Xian Huang

List of Publications by Citations

81 papers	6,055 citations	30 h-index	77 g-index
87 ext. papers	6,946 ext. citations	10.4 avg, IF	5.43 L-index

#	Paper	IF	Citations
81	Stretchable batteries with self-similar serpentine interconnects and integrated wireless recharging systems. *Nature Communications*, **2013**, 4, 1543	17.4	978
80	Injectable, cellular-scale optoelectronics with applications for wireless optogenetics. *Science*, **2013**, 340, 211-6	33.3	832
79	Soft microfluidic assemblies of sensors, circuits, and radios for the skin. *Science*, **2014**, 344, 70-4	33.3	802
78	High-performance biodegradable/transient electronics on biodegradable polymers. *Advanced Materials*, **2014**, 26, 3905-11	24	283
77	Materials and Designs for Wireless Epidermal Sensors of Hydration and Strain. *Advanced Functional Materials*, **2014**, 24, 3846-3854	15.6	230
76	Materials, designs, and operational characteristics for fully biodegradable primary batteries. *Advanced Materials*, **2014**, 26, 3879-84	24	211
75	Stretchable, wireless sensors and functional substrates for epidermal characterization of sweat. *Small*, **2014**, 10, 3083-90	11	208
74	Capacitive epidermal electronics for electrically safe, long-term electrophysiological measurements. *Advanced Healthcare Materials*, **2014**, 3, 642-8	10.1	200
73	Epidermal electronics with advanced capabilities in near-field communication. *Small*, **2015**, 11, 906-12	11	191
72	Epidermal photonic devices for quantitative imaging of temperature and thermal transport characteristics of the skin. *Nature Communications*, **2014**, 5, 4938	17.4	185
71	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, 12998-3003	11.5	159
70	Materials for bioresorbable radio frequency electronics. *Advanced Materials*, **2013**, 25, 3526-31	24	154
69	Fabrication and application of flexible, multimodal light-emitting devices for wireless optogenetics. *Nature Protocols*, **2013**, 8, 2413-2428	18.8	142
68	Biodegradable materials for multilayer transient printed circuit boards. *Advanced Materials*, **2014**, 26, 7371-7	24	109
67	Epidermal differential impedance sensor for conformal skin hydration monitoring. *Biointerphases*, **2012**, 7, 52	1.8	103
66	Materials, Processes, and Facile Manufacturing for Bioresorbable Electronics: A Review. *Advanced Materials*, **2018**, 30, e1707624	24	94
65	Epidermal impedance sensing sheets for precision hydration assessment and spatial mapping. *IEEE Transactions on Biomedical Engineering*, **2013**, 60, 2848-57	5	76

64	Materials for programmed, functional transformation in transient electronic systems. *Advanced Materials*, **2015**, 27, 47-52	24	66
63	A MEMS affinity glucose sensor using a biocompatible glucose-responsive polymer. *Sensors and Actuators B: Chemical*, **2009**, 140, 603-609	8.5	63
62	Low-Cost Manufacturing of Bioresorbable Conductors by Evaporation-Condensation-Mediated Laser Printing and Sintering of Zn Nanoparticles. *Advanced Materials*, **2017**, 29, 1700172	24	57
61	Epidermal radio frequency electronics for wireless power transfer. *Microsystems and Nanoengineering*, **2016**, 2, 16052	7.7	55
60	Materials and Techniques for Implantable Nutrient Sensing Using Flexible Sensors Integrated with Metal-Organic Frameworks. *Advanced Materials*, **2018**, 30, e1800917	24	49
59	Risk assessment of bioaccessible trace elements in smoke haze aerosols versus urban aerosols using simulated lung fluids. *Atmospheric Environment*, **2016**, 125, 505-511	5.3	42
58	Characterization and estimation of human airway deposition of size-resolved particulate-bound trace elements during a recent haze episode in Southeast Asia. *Environmental Science and Pollution Research*, **2015**, 22, 4265-80	5.1	39
57	Mechanically Milled Irregular Zinc Nanoparticles for Printable Bioresorbable Electronics. *Small*, **2017**, 13, 1700065	11	38
56	Elevation of brain magnesium prevents and reverses cognitive deficits and synaptic loss in Alzheimer\'s disease mouse model. *Journal of Neuroscience*, **2013**, 33, 8423-41	6.6	37
55	Mutation screening of the HDC gene in Chinese Han patients with Tourette syndrome. *American Journal of Medical Genetics Part B: Neuropsychiatric Genetics*, **2012**, 159B, 72-6	3.5	36
54	Multifunctional Stretchable Sensors for Continuous Monitoring of Long-Term Leaf Physiology and Microclimate. *ACS Omega*, **2019**, 4, 9522-9530	3.9	34
53	Mechanisms and Materials of Flexible and Stretchable Skin Sensors. *Micromachines*, **2017**, 8, 69	3.3	31
52	Origami NdFeB Flexible Magnetic Membranes with Enhanced Magnetism and Programmable Sequences of Polarities. *Advanced Functional Materials*, **2019**, 29, 1904977	15.6	31
51	Sub-thermionic, ultra-high-gain organic transistors and circuits. *Nature Communications*, **2021**, 12, 1928	17.4	28
50	A Capacitive MEMS Viscometric Sensor for Affinity Detection of Glucose. *Journal of Microelectromechanical Systems*, **2009**, 18, 1246-1254	2.5	27
49	Lithium normalizes elevated intracellular sodium. *Bipolar Disorders*, **2007**, 9, 298-300	3.8	26
48	Analysis of a concentric coplanar capacitor for epidermal hydration sensing. *Sensors and Actuators A: Physical*, **2013**, 203, 149-153	3.9	25
47	Fully Flexible Electromagnetic Vibration Sensors with Annular Field Confinement Origami Magnetic Membranes. *Advanced Functional Materials*, **2020**, 30, 2001553	15.6	23

