10	Active control of FGM plates subjected to a temperature gradient: Modelling via finite element method based on FSDT. <i>International Journal for Numerical Methods in Engineering</i> , 2001, 52, 1253-1271.	2.8	124
11	Canonical exact solutions for Levy-plates on two-parameter foundation using Green's functions. <i>Engineering Structures</i> , 2000, 22, 364-378.	5.3	123
12	Nanotwinned and hierarchical nanotwinned metals: a review of experimental, computational and theoretical efforts. <i>Npj Computational Materials</i> , 2018, 4, .	8.7	109
13	Failure analysis and the optimal toughness design of carbon nanotube-reinforced composites. <i>Composites Science and Technology</i> , 2010, 70, 1360-1367.	7.8	104
14	Application of the meshless generalized finite difference method to inverse heat source problems. <i>International Journal of Heat and Mass Transfer</i> , 2017, 108, 721-729.	4.8	102
15	Molecular mechanics modeling of carbon nanotube fracture. <i>Carbon</i> , 2007, 45, 1769-1776.	10.3	96
16	Active control of FGM shells subjected to a temperature gradient via piezoelectric sensor/actuator patches. <i>International Journal for Numerical Methods in Engineering</i> , 2002, 55, 653-668.	2.8	92
17	Analysis of laminated composite beams and plates with piezoelectric patches using the element-free Galerkin method. <i>Computational Mechanics</i> , 2002, 29, 486-497.	4.0	90
18	Modeling of van der Waals force for infinitesimal deformation of multi-walled carbon nanotubes treated as cylindrical shells. <i>International Journal of Solids and Structures</i> , 2005, 42, 6032-6047.	2.7	90

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19	Finite element method for the feedback control of FGM shells in the frequency domain via piezoelectric sensors and actuators. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2004, 193, 257-273.	6.6	88
20	Large amplitude vibration of fractionally damped viscoelastic CNTs/fiber/polymer multiscale composite beams. <i>Composite Structures</i> , 2015, 131, 1111-1123.	5.8	85
21	Dynamic behavior of triple-walled carbon nanotubes conveying fluid. <i>Journal of Sound and Vibration</i> , 2009, 319, 1003-1018.	3.9	78
22	A FEM model for the active control of curved FGM shells using piezoelectric sensor/actuator layers. <i>International Journal for Numerical Methods in Engineering</i> , 2002, 54, 853-870.	2.8	77
23	Dynamic behaviour of edge-cracked shear deformable functionally graded beams on an elastic foundation under a moving load. <i>Composite Structures</i> , 2011, 93, 2992-3001.	5.8	72
24	Analysis of nonlinear vibrations of double-walled carbon nanotubes conveying fluid. <i>Computational Materials Science</i> , 2009, 45, 875-880.	3.0	69
25	The bistable behaviors of carbon-fiber/epoxy anti-symmetric composite shells. <i>Composites Part B: Engineering</i> , 2013, 47, 190-199.	12.0	66
26	Flexural Wave Propagation in Single-Walled Carbon Nanotubes. <i>Journal of Computational and Theoretical Nanoscience</i> , 2008, 5, 581-586.	0.4	64
27	Damage detection method for shear buildings using the changes in the first mode shape slopes. <i>Computers and Structures</i> , 2011, 89, 733-743.	4.4	64
28	Mechanical properties of carbon nanocones. <i>Applied Physics Letters</i> , 2007, 91, .	3.3	62
29	Young's moduli of functionalized single-wall carbon nanotubes under tensile loading. <i>Composites Science and Technology</i> , 2009, 69, 169-175.	7.8	58
30	The effect of van der Waals interaction modeling on the vibration characteristics of multiwalled carbon nanotubes. <i>Journal of Applied Physics</i> , 2006, 100, 124317.	2.5	57
31	Geometrical nonlinear free vibration of multi-layered graphene sheets. <i>Journal Physics D: Applied Physics</i> , 2011, 44, 135401.	2.8	56
32	Finite element modeling of active control of functionally graded shells in frequency domain via piezoelectric sensors and actuators. <i>Computational Mechanics</i> , 2002, 28, 1-9.	4.0	54
33	Nonlinear free vibration, postbuckling and nonlinear static deflection of piezoelectric fiber-reinforced laminated composite beams. <i>Composites Part B: Engineering</i> , 2014, 59, 123-132.	12.0	50
