

Yonggang Huang

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

326 papers	43,393 citations	101 h-index	205 g-index
356 ext. papers	50,442 ext. citations	14.3 avg, IF	7.27 L-index

#	Paper	IF	Citations
326	Mechanically Guided Hierarchical Assembly of 3D Mesostructures.. <i>Advanced Materials</i> , 2022 , e2109416	24	1
325	Island Effect in Stretchable Inorganic Electronics.. <i>Small</i> , 2022 , e2107879	11	1
324	Analytical Modeling of Flowrate and Its Maxima in Electrochemical Bioelectronics with Drug Delivery Capabilities.. <i>Research</i> , 2022 , 2022, 9805932	7.8	
323	Implantable, wireless, self-fixing thermal sensors for continuous measurements of microvascular blood flow in flaps and organ grafts.. <i>Biosensors and Bioelectronics</i> , 2022 , 206, 114145	11.8	2
322	A transient, closed-loop network of wireless, body-integrated devices for autonomous electrotherapy. <i>Science</i> , 2022 , 376, 1006-1012	33.3	17
321	Thermal and Mechanical Analyses of Compliant Thermoelectric Coils for Flexible and Bio-Integrated Devices. <i>Journal of Applied Mechanics, Transactions ASME</i> , 2021 , 88,	2.7	12
320	Theoretical modeling of tunable vibrations of three-dimensional serpentine structures for simultaneous measurement of adherent cell mass and modulus 2021 , 46, 107		1
319	Flexible electronics with dynamic interfaces for biomedical monitoring, stimulation, and characterization. <i>International Journal of Mechanical System Dynamics</i> , 2021 , 1, 52-70		2
318	Complex 3D microfluidic architectures formed by mechanically guided compressive buckling. <i>Science Advances</i> , 2021 , 7, eabj3686	14.3	11
317	An on-skin platform for wireless monitoring of flow rate, cumulative loss and temperature of sweat in real time. <i>Nature Electronics</i> , 2021 , 4, 302-312	28.4	33
316	Rapidly deployable and morphable 3D mesostructures with applications in multimodal biomedical devices. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021 , 118,	11.5	10
315	Biocompatible Light Guide-Assisted Wearable Devices for Enhanced UV Light Delivery in Deep Skin. <i>Advanced Functional Materials</i> , 2021 , 31, 2100576	15.6	9
314	Modeling programmable drug delivery in bioelectronics with electrochemical actuation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021 , 118,	11.5	6
313	Transparent, Compliant 3D Mesostructures for Precise Evaluation of Mechanical Characteristics of Organoids. <i>Advanced Materials</i> , 2021 , 33, e2100026	24	8
312	Wireless multilateral devices for optogenetic studies of individual and social behaviors. <i>Nature Neuroscience</i> , 2021 , 24, 1035-1045	25.5	31
311	Compliant 3D frameworks instrumented with strain sensors for characterization of millimeter-scale engineered muscle tissues. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021 , 118,	11.5	6
310	Miniaturized electromechanical devices for the characterization of the biomechanics of deep tissue. <i>Nature Biomedical Engineering</i> , 2021 , 5, 759-771	19	25

309	Wireless, Skin-Interfaced Devices for Pediatric Critical Care: Application to Continuous, Noninvasive Blood Pressure Monitoring. <i>Advanced Healthcare Materials</i> , 2021 , 10, e2100383	10.1	8
308	Advanced Materials in Wireless, Implantable Electrical Stimulators that Offer Rapid Rates of Bioresorption for Peripheral Axon Regeneration. <i>Advanced Functional Materials</i> , 2021 , 31, 2102724	15.6	5
307	Differential cardiopulmonary monitoring system for artifact-canceled physiological tracking of athletes, workers, and COVID-19 patients. <i>Science Advances</i> , 2021 , 7,	14.3	11
306	3D Microstructures: Transparent, Compliant 3D Mesostructures for Precise Evaluation of Mechanical Characteristics of Organoids (Adv. Mater. 25/2021). <i>Advanced Materials</i> , 2021 , 33, 2170196	24	
305	Measurement of Blood Pressure via a Skin-Mounted, Non-Invasive Pressure Sensor. <i>Journal of Applied Mechanics, Transactions ASME</i> , 2021 , 88,	2.7	2
304	Mechanics of encapsulated three-dimensional structures for simultaneous sensing of pressure and shear stress. <i>Journal of the Mechanics and Physics of Solids</i> , 2021 , 151, 104400	5	3
303	Fully implantable and bioresorbable cardiac pacemakers without leads or batteries. <i>Nature Biotechnology</i> , 2021 , 39, 1228-1238	44.5	38
302	Photocurable bioresorbable adhesives as functional interfaces between flexible bioelectronic devices and soft biological tissues. <i>Nature Materials</i> , 2021 , 20, 1559-1570	27	29
301	Wireless, battery-free, subdermally implantable platforms for transcranial and long-range optogenetics in freely moving animals. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021 , 118,	11.5	7
300	Material innovation and mechanics design for substrates and encapsulation of flexible electronics: a review. <i>Materials Horizons</i> , 2021 , 8, 383-400	14.4	30
299	Skin-Interfaced Microfluidic Systems that Combine Hard and Soft Materials for Demanding Applications in Sweat Capture and Analysis. <i>Advanced Healthcare Materials</i> , 2021 , 10, e2000722	10.1	18
298	Designing Mechanical Metamaterials with Kirigami-Inspired, Hierarchical Constructions for Giant Positive and Negative Thermal Expansion. <i>Advanced Materials</i> , 2021 , 33, e2004919	24	17
297	Wireless, implantable catheter-type oximeter designed for cardiac oxygen saturation. <i>Science Advances</i> , 2021 , 7,	14.3	15
296	Theoretical modeling of tunable vibrations of three-dimensional serpentine structures for simultaneous measurement of adherent cell mass and modulus. <i>MRS Bulletin</i> , 2021 , 46, 107-114	3.2	5
295	Three-dimensional, multifunctional neural interfaces for cortical spheroids and engineered assembloids. <i>Science Advances</i> , 2021 , 7,	14.3	38
294	Bitter Flavored, Soft Composites for Wearables Designed to Reduce Risks of Choking in Infants. <i>Advanced Materials</i> , 2021 , 33, e2103857	24	4
293	Battery-free, wireless soft sensors for continuous multi-site measurements of pressure and temperature from patients at risk for pressure injuries. <i>Nature Communications</i> , 2021 , 12, 5008	17.4	21
292	Skin-Integrated Devices with Soft, Holey Architectures for Wireless Physiological Monitoring, With Applications in the Neonatal Intensive Care Unit. <i>Advanced Materials</i> , 2021 , 33, e2103974	24	5

