Yonggang Huang

List of Publications by Year
in descending order

331	57,525	1046 113	1072 233
papers	citations	h-index	g-index

356	356	356	33710
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Materials and Mechanics for Stretchable Electronics. Science, 2010, 327, 1603-1607.	12.6	4,135
2	Epidermal Electronics. Science, 2011, 333, 838-843.	12.6	3,944
3	Dissolvable films of silk fibroin for ultrathin conformal bio-integrated electronics. Nature Materials, 2010, 9, 511-517.	27.5	1,501
4	A hemispherical electronic eye camera based on compressible silicon optoelectronics. Nature, 2008, 454, 748-753.	27.8	1,211
5	Stretchable batteries with self-similar serpentine interconnects and integrated wireless recharging systems. Nature Communications, 2013, 4, 1543.	12.8	1,169
6	A Physically Transient Form of Silicon Electronics. Science, 2012, 337, 1640-1644.	12.6	1,085
7	Injectable, Cellular-Scale Optoelectronics with Applications for Wireless Optogenetics. Science, 2013, 340, 211-216.	12.6	1,010
8	Ultrathin conformal devices for precise and continuous thermal characterization of humanÂskin. Nature Materials, 2013, 12, 938-944.	27.5	1,002
9	Soft Microfluidic Assemblies of Sensors, Circuits, and Radios for the Skin. Science, 2014, 344, 70-74.	12.6	982
10	Flexible, foldable, actively multiplexed, high-density electrode array for mapping brain activity in vivo. Nature Neuroscience, 2011, 14, 1599-1605.	14.8	981
11	A soft, wearable microfluidic device for the capture, storage, and colorimetric sensing of sweat. Science Translational Medicine, 2016, 8, 366ra165.	12.4	933
12	Digital cameras with designs inspired by the arthropod eye. Nature, 2013, 497, 95-99.	27.8	926
13	Fractal design concepts for stretchable electronics. Nature Communications, 2014, 5, 3266.	12.8	821
14	Conformable amplified lead zirconate titanate sensors with enhanced piezoelectric response for cutaneous pressure monitoring. Nature Communications, 2014, 5, 4496.	12.8	757
15	Printed Assemblies of Inorganic Light-Emitting Diodes for Deformable and Semitransparent Displays. Science, 2009, 325, 977-981.	12.6	748
16	Assembly of micro/nanomaterials into complex, three-dimensional architectures by compressive buckling. Science, 2015, 347, 154-159.	12.6	745
17	Transfer Printing Techniques for Materials Assembly and Micro/Nanodevice Fabrication. Advanced Materials, 2012, 24, 5284-5318.	21.0	727
18	Conformal piezoelectric energy harvesting and storage from motions of the heart, lung, and diaphragm. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 1927-1932.	7.1	720

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19	Multifunctional Epidermal Electronics Printed Directly Onto the Skin. Advanced Materials, 2013, 25, 2773-2778.	21.0	714
20	Soft, stretchable, fully implantable miniaturized optoelectronic systems for wireless optogenetics. Nature Biotechnology, 2015, 33, 1280-1286.	17.5	658
21	Materials and Optimized Designs for Humanâ€Machine Interfaces Via Epidermal Electronics. Advanced Materials, 2013, 25, 6839-6846.	21.0	649
22	Finite deformation mechanics in buckled thin films on compliant supports. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 15607-15612.	7.1	626
23	Skin-integrated wireless haptic interfaces for virtual and augmented reality. Nature, 2019, 575, 473-479.	27.8	610
24	Waterproof AlInGaP optoelectronics on stretchable substrates with applications in biomedicine andÂrobotics. Nature Materials, 2010, 9, 929-937.	27.5	557
25	Stretchable, Curvilinear Electronics Based on Inorganic Materials. Advanced Materials, 2010, 22, 2108-2124.	21.0	525
26	Binodal, wireless epidermal electronic systems with in-sensor analytics for neonatal intensive care. Science, 2019, 363, .	12.6	521
27	3D multifunctional integumentary membranes for spatiotemporal cardiac measurements and stimulation across the entire epicardium. Nature Communications, 2014, 5, 3329.	12.8	485
28	Printing, folding and assembly methods for forming 3D mesostructures in advanced materials. Nature Reviews Materials, 2017, 2, .	48.7	463
29	A mechanically driven form of Kirigami as a route to 3D mesostructures in micro/nanomembranes. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 11757-11764.	7.1	429
30	Wireless Optofluidic Systems for Programmable InÂVivo Pharmacology and Optogenetics. Cell, 2015, 162, 662-674.	28.9	417
31	Theoretical and Experimental Studies of Bending of Inorganic Electronic Materials on Plastic Substrates. Advanced Functional Materials, 2008, 18, 2673-2684.	14.9	398
32	Soft network composite materials with deterministic and bio-inspired designs. Nature Communications, 2015, 6, 6566.	12.8	392
33	Recent progress in flexible and stretchable piezoelectric devices for mechanical energy harvesting, sensing and actuation. Extreme Mechanics Letters, 2016, 9, 269-281.	4.1	388
34	Conformal piezoelectric systems for clinical and experimental characterization of soft tissue biomechanics. Nature Materials, 2015, 14, 728-736.	27.5	387
35	Dissolvable Metals for Transient Electronics. Advanced Functional Materials, 2014, 24, 645-658.	14.9	379
36	Highâ€Performance Biodegradable/Transient Electronics on Biodegradable Polymers. Advanced Materials, 2014, 26, 3905-3911.	21.0	359

