

# Shailesh Kundalwal

## List of Publications by Year in descending order

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Version: 2024-02-01

61  
papers

2,361  
citations

218381

26  
h-index

214527

47  
g-index

61  
all docs

61  
docs citations

61  
times ranked

1796  
citing authors

#	ARTICLE	IF	CITATIONS
1	Gas barrier performance of graphene/polymer nanocomposites. Carbon, 2016, 98, 313-333.	5.4	514
2	Multiscale modeling of carbon nanotube epoxy composites. Polymer, 2015, 70, 149-160.	1.8	138
3	Strain gradient polarization in graphene. Carbon, 2017, 117, 462-472.	5.4	109
4	Micromechanical analysis of fuzzy fiber reinforced composites. International Journal of Mechanics and Materials in Design, 2011, 7, 149-166.	1.7	88
5	Interfacial and mechanical properties of epoxy nanocomposites using different multiscale modeling schemes. Composite Structures, 2015, 131, 545-555.	3.1	87
6	Effective properties of a novel composite reinforced with short carbon fibers and radially aligned carbon nanotubes. Mechanics of Materials, 2012, 53, 47-60.	1.7	76
7	Multiscale modeling of stress transfer in continuous microscale fiber reinforced composites with nano-engineered interphase. Mechanics of Materials, 2016, 102, 117-131.	1.7	75
8	Review on micromechanics of nano- and micro- fiber reinforced composites. Polymer Composites, 2018, 39, 4243-4274.	2.3	72
9	Transversely isotropic elastic properties of carbon nanotubes containing vacancy defects using MD. Acta Mechanica, 2018, 229, 2571-2584.	1.1	56
10	Multiscale modeling of regularly staggered carbon fibers embedded in nano-reinforced composites. European Journal of Mechanics, A/Solids, 2017, 64, 69-84.	2.1	54
11	Effect of carbon nanotube waviness on active damping of laminated hybrid composite shells. Acta Mechanica, 2015, 226, 2035-2052.	1.1	52
12	Smart damping of fuzzy fiber reinforced composite plates using 1-3 piezoelectric composites. JVC/Journal of Vibration and Control, 2016, 22, 1526-1546.	1.5	48
13	Static and dynamic response of graphene nanocomposite plates with flexoelectric effect. Mechanics of Materials, 2019, 134, 69-84.	1.7	48
14	Thermal performance of heat sink using nano-enhanced phase change material (NePCM) for cooling of electronic components. Microelectronics Reliability, 2021, 121, 114144.	0.9	45
15	Smart damping of laminated fuzzy fiber reinforced composite shells using 1-3 piezoelectric composites. Smart Materials and Structures, 2013, 22, 105001.	1.8	44
16	Unraveling the influence of grain boundaries on the mechanical properties of polycrystalline carbon nanotubes. Carbon, 2017, 125, 180-188.	5.4	44
17	Control of large amplitude vibrations of doubly curved sandwich shells composed of fuzzy fiber reinforced composite facings. Aerospace Science and Technology, 2017, 70, 10-28.	2.5	39
18	Mechanical and fracture behavior of MWCNT/ZrO <sub>2</sub> /epoxy nanocomposite systems: Experimental and numerical study. Polymer Composites, 2020, 41, 2491-2507.	2.3	39

