

Mohamed Shaat

List of Publications by Year in descending order

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Version: 2024-02-01

64
papers

1,460
citations

304602

22
h-index

345118

36
g-index

64
all docs

64
docs citations

64
times ranked

822
citing authors

#	ARTICLE	IF	CITATIONS
1	General nonlocal Kelvin-Voigt viscoelasticity: application to wave propagation in viscoelastic media. <i>Acta Mechanica</i> , 2022, 233, 57-67.	1.1	4
2	Iterative Nonlocal Residual Elasticity. <i>Springer Tracts in Mechanical Engineering</i> , 2021, , 169-185.	0.1	0
3	Nonlocal Mechanics in the Framework of the General Nonlocal Theory. <i>Springer Tracts in Mechanical Engineering</i> , 2021, , 95-122.	0.1	1
4	Review on nonlocal continuum mechanics: Physics, material applicability, and mathematics. <i>Mechanics of Materials</i> , 2020, 150, 103587.	1.7	61
5	Wettability and confinement size effects on stability of water conveying nanotubes. <i>Scientific Reports</i> , 2020, 10, 17167.	1.6	4
6	Nonreciprocal elasticity and the realization of static and dynamic nonreciprocity. <i>Scientific Reports</i> , 2020, 10, 21676.	1.6	7
7	A Micromorphic Beam Theory for Beams with Elongated Microstructures. <i>Scientific Reports</i> , 2020, 10, 7984.	1.6	10
8	On postbuckling mode distortion and inversion of nanostructures due to surface roughness. <i>International Journal of Solids and Structures</i> , 2020, 195, 28-42.	1.3	2
9	Metamaterials with Giant and Tailorable Nonreciprocal Elastic Moduli. <i>Physical Review Applied</i> , 2020, 14, .	1.5	10
10	Hinged-3D metamaterials with giant and strain-independent Poisson's ratios. <i>Scientific Reports</i> , 2020, 10, 2228.	1.6	17
11	Correlation between grain boundary evolution and mechanical properties of ultrafine-grained metals. <i>Mechanics of Materials</i> , 2020, 143, 103321.	1.7	61
12	Hybrid continuum-molecular modeling of fluid slip flow. <i>Physics of Fluids</i> , 2020, 32, .	1.6	10
13	Calibration of mass sensors for surface roughness of their micro-resonators. <i>Sensors and Actuators A: Physical</i> , 2019, 296, 302-315.	2.0	5
14	Modeling deformation of auxetic and non-auxetic polymer gels. <i>Applied Mathematical Modelling</i> , 2019, 74, 320-336.	2.2	8
15	On the equivalent shear modulus of composite metamaterials. <i>Composites Part B: Engineering</i> , 2019, 172, 506-515.	5.9	26
16	The dependence of accumulative roll bonded copper mechanical properties on grain sub-division, stacking faults, and lattice strains. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2019, 756, 190-197.	2.6	34
17	Size-dependence of Young's modulus and Poisson's ratio: Effects of material dispersion. <i>Mechanics of Materials</i> , 2019, 133, 111-119.	1.7	11
18	Fluidity and phase transitions of water in hydrophobic and hydrophilic nanotubes. <i>Scientific Reports</i> , 2019, 9, 5689.	1.6	20

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19	Mode localization phenomenon of functionally graded nanobeams due to surface integrity. International Journal of Mechanics and Materials in Design, 2019, 15, 245-270.	1.7	9
20	Influence of long-range interatomic and interlayer interactions on dispersion of acoustic waves by multilayer graphene. Physica E: Low-Dimensional Systems and Nanostructures, 2019, 108, 74-82.	1.3	3
21	Correction of local elasticity for nonlocal residuals: application to Euler-Bernoulli beams. Meccanica, 2018, 53, 3015-3035.	1.2	12
22	Influence of surface integrity on vibration characteristics of microbeams. European Journal of Mechanics, A/Solids, 2018, 71, 365-377.	2.1	14
23	Poisson's ratio effects on the mechanics of auxetic nanobeams. European Journal of Mechanics, A/Solids, 2018, 70, 8-14.	2.1	13
24	Buckling characteristics of nanocrystalline nano-beams. International Journal of Mechanics and Materials in Design, 2018, 14, 71-89.	1.7	11
25	Effects of surface integrity on the mechanics of ultra-thin films. International Journal of Solids and Structures, 2018, 136-137, 259-270.	1.3	13
26	Effects of processing force on performance of nano-resonators produced by magnetron sputtering deposition. Physica E: Low-Dimensional Systems and Nanostructures, 2018, 104, 42-48.	1.3	8
27	Effects of processing conditions on microstructure and mechanical properties of equal-channel-angular-pressed titanium. Materials Science and Technology, 2018, 34, 1149-1167.	0.8	15
28	A reduced micromorphic model for multiscale materials and its applications in wave propagation. Composite Structures, 2018, 201, 446-454.	3.1	31
29	Modeling and characterization of particulate nanocomposite micro-beams under axial compressive loads. , 2017, , .		0
30	Size dependent modeling of electrostatically actuated functionally graded nanobeams. , 2017, , .		0
31	Free vibration analysis of cantilever open-hole composite plates. Meccanica, 2017, 52, 2819-2836.	1.2	18
32	Finite element modeling of nanoindentation for FG nanomaterials accounting for surface effects using user subroutine. , 2017, , .		0
33	Reporting the sensitivities and resolutions of CNT-based resonators for mass sensing. Materials and Design, 2017, 114, 591-598.	3.3	31
34	A general nonlocal theory and its approximations for slowly varying acoustic waves. International Journal of Mechanical Sciences, 2017, 130, 52-63.	3.6	35
35	Nonlocal modeling and buckling features of cracked nanobeams with von Karman nonlinearity. Applied Physics A: Materials Science and Processing, 2017, 123, 1.	1.1	13
36	Frequency and mode veering phenomena of axially functionally graded non-uniform beams with nonlocal residuals. Composite Structures, 2017, 163, 280-292.	3.1	35