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37	A wireless closed-loop system for optogenetic peripheral neuromodulation. Nature, 2019, 565, 361-365.	27.8	358
38	Microstructured elastomeric surfaces with reversible adhesion and examples of their use in deterministic assembly by transfer printing. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 17095-17100.	7.1	356
39	Battery-free, stretchable optoelectronic systems for wireless optical characterization of the skin. Science Advances, 2016, 2, e1600418.	10.3	336
40	Self-assembled three dimensional network designs for soft electronics. Nature Communications, 2017, 8, 15894.	12.8	325
41	Flexible Near-Field Wireless Optoelectronics as Subdermal Implants for Broad Applications in Optogenetics. Neuron, 2017, 93, 509-521.e3.	8.1	323
42	Three-dimensional piezoelectric polymer microsystems for vibrational energy harvesting, robotic interfaces and biomedical implants. Nature Electronics, 2019, 2, 26-35.	26.0	322
43	Soft, curved electrode systems capable of integration on the auricle as a persistent brainâ€“computer interface. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 3920-3925.	7.1	319
44	Epidermal mechano-acoustic sensing electronics for cardiovascular diagnostics and human-machine interfaces. Science Advances, 2016, 2, e1601185.	10.3	310
45	Rugged and breathable forms of stretchable electronics with adherent composite substrates for transcutaneous monitoring. Nature Communications, 2014, 5, 4779.	12.8	309
46	Morphable 3D mesostructures and microelectronic devices by multistable buckling mechanics. Nature Materials, 2018, 17, 268-276.	27.5	297
47	Stretchable GaAs Photovoltaics with Designs That Enable High Areal Coverage. Advanced Materials, 2011, 23, 986-991.	21.0	285
48	Biodegradable Elastomers and Silicon Nanomembranes/Nanoribbons for Stretchable, Transient Electronics, and Biosensors. Nano Letters, 2015, 15, 2801-2808.	9.1	281
49	Experimental and Theoretical Studies of Serpentine Microstructures Bonded To Prestrained Elastomers for Stretchable Electronics. Advanced Functional Materials, 2014, 24, 2028-2037.	14.9	273
50	Skin-interfaced biosensors for advanced wireless physiological monitoring in neonatal and pediatric intensive-care units. Nature Medicine, 2020, 26, 418-429.	30.7	272
51	Materials and Designs for Wireless Epidermal Sensors of Hydration and Strain. Advanced Functional Materials, 2014, 24, 3846-3854.	14.9	263
52	Origami MEMS and NEMS. MRS Bulletin, 2016, 41, 123-129.	3.5	253
53	Large-area MRI-compatible epidermal electronic interfaces for prosthetic control and cognitive monitoring. Nature Biomedical Engineering, 2019, 3, 194-205.	22.5	253
54	Buckling in serpentine microstructures and applications in elastomer-supported ultra-stretchable electronics with high areal coverage. Soft Matter, 2013, 9, 8062.	2.7	248