34	An improved ordinary state-based peridynamic model for cohesive crack growth in quasi-brittle materials. <i>International Journal of Mechanical Sciences</i> , 2019, 153-154, 402-415.	6.7	48
35	Dynamic analysis of laminated composite plates with piezoelectric sensor/actuator patches using the FSDT mesh-free method. <i>International Journal of Mechanical Sciences</i> , 2004, 46, 411-431.	6.7	47
36	A meshless singular boundary method for three-dimensional inverse heat conduction problems in general anisotropic media. <i>International Journal of Heat and Mass Transfer</i> , 2015, 84, 91-102.	4.8	46

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37	The modelling and design of smart structures using functionally graded materials and piezoelectrical sensor/actuator patches. <i>Smart Materials and Structures</i> , 2003, 12, 647-655.	3.5	45
38	Buckling analysis of triple-walled carbon nanotubes embedded in an elastic matrix. <i>Journal of Applied Physics</i> , 2005, 97, 114318.	2.5	45
39	Systematic experimental and numerical study of bistable snap processes for anti-symmetric cylindrical shells. <i>Composite Structures</i> , 2014, 112, 368-377.	5.8	44
40	Analysis of nonlinear forced vibration of multi-layered graphene sheets. <i>Computational Materials Science</i> , 2012, 61, 194-199.	3.0	43
41	Modeling of interface cracking in copper-graphite composites by MD and CFE method. <i>Composites Part B: Engineering</i> , 2014, 58, 586-592.	12.0	42
42	A family of quadrilateral hybrid-Trefftz p-elements for thick plate analysis. <i>Computer Methods in Applied Mechanics and Engineering</i> , 1995, 127, 315-344.	6.6	41
43	Recent Progress in the Preparation of Horizontally Ordered Carbon Nanotube Assemblies from Solution. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2018, 215, 1700719.	1.8	41
44	Postbuckling of carbon nanotubes by atomic-scale finite element. <i>Journal of Applied Physics</i> , 2006, 99, 124308.	2.5	40
45	Bending buckling of single-walled carbon nanotubes by atomic-scale finite element. <i>Composites Part B: Engineering</i> , 2008, 39, 202-208.	12.0	40
46	A molecular dynamics simulation study on thermal conductivity of functionalized bilayer graphene sheet. <i>Chemical Physics Letters</i> , 2015, 622, 104-108.	2.6	36
47	Improved singular boundary method for elasticity problems. <i>Computers and Structures</i> , 2014, 135, 73-82.	4.4	35
48	Investigating interfacial contact configuration and behavior of single-walled carbon nanotube-based nanodevice with atomistic simulations. <i>Journal of Nanoparticle Research</i> , 2017, 19, 1.	1.9	35
49	Finite element method of bond-based peridynamics and its ABAQUS implementation. <i>Engineering Fracture Mechanics</i> , 2019, 206, 408-426.	4.3	34
50	Nanojoining of crossed Ag nanowires: a molecular dynamics study. <i>Journal of Nanoparticle Research</i> , 2016, 18, 1.	1.9	33
51	Nanofabrication with the thermal AFM metallic tip irradiated by continuous laser. <i>Integrated Ferroelectrics</i> , 2017, 179, 140-147.	0.7	32
52	Optimal shape control of functionally graded smart plates using genetic algorithms. <i>Computational Mechanics</i> , 2004, 33, 245-253.	4.0	31
53	Performance-based optimal design of compression-yielding FRP-reinforced concrete beams. <i>Composite Structures</i> , 2010, 93, 113-123.	5.8	31
54	Free transverse vibration of single-walled carbon nanocones. <i>Carbon</i> , 2012, 50, 4418-4423.	10.3	31

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55	Detailed investigation on elastoplastic deformation and failure of carbon nanotube fibers by monotonic and cyclic tensile experiments. <i>Carbon</i> , 2015, 94, 73-78.	10.3	31
56	Atomistic simulations on the axial nanowelding configuration and contact behavior between Ag nanowire and single-walled carbon nanotubes. <i>Journal of Nanoparticle Research</i> , 2017, 19, 1.	1.9	31
57	An ordinary state-based peridynamic model for the fracture of zigzag graphene sheets. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2018, 474, 20180019.	2.1	30
