Fan Xu

List of Publications by Citations

40 papers	743 citations	16 h-index	26 g-index
46 ext. papers	981 ext. citations	5.8 avg, IF	4.75 L-index

#	Paper	IF	Citations
40	Functionalized helical fibre bundles of carbon nanotubes as electrochemical sensors for long-term in vivo monitoring of multiple disease biomarkers. *Nature Biomedical Engineering*, **2020**, 4, 159-171	19	99
39	Stabilizing Lithium into Cross-Stacked Nanotube Sheets with an Ultra-High Specific Capacity for Lithium Oxygen Batteries. *Angewandte Chemie - International Edition*, **2019**, 58, 2437-2442	16.4	81
38	Light-Boosting Highly Sensitive Pressure Sensors Based on Bioinspired Multiscale Surface Structures. *Advanced Functional Materials*, **2020**, 30, 1907091	15.6	53
37	3D finite element modeling for instabilities in thin films on soft substrates. *International Journal of Solids and Structures*, **2014**, 51, 3619-3632	3.1	47
36	A multi-scale modeling framework for instabilities of film/substrate systems. *Journal of the Mechanics and Physics of Solids*, **2016**, 86, 150-172	5	43
35	A modeling and resolution framework for wrinkling in hyperelastic sheets at finite membrane strain. *Journal of the Mechanics and Physics of Solids*, **2019**, 124, 446-470	5	41
34	On axisymmetric/diamond-like mode transitions in axially compressed core–shell cylinders. *Journal of the Mechanics and Physics of Solids*, **2016**, 94, 68-87	5	36
33	Multiple bifurcations in wrinkling analysis of thin films on compliant substrates. *International Journal of Non-Linear Mechanics*, **2015**, 76, 203-222	2.8	29
32	On the wrinkling and restabilization of highly stretched sheets. *International Journal of Engineering Science*, **2019**, 136, 1-16	5.7	27
31	Water Affects Morphogenesis of Growing Aquatic Plant Leaves. *Physical Review Letters*, **2020**, 124, 038003	7.4	25
30	All-Optical Reversible Azo-Based Wrinkling Patterns with High Aspect Ratio and Polarization-Independent Orientation for Light-Responsive Soft Photonics. *ACS Applied Materials & Interfaces*, **2019**, 11, 25595-25604	9.5	24
29	Instabilities in thin films on hyperelastic substrates by 3D finite elements. *International Journal of Solids and Structures*, **2015**, 69-70, 71-85	3.1	21
28	Photo-controlled patterned wrinkling of liquid crystalline polymer films on compliant substrates. *International Journal of Solids and Structures*, **2018**, 132-133, 264-277	3.1	21
27	Pattern Transitions in a Soft Cylindrical Shell. *Physical Review Letters*, **2018**, 120, 215503	7.4	19
26	On the buckling and post-buckling of core-shell cylinders under thermal loading. *International Journal of Solids and Structures*, **2017**, 126-127, 17-36	3.1	17
25	Stabilizing Lithium into Cross-Stacked Nanotube Sheets with an Ultra-High Specific Capacity for Lithium Oxygen Batteries. *Angewandte Chemie*, **2019**, 131, 2459-2464	3.6	16
24	A perovskite solar cell textile that works at −40 to 160 °C. *Journal of Materials Chemistry A*, **2020**, 8, 5476-5483	13	14

23	Pattern selection in core-shell spheres. *Journal of the Mechanics and Physics of Solids*, **2020**, 137, 103892	5	14
22	Wrinkling and smoothing of a soft shell. *Journal of the Mechanics and Physics of Solids*, **2020**, 134, 103738	5	14
21	Snap-through instabilities of pressurized balloons: Pear-shaped bifurcation and localized bulging. *International Journal of Non-Linear Mechanics*, **2018**, 98, 137-144	2.8	13
20	Orientable wrinkles in stretched orthotropic films. *Extreme Mechanics Letters*, **2019**, 33, 100579	3.9	11
19	Light-Induced Bending and Buckling of Large-Deflected Liquid Crystalline Polymer Plates. *International Journal of Applied Mechanics*, **2016**, 08, 1640007	2.4	10
18	Piezoluminescent devices by designing array structures. *Science Bulletin*, **2019**, 64, 151-157	10.6	9
17	Quantitative predictions of diverse wrinkling patterns in film/substrate systems. *Scientific Reports*, **2017**, 7, 18081	4.9	8
16	Controllable wrinkling patterns on liquid crystal polymer film/substrate systems by laser illumination. *Extreme Mechanics Letters*, **2019**, 30, 100502	3.9	7
15	Bridging techniques in a multi-scale modeling of pattern formation. *International Journal of Solids and Structures*, **2014**, 51, 3119-3134	3.1	7
14	A finite strain model predicts oblique wrinkles in stretched anisotropic films. *International Journal of Engineering Science*, **2020**, 155, 103354	5.7	6
13	Stretchable and ultrasensitive strain sensor based on a bilayer wrinkle-microcracking mechanism. *Chemical Engineering Journal*, **2022**, 437, 135399	14.7	6
12	Thermal wrinkling of liquid crystal polymer shell/core spheres. *Extreme Mechanics Letters*, **2020**, 40, 100860	3.9	5
11	Intricate evolutions of multiple-period post-buckling patterns in bilayers. *Science China: Physics, Mechanics and Astronomy*, **2021**, 64, 1	3.6	4
10	Post-buckling evolution of wavy patterns in trapezoidal film/substrate bilayers. *International Journal of Non-Linear Mechanics*, **2017**, 96, 46-55	2.8	3
9	Cellular instabilities analyzed by multi-scale Fourier series: A review. *Discrete and Continuous Dynamical Systems - Series S*, **2016**, 9, 585-597	2.8	2
8	Oblique wrinkling patterns on liquid crystal polymer core–shell cylinders under thermal load. *International Journal of Solids and Structures*, **2021**, 208-209, 181-193	3.1	2
7	Curvature tunes wrinkling in shells. *International Journal of Engineering Science*, **2021**, 164, 103490	5.7	2
6	Competition between Mullins and curvature effects in the wrinkling of stretched soft shells. *International Journal of Solids and Structures*, **2022**, 241, 111473	3.1	1

5	Computing wrinkling and restabilization of stretched sheets based on a consistent finite-strain plate theory. *Computer Methods in Applied Mechanics and Engineering*, **2021**, 384, 113986	5.7	1
4	Buckling of an elastic layer based on implicit constitution: Incremental theory and numerical framework. *International Journal of Engineering Science*, **2021**, 169, 103568	5.7	1
3	An asymptotic modeling and resolution framework for morphology evolutions of multiple-period post-buckling modes in bilayers. *Mathematics and Mechanics of Solids*,108128652210830	2.3	1
2	Effect of surface topography on anisotropic friction of graphene layers. *Extreme Mechanics Letters*, **2020**, 40, 100988	3.9	0
1	Nanosleeves: Morphology transitions of infilled carbon nanotubes. *Journal of the Mechanics and Physics of Solids*, **2021**, 152, 104398	5	