Teng Li

List of Publications by Year
in descending order

144 papers	12,965 citations	30551 56 h-index	26792 111 g-index
149 all docs	149 docs citations	149 times ranked	17411 citing authors

#	Article	IF	Citations
1	Interface Engineering Between Multiâ€Elemental Alloy Nanoparticles and a Carbon Support Toward Stable Catalysts. Advanced Materials, 2022, 34, e2106436.	11.1	30
2	Toward stretchable batteries: 3D-printed deformable electrodes and separator enabled by nanocellulose. Materials Today, 2022, 54, 18-26.	8.3	35
3	Correlation Between Rockwell and Brinell Hardness Measurements. Journal of Applied Mechanics, Transactions ASME, 2022, 89, .	1.1	2
4	Fabrication of Celluloseâ€“Graphite Foam via Ion Cross-linking and Ambient-Drying. Nano Letters, 2022, 22, 3931-3938.	4.5	21
5	Dataâ€Driven Highâ€Throughput Rational Design of Doubleâ€Atom Catalysts for Oxygen Evolution and Reduction. Advanced Functional Materials, 2022, 32, .	7.8	40
6	Mechanics Design in Celluloseâ€Enabled Highâ€Performance Functional Materials. Advanced Materials, 2021, 33, e2002504.	11.1	77
7	EML Webinar Overview: Advanced materials toward a sustainable futureâ€"Mechanics design. Extreme Mechanics Letters, 2021, 42, 101107.	2.0	14
8	Recent Advances in Functional Materials through Cellulose Nanofiber Templating. Advanced Materials, 2021, 33, e2005538.	11.1	77
9	Effect of interfacial stiffness on the stretchability of metal/elastomer bilayers under in-plane biaxial tension. Theoretical and Applied Mechanics Letters, 2021, 11, 100247.	1.3	4
10	Strong, Hydrostable, and Degradable Straws Based on Celluloseâ€Lignin Reinforced Composites. Small, 2021, 17, e2008011.	5.2	81
11	A strong, biodegradable and recyclable lignocellulosic bioplastic. Nature Sustainability, 2021, 4, 627-635.	11.5	291
12	Cellulose Nanofiber Templating: Recent Advances in Functional Materials through Cellulose Nanofiber Templating (Adv. Mater. 12/2021). Advanced Materials, 2021, 33, 2170094.	11.1	1
13	Mechanics of cellulose nanopaper using a scalable coarse-grained modeling scheme. Cellulose, 2021, 28, 3359-3372.	2.4	13
14	Machine learning-accelerated prediction of overpotential of oxygen evolution reaction of single-atom catalysts. IScience, 2021, 24, 102398.	1.9	48
15	Carbonized Wood Decorated with Cobaltâ€Nickel Binary Nanoparticles as a Lowâ€Cost and Efficient Electrode for Water Splitting. Advanced Functional Materials, 2021, 31, 2010951.	7.8	54
16	3Dâ€Printed, Highâ€Porosity, Highâ€Strength Graphite Aerogel. Small Methods, 2021, 5, e2001188.	4.6	21
17	Damage-tolerant 3D-printed ceramics via conformal coating. Science Advances, 2021, 7, .	4.7	32
18	Machine Learning Accelerated, High Throughput, Multiâ€Objective Optimization of Multiprincipal Element Alloys. Small, 2021, 17, e2102972.	5.2	11

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19	What really governs the upper bound of uniform ductility in gradient or layered materials?. Extreme Mechanics Letters, 2021, 48, 101413.	2.0	5
20	Mechanics and strain engineering of bulk and monolayer Bi2O2Se. Journal of the Mechanics and Physics of Solids, 2021, 157, 104626.	2.3	6
21	Alignment of Cellulose Nanofibers: Harnessing Nanoscale Properties to Macroscale Benefits. ACS Nano, 2021, 15, 3646-3673.	7.3	108
22	Machine Learning Accelerated, High Throughput, Multiâ€Objective Optimization of Multiprincipal Element Alloys (Small 42/2021). Small, 2021, 17, 2170222.	5.2	0