46	A dielectric affinity microbiosensor. *Applied Physics Letters*, **2010**, 96, 033701	3.4	22
45	Electronic Skin from High-Throughput Fabrication of Intrinsically Stretchable Lead Zirconate Titanate Elastomer. *Research*, **2020**, 2020, 1085417	7.8	21
44	A novel Cu-metal-organic framework with two-dimensional layered topology for electrochemical detection using flexible sensors. *Nanotechnology*, **2019**, 30, 424002	3.4	20
43	The antiepileptic effect of the glycolytic inhibitor 2-deoxy-D-glucose is mediated by upregulation of K(ATP) channel subunits Kir6.1 and Kir6.2. *Neurochemical Research*, **2013**, 38, 677-85	4.6	20
42	Materials and applications of bioresorbable electronics. *Journal of Semiconductors*, **2018**, 39, 011003	2.3	19
41	Near-infrared light remotely up-regulate autophagy with spatiotemporal precision via upconversion optogenetic nanosystem. *Biomaterials*, **2019**, 199, 22-31	15.6	18
40	Aerosol printing and photonic sintering of bioresorbable zinc nanoparticle ink for transient electronics manufacturing. *Science China Information Sciences*, **2018**, 61, 1	3.4	17
39	A differential dielectric affinity glucose sensor. *Lab on A Chip*, **2014**, 14, 294-301	7.2	17
38	Thermally tunable polymer microlenses. *Applied Physics Letters*, **2008**, 92, 251904	3.4	17
37	A hydrogel-based glucose affinity microsensor. *Sensors and Actuators B: Chemical*, **2016**, 237, 992-998	8.5	16
36	A MEMS differential viscometric sensor for affinity glucose detection in continuous glucose monitoring. *Journal of Micromechanics and Microengineering*, **2013**, 23, 55020	2	16
35	Droplets as Carriers for Flexible Electronic Devices. *Advanced Science*, **2019**, 6, 1901862	13.6	13
34	Processing Techniques for Bioresorbable Nanoparticles in Fabricating Flexible Conductive Interconnects. *Materials*, **2018**, 11,	3.5	12
33	Bioresorbable Materials and Their Application in Electronics **2017**,		12
32	Development of novel glucose sensing fluids with potential application to microelectromechanical systems-based continuous glucose monitoring. *Journal of Diabetes Science and Technology*, **2008**, 2, 1066-74	4.1	11
31	Flexible Electronics and Materials for Synchronized Stimulation and Monitoring in Multi-Encephalic Regions. *Advanced Functional Materials*, **2020**, 30, 2002644	15.6	10
30	Synthesis and development of poly(N-hydroxyethyl acrylamide)-ran-3-acrylamidophenylboronic acid polymer fluid for potential application in affinity sensing of glucose. *Journal of Diabetes Science and Technology*, **2011**, 5, 1060-7	4.1	9
29	Reconfigurable Flexible Electronics Driven by Origami Magnetic Membranes. *Advanced Materials Technologies*, **2021**, 6, 2001124	6.8	9

