

Shuodao Wang

List of Publications by Year in descending order

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57
papers

10,195
citations

159585

30
h-index

175258

52
g-index

59
all docs

59
docs citations

59
times ranked

11929
citing authors

#	ARTICLE	IF	CITATIONS
1	Epidermal Electronics. <i>Science</i> , 2011, 333, 838-843.	12.6	3,944
2	A hemispherical electronic eye camera based on compressible silicon optoelectronics. <i>Nature</i> , 2008, 454, 748-753.	27.8	1,211
3	Multifunctional Epidermal Electronics Printed Directly Onto the Skin. <i>Advanced Materials</i> , 2013, 25, 2773-2778.	21.0	714
4	Ultrathin silicon solar microcells for semitransparent, mechanically flexible and microconcentrator module designs. <i>Nature Materials</i> , 2008, 7, 907-915.	27.5	615
5	Theoretical and Experimental Studies of Bending of Inorganic Electronic Materials on Plastic Substrates. <i>Advanced Functional Materials</i> , 2008, 18, 2673-2684.	14.9	398
6	Three-dimensional nanonetworks for giant stretchability in dielectrics and conductors. <i>Nature Communications</i> , 2012, 3, 916.	12.8	292
7	Experimental and Theoretical Studies of Serpentine Microstructures Bonded To Prestrained Elastomers for Stretchable Electronics. <i>Advanced Functional Materials</i> , 2014, 24, 2028-2037.	14.9	273
8	Curvilinear Electronics Formed Using Silicon Membrane Circuits and Elastomeric Transfer Elements. <i>Small</i> , 2009, 5, 2703-2709.	10.0	233
9	Electronic sensor and actuator webs for large-area complex geometry cardiac mapping and therapy. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012, 109, 19910-19915.	7.1	209
10	Deformable, Programmable, and Shape-Memorizing Micro-Optics. <i>Advanced Functional Materials</i> , 2013, 23, 3299-3306.	14.9	199
11	Adaptive optoelectronic camouflage systems with designs inspired by cephalopod skins. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, 12998-13003.	7.1	197
12	Mechanics of Epidermal Electronics. <i>Journal of Applied Mechanics, Transactions ASME</i> , 2012, 79, .	2.2	161
13	Mechanics of noncoplanar mesh design for stretchable electronic circuits. <i>Journal of Applied Physics</i> , 2009, 105, .	2.5	143
14	Printing-based assembly of quadruple-junction four-terminal microscale solar cells and their use in high-efficiency modules. <i>Nature Materials</i> , 2014, 13, 593-598.	27.5	143
15	Thin, Flexible Sensors and Actuators as Instrumented Surgical Sutures for Targeted Wound Monitoring and Therapy. <i>Small</i> , 2012, 8, 3263-3268.	10.0	141
16	In-Plane Deformation Mechanics for Highly Stretchable Electronics. <i>Advanced Materials</i> , 2017, 29, 1604989.	21.0	141
17	Active, Programmable Elastomeric Surfaces with Tunable Adhesion for Deterministic Assembly by Transfer Printing. <i>Advanced Functional Materials</i> , 2012, 22, 4476-4484.	14.9	135
18	Mechanically Reinforced Skin-Electronics with Networked Nanocomposite Elastomer. <i>Advanced Materials</i> , 2016, 28, 10257-10265.	21.0	108

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19	Micromechanics and Advanced Designs for Curved Photodetector Arrays in Hemispherical Electronic Eye Cameras. <i>Small</i> , 2010, 6, 851-856.	10.0	94
20	Kinetically controlled, adhesiveless transfer printing using microstructured stamps. <i>Applied Physics Letters</i> , 2009, 94, .	3.3	92
21	Elasticity of Fractal Inspired Interconnects. <i>Small</i> , 2015, 11, 367-373.	10.0	84
22	Mechanics of curvilinear electronics. <i>Soft Matter</i> , 2010, 6, 5757.	2.7	74
23	Local versus global buckling of thin films on elastomeric substrates. <i>Applied Physics Letters</i> , 2008, 93, .	3.3	73
24	Compact monocrystalline silicon solar modules with high voltage outputs and mechanically flexible designs. <i>Energy and Environmental Science</i> , 2010, 3, 208.	30.8	65
25	Mechanical Designs for Inorganic Stretchable Circuits in Soft Electronics. <i>IEEE Transactions on Components, Packaging and Manufacturing Technology</i> , 2015, 5, 1201-1218.	2.5	61
26	Buckling analysis in stretchable electronics. <i>Npj Flexible Electronics</i> , 2017, 1, .	10.7	57
27	Mechanics of Interfacial Delamination in Epidermal Electronics Systems. <i>Journal of Applied Mechanics, Transactions ASME</i> , 2014, 81, .	2.2	46
28	Device Architectures for Enhanced Photon Recycling in Thin-Film Multijunction Solar Cells. <i>Advanced Energy Materials</i> , 2015, 5, 1400919.	19.5	41
29	Transfer printing of fully formed thin-film microscale GaAs lasers on silicon with a thermally conductive interface material. <i>Laser and Photonics Reviews</i> , 2015, 9, L17.	8.7	36
30	Theoretical and experimental study of 2D conformability of stretchable electronics laminated onto skin. <i>Science China Technological Sciences</i> , 2017, 60, 1415-1422.	4.0	31
31	Mechanics of stretchable electronics on balloon catheter under extreme deformation. <i>International Journal of Solids and Structures</i> , 2014, 51, 1555-1561.	2.7	28
32	Mechanics of hemispherical electronics. <i>Applied Physics Letters</i> , 2009, 95, 181912.	3.3	19
33	Multi-Functional Electronics: Multifunctional Epidermal Electronics Printed Directly Onto the Skin (<i>Adv. Mater.</i> 20/2013). <i>Advanced Materials</i> , 2013, 25, 2772-2772.	21.0	16
34	Adhesion-governed buckling of thin-film electronics on soft tissues. <i>Theoretical and Applied Mechanics Letters</i> , 2016, 6, 6-10.	2.8	14
35	Nanomeshed Si nanomembranes. <i>Npj Flexible Electronics</i> , 2019, 3, .	10.7	12
36	A generalized solution procedure for in-plane free vibration of rectangular plates and annular sectorial plates. <i>Royal Society Open Science</i> , 2017, 4, 170484.	2.4	10