58	Large amplitude free vibration of nanotube-reinforced composite doubly curved panels resting on elastic foundations in thermal environments. <i>JVC/Journal of Vibration and Control</i> , 2017, 23, 2672-2689.	2.6	28
59	Near-field optical characteristics of Ag nanoparticle within the near-field scope of a metallic AFM tip irradiated by SNOM laser. <i>Integrated Ferroelectrics</i> , 2017, 178, 117-124.	0.7	28
60	A computational approach for predicting the hydroelasticity of flexible structures based on the pressure Poisson equation. <i>International Journal for Numerical Methods in Engineering</i> , 2007, 72, 1560-1583.	2.8	27
61	Atomic-Scale Simulation of the Contact Behavior and Mechanism of the SWNT@AgNW Heterostructure. <i>Journal of Physical Chemistry C</i> , 2019, 123, 19693-19703.	3.1	27
62	A new regularization method and application to dynamic load identification problems. <i>Inverse Problems in Science and Engineering</i> , 2011, 19, 765-776.	1.2	26
63	Pressure dependence of the instability of multiwalled carbon nanotubes conveying fluids. <i>Archive of Applied Mechanics</i> , 2008, 78, 637-648.	2.2	25
64	Buckling of functionalized single-walled nanotubes under axial compression. <i>Carbon</i> , 2009, 47, 279-285.	10.3	25
65	3-D finite element calculation of electric field enhancement for nanostructures fabrication mechanism on silicon surface with AFM tip induced local anodic oxidation. <i>Integrated Ferroelectrics</i> , 2018, 190, 129-141.	0.7	25
66	Buckling characteristics of embedded multi-walled carbon nanotubes. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2005, 461, 3785-3805.	2.1	24
67	On the use of computational intelligence in the optimal shape control of functionally graded smart plates. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2004, 193, 4475-4492.	6.6	23
68	A Molecular Dynamics Study on Self-Assembly of Single-Walled Carbon Nanotubes: From Molecular Morphology and Binding Energy. <i>Advanced Materials Interfaces</i> , 2019, 6, 1900983.	3.7	23
69	Nonlinear dynamics of piezoelectric nanocomposite energy harvesters under parametric resonance. <i>Nonlinear Dynamics</i> , 2015, 79, 1863-1880.	5.2	22
70	Fast-multipole accelerated singular boundary method for large-scale three-dimensional potential problems. <i>International Journal of Heat and Mass Transfer</i> , 2015, 90, 291-301.	4.8	22
71	Two softening stages in nanotwinned Cu. <i>Philosophical Magazine</i> , 2014, 94, 4037-4052.	1.6	21
72	Deformation and failure mechanisms of nanotwinned copper films with a pre-existing crack. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2014, 606, 334-345.	5.6	21

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73	Large-scale assembly of single-walled carbon nanotubes based on aqueous solution. Integrated Ferroelectrics, 2018, 190, 39-47.	0.7	21
74	Broadband energy harvesting by using bistable FG-CNTRC plate with integrated piezoelectric layers. Smart Materials and Structures, 2019, 28, 095021.	3.5	21
75	Parameter analysis of damaged region for laminates with matrix defects. Journal of Sandwich Structures and Materials, 2021, 23, 580-620.	3.5	21
76	Simulation study of near-field enhancement on an Ag nanoparticle dimer system in a laser-induced nanowelding process. Integrated Ferroelectrics, 2018, 191, 72-79.	0.7	19
77	BISTABLE CHARACTERISTICS OF IRREGULAR ANTI-SYMMETRIC LAY-UP COMPOSITE CYLINDRICAL SHELLS. International Journal of Structural Stability and Dynamics, 2013, 13, 1350029.	2.4	18
78	Super square carbon nanotube network: a new promising water desalination membrane. Npj Computational Materials, 2016, 2, .	8.7	18
79	The generalized finite difference method for an inverse boundary value problem in three-dimensional thermo-elasticity. Advances in Engineering Software, 2019, 131, 1-11.	3.8	18
80	Saint-Venant decay analysis of FGPM laminates and dissimilar piezoelectric laminates. Mechanics of Materials, 2007, 39, 1053-1065.	3.2	16
81	Asymptotic Solution for Nonlinear Buckling of Orthotropic Shells on Elastic Foundation. AIAA Journal, 2009, 47, 1772-1783.	2.6	16