291	Three-dimensional electronic microfliers inspired by wind-dispersed seeds. <i>Nature</i> , 2021 , 597, 503-510	50.4	28
290	Torsional deformation dominated buckling of serpentine structures to form three-dimensional architectures with ultra-low rigidity. <i>Journal of the Mechanics and Physics of Solids</i> , 2021 , 155, 104568	5	5
289	A mechanics model for injectable microsystems in drug delivery. <i>Journal of the Mechanics and Physics of Solids</i> , 2021 , 156, 104622	5	2
288	Wireless, soft electronics for rapid, multisensor measurements of hydration levels in healthy and diseased skin. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021 , 118,	11.5	15
287	Bioresorbable Multilayer Photonic Cavities as Temporary Implants for Tether-Free Measurements of Regional Tissue Temperatures. <i>BME Frontiers</i> , 2021 , 2021, 1-14	4.4	2
286	Wireless sensors for continuous, multimodal measurements at the skin interface with lower limb prostheses. <i>Science Translational Medicine</i> , 2020 , 12,	17.5	39
285	Assembly of Foldable 3D Microstructures Using Graphene Hinges. <i>Advanced Materials</i> , 2020 , 32, e2001303	10.1	19
284	Recent progress of morphable 3D mesostructures in advanced materials. <i>Journal of Semiconductors</i> , 2020 , 41, 041604	2.3	5
283	Mechanics and deformation of shape memory polymer kirigami microstructures. <i>Extreme Mechanics Letters</i> , 2020 , 39, 100831	3.9	8
282	Biodegradable Polyanhydrides as Encapsulation Layers for Transient Electronics. <i>Advanced Functional Materials</i> , 2020 , 30, 2000941	15.6	32
281	Continuous, noninvasive wireless monitoring of flow of cerebrospinal fluid through shunts in patients with hydrocephalus. <i>Npj Digital Medicine</i> , 2020 , 3, 29	15.7	14
280	Skin-interfaced biosensors for advanced wireless physiological monitoring in neonatal and pediatric intensive-care units. <i>Nature Medicine</i> , 2020 , 26, 418-429	50.5	134
279	Bioresorbable, Wireless, Passive Sensors as Temporary Implants for Monitoring Regional Body Temperature. <i>Advanced Healthcare Materials</i> , 2020 , 9, e2000942	10.1	35
278	Inverse Design Strategies for 3D Surfaces Formed by Mechanically Guided Assembly. <i>Advanced Materials</i> , 2020 , 32, e1908424	24	19
277	Materials, Mechanics Designs, and Bioresorbable Multisensor Platforms for Pressure Monitoring in the Intracranial Space. <i>Advanced Functional Materials</i> , 2020 , 30, 1910718	15.6	29
276	Three-dimensional electronic scaffolds for monitoring and regulation of multifunctional hybrid tissues. <i>Extreme Mechanics Letters</i> , 2020 , 35, 100634	3.9	24
275	Inverse Design Methods: Inverse Design Strategies for 3D Surfaces Formed by Mechanically Guided Assembly (Adv. Mater. 14/2020). <i>Advanced Materials</i> , 2020 , 32, 2070107	24	
274	Development of a neural interface for high-definition, long-term recording in rodents and nonhuman primates. <i>Science Translational Medicine</i> , 2020 , 12,	17.5	64

273	Cellular Substrate to Facilitate Global Buckling of Serpentine Structures. <i>Journal of Applied Mechanics, Transactions ASME</i> , 2020 , 87,	2.7	5
272	An Inverse Design Method of Buckling-Guided Assembly for Ribbon-Type 3D Structures. <i>Journal of Applied Mechanics, Transactions ASME</i> , 2020 , 87,	2.7	9
271	Flexible and Stretchable Antennas for Biointegrated Electronics. <i>Advanced Materials</i> , 2020 , 32, e1902762	4	90
270	Highly switchable and reversible dry adhesion for transfer printing. <i>National Science Review</i> , 2020 , 7, 558-559	10.8	4
269	Mechano-acoustic sensing of physiological processes and body motions via a soft wireless device placed at the suprasternal notch. <i>Nature Biomedical Engineering</i> , 2020 , 4, 148-158	19	109
268	Ultrathin, High Capacitance Capping Layers for Silicon Electronics with Conductive Interconnects in Flexible, Long-Lived Bioimplants. <i>Advanced Materials Technologies</i> , 2020 , 5, 1900800	6.8	12
267	Skin-interfaced soft microfluidic systems with modular and reusable electronics for capacitive sensing of sweat loss, rate and conductivity. <i>Lab on A Chip</i> , 2020 , 20, 4391-4403	7.2	9
266	Stretchable, dynamic covalent polymers for soft, long-lived bioresorbable electronic stimulators designed to facilitate neuromuscular regeneration. <i>Nature Communications</i> , 2020 , 11, 5990	17.4	58
265	A wireless, skin-interfaced biosensor for cerebral hemodynamic monitoring in pediatric care. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020 , 117, 31674-31684	11.5	21
264	Reliable, low-cost, fully integrated hydration sensors for monitoring and diagnosis of inflammatory skin diseases in any environment. <i>Science Advances</i> , 2020 , 6,	14.3	18
263	Wireless, skin-interfaced sensors for compression therapy. <i>Science Advances</i> , 2020 , 6,	14.3	26
262	Bioresorbable Wireless Sensors as Temporary Implants for In Vivo Measurements of Pressure. <i>Advanced Functional Materials</i> , 2020 , 30, 2003754	15.6	21
261	Geometrically reconfigurable 3D mesostructures and electromagnetic devices through a rational bottom-up design strategy. <i>Science Advances</i> , 2020 , 6, eabb7417	14.3	33
260	Wirelessly controlled, bioresorbable drug delivery device with active valves that exploit electrochemically triggered crevice corrosion. <i>Science Advances</i> , 2020 , 6, eabb1093	14.3	35
259	Catheter-integrated soft multilayer electronic arrays for multiplexed sensing and actuation during cardiac surgery. <i>Nature Biomedical Engineering</i> , 2020 , 4, 997-1009	19	74
258	Mechanically-Guided Structural Designs in Stretchable Inorganic Electronics. <i>Advanced Materials</i> , 2020 , 32, e1902254	24	104
257	Mechanics of buckled serpentine structures formed via mechanics-guided, deterministic three-dimensional assembly. <i>Journal of the Mechanics and Physics of Solids</i> , 2019 , 125, 736-748	5	20
256	Waterproof, electronics-enabled, epidermal microfluidic devices for sweat collection, biomarker analysis, and thermography in aquatic settings. <i>Science Advances</i> , 2019 , 5, eaau6356	14.3	142

