

Kumar Shanmugam

List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

91
papers

2,556
citations

28
h-index

47
g-index

97
ext. papers

3,366
ext. citations

5
avg, IF

6.24
L-index

#	Paper	IF	Citations
91	Gas barrier performance of graphene/polymer nanocomposites. <i>Carbon</i> , 2016 , 98, 313-333	10.4	387
90	Gas barrier properties of polymer/clay nanocomposites. <i>RSC Advances</i> , 2015 , 5, 63669-63690	3.7	162
89	Performance of biocompatible PEEK processed by fused deposition additive manufacturing. <i>Materials and Design</i> , 2018 , 146, 249-259	8.1	112
88	Analysis of tubular adhesive joints with a functionally modulus graded bondline subjected to axial loads. <i>International Journal of Adhesion and Adhesives</i> , 2009 , 29, 785-795	3.4	88
87	Multiscale modeling of effective electrical conductivity of short carbon fiber-carbon nanotube-polymer matrix hybrid composites. <i>Materials and Design</i> , 2016 , 89, 129-136	8.1	70
86	Electrical conductivity of CNT/polymer composites: 3D printing, measurements and modeling. <i>Composites Part B: Engineering</i> , 2020 , 183, 107600	10	68
85	Multifunctional performance of carbon nanotubes and graphene nanoplatelets reinforced PEEK composites enabled via FFF additive manufacturing. <i>Composites Part B: Engineering</i> , 2020 , 184, 107625	10	64
84	Modeling of carbon nanotubes and carbon nanotube/polymer composites. <i>Progress in Aerospace Sciences</i> , 2016 , 80, 33-58	8.8	59
83	Behaviour of Bi-adhesive Joints. <i>Journal of Adhesion Science and Technology</i> , 2010 , 24, 1251-1281	2	58
82	Multiscale modeling of stress transfer in continuous microscale fiber reinforced composites with nano-engineered interphase. <i>Mechanics of Materials</i> , 2016 , 102, 117-131	3.3	53
81	Strong linear-piezoresistive-response of carbon nanostructures reinforced hyperelastic polymer nanocomposites. <i>Composites Part A: Applied Science and Manufacturing</i> , 2018 , 113, 141-149	8.4	48
80	Strong, stretchable and ultrasensitive MWCNT/TPU nanocomposites for piezoresistive strain sensing. <i>Composites Part B: Engineering</i> , 2019 , 177, 107285	10	44
79	Strength and Performance Enhancement of Bonded Joints by Spatial Tailoring of Adhesive Compliance via 3D Printing. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 884-891	9.5	42
78	Tunable morphology and its influence on electrical, thermal and mechanical properties of carbon nanostructure-buckypaper. <i>Materials and Design</i> , 2016 , 101, 236-244	8.1	41
77	Microarchitected 3D printed polylactic acid (PLA) nanocomposite scaffolds for biomedical applications. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2020 , 103, 103576	4.1	40
76	On axisymmetric adhesive joints with graded interface stiffness. <i>International Journal of Adhesion and Adhesives</i> , 2013 , 41, 57-72	3.4	39
75	Electrical, mechanical and thermal properties of graphene nanoplatelets reinforced UHMWPE nanocomposites. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2019 , 241, 82-91	3.1	38