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55	Miniaturized Batteryâ€Free Wireless Systems for Wearable Pulse Oximetry. Advanced Functional Materials, 2017, 27, 1604373.	14.9	248
56	Battery-free, wireless sensors for full-body pressure and temperature mapping. Science Translational Medicine, 2018, 10, .	12.4	247
57	Dynamically tunable hemispherical electronic eye camera system with adjustable zoom capability. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 1788-1793.	7.1	242
58	An Epidermal Stimulation and Sensing Platform for Sensorimotor Prosthetic Control, Management of Lower Back Exertion, and Electrical Muscle Activation. Advanced Materials, 2016, 28, 4462-4471.	21.0	240
59	Curvilinear Electronics Formed Using Silicon Membrane Circuits and Elastomeric Transfer Elements. Small, 2009, 5, 2703-2709.	10.0	233
60	Controlled Mechanical Buckling for Origamiâ€Inspired Construction of 3D Microstructures in Advanced Materials. Advanced Functional Materials, 2016, 26, 2629-2639.	14.9	231
61	Unusual strategies for using indium gallium nitride grown on silicon (111) for solid-state lighting. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 10072-10077.	7.1	228
62	Epidermal photonic devices for quantitative imaging of temperature and thermal transport characteristics of the skin. Nature Communications, 2014, 5, 4938.	12.8	227
63	Multifunctional Skinâ€Like Electronics for Quantitative, Clinical Monitoring of Cutaneous Wound Healing. Advanced Healthcare Materials, 2014, 3, 1597-1607.	7.6	226
64	Epidermal Electronics with Advanced Capabilities in Near-Field Communication. Small, 2015, 11, 906-912.	10.0	224
65	A skin-attachable, stretchable integrated system based on liquid GaInSn for wireless human motion monitoring with multi-site sensing capabilities. NPG Asia Materials, 2017, 9, e443-e443.	7.9	223
66	Mechano-acoustic sensing of physiological processes and body motions via a soft wireless device placed at the suprasternal notch. Nature Biomedical Engineering, 2020, 4, 148-158.	22.5	223
67	A nonlinear mechanics model of bio-inspired hierarchical lattice materials consisting of horseshoe microstructures. Journal of the Mechanics and Physics of Solids, 2016, 90, 179-202.	4.8	220
68	Capacitively coupled arrays of multiplexed flexible silicon transistors for long-term cardiac electrophysiology. Nature Biomedical Engineering, 2017, 1, .	22.5	210
69	Electronic sensor and actuator webs for large-area complex geometry cardiac mapping and therapy. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 19910-19915.	7.1	209
70	Compliant and stretchable thermoelectric coils for energy harvesting in miniature flexible devices. Science Advances, 2018, 4, eaau5849.	10.3	208
71	Waterproof, electronics-enabled, epidermal microfluidic devices for sweat collection, biomarker analysis, and thermography in aquatic settings. Science Advances, 2019, 5, eaau6356.	10.3	208
72	Dissolution Behaviors and Applications of Silicon Oxides and Nitrides in Transient Electronics. Advanced Functional Materials, 2014, 24, 4427-4434.	14.9	206