255	Multimodal Sensing with a Three-Dimensional Piezoresistive Structure. <i>ACS Nano</i> , 2019 , 13, 10972-10979	16.7	75
254	Buckling and twisting of advanced materials into morphable 3D mesostructures. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019 , 116, 13239-13248	11.5	51
253	Postbuckling analyses of frame mesostructures consisting of straight ribbons for mechanically guided three-dimensional assembly. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2019 , 475, 20190012	2.4	3
252	Optimization-Based Approach for the Inverse Design of Ribbon-Shaped Three-Dimensional Structures Assembled Through Compressive Buckling. <i>Physical Review Applied</i> , 2019 , 11,	4.3	13
251	Mechanics of bistable cross-shaped structures through loading-path controlled 3D assembly. <i>Journal of the Mechanics and Physics of Solids</i> , 2019 , 129, 261-277	5	22
250	Design and Assembly of Reconfigurable 3D Radio-Frequency Antennas Based on Mechanically Triggered Switches. <i>Advanced Electronic Materials</i> , 2019 , 5, 1900256	6.4	6
249	Binodal, wireless epidermal electronic systems with in-sensor analytics for neonatal intensive care. <i>Science</i> , 2019 , 363,	33.3	316
248	Flexible electronic/optoelectronic microsystems with scalable designs for chronic biointegration. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019 , 116, 15398-15406	11.5	44
247	Harnessing the interface mechanics of hard films and soft substrates for 3D assembly by controlled buckling. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019 , 116, 15368-15377	11.5	49
246	Transformable, Freestanding 3D Mesostructures Based on Transient Materials and Mechanical Interlocking. <i>Advanced Functional Materials</i> , 2019 , 29, 1903181	15.6	13
245	Bioresorbable optical sensor systems for monitoring of intracranial pressure and temperature. <i>Science Advances</i> , 2019 , 5, eaaw1899	14.3	85
244	Battery-free, fully implantable optofluidic cuff system for wireless optogenetic and pharmacological neuromodulation of peripheral nerves. <i>Science Advances</i> , 2019 , 5, eaaw5296	14.3	79
243	Battery-free, lightweight, injectable microsystem for in vivo wireless pharmacology and optogenetics. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019 , 116, 21427-21437	11.5	61
242	A Bioresorbable Magnetically Coupled System for Low-Frequency Wireless Power Transfer. <i>Advanced Functional Materials</i> , 2019 , 29, 1905451	15.6	35
241	Remotely Triggered Assembly of 3D Mesostructures Through Shape-Memory Effects. <i>Advanced Materials</i> , 2019 , 31, e1905715	24	27
240	4D Electronic Systems: Transformable, Freestanding 3D Mesostructures Based on Transient Materials and Mechanical Interlocking (Adv. Funct. Mater. 40/2019). <i>Advanced Functional Materials</i> , 2019 , 29, 1970277	15.6	
239	2D Mechanical Metamaterials with Widely Tunable Unusual Modes of Thermal Expansion. <i>Advanced Materials</i> , 2019 , 31, e1905405	24	35
238	Large-area MRI-compatible epidermal electronic interfaces for prosthetic control and cognitive monitoring. <i>Nature Biomedical Engineering</i> , 2019 , 3, 194-205	19	144

237	Skin-integrated wireless haptic interfaces for virtual and augmented reality. <i>Nature</i> , 2019 , 575, 473-479	50.4	307
236	Resettable skin interfaced microfluidic sweat collection devices with chemesthetic hydration feedback. <i>Nature Communications</i> , 2019 , 10, 5513	17.4	39
235	Wireless, battery-free, fully implantable multimodal and multisite pacemakers for applications in small animal models. <i>Nature Communications</i> , 2019 , 10, 5742	17.4	72
234	Design and Fabrication of Heterogeneous, Deformable Substrates for the Mechanically Guided 3D Assembly. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 3482-3492	9.5	17
233	A wireless closed-loop system for optogenetic peripheral neuromodulation. <i>Nature</i> , 2019 , 565, 361-365	50.4	217
232	Irregular Hexagonal Cellular Substrate for Stretchable Electronics. <i>Journal of Applied Mechanics, Transactions ASME</i> , 2019 , 86,	2.7	29
231	High Performance, Tunable Electrically Small Antennas through Mechanically Guided 3D Assembly. <i>Small</i> , 2019 , 15, e1804055	11	44
230	Soft Three-Dimensional Microscale Vibratory Platforms for Characterization of Nano-Thin Polymer Films. <i>ACS Nano</i> , 2019 , 13, 449-457	16.7	16
229	Ultrathin, Transferred Layers of Metal Silicide as Faradaic Electrical Interfaces and Biofluid Barriers for Flexible Bioelectronic Implants. <i>ACS Nano</i> , 2019 , 13, 660-670	16.7	24
228	A Generic Soft Encapsulation Strategy for Stretchable Electronics. <i>Advanced Functional Materials</i> , 2019 , 29, 1806630	15.6	55
227	Three-dimensional piezoelectric polymer microsystems for vibrational energy harvesting, robotic interfaces and biomedical implants. <i>Nature Electronics</i> , 2019 , 2, 26-35	28.4	209
226	Freestanding 3D Mesostructures, Functional Devices, and Shape-Programmable Systems Based on Mechanically Induced Assembly with Shape Memory Polymers. <i>Advanced Materials</i> , 2019 , 31, e1805615	24	72
225	Bioresorbable pressure sensors protected with thermally grown silicon dioxide for the monitoring of chronic diseases and healing processes. <i>Nature Biomedical Engineering</i> , 2019 , 3, 37-46	19	115
224	Needle-shaped ultrathin piezoelectric microsystem for guided tissue targeting via mechanical sensing. <i>Nature Biomedical Engineering</i> , 2018 , 2, 165-172	19	71
223	Anisotropic Mechanics of Cellular Substrate Under Finite Deformation. <i>Journal of Applied Mechanics, Transactions ASME</i> , 2018 , 85,	2.7	11
222	Battery-free, wireless sensors for full-body pressure and temperature mapping. <i>Science Translational Medicine</i> , 2018 , 10,	17.5	176
221	Three-Dimensional Silicon Electronic Systems Fabricated by Compressive Buckling Process. <i>ACS Nano</i> , 2018 , 12, 4164-4171	16.7	23
220	Two-dimensional materials in functional three-dimensional architectures with applications in photodetection and imaging. <i>Nature Communications</i> , 2018 , 9, 1417	17.4	136

219	Super-Absorbent Polymer Valves and Colorimetric Chemistries for Time-Sequenced Discrete Sampling and Chloride Analysis of Sweat via Skin-Mounted Soft Microfluidics. <i>Small</i> , 2018 , 14, e1703334 ¹¹	81
218	Morphable 3D mesostructures and microelectronic devices by multistable buckling mechanics. <i>Nature Materials</i> , 2018 , 17, 268-276	27 216
217	Fabrication and Deformation of 3D Multilayered Kirigami Microstructures. <i>Small</i> , 2018 , 14, e1703852	11 21
216	Highly flexible, wearable, and disposable cardiac biosensors for remote and ambulatory monitoring. <i>Npj Digital Medicine</i> , 2018 , 1, 2	15.7 103
215	Transferred, Ultrathin Oxide Bilayers as Biofluid Barriers for Flexible Electronic Implants. <i>Advanced Functional Materials</i> , 2018 , 28, 1702284	15.6 36
214	A double perturbation method of postbuckling analysis in 2D curved beams for assembly of 3D ribbon-shaped structures. <i>Journal of the Mechanics and Physics of Solids</i> , 2018 , 111, 215-238	5 38
213	Assembly of Advanced Materials into 3D Functional Structures by Methods Inspired by Origami and Kirigami: A Review. <i>Advanced Materials Interfaces</i> , 2018 , 5, 1800284	4.6 129
212	Advanced approaches for quantitative characterization of thermal transport properties in soft materials using thin, conformable resistive sensors. <i>Extreme Mechanics Letters</i> , 2018 , 22, 27-35	3.9 12
211	Optical Waveguides: Flexible Transient Optical Waveguides and Surface-Wave Biosensors Constructed from Monocrystalline Silicon (Adv. Mater. 32/2018). <i>Advanced Materials</i> , 2018 , 30, 1870239 ²⁴	1
210	Epidermal Thermal Depth Sensors: Epidermal Electronic Systems for Measuring the Thermal Properties of Human Skin at Depths of up to Several Millimeters (Adv. Funct. Mater. 34/2018). <i>Advanced Functional Materials</i> , 2018 , 28, 1870242	15.6 3
209	Reprogrammable 3D Mesostructures Through Compressive Buckling of Thin Films with Prestrained Shape Memory Polymer. <i>Acta Mechanica Solida Sinica</i> , 2018 , 31, 589-598	2 9
208	Thin, Millimeter Scale Fingernail Sensors for Thermal Characterization of Nail Bed Tissue. <i>Advanced Functional Materials</i> , 2018 , 28, 1801380	15.6 11
207	Vibration of Mechanically-Assembled 3D Microstructures Formed by Compressive Buckling. <i>Journal of the Mechanics and Physics of Solids</i> , 2018 , 112, 187-208	5 30
206	The equivalent medium of cellular substrate under large stretching, with applications to stretchable electronics. <i>Journal of the Mechanics and Physics of Solids</i> , 2018 , 120, 199-207	5 45
205	Epidermal Electronics: Wireless, Battery-Free Epidermal Electronics for Continuous, Quantitative, Multimodal Thermal Characterization of Skin (Small 47/2018). <i>Small</i> , 2018 , 14, 1870226	11 7
204	Fully implantable optoelectronic systems for battery-free, multimodal operation in neuroscience research. <i>Nature Electronics</i> , 2018 , 1, 652-660	28.4 92
203	Electronic Structures: Mechanically Guided Post-Assembly of 3D Electronic Systems (Adv. Funct. Mater. 48/2018). <i>Advanced Functional Materials</i> , 2018 , 28, 1870344	15.6 1
202	Wireless, Battery-Free Epidermal Electronics for Continuous, Quantitative, Multimodal Thermal Characterization of Skin. <i>Small</i> , 2018 , 14, e1803192	11 53

