

Shelby B Hutchens

List of Publications by Year in descending order

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Version: 2024-02-01

25
papers

739
citations

623734

14
h-index

677142

22
g-index

27
all docs

27
docs citations

27
times ranked

882
citing authors

#	ARTICLE	IF	CITATIONS
1	On the relationship between cutting and tearing in soft elastic solids. <i>Soft Matter</i> , 2021, 17, 6728-6741.	2.7	14
2	Multi-crack formation in soft solids during high rate cavity expansion. <i>Mechanics of Materials</i> , 2021, 154, 103741.	3.2	6
3	Dynamic Fracture of Expanding Cavities in Nonlinear Soft Solids. <i>Journal of Applied Mechanics, Transactions ASME</i> , 2021, 88, .	2.2	5
4	Swelling of a non-vascular-plant-inspired soft composite. <i>Matter</i> , 2021, 4, 3991-4005.	10.0	9
5	Hydraulic fracture geometry in ultrasoft polymer networks. <i>International Journal of Fracture</i> , 2019, 219, 89-99.	2.2	13
6	Y-Shaped Cutting for the Systematic Characterization of Cutting and Tearing. <i>Experimental Mechanics</i> , 2019, 59, 517-529.	2.0	17
7	A device to fracture soft solids at high speeds. <i>Extreme Mechanics Letters</i> , 2019, 28, 69-75.	4.1	8
8	PDMS polymerized high internal phase emulsions (polyHIPEs) with closed-cell, aqueous-filled microcavities. <i>Soft Matter</i> , 2019, 15, 9665-9675.	2.7	21
9	Creasing in evaporation-driven cavity collapse. <i>Soft Matter</i> , 2017, 13, 6894-6904.	2.7	18
10	Cavitation-induced damage of soft materials by focused ultrasound bursts: A fracture-based bubble dynamics model. <i>Journal of the Acoustical Society of America</i> , 2016, 140, 1374-1386.	1.1	42
11	Elastic cavitation and fracture via injection. <i>Soft Matter</i> , 2016, 12, 2557-2566.	2.7	59
12	Vertically Aligned Carbon Nanotubes, Collective Mechanical Behavior. , 2016, , 4325-4344.		0
13	Vertically Aligned Carbon Nanotubes, Collective Mechanical Behavior. , 2016, , 1-20.		1
14	Puncture mechanics of soft solids. <i>Soft Matter</i> , 2015, 11, 4723-4730.	2.7	54
15	Directly Measuring the Complete Stress-Strain Response of Ultrathin Polymer Films. <i>Macromolecules</i> , 2015, 48, 6534-6540.	4.8	101
16	Soft-solid deformation mechanics at the tip of an embedded needle. <i>Soft Matter</i> , 2014, 10, 3679.	2.7	28
17	Buckling-driven delamination of carbon nanotube forests. <i>Applied Physics Letters</i> , 2013, 102, .	3.3	22
18	Effects of morphology on the micro-compression response of carbon nanotube forests. <i>Nanoscale</i> , 2012, 4, 3373.	5.6	32

#	ARTICLE	IF	CITATIONS
19	A microstructurally motivated description of the deformation of vertically aligned carbon nanotube structures. Applied Physics Letters, 2012, 100, .	3.3	15
20	Viscosity. , 2012, , 2819-2819.		0
21	Nanoshearing. Materials Today, 2012, 15, 127.	14.2	2
22	Vertically Aligned Carbon Nanotubes, Collective Mechanical Behavior. , 2012, , 2809-2818.		1
23	Analysis of uniaxial compression of vertically aligned carbon nanotubes. Journal of the Mechanics and Physics of Solids, 2011, 59, 2227-2237.	4.8	80
24	In situ Mechanical Testing Reveals Periodic Buckle Nucleation and Propagation in Carbon Nanotube Bundles. Advanced Functional Materials, 2010, 20, 2338-2346.	14.9	139
25	Metastable cluster intermediates in the condensation of charged macromolecule solutions. Journal of Chemical Physics, 2007, 127, 084912.	3.0	51