23	Hardened wood as a renewable alternative to steel and plastic. Matter, 2021, 4, 3941-3952.	5.0	39
24	Lightweight, strong, moldable wood via cell wall engineering as a sustainable structural material. Science, 2021, 374, 465-471.	6.0	137
25	Giant tunability of interlayer friction in graphite via ion intercalation. Extreme Mechanics Letters, 2020, 35, 100616.	2.0	6
26	3D-printed highly deformable electrodes for flexible lithium ion batteries. Energy Storage Materials, 2020, 33, 55-61.	9.5	64
27	Highly Elastic Hydrated Cellulosic Materials with Durable Compressibility and Tunable Conductivity. ACS Nano, 2020, 14, 16723-16734.	7.3	98
28	Rational design of transition metal single-atom electrocatalysts: a simulation-based, machine learning-accelerated study. Journal of Materials Chemistry A, 2020, 8, 19290-19299.	5.2	57
29	Direct observation of the formation and stabilization of metallic nanoparticles on carbon supports. Nature Communications, 2020, 11, 6373.	5.8	65
30	Structureâ€"propertyâ€"function relationships of natural and engineered wood. Nature Reviews Materials, 2020, 5, 642-666.	23.3	616
31	Hierarchical Polyelemental Nanoparticles as Bifunctional Catalysts for Oxygen Evolution and Reduction Reactions. Advanced Energy Materials, 2020, 10, 2001119.	10.2	39
32	Red-phosphorus-impregnated carbon nanofibers for sodium-ion batteries and liquefaction of red phosphorus. Nature Communications, 2020, 11, 2520.	5.8	77
33	Stabilizing mechanism of single-atom catalysts on a defective carbon surface. Npj Computational Materials, 2020, 6, .	3.5	38
34	A constitutive model of microfiber reinforced anisotropic hydrogels: With applications to wood-based hydrogels. Journal of the Mechanics and Physics of Solids, 2020, 138, 103893.	2.3	24
35	Allâ€Natural, Degradable, Rolledâ€Up Straws Based on Cellulose Microâ€and Nanoâ€Hybrid Fibers. Advanced Functional Materials, 2020, 30, 1910417.	7.8	109
36	High temperature shockwave stabilized single atoms. Nature Nanotechnology, 2019, 14, 851-857.	15.6	278

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37	3D Printing of Ultralight Biomimetic Hierarchical Graphene Materials with Exceptional Stiffness and Resilience. Advanced Materials, 2019, 31, e1902930.	11.1	130
38	Decoupling Ionic and Electronic Pathways in Low-Dimensional Hybrid Conductors. Journal of the American Chemical Society, 2019, 141, 17830-17837.	6.6	42
39	Flexible Garnet Solid-State Electrolyte Membranes Enabled by Tile-and-Grout Design. ACS Energy Letters, 2019, 4, 2668-2674.	8.8	50
40	Programming the Shape Transformation of a Composite Hydrogel Sheet via Erasable and Rewritable Nanoparticle Patterns. ACS Applied Materials & Interfaces, 2019, 11, 42654-42660.	4.0	19
41	A silicon anode for garnet-based all-solid-state batteries: Interfaces and nanomechanics. Energy Storage Materials, 2019, 21, 246-252.	9.5	70
42	Selectively aligned cellulose nanofibers towards high-performance soft actuators. Extreme Mechanics Letters, 2019, 29, 100463.	2.0	65
43	A printed, recyclable, ultra-strong, and ultra-tough graphite structural material. Materials Today, 2019, 30, 17-25.	8.3	83
44	Millisecond synthesis of CoS nanoparticles for highly efficient overall water splitting. Nano Research, 2019, 12, 2259-2267.	5.8	85