201	Mechanically Guided Post-Assembly of 3D Electronic Systems. <i>Advanced Functional Materials</i> , 2018 , 28, 1803149	15.6	26
200	Ultrathin Trilayer Assemblies as Long-Lived Barriers against Water and Ion Penetration in Flexible Bioelectronic Systems. <i>ACS Nano</i> , 2018 , 12, 10317-10326	16.7	33
199	Compliant and stretchable thermoelectric coils for energy harvesting in miniature flexible devices. <i>Science Advances</i> , 2018 , 4, eaau5849	14.3	147
198	Relation between blood pressure and pulse wave velocity for human arteries. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018 , 115, 11144-11149	11.5	109
197	Epidermal electronics for noninvasive, wireless, quantitative assessment of ventricular shunt function in patients with hydrocephalus. <i>Science Translational Medicine</i> , 2018 , 10,	17.5	51
196	Mechanically active materials in three-dimensional mesostructures. <i>Science Advances</i> , 2018 , 4, eaat8313	14.3	57
195	Intraoperative monitoring of neuromuscular function with soft, skin-mounted wireless devices. <i>Npj Digital Medicine</i> , 2018 , 1,	15.7	13
194	Controlled mechanical assembly of complex 3D mesostructures and strain sensors by tensile buckling. <i>Npj Flexible Electronics</i> , 2018 , 2,	10.7	17
193	Epidermal Electronic Systems for Measuring the Thermal Properties of Human Skin at Depths of up to Several Millimeters. <i>Advanced Functional Materials</i> , 2018 , 28, 1802083	15.6	31
192	Flexible Transient Optical Waveguides and Surface-Wave Biosensors Constructed from Monocrystalline Silicon. <i>Advanced Materials</i> , 2018 , 30, e1801584	24	36
191	Natural Wax for Transient Electronics. <i>Advanced Functional Materials</i> , 2018 , 28, 1801819	15.6	50
190	Chemical Sensing Systems that Utilize Soft Electronics on Thin Elastomeric Substrates with Open Cellular Designs. <i>Advanced Functional Materials</i> , 2017 , 9, 1605476	15.6	51
189	Flexible Near-Field Wireless Optoelectronics as Subdermal Implants for Broad Applications in Optogenetics. <i>Neuron</i> , 2017 , 93, 509-521.e3	13.9	225
188	Stretchable Electronics: In-Plane Deformation Mechanics for Highly Stretchable Electronics (Adv. Mater. 8/2017). <i>Advanced Materials</i> , 2017 , 29,	24	5
187	Capacitively Coupled Arrays of Multiplexed Flexible Silicon Transistors for Long-Term Cardiac Electrophysiology. <i>Nature Biomedical Engineering</i> , 2017 , 1,	19	163
186	Three-Dimensional Multiscale, Multistable, and Geometrically Diverse Microstructures with Tunable Vibrational Dynamics Assembled by Compressive Buckling. <i>Advanced Functional Materials</i> , 2017 , 27, 1605914	15.6	39
185	Collapse of liquid-overfilled strain-isolation substrates in wearable electronics. <i>International Journal of Solids and Structures</i> , 2017 , 117, 137-142	3.1	11
184	Design and application of T-shaped stress-strain behavior in stretchable electronics: a review. <i>Lab on A Chip</i> , 2017 , 17, 1689-1704	7.2	99

183	Flexible and Stretchable 3D Sensors for Thermal Characterization of Human Skin. <i>Advanced Functional Materials</i> , 2017 , 27, 1701282	15.6	71
182	Mechanically-Guided Deterministic Assembly of 3D Mesostructures Assisted by Residual Stresses. <i>Small</i> , 2017 , 13, 1700151	11	25
181	Soft, skin-mounted microfluidic systems for measuring secretory fluidic pressures generated at the surface of the skin by eccrine sweat glands. <i>Lab on A Chip</i> , 2017 , 17, 2572-2580	7.2	93
180	Self-assembled three dimensional network designs for soft electronics. <i>Nature Communications</i> , 2017 , 8, 15894	17.4	238
179	Printing, folding and assembly methods for forming 3D mesostructures in advanced materials. <i>Nature Reviews Materials</i> , 2017 , 2,	73.3	372
178	In-Plane Deformation Mechanics for Highly Stretchable Electronics. <i>Advanced Materials</i> , 2017 , 29, 1604982	10.1	101
177	Soft Elastomers with Ionic Liquid-Filled Cavities as Strain Isolating Substrates for Wearable Electronics. <i>Small</i> , 2017 , 13, 1602954	11	67
176	Deterministic assembly of 3D mesostructures in advanced materials via compressive buckling: A short review of recent progress. <i>Extreme Mechanics Letters</i> , 2017 , 11, 96-104	3.9	56
175	Oximetry: Miniaturized Battery-Free Wireless Systems for Wearable Pulse Oximetry (Adv. Funct. Mater. 1/2017). <i>Advanced Functional Materials</i> , 2017 , 27,	15.6	3
174	Designing Thin, Ultrastretchable Electronics with Stacked Circuits and Elastomeric Encapsulation Materials. <i>Advanced Functional Materials</i> , 2017 , 27, 1604545	15.6	35
173	Three-dimensional mesostructures as high-temperature growth templates, electronic cellular scaffolds, and self-propelled microrobots. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017 , 114, E9455-E9464	11.5	104
172	A skin-attachable, stretchable integrated system based on liquid GaInSn for wireless human motion monitoring with multi-site sensing capabilities. <i>NPG Asia Materials</i> , 2017 , 9, e443-e443	10.3	145
171	Sensors: Flexible and Stretchable 3D Sensors for Thermal Characterization of Human Skin (Adv. Funct. Mater. 26/2017). <i>Advanced Functional Materials</i> , 2017 , 27,	15.6	4
170	Experimental and Theoretical Studies of Serpentine Interconnects on Ultrathin Elastomers for Stretchable Electronics. <i>Advanced Functional Materials</i> , 2017 , 27, 1702589	15.6	85
169	Dissolution of Monocrystalline Silicon Nanomembranes and Their Use as Encapsulation Layers and Electrical Interfaces in Water-Soluble Electronics. <i>ACS Nano</i> , 2017 , 11, 12562-12572	16.7	61
168	Kinetics and Chemistry of Hydrolysis of Ultrathin, Thermally Grown Layers of Silicon Oxide as Biofluid Barriers in Flexible Electronic Systems. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 42633-42638	9.5	38
167	Thin, Transferred Layers of Silicon Dioxide and Silicon Nitride as Water and Ion Barriers for Implantable Flexible Electronic Systems. <i>Advanced Electronic Materials</i> , 2017 , 3, 1700077	6.4	44
166	Fully implantable, battery-free wireless optoelectronic devices for spinal optogenetics. <i>Pain</i> , 2017 , 158, 2108-2116	8	76