#	ARTICLE	IF	CITATIONS
19	Effect of Carbon Nanotube Waviness on the Elastic Properties of the Fuzzy Fiber Reinforced Composites. <i>Journal of Applied Mechanics, Transactions ASME</i> , 2013, 80, .	1.1	38
20	Effect of atom vacancies on elastic and electronic properties of transversely isotropic boron nitride nanotubes: A comprehensive computational study. <i>Computational Materials Science</i> , 2019, 156, 332-345.	1.4	38
21	Improved mechanical and viscoelastic properties of CNT-composites fabricated using an innovative ultrasonic dual mixing technique. <i>Journal of the Mechanical Behavior of Materials</i> , 2020, 29, 77-85.	0.7	36
22	Effective thermal conductivities of a novel fuzzy carbon fiber heat exchanger containing wavy carbon nanotubes. <i>International Journal of Heat and Mass Transfer</i> , 2014, 72, 440-451.	2.5	35
23	Thermal performance of phase change material-based heat sink for passive cooling of electronic components: An experimental study. <i>International Journal of Energy Research</i> , 2021, 45, 5939-5963.	2.2	32
24	Shear Lag Model for Regularly Staggered Short Fuzzy Fiber Reinforced Composite. <i>Journal of Applied Mechanics, Transactions ASME</i> , 2014, 81, .	1.1	28
25	Strain and defect engineering of graphene for hydrogen storage via atomistic modelling. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 22599-22610.	3.8	28
26	Improved thermoelastic coefficients of a novel short fuzzy fiber-reinforced composite with wavy carbon nanotubes. <i>Journal of Mechanics of Materials and Structures</i> , 2014, 9, 1-25.	0.4	27
27	A comparative study and optimization of phase change material based heat sinks for thermal management of electronic components. <i>Journal of Energy Storage</i> , 2021, 43, 103224.	3.9	27
28	Transversely isotropic thermal properties of carbon nanotubes containing vacancies. <i>Acta Mechanica</i> , 2018, 229, 2787-2800.	1.1	26
29	Shear lag analysis of a novel short fuzzy fiber-reinforced composite. <i>Acta Mechanica</i> , 2014, 225, 2621-2643.	1.1	25
30	Numerical investigation of cross plate fin heat sink integrated with phase change material for cooling application of portable electronic devices. <i>International Journal of Energy Research</i> , 2021, 45, 8666-8683.	2.2	24
31	Effective Thermal Conductivities of a Novel Fuzzy Fiber-Reinforced Composite Containing Wavy Carbon Nanotubes. <i>Journal of Heat Transfer</i> , 2015, 137, .	1.2	23
32	Comprehensive analysis of melting and solidification of a phase change material in an annulus. <i>Heat and Mass Transfer</i> , 2019, 55, 769-790.	1.2	22
33	Analysis of solidification in a finite PCM storage with internal fins by employing heat balance integral method. <i>International Journal of Energy Research</i> , 2019, 43, 6366-6388.	2.2	22
34	Effect of flexoelectricity on the electromechanical response of graphene nanocomposite beam. <i>International Journal of Mechanics and Materials in Design</i> , 2019, 15, 447-470.	1.7	21
35	Investigation of hydrogen adsorption behavior of graphene under varied conditions using a novel energy-centered method. <i>Carbon Letters</i> , 2021, 31, 655.	3.3	21
36	Effect of Stone-Wales defects on the mechanical behavior of boron nitride nanotubes. <i>Acta Mechanica</i> , 2020, 231, 4003-4018.	1.1	20