45	Bifurcation instability of substrate-supported metal films under biaxial in-plane tension. Journal of the Mechanics and Physics of Solids, 2019, 126, 52-75.	2.3	9
46	Thermal conductivity of graphene grain boundaries along arbitrary in-plane directions: A comprehensive molecular dynamics study. Journal of Applied Physics, 2019, 125, .	1.1	15
47	Bioinspired Controllable Electroâ€Chemomechanical Coloration Films. Advanced Functional Materials, 2019, 29, 1806383.	7.8	34
48	One-Step, Catalyst-Free, Scalable in Situ Synthesis of Single-Crystal Aluminum Nanowires in Confined Graphene Space. ACS Applied Materials & Interfaces, 2019, 11, 6009-6014.	4.0	7
49	Strength of graphene grain boundaries under arbitrary in-plane tension. Carbon, 2019, 142, 388-400.	5.4	28
50	Nanomanufacturing of graphene nanosheets through nano-hole opening and closing. Materials Today, 2019, 24, 26-32.	8.3	48
51	Delayed burst of a gel balloon. Journal of the Mechanics and Physics of Solids, 2019, 124, 143-158.	2.3	11
52	Transparent, Anisotropic Biofilm with Aligned Bacterial Cellulose Nanofibers. Advanced Functional Materials, 2018, 28, 1707491.	7.8	142
53	Scalable and Sustainable Approach toward Highly Compressible, Anisotropic, Lamellar Carbon Sponge. CheM, 2018, 4, 544-554.	5.8	246
54	Effects of nanofiber orientations on the fracture toughness of cellulose nanopaper. Engineering Fracture Mechanics, 2018, 194, 350-361.	2.0	47

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55	Dielectric-elastomer-based capacitive force sensing with tunable and enhanced sensitivity. Extreme Mechanics Letters, 2018, 21, 49-56.	2.0	14
56	Processing bulk natural wood into a high-performance structural material. Nature, 2018, 554, 224-228.	13.7	970
57	Catalyst-Free <i>In Situ</i> Carbon Nanotube Growth in Confined Space <i>via</i> High Temperature Gradient. Research, 2018, 2018, 1793784.	2.8	7
58	Low temperature carbonization of cellulose nanocrystals for high performance carbon anode of sodium-ion batteries. Nano Energy, 2017, 33, 37-44.	8.2	159
59	A review on mechanics and mechanical properties of 2D materialsâ€”Graphene and beyond. Extreme Mechanics Letters, 2017, 13, 42-77.	2.0	920
60	A multiscale crack-bridging model of cellulose nanopaper. Journal of the Mechanics and Physics of Solids, 2017, 103, 22-39.	2.3	75
61	Compressible, Dense, Three-Dimensional Holey Graphene Monolithic Architecture. ACS Nano, 2017, 11, 3189-3197.	7.3	44
62	Geometric design of micron-sized crystalline silicon anodes through in situ observation of deformation and fracture behaviors. Journal of Materials Chemistry A, 2017, 5, 12793-12802.	5.2	38
63	Anisotropic, Transparent Films with Aligned Cellulose Nanofibers. Advanced Materials, 2017, 29, 1606284.	11.1	202
64	Reprogrammable ultra-fast shape-transformation of macroporous composite hydrogel sheets. Journal of Materials Chemistry B, 2017, 5, 2883-2887.	2.9	23
65	Celluloseâ€Nanofiberâ€Enabled 3D Printing of a Carbonâ€Nanotube Microfiber Network. Small Methods, 2017, 1, 1700222.	4.6	130
66	Intrinsic stress mitigation via elastic softening during two-step electrochemical lithiation of amorphous silicon. Journal of the Mechanics and Physics of Solids, 2016, 91, 278-290.	2.3	34
67	Reduced Graphene Oxide Films with Ultrahigh Conductivity as Li-Ion Battery Current Collectors. Nano Letters, 2016, 16, 3616-3623.	4.5	187
68	Strain-induced programmable half-metal and spin-gapless semiconductor in an edge-doped boron nitride nanoribbon. Physical Review B, 2016, 93, .	1.1	33
