

## 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.

59 papers	17,169 citations	25 h-index	64 g-index
64 ext. papers	19,118 ext. citations	9.7 avg, IF	6.76 L-index

#	Paper	IF	Citations
59	Measurement of the elastic properties and intrinsic strength of monolayer graphene. <i>Science</i> , <b>2008</b> , 321, 385-8	33.3	14811
58	Nonlinear elastic behavior of two-dimensional molybdenum disulfide. <i>Physical Review B</i> , <b>2013</b> , 87,	3.3	312
57	Nonlinear elastic behavior of graphene: Ab initio calculations to continuum description. <i>Physical Review B</i> , <b>2009</b> , 80,	3.3	303
56	Elastic and frictional properties of graphene. <i>Physica Status Solidi (B): Basic Research</i> , <b>2009</b> , 246, 2562-2567,	3.3	285
55	Optimal length scales emerging from shear load transfer in natural materials: application to carbon-based nanocomposite design. <i>ACS Nano</i> , <b>2012</b> , 6, 2333-44	16.7	149
54	Microfabrication and mechanical properties of nanoporous gold at the nanoscale. <i>Scripta Materialia</i> , <b>2007</b> , 56, 437-440	5.6	111
53	Recoverable Slippage Mechanism in Multilayer Graphene Leads to Repeatable Energy Dissipation. <i>ACS Nano</i> , <b>2016</b> , 10, 1820-8	16.7	89
52	Machine-washable and breathable pressure sensors based on triboelectric nanogenerators enabled by textile technologies. <i>Nano Energy</i> , <b>2020</b> , 70, 104528	17.1	84
51	Plasticity and ductility in graphene oxide through a mechanochemically induced damage tolerance mechanism. <i>Nature Communications</i> , <b>2015</b> , 6, 8029	17.4	72
50	Failure mechanisms in composite panels subjected to underwater impulsive loads. <i>Journal of the Mechanics and Physics of Solids</i> , <b>2011</b> , 59, 1623-1646	5	70
49	Three-dimensional numerical modeling of composite panels subjected to underwater blast. <i>Journal of the Mechanics and Physics of Solids</i> , <b>2013</b> , 61, 1319-1336	5	64
48	Highly compressible and anisotropic lamellar ceramic sponges with superior thermal insulation and acoustic absorption performances. <i>Nature Communications</i> , <b>2020</b> , 11, 3732	17.4	64
47	Key factors limiting carbon nanotube yarn strength: exploring processing-structure-property relationships. <i>ACS Nano</i> , <b>2014</b> , 8, 11454-66	16.7	56
46	Engineering the Mechanical Properties of Monolayer Graphene Oxide at the Atomic Level. <i>Journal of Physical Chemistry Letters</i> , <b>2016</b> , 7, 2702-7	6.4	50
45	Experimental validation of multiscale modeling of indentation of suspended circular graphene membranes. <i>International Journal of Solids and Structures</i> , <b>2012</b> , 49, 3201-3209	3.1	41
44	A new rate-dependent unidirectional composite model Application to panels subjected to underwater blast. <i>Journal of the Mechanics and Physics of Solids</i> , <b>2013</b> , 61, 1305-1318	5	40
43	Atomistic Investigation of Load Transfer Between DWNT Bundles Crosslinked by PMMA Oligomers. <i>Advanced Functional Materials</i> , <b>2013</b> , 23, 1883-1892	15.6	40

42	Carbon-carbon contacts for robust nanoelectromechanical switches. <i>Advanced Materials</i> , <b>2012</b> , 24, 2463-84	34	33
41	Robust carbon-nanotube-based nano-electromechanical devices: understanding and eliminating prevalent failure modes using alternative electrode materials. <i>Small</i> , <b>2011</b> , 7, 79-86	11	33
40	Kirigami-Inspired Deformable 3D Structures Conformable to Curved Biological Surface. <i>Advanced Science</i> , <b>2018</b> , 5, 1801070	13.6	33
39	In situ scanning electron microscope peeling to quantify surface energy between multiwalled carbon nanotubes and graphene. <i>ACS Nano</i> , <b>2014</b> , 8, 124-38	16.7	31
38	Plastic deformation in nanoscale gold single crystals and open-celled nanoporous gold. <i>Modelling and Simulation in Materials Science and Engineering</i> , <b>2007</b> , 15, S181-S192	2	31
37	Design and identification of high performance steel alloys for structures subjected to underwater impulsive loading. <i>International Journal of Solids and Structures</i> , <b>2012</b> , 49, 1573-1587	3.1	30
36	Substrate stiffness regulates extracellular matrix deposition by alveolar epithelial cells. <i>Research and Reports in Biology</i> , <b>2011</b> , 2011, 1-12		30
35	Statistical shear lag model - unraveling the size effect in hierarchical composites. <i>Acta Biomaterialia</i> , <b>2015</b> , 18, 206-12	10.8	28
34	Plane-strain bulge test for nanocrystalline copper thin films. <i>Scripta Materialia</i> , <b>2007</b> , 57, 541-544	5.6	25
33	Molecular-Level Engineering of Adhesion in Carbon Nanomaterial Interfaces. <i>Nano Letters</i> , <b>2015</b> , 15, 4504-16	11.5	21
32	Robust ultraclean atomically thin membranes for atomic-resolution electron microscopy. <i>Nature Communications</i> , <b>2020</b> , 11, 541	17.4	21
31	Publisher's Note: Nonlinear elastic behavior of two-dimensional molybdenum disulfide [Phys. Rev. B 87, 035423 (2013)]. <i>Physical Review B</i> , <b>2013</b> , 87,	3.3	21
30	Residual plastic strain recovery driven by grain boundary diffusion in nanocrystalline thin films. <i>Acta Materialia</i> , <b>2011</b> , 59, 3937-3945	8.4	20
29	A new Monte Carlo model for predicting the mechanical properties of fiber yarns. <i>Journal of the Mechanics and Physics of Solids</i> , <b>2015</b> , 84, 325-335	5	18
28	Atomically Thin Polymer Layer Enhances Toughness of Graphene Oxide Monolayers. <i>Matter</i> , <b>2019</b> , 1, 369-388	12.7	16
27	Ultrasensitive triboelectric nanogenerator for weak ambient energy with rational unipolar stacking structure and low-loss power management. <i>Nano Energy</i> , <b>2017</b> , 41, 351-358	17.1	16
26	Dynamic shear-lag model for understanding the role of matrix in energy dissipation in fiber-reinforced composites. <i>Acta Biomaterialia</i> , <b>2018</b> , 74, 270-279	10.8	13
25	Thermal-responsive, super-strong, ultrathin firewalls for quenching thermal runaway in high-energy battery modules. <i>Energy Storage Materials</i> , <b>2021</b> , 40, 329-336	19.4	13