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73	Mechanical assembly of complex, 3D mesostructures from releasable multilayers of advanced materials. Science Advances, 2016, 2, e1601014.	10.3	200
74	Adaptive optoelectronic camouflage systems with designs inspired by cephalopod skins. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 12998-13003.	7.1	197
75	Silicon nanomembranes for fingertip electronics. Nanotechnology, 2012, 23, 344004.	2.6	196
76	Assembly of Advanced Materials into 3D Functional Structures by Methods Inspired by Origami and Kirigami: A Review. Advanced Materials Interfaces, 2018, 5, 1800284.	3.7	195
77	Relation between blood pressure and pulse wave velocity for human arteries. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 11144-11149.	7.1	193
78	Epidermal devices for noninvasive, precise, and continuous mapping of macrovascular and microvascular blood flow. Science Advances, 2015, 1, e1500701.	10.3	189
79	Two-dimensional materials in functional three-dimensional architectures with applications in photodetection and imaging. Nature Communications, 2018, 9, 1417.	12.8	189
80	Stretchable Ferroelectric Nanoribbons with Wavy Configurations on Elastomeric Substrates. ACS Nano, 2011, 5, 3326-3332.	14.6	188
81	Bioresorbable pressure sensors protected with thermally grown silicon dioxide for the monitoring of chronic diseases and healing processes. Nature Biomedical Engineering, 2019, 3, 37-46.	22.5	185
82	Materials for stretchable electronics in bioinspired and biointegrated devices. MRS Bulletin, 2012, 37, 226-235.	3.5	184
83	Mechanics of ultra-stretchable self-similar serpentine interconnects. Acta Materialia, 2013, 61, 7816-7827.	7.9	183
84	Mechanicallyâ€Guided Structural Designs in Stretchable Inorganic Electronics. Advanced Materials, 2020, 32, e1902254.	21.0	183
85	Ultrathin, transferred layers of thermally grown silicon dioxide as biofluid barriers for biointegrated flexible electronic systems. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 11682-11687.	7.1	175
86	Catheter-integrated soft multilayer electronic arrays for multiplexed sensing and actuation during cardiac surgery. Nature Biomedical Engineering, 2020, 4, 997-1009.	22.5	175
87	Mechanics of stretchable batteries and supercapacitors. Current Opinion in Solid State and Materials Science, 2015, 19, 190-199.	11.5	173
88	Dissolution Chemistry and Biocompatibility of Single-Crystalline Silicon Nanomembranes and Associated Materials for Transient Electronics. ACS Nano, 2014, 8, 5843-5851.	14.6	171
89	Electronically Programmable, Reversible Shape Change in Twoâ€•and Threeâ€Dimensional Hydrogel Structures. Advanced Materials, 2013, 25, 1541-1546.	21.0	169
90	Fully implantable and bioresorbable cardiac pacemakers without leads or batteries. Nature Biotechnology, 2021, 39, 1228-1238.	17.5	163

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91	Mechanics of Epidermal Electronics. Journal of Applied Mechanics, Transactions ASME, 2012, 79, .	2.2	161
92	25th Anniversary Article: Materials for Highâ€Performance Biodegradable Semiconductor Devices. Advanced Materials, 2014, 26, 1992-2000.	21.0	161
93	Flexible and Stretchable Antennas for Biointegrated Electronics. Advanced Materials, 2020, 32, e1902767.	21.0	158
94	Highly flexible, wearable, and disposable cardiac biosensors for remote and ambulatory monitoring. Npj Digital Medicine, 2018, 1, 2.	10.9	157
95	Fully implantable optoelectronic systems for battery-free, multimodal operation in neuroscience research. Nature Electronics, 2018, 1, 652-660.	26.0	157
96	Optimized Structural Designs for Stretchable Silicon Integrated Circuits. Small, 2009, 5, 2841-2847.	10.0	153
97	Miniaturized Flexible Electronic Systems with Wireless Power and Nearâ€Field Communication Capabilities. Advanced Functional Materials, 2015, 25, 4761-4767.	14.9	148
98	Bioresorbable optical sensor systems for monitoring of intracranial pressure and temperature. Science Advances, 2019, 5, eaaw1899.	10.3	146
99	Wireless, battery-free, fully implantable multimodal and multisite pacemakers for applications in small animal models. Nature Communications, 2019, 10, 5742.	12.8	146
100	Development of a neural interface for high-definition, long-term recording in rodents and nonhuman primates. Science Translational Medicine, 2020, 12, .	12.4	145
101	Stretchable, dynamic covalent polymers for soft, long-lived bioresorbable electronic stimulators designed to facilitate neuromuscular regeneration. Nature Communications, 2020, 11, 5990.	12.8	144
102	Materials and Fractal Designs for 3D Multifunctional Integumentary Membranes with Capabilities in Cardiac Electrotherapy. Advanced Materials, 2015, 27, 1731-1737.	21.0	141
103	Inâ€Plane Deformation Mechanics for Highly Stretchable Electronics. Advanced Materials, 2017, 29, 1604989.	21.0	141
104	Design and application of â€˜J-shapedâ€™ stressâ€“strain behavior in stretchable electronics: a review. Lab on A Chip, 2017, 17, 1689-1704.	6.0	140
105	Soft, thin skin-mounted power management systems and their use in wireless thermography. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 6131-6136.	7.1	139
106	Active, Programmable Elastomeric Surfaces with Tunable Adhesion for Deterministic Assembly by Transfer Printing. Advanced Functional Materials, 2012, 22, 4476-4484.	14.9	135
107	Multimodal Sensing with a Three-Dimensional Piezoresistive Structure. ACS Nano, 2019, 13, 10972-10979.	14.6	134
108	Three-dimensional mesostructures as high-temperature growth templates, electronic cellular scaffolds, and self-propelled microrobots. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E9455-E9464.	7.1	129