74	Strain and damage-sensing performance of biocompatible smart CNT/UHMWPE nanocomposites. <i>Materials Science and Engineering C</i> , 2018 , 92, 957-968	8.3	38
73	Stress Analysis of Shaft-Tube Bonded Joints Using a Variational Method 2010 , 86, 369-394		38
72	Micromechanics of stress transfer through the interphase in fiber-reinforced composites. <i>Mechanics of Materials</i> , 2015 , 89, 190-201	3.3	36
71	Additive manufacturing-enabled shape transformations via FFF 4D printing. <i>Journal of Materials Research</i> , 2018 , 33, 4362-4376	2.5	36
70	Pull-out capacity of adhesive anchors: An analytical solution. <i>International Journal of Adhesion and Adhesives</i> , 2015 , 60, 54-62	3.4	35
69	Tunable Energy Absorption Characteristics of Architected Honeycombs Enabled via Additive Manufacturing. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 42549-42560	9.5	34
68	Enhanced Bonding via Additive Manufacturing-Enabled Surface Tailoring of 3D Printed Continuous-Fiber Composites. <i>Advanced Engineering Materials</i> , 2018 , 20, 1800691	3.5	34
67	Turning date palm fronds into biocompatible mesoporous fluorescent carbon dots. <i>Scientific Reports</i> , 2018 , 8, 16269	4.9	32
66	Fatigue life prediction of adhesively bonded single lap joints. <i>International Journal of Adhesion and Adhesives</i> , 2011 , 31, 43-47	3.4	31
65	Self-sensing and mechanical performance of CNT/GNP/UHMWPE biocompatible nanocomposites. <i>Journal of Materials Science</i> , 2018 , 53, 7939-7952	4.3	30
64	Impact performance enhancement of honeycombs through additive manufacturing-enabled geometrical tailoring. <i>International Journal of Impact Engineering</i> , 2019 , 134, 103360	4	28
63	Sintering and mud cracking in EB-PVD thermal barrier coatings. <i>Journal of the Mechanics and Physics of Solids</i> , 2012 , 60, 723-749	5	28
62	3D printed polylactic acid nanocomposite scaffolds for tissue engineering applications. <i>Polymer Testing</i> , 2020 , 81, 106203	4.5	28
61	Tailored interface resulting in improvement in mechanical properties of epoxy composites containing poly (ether ether ketone) grafted multiwall carbon nanotubes. <i>Polymer</i> , 2016 , 102, 43-53	3.9	26
60	Soft Color Composites with Tunable Optical Transmittance. <i>Advanced Optical Materials</i> , 2016 , 4, 620-626	6.1	24
59	Hyperelastic strain measurements and constitutive parameters identification of 3D printed soft polymers by image processing. <i>Additive Manufacturing</i> , 2016 , 11, 40-48	6.1	24
58	Energy absorption characteristics of additively manufactured plate-lattices under low-velocity impact loading. <i>International Journal of Impact Engineering</i> , 2021 , 149, 103768	4	24
57	Stress Reduction of 3D Printed Compliance-Tailored Multilayers. <i>Advanced Engineering Materials</i> , 2018 , 20, 1700883	3.5	24

56	Effectiveness of Solvent Vapor Annealing over Thermal Annealing on the Photovoltaic Performance of Non-Fullerene Acceptor Based BHJ Solar Cells. <i>Scientific Reports</i> , 2019 , 9, 8529	4.9	23
55	Strength and Performance Enhancement of Multilayers by Spatial Tailoring of Adherend Compliance and Morphology via Multimaterial Jetting Additive Manufacturing. <i>Scientific Reports</i> , 2018 , 8, 13592	4.9	23
54	Synthesis and performance evaluation of hydrocracking catalysts: A review. <i>Journal of Industrial and Engineering Chemistry</i> , 2020 , 89, 83-103	6.3	22
53	NiO powder synthesized through nickel metal complex degradation for water treatment	155, 216-224	22
52	Performance enhancement of tubular multilayers via compliance-tailoring: 3D printing, testing and modeling. <i>International Journal of Mechanical Sciences</i> , 2018 , 140, 93-108	5.5	21
51	Quantification of Adhesion Force of Bacteria on the Surface of Biomaterials: Techniques and Assays. <i>ACS Biomaterials Science and Engineering</i> , 2019 , 5, 2093-2110	5.5	20
50	A shear-lag model for functionally graded adhesive anchors. <i>International Journal of Adhesion and Adhesives</i> , 2016 , 68, 317-325	3.4	20
49	An elastic solution for adhesive stresses in multi-material cylindrical joints. <i>International Journal of Adhesion and Adhesives</i> , 2016 , 64, 142-152	3.4	19
48	Impact behavior of nanoengineered, 3D printed plate-lattices. <i>Materials and Design</i> , 2021 , 202, 109516	8.1	19
47	High performance overhead power lines with carbon nanostructures for transmission and distribution of electricity from renewable sources. <i>Journal of Cleaner Production</i> , 2017 , 145, 180-187	10.3	18
46	Piezoresistive and Mechanical Characteristics of Graphene Foam Nanocomposites. <i>ACS Applied Nano Materials</i> , 2019 , 2, 1402-1411	5.6	18
45	The energy-absorbing characteristics of carbon fiber-reinforced epoxy honeycomb structures. <i>Journal of Composite Materials</i> , 2019 , 53, 1145-1157	2.7	18
44	Self-sensing performance of MWCNT-low density polyethylene nanocomposites. <i>Materials Research Express</i> , 2018 , 5, 015703	1.7	18
43	Additively Manufactured Polyetheretherketone (PEEK) with Carbon Nanostructure Reinforcement for Biomedical Structural Applications. <i>Advanced Engineering Materials</i> , 2020 , 22, 2000483	3.5	16
42	Multiscale characterization and constitutive parameters identification of polyamide (PA12) processed via selective laser sintering. <i>Polymer Testing</i> , 2020 , 86, 106357	4.5	16
41	Additively manufactured cylindrical systems with stiffness-tailored interface: Modeling and experiments. <i>International Journal of Solids and Structures</i> , 2018 , 152-153, 71-84	3.1	16
40	Adhesively-bonded Patch Repair with Composites. <i>Defence Science Journal</i> , 2010 , 60, 320-329	1.4	16
39	Energy absorption and self-sensing performance of 3D printed CF/PEEK cellular composites. <i>Materials and Design</i> , 2021 , 208, 109863	8.1	16

