Shelby B Hutchens

List of Publications by Year
in descending order

25	739	623734	677142
papers	citations	14 h-index	22 g-index

27	27	27	882
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	In situ Mechanical Testing Reveals Periodic Buckle Nucleation and Propagation in Carbon Nanotube Bundles. Advanced Functional Materials, 2010, 20, 2338-2346.	14.9	139
2	Directly Measuring the Complete Stressâ€“Strain Response of Ultrathin Polymer Films. Macromolecules, 2015, 48, 6534-6540.	4.8	101
3	Analysis of uniaxial compression of vertically aligned carbon nanotubes. Journal of the Mechanics and Physics of Solids, 2011, 59, 2227-2237.	4.8	80
4	Elastic cavitation and fracture via injection. Soft Matter, 2016, 12, 2557-2566.	2.7	59
5	Puncture mechanics of soft solids. Soft Matter, 2015, 11, 4723-4730.	2.7	54
6	Metastable cluster intermediates in the condensation of charged macromolecule solutions. Journal of Chemical Physics, 2007, 127, 084912.	3.0	51
7	Cavitation-induced damage of soft materials by focused ultrasound bursts: A fracture-based bubble dynamics model. Journal of the Acoustical Society of America, 2016, 140, 1374-1386.	1.1	42
8	Effects of morphology on the micro-compression response of carbon nanotube forests. Nanoscale, 2012, 4, 3373.	5.6	32
9	Soft-solid deformation mechanics at the tip of an embedded needle. Soft Matter, 2014, 10, 3679.	2.7	28
10	Buckling-driven delamination of carbon nanotube forests. Applied Physics Letters, 2013, 102, .	3.3	22
11	PDMS polymerized high internal phase emulsions (polyHIPEs) with closed-cell, aqueous-filled microcavities. Soft Matter, 2019, 15, 9665-9675.	2.7	21
12	Creasing in evaporation-driven cavity collapse. Soft Matter, 2017, 13, 6894-6904.	2.7	18
13	Y-Shaped Cutting for the Systematic Characterization of Cutting and Tearing. Experimental Mechanics, 2019, 59, 517-529.	2.0	17
14	A microstructurally motivated description of the deformation of vertically aligned carbon nanotube structures. Applied Physics Letters, 2012, 100, .	3.3	15
15	On the relationship between cutting and tearing in soft elastic solids. Soft Matter, 2021, 17, 6728-6741.	2.7	14
16	Hydraulic fracture geometry in ultrasoft polymer networks. International Journal of Fracture, 2019, 219, 89-99.	2.2	13
17	Swelling of a non-vascular-plant-inspired soft composite. Matter, 2021, 4, 3991-4005.	10.0	9
18	A device to fracture soft solids at high speeds. Extreme Mechanics Letters, 2019, 28, 69-75.	4.1	8

#	Article	IF	Citations
19	Multi-crack formation in soft solids during high rate cavity expansion. Mechanics of Materials, 2021, 154, 103741.	3.2	6
20	Dynamic Fracture of Expanding Cavities in Nonlinear Soft Solids. Journal of Applied Mechanics, Transactions ASME, 2021, 88, .	2.2	5
21	Nanoshearing. Materials Today, 2012, 15, 127.	14.2	2
22	Vertically Aligned Carbon Nanotubes, Collective Mechanical Behavior. , 2012, , 2809-2818.		1
23	Vertically Aligned Carbon Nanotubes, Collective Mechanical Behavior. , 2016, , 1-20.		1
24	Viscosity. , 2012, , 2819-2819.		0
25	Vertically Aligned Carbon Nanotubes, Collective Mechanical Behavior. , 2016, , 4325-4344.		0