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37	Modeling of thermomechanical properties of polymeric hybrid nanocomposites. <i>Polymer Composites</i> , 2018, 39, 4148-4164.	2.3	18
38	Effect of carbon doping on electromechanical response of boron nitride nanosheets. <i>Nanotechnology</i> , 2020, 31, 405710.	1.3	18
39	Transversely isotropic elastic properties of multi-walled boron nitride nanotubes under a thermal environment. <i>Nanotechnology</i> , 2020, 31, 395707.	1.3	17
40	Flexoelectric effect in boron nitride-graphene heterostructures. <i>Acta Mechanica</i> , 2021, 232, 3781-3800.	1.1	17
41	Flexoelectric and surface effects on the electromechanical behavior of graphene-based nanobeams. <i>Applied Mathematical Modelling</i> , 2020, 81, 70-91.	2.2	16
42	Thermoelastic Properties of a Novel Fuzzy Fiber-Reinforced Composite. <i>Journal of Applied Mechanics, Transactions ASME</i> , 2013, 80, .	1.1	15
43	Synergistic effect of surface-flexoelectricity on electromechanical response of BN-based nanobeam. <i>International Journal of Mechanics and Materials in Design</i> , 2022, 18, 3-19.	1.7	13
44	Adhesive and viscoelastic response of MWCNT/ZrO <sub>2</sub> hybrid epoxy nanocomposites. <i>Journal of Mechanics of Materials and Structures</i> , 2021, 16, 281-292.	0.4	12
45	Selection of phase-change material for thermal management of electronic devices using multi-criteria decision-making technique. <i>International Journal of Energy Research</i> , 2021, 45, 2023-2042.	2.2	11
46	Enhancement of piezoelectric and flexoelectric response of boron nitride sheet superlattices via interface and defect engineering. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2021, 127, 114563.	1.3	11
47	Smart damping of a simply supported laminated CNT-based hybrid composite plate using FE approach. <i>Thin-Walled Structures</i> , 2022, 171, 108782.	2.7	11
48	Interfacial characteristics of hybrid nanocomposite under thermomechanical loading. <i>Journal of the Mechanical Behavior of Materials</i> , 2017, 26, 95-103.	0.7	10
49	Electromechanical response of thin shell laminated with flexoelectric composite layer. <i>Thin-Walled Structures</i> , 2020, 157, 107138.	2.7	10
50	Effect of Carbon Nanotube Waviness on the Load Transfer Characteristics of Short Fuzzy Fiber-Reinforced Composite. <i>Journal of Nanomechanics &amp; Micromechanics</i> , 2014, 4, .	1.4	9
51	Synergistic effect of ultrasonically assisted exfoliated MWCNTs by ZrO <sub>2</sub> nanoparticles on thermo-mechanical and anti-corrosive properties of epoxy nanocomposites. <i>Journal of Composite Materials</i> , 2022, 56, 1633-1649.	1.2	9
52	Adsorption and desorption behavior of titanium-decorated polycrystalline graphene toward hydrogen storage: a molecular dynamics study. <i>Applied Physics A: Materials Science and Processing</i> , 2022, 128, 1.	1.1	9
53	Evaluation of effective properties for smart graphene reinforced nanocomposite materials. <i>Materials Today: Proceedings</i> , 2020, 23, 523-527.	0.9	8
54	Dynamic modelling and analysis of smart carbon nanotube-based hybrid composite beams: Analytical and finite element study. <i>Proceedings of the Institution of Mechanical Engineers, Part L: Journal of Materials: Design and Applications</i> , 2021, 235, 2185-2206.	0.7	6

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55	Polarization in graphene nanoribbons with inherent defects using first-principles calculations. Acta Mechanica, 2022, 233, 399-411.	1.1	5
56	Effect of orientation of CNTs and piezoelectric fibers on the damping performance of multiscale composite plate. Journal of Intelligent Material Systems and Structures, 2023, 34, 194-216.	1.4	5
57	Transversely Isotropic Elastic Properties of Vacancy Defected Boron Nitride Nanotubes Using Molecular Dynamics Simulations. , 2018, , .		3
58	Experimental Investigation of Thermal Performance of Nano-Enhanced Phase Change Materials for Thermal Management of Electronic Components. , 2019, , .		3
59	Micromechanical analysis of effective mechanical properties of graphene/ZrO <sub>2</sub> -hybrid poly (methyl methacrylate) nanocomposites. Journal of Micromanufacturing, 2023, 6, 5-11.	0.6	2
60	Experimental investigation on paraffin wax-based heat sinks with cross plate fin arrangement for cooling of electronic components. Journal of Thermal Analysis and Calorimetry, 2022, 147, 9487-9504.	2.0	2
61	Role of grain boundaries on the thermal properties of carbon nanotubes. Materials Today: Proceedings, 2020, 23, 622-625.	0.9	0