165	Engineered elastomer substrates for guided assembly of complex 3D mesostructures by spatially nonuniform compressive buckling. <i>Advanced Functional Materials</i> , 2017 , 27, 1604281	15.6	41
164	Collapse of microfluidic channels/reservoirs in thin, soft epidermal devices. <i>Extreme Mechanics Letters</i> , 2017 , 11, 18-23	3.9	17
163	Plasticity-induced origami for assembly of three dimensional metallic structures guided by compressive buckling. <i>Extreme Mechanics Letters</i> , 2017 , 11, 105-110	3.9	40
162	Miniaturized Battery-Free Wireless Systems for Wearable Pulse Oximetry. <i>Advanced Functional Materials</i> , 2017 , 27, 1604373	15.6	182
161	Multimodal epidermal devices for hydration monitoring. <i>Microsystems and Nanoengineering</i> , 2017 , 3, 17014	7.7	40
160	Models of Reactive Diffusion for Resorbable Electronics 2016 , 37-56		
159	A soft, wearable microfluidic device for the capture, storage, and colorimetric sensing of sweat. <i>Science Translational Medicine</i> , 2016 , 8, 366ra165	17.5	665
158	Epidermal mechano-acoustic sensing electronics for cardiovascular diagnostics and human-machine interfaces. <i>Science Advances</i> , 2016 , 2, e1601185	14.3	220
157	Shear Piezoelectricity in Poly(vinylidene fluoride-co-trifluoroethylene): Full Piezotensor Coefficients by Molecular Modeling, Biaxial Transverse Response, and Use in Suspended Energy-Harvesting Nanostructures. <i>Advanced Materials</i> , 2016 , 28, 7633-9	24	19
156	Electrodes: Ferromagnetic, Folded Electrode Composite as a Soft Interface to the Skin for Long-Term Electrophysiological Recording (Adv. Funct. Mater. 40/2016). <i>Advanced Functional Materials</i> , 2016 , 26, 7280-7280	15.6	
155	Epidermal radio frequency electronics for wireless power transfer. <i>Microsystems and Nanoengineering</i> , 2016 , 2, 16052	7.7	55
154	Battery-free, stretchable optoelectronic systems for wireless optical characterization of the skin. <i>Science Advances</i> , 2016 , 2, e1600418	14.3	266
153	Computational models for the determination of depth-dependent mechanical properties of skin with a soft, flexible measurement device. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2016 , 472, 20160225	2.4	13
152	Ultrathin, transferred layers of thermally grown silicon dioxide as biofluid barriers for biointegrated flexible electronic systems. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016 , 113, 11682-11687	11.5	133
151	Mechanical assembly of complex, 3D mesostructures from releasable multilayers of advanced materials. <i>Science Advances</i> , 2016 , 2, e1601014	14.3	152
150	Design of Strain-Limiting Substrate Materials for Stretchable and Flexible Electronics. <i>Advanced Functional Materials</i> , 2016 , 26, 5345-5351	15.6	75
149	3D Assembly: Controlled Mechanical Buckling for Origami-Inspired Construction of 3D Microstructures in Advanced Materials (Adv. Funct. Mater. 16/2016). <i>Advanced Functional Materials</i> , 2016 , 26, 2586-2586	15.6	
148	Ultrathin Injectable Sensors of Temperature, Thermal Conductivity, and Heat Capacity for Cardiac Ablation Monitoring. <i>Advanced Healthcare Materials</i> , 2016 , 5, 373-81	10.1	36

147	A finite deformation model of planar serpentine interconnects for stretchable electronics. <i>International Journal of Solids and Structures</i> , 2016 , 91, 46-54	3.1	54
146	Recent progress in flexible and stretchable piezoelectric devices for mechanical energy harvesting, sensing and actuation. <i>Extreme Mechanics Letters</i> , 2016 , 9, 269-281	3.9	281
145	Probabilistic Analysis of Stress Corrosion Crack Growth and Related Structural Reliability Considerations. <i>Journal of Applied Mechanics, Transactions ASME</i> , 2016 , 83,	2.7	8
144	Mechanics and thermal management of stretchable inorganic electronics. <i>National Science Review</i> , 2016 , 3, 128-143	10.8	92
143	Guided Formation of 3D Helical Mesosstructures by Mechanical Buckling: Analytical Modeling and Experimental Validation. <i>Advanced Functional Materials</i> , 2016 , 26, 2909-2918	15.6	57
142	Flexible Electronics: An Epidermal Stimulation and Sensing Platform for Sensorimotor Prosthetic Control, Management of Lower Back Exertion, and Electrical Muscle Activation (Adv. Mater. 22/2016). <i>Advanced Materials</i> , 2016 , 28, 4563	24	6
141	Controlled mechanical buckling for origami-inspired construction of 3D microstructures in advanced materials. <i>Advanced Functional Materials</i> , 2016 , 26, 2629-2639	15.6	188
140	An Epidermal Stimulation and Sensing Platform for Sensorimotor Prosthetic Control, Management of Lower Back Exertion, and Electrical Muscle Activation. <i>Advanced Materials</i> , 2016 , 28, 4462-71	24	173
139	A Mechanics Model for Sensors Imperfectly Bonded to the Skin for Determination of the Young's Moduli of Epidermis and Dermis. <i>Journal of Applied Mechanics, Transactions ASME</i> , 2016 , 83, 0845011-845013	2.7	13
138	Design of Stretchable Electronics Against Impact. <i>Journal of Applied Mechanics, Transactions ASME</i> , 2016 , 83, 1010091-1010095	2.7	9
137	Soft, thin skin-mounted power management systems and their use in wireless thermography. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016 , 113, 6131-6	11.5	108
136	Origami MEMS and NEMS. <i>MRS Bulletin</i> , 2016 , 41, 123-129	3.2	211
135	A nonlinear mechanics model of bio-inspired hierarchical lattice materials consisting of horseshoe microstructures. <i>Journal of the Mechanics and Physics of Solids</i> , 2016 , 90, 179-202	5	155
134	Ferromagnetic, folded electrode composite as a soft interface to the skin for long-term electrophysiological recording. <i>Advanced Functional Materials</i> , 2016 , 26, 7281-7290	15.6	40
133	Wrinkling of a stiff thin film bonded to a pre-strained, compliant substrate with finite thickness. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2016 , 472, 20160339	2.4	20
132	Theoretical and Experimental Studies of Epidermal Heat Flux Sensors for Measurements of Core Body Temperature. <i>Advanced Healthcare Materials</i> , 2016 , 5, 119-27	10.1	83
131	Flexible Electronics: Theoretical and Experimental Studies of Epidermal Heat Flux Sensors for Measurements of Core Body Temperature (Adv. Healthcare Mater. 1/2016). <i>Advanced Healthcare Materials</i> , 2016 , 5, 2	10.1	4
130	Ultrathin Injectable Sensors: Ultrathin Injectable Sensors of Temperature, Thermal Conductivity, and Heat Capacity for Cardiac Ablation Monitoring (Adv. Healthcare Mater. 3/2016). <i>Advanced Healthcare Materials</i> , 2016 , 5, 394-394	10.1	