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109	Three-dimensional, multifunctional neural interfaces for cortical spheroids and engineered assembloids. Science Advances, 2021, 7, .	10.3	128
110	Shear-enhanced adhesiveless transfer printing for use in deterministic materials assembly. Applied Physics Letters, 2011, 98, .	3.3	127
111	Battery-free, fully implantable optofluidic cuff system for wireless optogenetic and pharmacological neuromodulation of peripheral nerves. Science Advances, 2019, 5, eaaw5296.	10.3	127
112	Three-dimensional electronic microfliers inspired by wind-dispersed seeds. Nature, 2021, 597, 503-510.	27.8	120
113	Postbuckling analysis and its application to stretchable electronics. Journal of the Mechanics and Physics of Solids, 2012, 60, 487-508.	4.8	119
114	Superâ€Absorbent Polymer Valves and Colorimetric Chemistries for Timeâ€Sequenced Discrete Sampling and Chloride Analysis of Sweat via Skinâ€Mounted Soft Microfluidics. Small, 2018, 14, e1703334.	10.0	119
115	Soft, skin-mounted microfluidic systems for measuring secretory fluidic pressures generated at the surface of the skin by eccrine sweat glands. Lab on A Chip, 2017, 17, 2572-2580.	6.0	117
116	Soft Core/Shell Packages for Stretchable Electronics. Advanced Functional Materials, 2015, 25, 3698-3704.	14.9	116
117	A hierarchical computational model for stretchable interconnects with fractal-inspired designs. Journal of the Mechanics and Physics of Solids, 2014, 72, 115-130.	4.8	115
118	Photocurable bioresorbable adhesives as functional interfaces between flexible bioelectronic devices and soft biological tissues. Nature Materials, 2021, 20, 1559-1570.	27.5	114
119	Mechanics of precisely controlled thin film buckling on elastomeric substrate. Applied Physics Letters, 2007, 90, 133119.	3.3	113
120	Mechanics and thermal management of stretchable inorganic electronics. National Science Review, 2016, 3, 128-143.	9.5	112
121	Experimental and Theoretical Studies of Serpentine Interconnects on Ultrathin Elastomers for Stretchable Electronics. Advanced Functional Materials, 2017, 27, 1702589.	14.9	111
122	Finite width effect of thin-films buckling on compliant substrate: Experimental and theoretical studies. Journal of the Mechanics and Physics of Solids, 2008, 56, 2585-2598.	4.8	110
123	Battery-free, lightweight, injectable microsystem for in vivo wireless pharmacology and optogenetics. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 21427-21437.	7.1	110
124	An on-skin platform for wireless monitoring of flow rate, cumulative loss and temperature of sweat in real time. Nature Electronics, 2021, 4, 302-312.	26.0	110
125	Needle-shaped ultrathin piezoelectric microsystem for guided tissue targeting via mechanical sensing. Nature Biomedical Engineering, 2018, 2, 165-172.	22.5	108
126	Freestanding 3D Mesostructures, Functional Devices, and Shapeâ€Programmable Systems Based on Mechanically Induced Assembly with Shape Memory Polymers. Advanced Materials, 2019, 31, e1805615.	21.0	105