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37	Electrochemically triggered degradation of silicon membranes for smart on-demand transient electronic devices. <i>Nanotechnology</i> , 2019, 30, 394002.	2.6	10
38	Vibration analysis of nanorods by the Rayleigh-Ritz method and truncated Fourier series. <i>Results in Physics</i> , 2019, 12, 327-334.	4.1	9
39	An Improved Fourier-Ritz Method for Analyzing In-Plane Free Vibration of Sectorial Plates. <i>Journal of Applied Mechanics, Transactions ASME</i> , 2017, 84, .	2.2	8
40	Effects of thermo-magneto-electro nonlinearity characteristics on the stability of functionally graded piezoelectric beam. <i>Applied Mathematics and Mechanics (English Edition)</i> , 2020, 41, 313-326.	3.6	6
41	Stretchable Electronics: In-Plane Deformation Mechanics for Highly Stretchable Electronics (Adv.) <i>Tj ETQq1 1 0.784314 rgBJ /Overlo</i>	21.0	5
42	Wrinkling of Tympanic Membrane Under Unbalanced Pressure. <i>Journal of Applied Mechanics, Transactions ASME</i> , 2017, 84, 0410021-410026.	2.2	5
43	Mechanics of Periodic Film Cracking in Bilayer Structures Under Stretching. <i>Journal of Applied Mechanics, Transactions ASME</i> , 2018, 85, .	2.2	4
44	Third-order polynomial model for analyzing stickup state laminated structure in flexible electronics. <i>Acta Mechanica Sinica/Lixue Xuebao</i> , 2018, 34, 48-61.	3.4	4
45	A unified procedure for free transverse vibration of rectangular and annular sectorial plates. <i>Archive of Applied Mechanics</i> , 2019, 89, 1485-1499.	2.2	4
46	Efficacy of a Design Silastic Elastomer Intrauterine Device as a Horse Contraceptive. <i>Journal of Wildlife Management</i> , 2021, 85, 1169-1174.	1.8	4
47	Mechanics of Regular-Shape Nanomeshes for Transparent and Stretchable Devices. <i>Journal of Applied Mechanics, Transactions ASME</i> , 2020, 87, .	2.2	4
48	Theoretical predictions and evolutions of wrinkles in the film-intermediate layer-substrate structure under compression. <i>International Journal of Solids and Structures</i> , 2022, 250, 111699.	2.7	4
49	Shape-Memory Polymers: Deformable, Programmable, and Shape-Memorizing Micro-Optics (Adv. Funct.) <i>Tj ETQq1 1 0.784314 rgBJ</i>	14.9	3
50	Ultrathin silicon solar microcells for semitransparent, mechanically flexible and microconcentrator module designs. , 2010, , 38-46.		2
51	Theory for Stretchable Interconnects. , 2012, , 1-29.		2
52	Analytical study of wrinkling in thin-film-on-elastomer system with finite substrate thickness. <i>Applied Mathematics and Mechanics (English Edition)</i> , 2017, 38, 469-478.	3.6	2
53	Flexible, Stretchable, and Biodegradable Thin-Film Silicon Photovoltaics. , 2018, , 161-175.		1
54	Machine learning based inverse modeling of full-field strain distribution for mechanical characterization of a linear elastic and heterogeneous membrane. <i>Mechanics of Materials</i> , 2022, 165, 104134.	3.2	1

#	ARTICLE	IF	CITATIONS
55	High efficiency quadruple junction, four-terminal solar cells and modules by transfer printing. , 2014, , .		0
56	Printed high-efficiency quadruple-junction, four-terminal solar cells and modules for full spectrum utilization. , 2014, , .		0
57	Solar Cells: Device Architectures for Enhanced Photon Recycling in Thin-Film Multijunction Solar Cells (Adv. Energy Mater. 1/2015). Advanced Energy Materials, 2015, 5, n/a-n/a.	19.5	0