129	Balloon catheters with integrated stretchable electronics for electrical stimulation, ablation and blood flow monitoring. <i>Extreme Mechanics Letters</i> , 2015 , 3, 45-54	3.9	29
128	Stretchable Electronics: Epidermal Electronics with Advanced Capabilities in Near-Field Communication (Small 8/2015). <i>Small</i> , 2015 , 11, 905-905	11	8
127	Materials and fractal designs for 3D multifunctional integumentary membranes with capabilities in cardiac electrotherapy. <i>Advanced Materials</i> , 2015 , 27, 1731-7	24	117
126	Wireless Optofluidic Systems for Programmable In Vivo Pharmacology and Optogenetics. <i>Cell</i> , 2015 , 162, 662-74	56.2	326
125	Optics and Nonlinear Buckling Mechanics in Large-Area, Highly Stretchable Arrays of Plasmonic Nanostructures. <i>ACS Nano</i> , 2015 , 9, 5968-75	16.7	73
124	Mechanical Designs for Inorganic Stretchable Circuits in Soft Electronics. <i>IEEE Transactions on Components, Packaging and Manufacturing Technology</i> , 2015 , 5, 1201-1218	1.7	46
123	Soft network composite materials with deterministic and bio-inspired designs. <i>Nature Communications</i> , 2015 , 6, 6566	17.4	289
122	Soft, curved electrode systems capable of integration on the auricle as a persistent brain-computer interface. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015 , 112, 3920-5	11.5	238
121	Biodegradable elastomers and silicon nanomembranes/nanoribbons for stretchable, transient electronics, and biosensors. <i>Nano Letters</i> , 2015 , 15, 2801-8	11.5	226
120	Epidermal devices for noninvasive, precise, and continuous mapping of macrovascular and microvascular blood flow. <i>Science Advances</i> , 2015 , 1, e1500701	14.3	145
119	Analyses of postbuckling in stretchable arrays of nanostructures for wide-band tunable plasmonics. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2015 , 471, 20150632 ^{2,4}	2	2
118	A mechanically driven form of Kirigami as a route to 3D mesostructures in micro/nanomembranes. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015 , 112, 11757-64	11.5	344
117	Modulated Degradation of Transient Electronic Devices through Multilayer Silk Fibroin Pockets. <i>ACS Applied Materials & Interfaces</i> , 2015 , 7, 19870-5	9.5	57
116	Biological lipid membranes for on-demand, wireless drug delivery from thin, bioresorbable electronic implants. <i>NPG Asia Materials</i> , 2015 , 7,	10.3	61
115	Soft, stretchable, fully implantable miniaturized optoelectronic systems for wireless optogenetics. <i>Nature Biotechnology</i> , 2015 , 33, 1280-1286	44.5	510
114	Materials and Wireless Microfluidic Systems for Electronics Capable of Chemical Dissolution on Demand. <i>Advanced Functional Materials</i> , 2015 , 25, 1338-1343	15.6	34
113	Epidermal electronics with advanced capabilities in near-field communication. <i>Small</i> , 2015 , 11, 906-12	11	191
112	Elasticity of fractal inspired interconnects. <i>Small</i> , 2015 , 11, 367-73	11	71

111	Epidermal Systems: Soft Core/Shell Packages for Stretchable Electronics (Adv. Funct. Mater. 24/2015). <i>Advanced Functional Materials</i> , 2015 , 25, 3697-3697	15.6	5
110	Epidermal Electronics: Miniaturized Flexible Electronic Systems with Wireless Power and Near-Field Communication Capabilities (Adv. Funct. Mater. 30/2015). <i>Advanced Functional Materials</i> , 2015 , 25, 4919-4919	15.6	2
109	Wireless Microfluidic Systems for Programmed, Functional Transformation of Transient Electronic Devices. <i>Advanced Functional Materials</i> , 2015 , 25, 5100-5106	15.6	32
108	Miniaturized Flexible Electronic Systems with Wireless Power and Near-Field Communication Capabilities. <i>Advanced Functional Materials</i> , 2015 , 25, 4761-4767	15.6	114
107	Soft Core/Shell Packages for Stretchable Electronics. <i>Advanced Functional Materials</i> , 2015 , 25, 3698-3704	15.6	98
106	Conformal piezoelectric systems for clinical and experimental characterization of soft tissue biomechanics. <i>Nature Materials</i> , 2015 , 14, 728-36	27	310
105	Catheter-Based Systems With Integrated Stretchable Sensors and Conductors in Cardiac Electrophysiology. <i>Proceedings of the IEEE</i> , 2015 , 103, 682-689	14.3	28
104	Membranes: Materials and Fractal Designs for 3D Multifunctional Integumentary Membranes with Capabilities in Cardiac Electrotherapy (Adv. Mater. 10/2015). <i>Advanced Materials</i> , 2015 , 27, 1730-1730	24	2
103	Materials science. Assembly of micro/nanomaterials into complex, three-dimensional architectures by compressive buckling. <i>Science</i> , 2015 , 347, 154-9	33.3	587
102	Mechanics of stretchable batteries and supercapacitors. <i>Current Opinion in Solid State and Materials Science</i> , 2015 , 19, 190-199	12	147
101	All-Elastomeric, Strain-Responsive Thermochromic Color Indicators. <i>Small</i> , 2014 , 10, 1266-1271	11	46
100	Fractal design concepts for stretchable electronics. <i>Nature Communications</i> , 2014 , 5, 3266	17.4	625
99	3D multifunctional integumentary membranes for spatiotemporal cardiac measurements and stimulation across the entire epicardium. <i>Nature Communications</i> , 2014 , 5, 3329	17.4	384
98	Soft microfluidic assemblies of sensors, circuits, and radios for the skin. <i>Science</i> , 2014 , 344, 70-4	33.3	802
97	High-performance biodegradable/transient electronics on biodegradable polymers. <i>Advanced Materials</i> , 2014 , 26, 3905-11	24	283
96	Materials and Designs for Wireless Epidermal Sensors of Hydration and Strain. <i>Advanced Functional Materials</i> , 2014 , 24, 3846-3854	15.6	230
95	Fundamental effects in nanoscale thermocapillary flow. <i>Journal of Applied Physics</i> , 2014 , 115, 054315	2.5	8
94	Electrochemical Properties of Si-Ge Heterostructures as an Anode Material for Lithium Ion Batteries. <i>Advanced Functional Materials</i> , 2014 , 24, 1458-1464	15.6	71