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127	Theoretical and Experimental Studies of Epidermal Heat Flux Sensors for Measurements of Core Body Temperature. Advanced Healthcare Materials, 2016, 5, 119-127.	7.6	101
128	Wireless multilateral devices for optogenetic studies of individual and social behaviors. Nature Neuroscience, 2021, 24, 1035-1045.	14.8	98
129	Stretchable Semiconductor Technologies with High Areal Coverages and Strainâ€Limiting Behavior: Demonstration in Highâ€Efficiency Dualâ€Junction GaInP/GaAs Photovoltaics. Small, 2012, 8, 1851-1856.	10.0	97
130	Micromechanics and Advanced Designs for Curved Photodetector Arrays in Hemispherical Electronicâ€Eye Cameras. Small, 2010, 6, 851-856.	10.0	94
131	Fully implantable, battery-free wireless optoelectronic devices for spinal optogenetics. Pain, 2017, 158, 2108-2116.	4.2	93
132	Wireless sensors for continuous, multimodal measurements at the skin interface with lower limb prostheses. Science Translational Medicine, 2020, 12, .	12.4	93
133	Kinetically controlled, adhesiveless transfer printing using microstructured stamps. Applied Physics Letters, 2009, 94, .	3.3	92
134	Design of Strainâ€Limiting Substrate Materials for Stretchable and Flexible Electronics. Advanced Functional Materials, 2016, 26, 5345-5351.	14.9	92
135	Material innovation and mechanics design for substrates and encapsulation of flexible electronics: a review. Materials Horizons, 2021, 8, 383-400.	12.2	91
136	A high-density, high-channel count, multiplexed Î¼ECoG array for auditory-cortex recordings. Journal of Neurophysiology, 2014, 112, 1566-1583.	1.8	90
137	Flexible and Stretchable 3Ï‰ Sensors for Thermal Characterization of Human Skin. Advanced Functional Materials, 2017, 27, 1701282.	14.9	90
138	Natural Wax for Transient Electronics. Advanced Functional Materials, 2018, 28, 1801819.	14.9	90
139	A transient, closed-loop network of wireless, body-integrated devices for autonomous electrotherapy. Science, 2022, 376, 1006-1012.	12.6	90
140	Mechanically active materials in three-dimensional mesostructures. Science Advances, 2018, 4, eaat8313.	10.3	89
141	Optics and Nonlinear Buckling Mechanics in Large-Area, Highly Stretchable Arrays of Plasmonic Nanostructures. ACS Nano, 2015, 9, 5968-5975.	14.6	87
142	Wirelessly controlled, bioresorbable drug delivery device with active valves that exploit electrochemically triggered crevice corrosion. Science Advances, 2020, 6, eabb1093.	10.3	87
143	Bioresorbable, Wireless, Passive Sensors as Temporary Implants for Monitoring Regional Body Temperature. Advanced Healthcare Materials, 2020, 9, e2000942.	7.6	87
144	Elasticity of Fractal Inspired Interconnects. Small, 2015, 11, 367-373.	10.0	84

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145	A finite deformation model of planar serpentine interconnects for stretchable electronics. International Journal of Solids and Structures, 2016, 91, 46-54.	2.7	83
146	A Generic Soft Encapsulation Strategy for Stretchable Electronics. Advanced Functional Materials, 2019, 29, 1806630.	14.9	83
147	Battery-free, wireless soft sensors for continuous multi-site measurements of pressure and temperature from patients at risk for pressure injuries. Nature Communications, 2021, 12, 5008.	12.8	83
148	A wireless haptic interface for programmable patterns of touch across large areas of the skin. Nature Electronics, 2022, 5, 374-385.	26.0	83
149	Soft Elastomers with Ionic Liquidâ€Filled Cavities as Strain Isolating Substrates for Wearable Electronics. Small, 2017, 13, 1602954.	10.0	82
150	Dissolution of Monocrystalline Silicon Nanomembranes and Their Use as Encapsulation Layers and Electrical Interfaces in Water-Soluble Electronics. ACS Nano, 2017, 11, 12562-12572.	14.6	82
151	2D Mechanical Metamaterials with Widely Tunable Unusual Modes of Thermal Expansion. Advanced Materials, 2019, 31, e1905405.	21.0	82
152	Buckling and twisting of advanced materials into morphable 3D mesostructures. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 13239-13248.	7.1	81
153	Biological lipid membranes for on-demand, wireless drug delivery from thin, bioresorbable electronic implants. NPG Asia Materials, 2015, 7, e227-e227.	7.9	80
154	Electrochemical Properties of Siâ€Ge Heterostructures as an Anode Material for Lithium Ion Batteries. Advanced Functional Materials, 2014, 24, 1458-1464.	14.9	78
155	Mechanics of curvilinear electronics. Soft Matter, 2010, 6, 5757.	2.7	74
156	An Analytical Model of Reactive Diffusion for Transient Electronics. Advanced Functional Materials, 2013, 23, 3106-3114.	14.9	74
157	Resettable skin interfaced microfluidic sweat collection devices with chemesthetic hydration feedback. Nature Communications, 2019, 10, 5513.	12.8	74
158	Local versus global buckling of thin films on elastomeric substrates. Applied Physics Letters, 2008, 93, .	3.3	73
159	Wireless, Batteryâ€Free Epidermal Electronics for Continuous, Quantitative, Multimodal Thermal Characterization of Skin. Small, 2018, 14, e1803192.	10.0	73
160	Epidermal radio frequency electronics for wireless power transfer. Microsystems and Nanoengineering, 2016, 2, 16052.	7.0	72
161	Guided Formation of 3D Helical Mesostructures by Mechanical Buckling: Analytical Modeling and Experimental Validation. Advanced Functional Materials, 2016, 26, 2909-2918.	14.9	70
162	Deterministic assembly of 3D mesostructures in advanced materials via compressive buckling: A short review of recent progress. Extreme Mechanics Letters, 2017, 11, 96-104.	4.1	68