24	Deformation and fracture behavior of electrocodeposited alumina nanoparticle/copper composite films. <i>Journal of Materials Science</i> , <b>2007</b> , 42, 5256-5263	4.3	11
23	Unraveling crack stability and strain localization in staggered composites by fracture analysis on the shear-lag model. <i>Composites Science and Technology</i> , <b>2018</b> , 156, 262-268	8.6	10
22	A new three-dimensional progressive damage model for fiber-reinforced polymer laminates and its applications to large open-hole panels. <i>Composites Science and Technology</i> , <b>2019</b> , 182, 107757	8.6	9
21	A new continuum model for viscoplasticity in metallic glasses based on thermodynamics and its application to creep tests. <i>Journal of the Mechanics and Physics of Solids</i> , <b>2021</b> , 146, 104216	5	7
20	Optimizing mechanical properties of bio-inspired composites through functionally graded matrix and microstructure design. <i>Composite Structures</i> , <b>2018</b> , 206, 621-627	5.3	6
19	Optimization of Damping Properties of Staggered Composites Through Microstructure Design. <i>Journal of Applied Mechanics, Transactions ASME</i> , <b>2018</b> , 85,	2.7	5
18	Growth of Ultraflat Graphene with Greatly Enhanced Mechanical Properties. <i>Nano Letters</i> , <b>2020</b> , 20, 6798-6805	11.5	5
17	Zone-Folded Longitudinal Acoustic Phonons Driving Self-Trapped State Emission in Colloidal CdSe Nanoplatelet Superlattices. <i>Nano Letters</i> , <b>2021</b> , 21, 4137-4144	11.5	5
16	Observation of plastic deformation in freestanding single crystal Au nanowires. <i>Applied Physics Letters</i> , <b>2006</b> , 89, 111916	3.4	4
15	Achieving outstanding damping performance through bio-inspired sutural tessellations. <i>Journal of the Mechanics and Physics of Solids</i> , <b>2020</b> , 142, 104010	5	4
14	Design the wave attenuation property of nacreous composites. <i>Extreme Mechanics Letters</i> , <b>2020</b> , 40, 100875	3.9	3
13	A multiscale analytical framework for mode I crack in staggered composites. <i>Journal of the Mechanics and Physics of Solids</i> , <b>2020</b> , 145, 104157	5	3
12	A general property-structure relationship from crack stability analysis on hybrid staggered composites with elasto-plastic matrices. <i>Composite Structures</i> , <b>2020</b> , 240, 112071	5.3	2
11	Atomically Thin Bilayer Janus Membranes for Cryo-electron Microscopy. <i>ACS Nano</i> , <b>2021</b> , 15, 16562-16571	16.7	2
10	Enhancing strength and ductility via crystalline-amorphous nanoarchitectures in TiZr-based alloys.. <i>Science Advances</i> , <b>2022</b> , 8, eabm2884	14.3	2
9	Modeling Intrinsic Wrinkles in Graphene and Their Effects on the Mechanical Properties. <i>Jom</i> , <b>2020</b> , 72, 3987-3992	2.1	1
8	A universal fracture analysis framework for staggered composites composed of tablets with different wavy topologies. <i>Journal of the Mechanics and Physics of Solids</i> , <b>2021</b> , 151, 104387	5	1
7	Size effects in layered composites I Defect tolerance and strength optimization. <i>Composites Science and Technology</i> , <b>2018</b> , 165, 154-160	8.6	1

6	Enhancing the impact performance of reinforced composites through fiber hybridization: A hybrid dynamic shear-lag model. <i>Extreme Mechanics Letters</i> , <b>2021</b> , 47, 101352	3.9	1
5	Correlations between the hierarchical spatial heterogeneity and the mechanical properties of metallic glasses. <i>International Journal of Mechanical Sciences</i> , <b>2021</b> , 204, 106570	5.5	1
4	A multiscale model for the prediction of ballistic performance of fiber-reinforced composites. <i>International Journal of Impact Engineering</i> , <b>2021</b> , 154, 103889	4	1
3	Experimental and Theoretical Studies of Fiber-Reinforced Composite Panels Subjected to Underwater Blast Loading <b>2014</b> , 91-122		1
2	Carbon Nanotubes: Atomistic Investigation of Load Transfer Between DWNT Bundles "Crosslinked" by PMMA Oligomers (Adv. Funct. Mater. 15/2013). <i>Advanced Functional Materials</i> , <b>2013</b> , 23, 1976-1976	15.6	
1	Finite deformation continuum model for mechanically induced phase transition in transition metal dichalcogenide monolayers. <i>Journal of the Mechanics and Physics of Solids</i> , <b>2022</b> , 166, 104955	5	