82	Molecular mechanics modeling of deformation and failure of super carbon nanotube networks. Nanotechnology, 2011, 22, 475701.	2.6	16
83	A sensitive interval of imperfect interface parameters based on the analysis of general solution for anisotropic matrix containing an elliptic inhomogeneity. International Journal of Solids and Structures, 2015, 73-74, 67-77.	2.7	16
84	Atomistic simulation study on twin orientation and spacing distribution effects on nanotwinned Cu films. Philosophical Magazine, 2015, 95, 3467-3485.	1.6	15
85	An Improved Interpolating Complex Variable Meshless Method for Bending Problem of Kirchhoff Plates. International Journal of Applied Mechanics, 2017, 09, 1750089.	2.2	15
86	Investigation on fracture of pre-cracked single-layer graphene sheets. Computational Materials Science, 2019, 159, 365-375.	3.0	15
87	Bistable metallic materials produced by nanocrystallization process. Materials and Design, 2018, 141, 374-383.	7.0	14
88	Strongly coupled simulation of fluid-structure interaction in a Francis hydroturbine. International Journal for Numerical Methods in Fluids, 2009, 60, 515-538.	1.6	12
89	An improved interpolating complex variable element free Galerkin method for the pattern transformation of hydrogel. Engineering Analysis With Boundary Elements, 2020, 113, 99-109.	3.7	12
90	Variational principles, FE and MPT for analysis of non-linear impact-contact problems. Computer Methods in Applied Mechanics and Engineering, 1995, 122, 205-222.	6.6	11

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91	Vibration of a Multilayered Graphene Sheet With Initial Stress. <i>Journal of Nanotechnology in Engineering and Medicine</i> , 2010, 1, .	0.8	11
92	Size- and shape-dependent effective properties of single-walled super carbon nanotubes via a generalized molecular structure mechanics method. <i>Computational Materials Science</i> , 2012, 61, 27-33.	3.0	11
93	Atomic scale study of the anti-vortex domain structure in polycrystalline ferroelectric. <i>Philosophical Magazine</i> , 2018, 98, 118-138.	1.6	10
94	DYNAMICAL PROPERTIES OF MULTI-WALLED CARBON NANOTUBES BASED ON A NONLOCAL ELASTICITY MODEL. <i>International Journal of Modern Physics B</i> , 2008, 22, 4975-4986.	2.0	9
95	Modeling and deformation characteristics of a circular beam with asymmetric piezoelectric actuators. <i>Composite Structures</i> , 2009, 90, 263-269.	5.8	9
96	Analysis of intelligent hinged shell structures: deployable deformation and shape memory effect. <i>Smart Materials and Structures</i> , 2013, 22, 125018.	3.5	9
97	Variational analysis for angle-ply laminates with matrix cracks. <i>International Journal of Solids and Structures</i> , 2014, 51, 3669-3678.	2.7	9
98	BI-STABLE ANALYSES OF LAMINATED FGM SHELLS. <i>International Journal of Structural Stability and Dynamics</i> , 2012, 12, 311-335.	2.4	8
99	SnTe monolayer: Tuning its electronic properties with doping. <i>Superlattices and Microstructures</i> , 2019, 130, 12-19.	3.1	8
100	A theoretical model for surface bone remodeling under electromagnetic loads. <i>Archive of Applied Mechanics</i> , 2008, 78, 163-175.	2.2	7
101	Enhanced mechanical properties of single-walled carbon nanotubes due to chemical functionalization. <i>Journal of Physics Condensed Matter</i> , 2009, 21, 215301.	1.8	7
102	Design of 3D carbon nanotube-based nanostructures and prediction of their extra-strong mechanical properties under tension and compression. <i>Computational Materials Science</i> , 2014, 85, 324-331.	3.0	7
103	Hierarchical-structure induced adjustable deformation of super carbon nanotubes with radial shrinkage up to 66%. <i>Carbon</i> , 2017, 125, 289-298.	10.3	7
104	Transient experimental demonstration of an elliptical thermal camouflage device. <i>Scientific Reports</i> , 2017, 7, 16671.	3.3	7
105	Investigation on snapping transitions of locally nanostructured bistable disks actuated by distributed transverse forces. <i>Mechanics of Materials</i> , 2018, 127, 91-99.	3.2	7