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37	New insights on the applicability of Eringen's nonlocal theory. International Journal of Mechanical Sciences, 2017, 121, 67-75.	3.6	71
38	Viscosity of Water Interfaces with Hydrophobic Nanopores: Application to Water Flow in Carbon Nanotubes. Langmuir, 2017, 33, 12814-12819.	1.6	33
39	Reporting the Fatigue Life of 316L Stainless Steel Locking Compression Plate Implants: The Role of the Femoral and Tibial Biomechanics During the Gait. Journal of Biomechanical Engineering, 2017, 139, .	0.6	2
40	Predictions of the frequencies of bending-torsion coupled laminated composite plates with discontinuities: Novel analytical modeling and experimental validation. Composite Structures, 2017, 180, 334-350.	3.1	3
41	Material structure and size effects on the nonlinear dynamics of electrostatically-actuated nano-beams. International Journal of Non-Linear Mechanics, 2017, 89, 25-42.	1.4	21
42	Reporting buckling strength and elastic properties of nanowires. Journal of Applied Physics, 2016, 120, .	1.1	16
43	Bridged single-walled carbon nanotube-based atomic-scale mass sensors. Applied Physics A: Materials Science and Processing, 2016, 122, 1.	1.1	23
44	Modeling and Vibration Characteristics of Cracked Nano-Beams Made of Nanocrystalline Materials. International Journal of Mechanical Sciences, 2016, 115-116, 574-585.	3.6	56
45	Modeling of mechanical resonators used for nanocrystalline materials characterization and disease diagnosis of HIVs. Microsystem Technologies, 2016, 22, 305-318.	1.2	44
46	Size dependent and micromechanical modeling of strain gradient-based nanoparticle composite plates with surface elasticity. European Journal of Mechanics, A/Solids, 2016, 58, 54-68.	2.1	23
47	Experimental, numerical, and analytical free vibration analyses of open-hole composite plates. , 2016, , .		1
48	On a second-order rotation gradient theory for linear elastic continua. International Journal of Engineering Science, 2016, 100, 74-98.	2.7	33
49	Grains size and rigid rotations effects on the dynamics and pull-in instability of electrostatically-actuated beams. , 2016, , .		0
50	Modeling of strain gradient-based nanoparticle composite plates with surface elasticity. , 2016, , .		0
51	A new mindlin FG plate model incorporating microstructure and surface energy effects. Structural Engineering and Mechanics, 2015, 53, 105-130.	1.0	10
52	Pull-in instability of multi-phase nanocrystalline silicon beams under distributed electrostatic force. International Journal of Engineering Science, 2015, 90, 58-75.	2.7	53
53	Effects of grain size and microstructure rigid rotations on the bending behavior of nanocrystalline material beams. International Journal of Mechanical Sciences, 2015, 94-95, 27-35.	3.6	39
54	Physical and Mathematical Representations of Couple Stress Effects on Micro/Nanosolids. International Journal of Applied Mechanics, 2015, 07, 1550012.	1.3	23

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55	Modeling the material structure and couple stress effects of nanocrystalline silicon beams for pull-in and bio-mass sensing applications. International Journal of Mechanical Sciences, 2015, 101-102, 280-291.	3.6	54
56	Iterative nonlocal elasticity for Kirchhoff plates. International Journal of Mechanical Sciences, 2015, 90, 162-170.	3.6	31
57	Size-dependent bending analysis of Kirchhoff nano-plates based on a modified couple-stress theory including surface effects. International Journal of Mechanical Sciences, 2014, 79, 31-37.	3.6	146
58	Nonlinear-electrostatic analysis of micro-actuated beams based on couple stress and surface elasticity theories. International Journal of Mechanical Sciences, 2014, 84, 208-217.	3.6	75
59	Nonlinear size-dependent finite element analysis of functionally graded elastic tiny-bodies. International Journal of Mechanical Sciences, 2013, 77, 356-364.	3.6	20
60	Finite element analysis of functionally graded nano-scale films. Finite Elements in Analysis and Design, 2013, 74, 41-52.	1.7	37
61	Bending analysis of ultra-thin functionally graded Mindlin plates incorporating surface energy effects. International Journal of Mechanical Sciences, 2013, 75, 223-232.	3.6	38
62	Finite Element Analysis of the Deformation of Functionally Graded Plates under Thermomechanical Loads. Mathematical Problems in Engineering, 2013, 2013, 1-13.	0.6	16
63	Size-dependent analysis of functionally graded ultra-thin films. Structural Engineering and Mechanics, 2012, 44, 431-448.	1.0	15
64	A first-order shear deformation finite element model for elastostatic analysis of laminated composite plates and the equivalent functionally graded plates. Ain Shams Engineering Journal, 2011, 2, 53-62.	3.5	25