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163	Epidermal electronics for noninvasive, wireless, quantitative assessment of ventricular shunt function in patients with hydrocephalus. Science Translational Medicine, 2018, 10, .	12.4	68
164	Biodegradable Polyanhydrides as Encapsulation Layers for Transient Electronics. Advanced Functional Materials, 2020, 30, 2000941.	14.9	67
165	Modulated Degradation of Transient Electronic Devices through Multilayer Silk Fibroin Pockets. ACS Applied Materials & Interfaces, 2015, 7, 19870-19875.	8.0	66
166	Flexible electronic/optoelectronic microsystems with scalable designs for chronic biointegration. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 15398-15406.	7.1	66
167	Post-buckling analysis for the precisely controlled buckling of thin film encapsulated by elastomeric substrates. International Journal of Solids and Structures, 2008, 45, 2014-2023.	2.7	65
168	Compact monocrystalline silicon solar modules with high voltage outputs and mechanically flexible designs. Energy and Environmental Science, 2010, 3, 208.	30.8	65
169	Miniaturized electromechanical devices for the characterization of the biomechanics of deep tissue. Nature Biomedical Engineering, 2021, 5, 759-771.	22.5	65
170	Chemical Sensing Systems that Utilize Soft Electronics on Thin Elastomeric Substrates with Open Cellular Designs. Advanced Functional Materials, 2017, 27, 1605476.	14.9	64
171	The equivalent medium of cellular substrate under large stretching, with applications to stretchable electronics. Journal of the Mechanics and Physics of Solids, 2018, 120, 199-207.	4.8	62
172	Soft, bioresorbable coolers for reversible conduction block of peripheral nerves. Science, 2022, 377, 109-115.	12.6	62
173	Mechanical Designs for Inorganic Stretchable Circuits in Soft Electronics. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2015, 5, 1201-1218.	2.5	61
174	Thin, Transferred Layers of Silicon Dioxide and Silicon Nitride as Water and Ion Barriers for Implantable Flexible Electronic Systems. Advanced Electronic Materials, 2017, 3, 1700077.	5.1	61
175	High Performance, Tunable Electrically Small Antennas through Mechanically Guided 3D Assembly. Small, 2019, 15, e1804055.	10.0	60
176	A Bioresorbable Magnetically Coupled System for Lowâ€Frequency Wireless Power Transfer. Advanced Functional Materials, 2019, 29, 1905451.	14.9	58
177	Enhanced adhesion with pedestal-shaped elastomeric stamps for transfer printing. Applied Physics Letters, 2012, 100, .	3.3	57
178	Ultrathin Trilayer Assemblies as Long-Lived Barriers against Water and Ion Penetration in Flexible Bioelectronic Systems. ACS Nano, 2018, 12, 10317-10326.	14.6	57
179	Submillimeter-scale multimaterial terrestrial robots. Science Robotics, 2022, 7, .	17.6	57
180	Allâ€Elastomeric, Strainâ€Responsive Thermochromic Color Indicators. Small, 2014, 10, 1266-1271.	10.0	56

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181	Flexible Transient Optical Waveguides and Surfaceâ€Wave Biosensors Constructed from Monocrystalline Silicon. Advanced Materials, 2018, 30, e1801584.	21.0	55
182	A wireless, skin-interfaced biosensor for cerebral hemodynamic monitoring in pediatric care. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 31674-31684.	7.1	55
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