69	Carbon Welding by Ultrafast Joule Heating. Nano Letters, 2016, 16, 7282-7289.	4.5	88
70	Ultra-fast self-assembly and stabilization of reactive nanoparticles in reduced graphene oxide films. Nature Communications, 2016, 7, 12332.	5.8	123
71	Flexible Batteries: From Mechanics to Devices. ACS Energy Letters, 2016, 1, 1065-1079.	8.8	170
72	Failure mechanics of a wrinkling thin film anode on a substrate under cyclic charging and discharging. Extreme Mechanics Letters, 2016, 8, 273-282.	2.0	24

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73	Programmable Extreme Pseudomagnetic Fields in Graphene by a Uniaxial Stretch. Physical Review Letters, 2015, 115, 245501.	2.9	100
74	Reversible Mechanical and Electrical Properties of Ripped Graphene. Physical Review Applied, 2015, 3, .	1.5	12
75	3-axis all elastomer MEMS tactile sensor. , 2015, , .		5
76	Mechanical Control of Graphene on Engineered Pyramidal Strain Arrays. ACS Nano, 2015, 9, 5799-5806.	7.3	37
77	Hybridizing wood cellulose and graphene oxide toward high-performance fibers. NPG Asia Materials, 2015, 7, e150-e150.	3.8	95
78	Stress-modulated driving force for lithiation reaction in hollow nano-anodes. Journal of Power Sources, 2015, 275, 866-876.	4.0	54
79	Anomalous scaling law of strength and toughness of cellulose nanopaper. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 8971-8976.	3.3	296
80	Directional transport of molecular mass on graphene by straining. Extreme Mechanics Letters, 2014, 1, 83-89.	2.0	24
81	Wrinkling Instability of Graphene on Substrate-Supported Nanoparticles. Journal of Applied Mechanics, Transactions ASME, 2014, 81, .	1.1	25
82	Line defects guided molecular patterning on graphene. Applied Physics Letters, 2014, 104, 093102.	1.5	6
83	Extremely compliant and highly stretchable patterned graphene. Applied Physics Letters, 2014, 104, .	1.5	41
84	Pseudomagnetic fields in a locally strained graphene drumhead. Physical Review B, 2014, 90, .	1.1	40
85	STRESS-MODULATED DRIVING FORCE FOR LITHIATION REACTION IN HOLLOW NANO-SPHERICAL ANODES. Materials Research Society Symposia Proceedings, 2014, 1643, 1.	0.1	0
86	Hydrogenation-Assisted Graphene Origami and Its Application in Programmable Molecular Mass Uptake, Storage, and Release. ACS Nano, 2014, 8, 2864-2872.	7.3	176
87	Novel Nanostructured Paper with Ultrahigh Transparency and Ultrahigh Haze for Solar Cells. Nano Letters, 2014, 14, 765-773.	4.5	419
88	Hybrid hydrogel sheets that undergo pre-programmed shape transformations. Soft Matter, 2014, 10, 8157-8162.	1.2	65
89	Effects of surface compliance and relaxation on the frictional properties of lamellar materials. RSC Advances, 2014, 4, 26721-26728.	1.7	14
90	Atomic-Layer-Deposition Oxide Nanoglue for Sodium Ion Batteries. Nano Letters, 2014, 14, 139-147.	4.5	191

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91	Two dimensional silicon nanowalls for lithium ion batteries. Journal of Materials Chemistry A, 2014, 2, 6051-6057.	5.2	70
92	Hydrogenation enabled scrolling of graphene. Journal Physics D: Applied Physics, 2013, 46, 075301.	1.3	49
93	Necking limit of substrate-supported metal layers under biaxial in-plane loading. International Journal of Plasticity, 2013, 51, 65-79.	4.1	20
94	A Beaded-String Silicon Anode. ACS Nano, 2013, 7, 2717-2724.	7.3	68