38	In-plane energy absorption characteristics of a modified re-entrant auxetic structure fabricated via 3D printing. <i>Composites Part B: Engineering</i> , 2022 , 228, 109437	10	15
37	Polyvinyl alcohol incorporated buckypaper composites for improved multifunctional performance. <i>Composites Science and Technology</i> , 2018 , 168, 429-436	8.6	15
36	Special Issue on Functionally Graded Adhesively Bonded Systems. <i>International Journal of Adhesion and Adhesives</i> , 2017 , 76, 1-2	3.4	14
35	A wet-filtration-zipping approach for fabricating highly electroconductive and auxetic graphene/carbon nanotube hybrid buckypaper. <i>Scientific Reports</i> , 2018 , 8, 12188	4.9	14
34	Stress transfer through the interphase in curved-fiber pullout tests of nanocomposites. <i>Composites Part B: Engineering</i> , 2019 , 165, 417-434	10	13
33	Additive manufacturing enabled, microarchitected, hierarchically porous polylactic-acid/lithium iron phosphate/carbon nanotube nanocomposite electrodes for high performance Li-Ion batteries. <i>Journal of Power Sources</i> , 2021 , 494, 229625	8.9	12
32	Mechanical, thermal and electrical properties of LiFePO ₄ /MWCNTs composite electrodes. <i>Materials Letters</i> , 2018 , 230, 57-60	3.3	11
31	Graphene Foam (GF)/Manganese Oxide (MnO ₂) Nanocomposites for High Performance Supercapacitors. <i>Journal of Energy Storage</i> , 2020 , 30, 101575	7.8	10
30	Interfacial stresses in single-side composite patch-repairs with material tailored bondline. <i>Mechanics of Advanced Materials and Structures</i> , 2018 , 25, 304-318	1.8	10
29	Fabrication of Carbon Nanotube/Polymer Nanocomposites 2018 , 61-81		10
28	Material-tailored adhesively bonded multilayers: A theoretical analysis. <i>International Journal of Mechanical Sciences</i> , 2018 , 148, 246-262	5.5	9
27	Modeling of Cylindrical Joints with a Functionally Graded Adhesive Interlayer 2013 , 47-91		9
26	High-Ampacity Overhead Power Lines With Carbon Nanostructure Epoxy Composites. <i>Journal of Engineering Materials and Technology, Transactions of the ASME</i> , 2016 , 138,	1.8	9
25	Architected poly(lactic acid)/poly(ε-caprolactone)/halloysite nanotube composite scaffolds enabled by 3D printing for biomedical applications. <i>Journal of Materials Science</i> , 2021 , 56, 14070-14083	4.3	8
24	Numerical evaluation of additively manufactured lattice architectures for heat sink applications. <i>International Journal of Thermal Sciences</i> , 2021 , 159, 106607	4.1	8
23	Bioinspired Compliance Grading Motif of Mortar in Nacreous Materials. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 33256-33266	9.5	6
22	Micromechanics of engineered interphases in nacre-like composite structures. <i>Mechanics of Advanced Materials and Structures</i> , 2020 , 1-16	1.8	6
21	MnO ₂ /SWCNT buckypaper for high performance supercapacitors. <i>Journal of Energy Storage</i> , 2019 , 26, 100960	7.8	6