93	Transient Electronics: Dissolvable Metals for Transient Electronics (Adv. Funct. Mater. 5/2014). <i>Advanced Functional Materials</i> , 2014 , 24, 644-644	15.6	3
92	Conformal piezoelectric energy harvesting and storage from motions of the heart, lung, and diaphragm. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014 , 111, 1927-32	11.5	584
91	Biomedical Sensors: Materials and Designs for Wireless Epidermal Sensors of Hydration and Strain (Adv. Funct. Mater. 25/2014). <i>Advanced Functional Materials</i> , 2014 , 24, 3845-3845	15.6	4
90	Microwave purification of large-area horizontally aligned arrays of single-walled carbon nanotubes. <i>Nature Communications</i> , 2014 , 5, 5332	17.4	37
89	Dissolution chemistry and biocompatibility of single-crystalline silicon nanomembranes and associated materials for transient electronics. <i>ACS Nano</i> , 2014 , 8, 5843-51	16.7	145
88	Rugged and breathable forms of stretchable electronics with adherent composite substrates for transcutaneous monitoring. <i>Nature Communications</i> , 2014 , 5, 4779	17.4	245
87	Thermal analysis of ultrathin, compliant sensors for characterization of the human skin. <i>RSC Advances</i> , 2014 , 4, 5694	3.7	10
86	Modeling of thermocapillary flow to purify single-walled carbon nanotubes. <i>RSC Advances</i> , 2014 , 4, 42454-42461	3.7	10
85	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, 12998-3003	11.5	159
84	Conformable amplified lead zirconate titanate sensors with enhanced piezoelectric response for cutaneous pressure monitoring. <i>Nature Communications</i> , 2014 , 5, 4496	17.4	571
83	Dissolvable Metals for Transient Electronics. <i>Advanced Functional Materials</i> , 2014 , 24, 645-658	15.6	290
82	Experimental and Theoretical Studies of Serpentine Microstructures Bonded To Prestrained Elastomers for Stretchable Electronics. <i>Advanced Functional Materials</i> , 2014 , 24, 2028-2037	15.6	220
81	Epidermal photonic devices for quantitative imaging of temperature and thermal transport characteristics of the skin. <i>Nature Communications</i> , 2014 , 5, 4938	17.4	185
80	25th anniversary article: materials for high-performance biodegradable semiconductor devices. <i>Advanced Materials</i> , 2014 , 26, 1992-2000	24	130
79	A high-density, high-channel count, multiplexed ECoG array for auditory-cortex recordings. <i>Journal of Neurophysiology</i> , 2014 , 112, 1566-83	3.2	69
78	Buckling of a stiff thin film on a pre-strained bi-layer substrate. <i>International Journal of Solids and Structures</i> , 2014 , 51, 3113-3118	3.1	45
77	Mechanics Design for Stretchable, High Areal Coverage GaAs Solar Module on an Ultrathin Substrate. <i>Journal of Applied Mechanics, Transactions ASME</i> , 2014 , 81,	2.7	20
76	Multiple Neutral Axes in Bending of a Multiple-Layer Beam With Extremely Different Elastic Properties. <i>Journal of Applied Mechanics, Transactions ASME</i> , 2014 , 81,	2.7	26

75	Multifunctional skin-like electronics for quantitative, clinical monitoring of cutaneous wound healing. <i>Advanced Healthcare Materials</i> , 2014 , 3, 1597-607	10.1	175
74	Dissolution Behaviors and Applications of Silicon Oxides and Nitrides in Transient Electronics. <i>Advanced Functional Materials</i> , 2014 , 24, 4427-4434	15.6	170
73	A hierarchical computational model for stretchable interconnects with fractal-inspired designs. <i>Journal of the Mechanics and Physics of Solids</i> , 2014 , 72, 115-130	5	89
72	Temperature- and size-dependent characteristics in ultrathin inorganic light-emitting diodes assembled by transfer printing. <i>Applied Physics Letters</i> , 2014 , 104, 051901	3.4	30
71	Mechanics of stretchable electronics on balloon catheter under extreme deformation. <i>International Journal of Solids and Structures</i> , 2014 , 51, 1555-1561	3.1	23
70	Surface-Coverage-Dependent Cycle Stability of Core-Shell Nanostructured Electrodes for Use in Lithium Ion Batteries. <i>Advanced Energy Materials</i> , 2014 , 4, 1300472	21.8	17
69	Injectable, cellular-scale optoelectronics with applications for wireless optogenetics. <i>Science</i> , 2013 , 340, 211-6	33.3	832
68	Ultrathin conformal devices for precise and continuous thermal characterization of human skin. <i>Nature Materials</i> , 2013 , 12, 938-44	27	826
67	Materials and optimized designs for human-machine interfaces via epidermal electronics. <i>Advanced Materials</i> , 2013 , 25, 6839-46	24	509
66	Buckling in serpentine microstructures and applications in elastomer-supported ultra-stretchable electronics with high areal coverage. <i>Soft Matter</i> , 2013 , 9, 8062-8070	3.6	192
65	Mechanics of ultra-stretchable self-similar serpentine interconnects. <i>Acta Materialia</i> , 2013 , 61, 7816-7828	7.4	147
64	Electronically Programmable, Reversible Shape Change in Two- and Three-Dimensional Hydrogel Structures (Adv. Mater. 11/2013). <i>Advanced Materials</i> , 2013 , 25, 1540-1540	24	
63	Electronically programmable, reversible shape change in two- and three-dimensional hydrogel structures. <i>Advanced Materials</i> , 2013 , 25, 1541-6	24	140
62	An Analytical Model of Reactive Diffusion for Transient Electronics. <i>Advanced Functional Materials</i> , 2013 , 23, 3106-3114	15.6	63
61	Multifunctional epidermal electronics printed directly onto the skin. <i>Advanced Materials</i> , 2013 , 25, 2773-84	24	590
60	Stretchable batteries with self-similar serpentine interconnects and integrated wireless recharging systems. <i>Nature Communications</i> , 2013 , 4, 1543	17.4	978
59	Digital cameras with designs inspired by the arthropod eye. <i>Nature</i> , 2013 , 497, 95-9	50.4	721
58	Multi-Functional Electronics: Multifunctional Epidermal Electronics Printed Directly Onto the Skin (Adv. Mater. 20/2013). <i>Advanced Materials</i> , 2013 , 25, 2772-2772	24	13

57	Mechanics of Tunable Hemispherical Electronic Eye Camera Systems That Combine Rigid Device Elements With Soft Elastomers. <i>Journal of Applied Mechanics, Transactions ASME</i> , 2013 , 80,	2.7	34
56	Thermal analysis of injectable, cellular-scale optoelectronics with pulsed power. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2013 , 469, 20130142	2.4	20
55	Thermal properties of microscale inorganic light-emitting diodes in a pulsed operation. <i>Journal of Applied Physics</i> , 2013 , 113, 144505	2.5	22
54	Postbuckling analysis and its application to stretchable electronics. <i>Journal of the Mechanics and Physics of Solids</i> , 2012 , 60, 487-508	5	107
53	A physically transient form of silicon electronics. <i>Science</i> , 2012 , 337, 1640-4	33.3	862
52	Transfer printing techniques for materials assembly and micro/nanodevice fabrication. <i>Advanced Materials</i> , 2012 , 24, 5284-318	24	572
51	Flexible Electronics: Materials and Designs for Wirelessly Powered Implantable Light-Emitting Systems (Small 18/2012). <i>Small</i> , 2012 , 8, 2770-2770	11	2
50	Mechanics of Twistable Electronics 2012 , 31-39		
49	Silicon nanomembranes for fingertip electronics. <i>Nanotechnology</i> , 2012 , 23, 344004	3.4	168
48	Stretchable semiconductor technologies with high areal coverages and strain-limiting behavior: demonstration in high-efficiency dual-junction GaInP/GaAs photovoltaics. <i>Small</i> , 2012 , 8, 1851-6	11	86
47	Active, Programmable Elastomeric Surfaces with Tunable Adhesion for Deterministic Assembly by Transfer Printing. <i>Advanced Functional Materials</i> , 2012 , 22, 4476-4484	15.6	107
46	Axisymmetric thermo-mechanical analysis of laser-driven non-contact transfer printing. <i>International Journal of Fracture</i> , 2012 , 176, 189-194	2.3	26
45	Mechanics of Epidermal Electronics. <i>Journal of Applied Mechanics, Transactions ASME</i> , 2012 , 79,	2.7	129
44	A thermal analysis of the operation of microscale, inorganic light-emitting diodes. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2012 , 468, 3215-3223	2.4	29
43	Enhanced adhesion with pedestal-shaped elastomeric stamps for transfer printing. <i>Applied Physics Letters</i> , 2012 , 100, 171909	3.4	47
42	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, 19910-5	11.5	190
41	Materials for stretchable electronics in bioinspired and biointegrated devices. <i>MRS Bulletin</i> , 2012 , 37, 226-235	3.2	166
40	Stretchable ferroelectric nanoribbons with wavy configurations on elastomeric substrates. <i>ACS Nano</i> , 2011 , 5, 3326-32	16.7	162