95	Tin Anode for Sodium-Ion Batteries Using Natural Wood Fiber as a Mechanical Buffer and Electrolyte Reservoir. Nano Letters, 2013, 13, 3093-3100.	4.5	556
96	Nanoscale Interfacial Friction and Adhesion on Supported versus Suspended Monolayer and Multilayer Graphene. Langmuir, 2013, 29, 235-243.	1.6	112
97	In Situ Electro-Mechanical Experiments and Mechanics Modeling of Fracture in Indium Tin Oxide-Based Multilayer Electrodes. Advanced Engineering Materials, 2013, 15, 250-256.	1.6	36
98	Transportation of Hydrogen Molecules Enabled by Tortional Buckling Instability of Carbon Nanoscrolls. Materials Research Society Symposia Proceedings, 2013, 1505, 1.	0.1	0
99	Molecular Mass Transportation Via Carbon Nanoscrolls. Journal of Applied Mechanics, Transactions ASME, 2013, 80, .	1.1	15
100	Critical Dispersion Distance of Silicon Nanoparticles Intercalated between Graphene Layers. Journal of Nanomaterials, 2012, 2012, 1-4.	1.5	4
101	Probing the adhesion of submicron thin films fabricated on a polymer substrate via nano-transfer printing. Journal of Micromechanics and Microengineering, 2012, 22, 095002.	1.5	4
102	Lithium-Assisted Electrochemical Welding in Silicon Nanowire Battery Electrodes. Nano Letters, 2012, 12, 1392-1397.	4.5	110
103	A map of competing buckling-driven failure modes of substrate-supported thin brittle films. Thin Solid Films, 2012, 520, 6576-6580.	0.8	30
104	Buckling instability of carbon nanoscrolls. Journal of Applied Physics, 2012, 112, 063515.	1.1	26
105	Electromechanical Properties of Graphene Drumheads. Science, 2012, 336, 1557-1561.	6.0	264
106	Size-dependent rupture strain of elastically stretchable metal conductors. Scripta Materialia, 2012, 66, 919-922.	2.6	28
107	Ultrafast nano-oscillators based on interlayer-bridged carbon nanoscrolls. Nanoscale Research Letters, 2011, 6, 470.	3.1	30
108	Resonant frequency of gold/polycarbonate hybrid nano resonators fabricated on plastics via nano-transfer printing. Nanoscale Research Letters, 2011, 6, 90.	3.1	8

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109	Failure mechanics of organicâ€“inorganic multilayer permeation barriers in flexible electronics. Composites Science and Technology, 2011, 71, 365-372.	3.8	59
110	Competing failure mechanisms of thin metal films on polymer substrates under tension. Theoretical and Applied Mechanics Letters, 2011, 1, 041002.	1.3	11
111	Extrinsic morphology of graphene. Modelling and Simulation in Materials Science and Engineering, 2011, 19, 054005.	0.8	20
112	Concomitant Channel Cracking and Interfacial Delamination in Polymer/Oxide Nano Hybrid Permeation Barriers in Flexible Electronics. Materials Research Society Symposia Proceedings, 2011, 1312, 1.	0.1	0
113	Determining graphene adhesion via substrate-regulated morphology of graphene. Journal of Applied Physics, 2011, 110, .	1.1	49
114	<i>In situ</i> electro-mechanical experiments and mechanics modeling of tensile cracking in indium tin oxide thin films on polyimide substrates. Journal of Applied Physics, 2011, 109, .	1.1	61
115	Low-Dimensional Carbon Nanomaterials: Synthesis, Properties, and Applications. Journal of Nanomaterials, 2011, 2011, 1-2.	1.5	1
116	A Molecular Mechanics Study of Morphologic Interaction between Graphene and Si Nanowires on a SiO₂Substrate. Journal of Nanomaterials, 2011, 2011, 1-7.	1.5	4