20	Coupling of injection molding process to mechanical properties of short fiber composites: A through process modeling approach. <i>Journal of Reinforced Plastics and Composites</i> , 2015 , 34, 1963-1978	2.9	6
19	Multiscale modeling of strength and failure behavior of carbon nanostructure reinforced epoxy composite adhesives in bonded systems. <i>European Journal of Mechanics, A/Solids</i> , 2020 , 80, 103932	3.7	6
18	Spatially-degraded adhesive anchors under material uncertainty. <i>International Journal of Adhesion and Adhesives</i> , 2017 , 76, 61-69	3.4	5
17	Soft optical composites for tunable transmittance. <i>Extreme Mechanics Letters</i> , 2016 , 9, 297-303	3.9	5
16	Electromagnetic interference shielding performance of carbon nanostructure reinforced, 3D printed polymer composites. <i>Journal of Materials Science</i> , 2021 , 56, 11769-11788	4.3	5
15	Thermo-resistive and thermo-piezoresistive sensitivity of carbon nanostructure engineered thermoplastic composites processed via additive manufacturing. <i>Polymer Testing</i> , 2021 , 93, 106961	4.5	5
14	Modeling of single-lap composite adhesive joints under mechanical and thermal loads. <i>Journal of Adhesion Science and Technology</i> , 2016 , 30, 759-783	2	4
13	Dual-functional cathode buffer layer for power conversion efficiency enhancement of bulk-heterojunction solar cells. <i>Synthetic Metals</i> , 2019 , 255, 116112	3.6	4
12	Pull-Out Performance of 3D Printed Composites with Embedded Fins on the Fiber. <i>Materials Research Society Symposia Proceedings</i> , 2015 , 1800, 1		4
11	Computational modelling of constrained sintering in EB-PVD thermal barrier coatings. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2013 , 21, 065008	2	4
10	Mechanical Properties of Isolated Carbon Nanotube		3
9	Synthesis and Characterization of Carbon Nanotube-Doped Thermoplastic Nanocomposites for the Additive Manufacturing of Self-Sensing Piezoresistive Materials.. <i>ACS Applied Materials & Interfaces</i> , 2022 ,	9.5	3
8	Modeling of Geometrically Graded Multi-material Single-Lap Joints		2
7	Dynamic crushing of tailored honeycombs realized via additive manufacturing. <i>International Journal of Mechanical Sciences</i> , 2022 , 219, 107126	5.5	2
6	Essential work of fracture assessment of acrylonitrile butadiene styrene (ABS) processed via fused filament fabrication additive manufacturing. <i>International Journal of Advanced Manufacturing Technology</i> , 2021 , 113, 771-784	3.2	2
5	Modeling of Stresses in an Axisymmetric Composite Patch-Repair System		1
4	Through Process Modeling Approach: Effect of Microstructure on Mechanical Properties of Fiber Reinforced Composites. <i>Conference Proceedings of the Society for Experimental Mechanics</i> , 2016 , 421-430	0.3	1
3	Mechanical response of a novel hybrid tube composed of an auxetic outer layer. <i>Thin-Walled Structures</i> , 2021 , 108649	4.7	1

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| 2 | High performance, microarchitected, compact heat exchanger enabled by 3D printing. <i>Applied Thermal Engineering</i> , 2022 , 210, 118339 | 5.8 | o |
| 1 | Multifunctionality of Nanoengineered Self-Sensing Lattices Enabled by Additive Manufacturing. <i>Advanced Engineering Materials</i> , 2200194 | 3.5 | o |