106	Investigation of carbon nanosprings with the tunable mechanical properties controlled by the defect distribution. <i>Carbon</i> , 2021, 179, 240-255.	10.3	7
107	Bi-Stable Character of Laminated Cylindrical Shells. <i>Procedia Engineering</i> , 2011, 14, 616-621.	1.2	6
108	Development of Matched Interface and Boundary Method for Buckling Analysis of Plates with Various Interfaces. <i>International Journal of Applied Mechanics</i> , 2020, 12, 2050086.	2.2	6

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109	On the use of cellular automata algorithm for the atomic-based simulation of carbon nanotubes. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2009, 465, 193-206.	2.1	5
110	Kinetic Energy-Based Temperature Computation in Non-Equilibrium Molecular Dynamics Simulation. Journal of Computational and Theoretical Nanoscience, 2012, 9, 428-433.	0.4	5
111	Stress distributions and mechanical properties of laminates $[\hat{I}, /90]$ with closed and open cracks in shear loading. International Journal of Solids and Structures, 2017, 118-119, 97-108.	2.7	5
112	Improving bistable properties of metallic shells using a nanostructuring technique. Thin-Walled Structures, 2020, 146, 106444.	5.3	5
113	Peridynamic Simulation of Fracture in Polycrystalline Graphene. Journal of Peridynamics and Nonlocal Modeling, 2023, 5, 260-274.	2.9	5
114	Using Model of Strain Gradient Membrane Shell to Characterize Longitudinal Wave Dispersion in Multi-Walled Carbon Nanotubes. Journal of Computational and Theoretical Nanoscience, 2008, 5, 1980-1988.	0.4	4
115	Bistable characteristic of laminated shells with graded fibers. International Journal of Mechanics and Materials in Design, 2011, 7, 219-229.	3.0	4
116	Investigation on crack propagation in single crystal Ag with temperature dependence. Journal of Materials Research, 2015, 30, 3553-3563.	2.6	4
117	A programmable multiscale assembly strategy of carbon nanotubes for honeycomb-like networks. Carbon, 2022, 198, 110-118.	10.3	4
118	A new procedure for the nonlinear analysis of Reissner plate by boundary element method. Computers and Structures, 1994, 53, 649-652.	4.4	3
119	Fracture analysis of carbon nanotubes in the context of an atomic-based cellular automata algorithm. Computational Materials Science, 2012, 65, 85-90.	3.0	3
120	Analysis of free vibration of embedded multi-layered graphene sheets. Procedia Engineering, 2012, 31, 641-646.	1.2	3
121	Experimental and Theoretical Investigation on Bistable Symmetric Shells Built by Locally Nanostructuring Isotropic Rectangular Plates. International Journal of Structural Stability and Dynamics, 2019, 19, 1950141.	2.4	3
122	Influence of Defect Number, Distribution Continuity and Orientation on Tensile Strengths of the CNT-Based Networks: A Molecular Dynamics Study. Nanoscale Research Letters, 2022, 17, 15.	5.7	2
123	Vibration Properties of Multi-Layered Graphene Sheets. Advanced Materials Research, 2011, 287-290, 81-85.	0.3	1
124	Multistable shells with designable configurations based on localized nanocrystallization processes. Materials and Design, 2020, 195, 109047.	7.0	1
125	Analysis of transient responses in a laminated piezoelectric cylindrical shell. Science China: Physics, Mechanics and Astronomy, 2011, 54, 143-149.	5.1	0
126	Investigation of Vibration Properties of Multi-Walled Carbon Nanotubes. Applied Mechanics and Materials, 0, 117-119, 1254-1259.	0.2	0

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127	Free vibration of super-graphene carbon nanotube networks via a beam element based coarse-grained method. <i>Materials Research Express</i> , 2017, 4, 085002.	1.6	0
128	Carbon Nanotubes: A Molecular Dynamics Study on Self-Assembly of Single-Walled Carbon Nanotubes: From Molecular Morphology and Binding Energy (<i>Adv. Mater. Interfaces</i> 19/2019). <i>Advanced Materials Interfaces</i> , 2019, 6, 1970124.	3.7	0
129	Theoretical and experimental study of bistable symmetric shells built by locally nanostructuring an isotropic plate. <i>IOP Conference Series: Materials Science and Engineering</i> , 2019, 531, 012018.	0.6	0