39	Epidermal electronics. <i>Science</i> , 2011 , 333, 838-43	33.3	3216
38	Flexible, foldable, actively multiplexed, high-density electrode array for mapping brain activity in vivo. <i>Nature Neuroscience</i> , 2011 , 14, 1599-605	25.5	807
37	Stretchable GaAs photovoltaics with designs that enable high areal coverage. <i>Advanced Materials</i> , 2011 , 23, 986-91	24	245
36	Mechanics of reversible adhesion. <i>Soft Matter</i> , 2011 , 7, 8657	3.6	40
35	More evidence of the crucial roles of surface superhydrophobicity in free and safe maneuver of water strider. <i>Applied Physics Letters</i> , 2011 , 99, 263704	3.4	10
34	Unusual strategies for using indium gallium nitride grown on silicon (111) for solid-state lighting. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011 , 108, 10072-7	11.5	189
33	Dynamically tunable hemispherical electronic eye camera system with adjustable zoom capability. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011 , 108, 1788-93	11.5	194
32	Shear-enhanced adhesiveless transfer printing for use in deterministic materials assembly. <i>Applied Physics Letters</i> , 2011 , 98, 264104	3.4	106
31	Dissolvable films of silk fibroin for ultrathin conformal bio-integrated electronics. <i>Nature Materials</i> , 2010 , 9, 511-7	27	1239
30	Waterproof AlInGaP optoelectronics on stretchable substrates with applications in biomedicine and robotics. <i>Nature Materials</i> , 2010 , 9, 929-37	27	474
29	Microstructured elastomeric surfaces with reversible adhesion and examples of their use in deterministic assembly by transfer printing. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010 , 107, 17095-100	11.5	280
28	Materials and mechanics for stretchable electronics. <i>Science</i> , 2010 , 327, 1603-7	33.3	3464
27	Compact monocrystalline silicon solar modules with high voltage outputs and mechanically flexible designs. <i>Energy and Environmental Science</i> , 2010 , 3, 208	35.4	56
26	Mechanics of curvilinear electronics. <i>Soft Matter</i> , 2010 , 6, 5757	3.6	55
25	Ultrathin silicon solar microcells for semitransparent, mechanically flexible and microconcentrator module designs 2010 , 38-46		0
24	Stretchable, curvilinear electronics based on inorganic materials. <i>Advanced Materials</i> , 2010 , 22, 2108-24	24	437
23	Micromechanics and advanced designs for curved photodetector arrays in hemispherical electronic-eye cameras. <i>Small</i> , 2010 , 6, 851-6	11	84
22	Kinetically controlled, adhesiveless transfer printing using microstructured stamps. <i>Applied Physics Letters</i> , 2009 , 94, 113502	3.4	71

21	Mechanics of hemispherical electronics. <i>Applied Physics Letters</i> , 2009 , 95, 181912	3.4	18
20	COARSE GRAINED MODELING OF BIOPOLYMERS AND PROTEINS: METHODS AND APPLICATIONS. <i>International Journal of Applied Mechanics</i> , 2009 , 01, 113-136	2.4	11
19	A quantitative analysis for the stress field around an elastoplastic indentation/contact. <i>Journal of Materials Research</i> , 2009 , 24, 704-718	2.5	30
18	Size effect in plastically deformed passivated thin films 2009 , 52, 1375-1381		
17	Optimized structural designs for stretchable silicon integrated circuits. <i>Small</i> , 2009 , 5, 2841-7	11	131
16	Curvilinear electronics formed using silicon membrane circuits and elastomeric transfer elements. <i>Small</i> , 2009 , 5, 2703-9	11	186
15	Printed assemblies of inorganic light-emitting diodes for deformable and semitransparent displays. <i>Science</i> , 2009 , 325, 977-81	33.3	617
14	A hemispherical electronic eye camera based on compressible silicon optoelectronics. <i>Nature</i> , 2008 , 454, 748-53	50.4	1004
13	Local versus global buckling of thin films on elastomeric substrates. <i>Applied Physics Letters</i> , 2008 , 93, 023126	3.4	61
12	Complementary metal oxide silicon integrated circuits incorporating monolithically integrated stretchable wavy interconnects. <i>Applied Physics Letters</i> , 2008 , 93, 044102	3.4	34
11	Modeling fracture in carbon nanotubes using a meshless atomic-scale finite-element method. <i>Jom</i> , 2008 , 60, 50-55	2.1	2
10	Defect Tolerance and Nanomechanics in Transistors that Use Semiconductor Nanomaterials and Ultrathin Dielectrics. <i>Advanced Functional Materials</i> , 2008 , 18, 2535-2540	15.6	6
9	Theoretical and Experimental Studies of Bending of Inorganic Electronic Materials on Plastic Substrates. <i>Advanced Functional Materials</i> , 2008 , 18, 2673-2684	15.6	341
8	Finite width effect of thin-films buckling on compliant substrate: Experimental and theoretical studies. <i>Journal of the Mechanics and Physics of Solids</i> , 2008 , 56, 2585-2598	5	102
7	Post-buckling analysis for the precisely controlled buckling of thin film encapsulated by elastomeric substrates. <i>International Journal of Solids and Structures</i> , 2008 , 45, 2014-2023	3.1	55
6	Finite deformation mechanics in buckled thin films on compliant supports. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2007 , 104, 15607-12	11.5	542
5	Mechanics of precisely controlled thin film buckling on elastomeric substrate. <i>Applied Physics Letters</i> , 2007 , 90, 133119	3.4	101
4	Stress focusing for controlled fracture in microelectromechanical systems. <i>Applied Physics Letters</i> , 2007 , 90, 083110	3.4	30

- 3 Electrochemical bioelectronics in drug delivery - effect of the initial gas volume. *Journal of Applied Mechanics, Transactions ASME*,1-30 2.7 1
- 2 Mechanics of Curvilinear Electronics339-357
- 1 Mechanics modeling of electrodes for wireless and bioresorbable capacitive pressure sensors. *Journal of Applied Mechanics, Transactions ASME*,1-19 2.7 1