117	Snap-Through Instability of Graphene on Substrates. Nanoscale Research Letters, 2010, 5, 169-173.	3.1	50
118	Graphene morphology regulated by nanowires patterned in parallel on a substrate surface. Journal of Applied Physics, 2010, 107, .	1.1	20
119	Carbon nanotube initiated formation of carbon nanoscrolls. Applied Physics Letters, 2010, 97, .	1.5	69
120	Substrate-regulated morphology of graphene. Journal Physics D: Applied Physics, 2010, 43, 075303.	1.3	77
121	10.1063/1.3479050.1. , 2010, , .		1
122	A quality map of transfer printing. Journal of Applied Physics, 2009, 106, 103504.	1.1	23
123	Graphene Morphology Modulated by Nanowires Patterned on a Substrate Surface. , 2009, , .		0
124	Science underpinning the quality of transfer printing. , 2009, , .		0
125	STRAIN DECONCENTRATION IN THIN FILMS PATTERNED WITH CIRCULAR HOLES. International Journal of Applied Mechanics, 2009, 01, 557-568.	1.3	7
126	Snap-Through Instability of Graphene Morphology on Substrates. , 2009, , .		0

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127	A mechanics model of microtubule buckling in living cells. Journal of Biomechanics, 2008, 41, 1722-1729.	0.9	109
128	Effects of grain boundary adhesion and grain size on ductility of thin metal films on polymer substrates. Scripta Materialia, 2008, 59, 862-865.	2.6	25
129	Suitably Patterned Thin Stiff Films as General Platforms for Flexible Electronics. , 2007, , .		0
130	Buckling of Microtubules in Living Cells Modulated by Surrounding Cytoplasm and Filament Network. Materials Research Society Symposia Proceedings, 2007, 1063, 1.	0.1	0
131	Ductility of thin metal films on polymer substrates modulated by interfacial adhesion. International Journal of Solids and Structures, 2007, 44, 1696-1705.	1.3	149
132	Stiff subcircuit islands of diamondlike carbon for stretchable electronics. Journal of Applied Physics, 2006, 100, 014913.	1.1	109
133	Deformability of thin metal films on elastomer substrates. International Journal of Solids and Structures, 2006, 43, 2351-2363.	1.3	148
134	ELASTOMERIC INTERCONNECTS. International Journal of High Speed Electronics and Systems, 2006, 16, 397-407.	0.3	5
135	Mechanisms of reversible stretchability of thin metal films on elastomeric substrates. Applied Physics Letters, 2006, 88, 204103.	1.5	363
136	ELASTOMERIC INTERCONNECTS. , 2006, , .		0
137	Compliant thin film patterns of stiff materials as platforms for stretchable electronics. Journal of Materials Research, 2005, 20, 3274-3277.	1.2	157
138	How Stretchable Can We Make Thin Metal Films?. Materials Research Society Symposia Proceedings, 2005, 875, 1.	0.1	8
139	Stretchable Interconnects for Elastic Electronic Surfaces. Proceedings of the IEEE, 2005, 93, 1459-1467.	16.4	558
140	High ductility of a metal film adherent on a polymer substrate. Applied Physics Letters, 2005, 87, 161910.	1.5	262
141	Stretchability of thin metal films on elastomer substrates. Applied Physics Letters, 2004, 85, 3435-3437.	1.5	291
142	Electronic skin: architecture and components. Physica E: Low-Dimensional Systems and Nanostructures, 2004, 25, 326-334.	1.3	275
143	Statistical strength of brittle materials with strongly interacted collinear microcracks. International Journal of Solids and Structures, 1998, 35, 995-1008.	1.3	10
144	Nonlocal Elasticity Theory for Free Vibration of Single-Walled Carbon Nanotubes. Advanced Materials Research, 0, 747, 257-260.	0.3	17