28	Anhydride-Assisted Spontaneous Room Temperature Sintering of Printed Bioresorbable Electronics. *Advanced Functional Materials*, **2020**, 30, 1905024	15.6	9
27	Physical and Chemical Sensors on the Basis of Laser-Induced Graphene: Mechanisms, Applications, and Perspectives. *ACS Nano*, **2021**,	16.7	9
26	A comparative chemical study of PM10 in three Latin American cities: Lima, Medellín, and São Paulo. *Air Quality, Atmosphere and Health*, **2019**, 12, 1141-1152	5.6	8
25	Flexible Magnetoelectrical Devices with Intrinsic Magnetism and Electrical Conductivity. *Advanced Electronic Materials*, **2019**, 5, 1900111	6.4	8
24	Stretchable Electronics: Epidermal Electronics with Advanced Capabilities in Near-Field Communication (Small 8/2015). *Small*, **2015**, 11, 905-905	11	8
23	A MEMS Dielectric Affinity Glucose Biosensor. *Journal of Microelectromechanical Systems*, **2013**, 23, 14-20	2.5	8
22	Metal-organic frameworks as functional materials for implantable flexible biochemical sensors. *Nano Research*, **2021**, 14, 2981-3009	10	8
21	A Multichannel Flexible Optoelectronic Fiber Device for Distributed Implantable Neurological Stimulation and Monitoring. *Small*, **2021**, 17, e2005925	11	7
20	Highly sensitive ionic pressure sensor based on concave meniscus for electronic skin. *Journal of Micromechanics and Microengineering*, **2020**, 30, 015009	2	6
19	Thermally Tunable Polymer Microlenses for Biological Imaging. *Journal of Microelectromechanical Systems*, **2010**, 19, 1444-1449	2.5	4
18	Continuous monitoring of glucose in subcutaneous tissue using microfabricated differential affinity sensors. *Journal of Diabetes Science and Technology*, **2012**, 6, 1436-44	4.1	3
17	A Flexible and Stretchable 12-Lead Electrocardiogram System with Individually Deformable Interconnects. *Advanced Materials Technologies*,2100904	6.8	3
16	Water-Sintered Transient Nanocomposites Used as Electrical Interconnects for Dissolvable Consumer Electronics. *ACS Applied Materials & Interfaces*, **2021**, 13, 32136-32148	9.5	3
15	Transient Electronics: Materials for Programmed, Functional Transformation in Transient Electronic Systems (Adv. Mater. 1/2015). *Advanced Materials*, **2015**, 27, 187-187	24	2
14	Tunable flexible pressure sensor based on bioinspired capillary-driven method. *Microelectronic Engineering*, **2020**, 231, 111370	2.5	2
13	Recent development of bioresorbable electronics using additive manufacturing. *Current Opinion in Chemical Engineering*, **2020**, 28, 118-126	5.4	2
12	Implantable Flexible Electronics: Materials and Techniques for Implantable Nutrient Sensing Using Flexible Sensors Integrated with Metal–Organic Frameworks (Adv. Mater. 23/2018). *Advanced Materials*, **2018**, 30, 1870166	24	2
11	Stretchable Health Monitoring Devices/Sensors **2018**, 323-349		1

10	Bioresorbable Electronics: Mechanically Milled Irregular Zinc Nanoparticles for Printable Bioresorbable Electronics (Small 17/2017). *Small*, **2017**, 13,	11	1
9	Miniaturized soft centrifugal pumps with magnetic levitation for fluid handling. *Science Advances*, **2021**, 7, eabi7203	14.3	1
8	Bioresorbable Electronics: Anhydride-Assisted Spontaneous Room Temperature Sintering of Printed Bioresorbable Electronics (Adv. Funct. Mater. 29/2020). *Advanced Functional Materials*, **2020**, 30, 2070194	15.6	1
7	Large-Area Transient Conductive Films Obtained through Photonic Sintering of 2D Materials. *Advanced Materials Technologies*,2100439	6.8	1
6	Additive Manufacturing of Sandwich Structured Conductors for Applications in Flexible and Stretchable Electronics. *Advanced Engineering Materials*, **2021**, 23, 2100286	3.5	1
5	Micro and Nano Materials and Processing Techniques for Printed Biodegradable Electronics. *Materials Today Nano*, **2022**, 100201	9.7	1
4	Dual-path transformer-based network with equalization-generation components prediction for flexible vibrational sensor speech enhancement in the time domain. *Journal of the Acoustical Society of America*, **2022**, 151, 2814-2825	2.2	1
3	Comparison of enhancement techniques based on neural networks for attenuated voice signal captured by flexible vibration sensors on throats. *Nami Jishu Yu Jingmi Gongcheng/Nanotechnology and Precision Engineering*, **2022**, 5, 013001	2.4	0
2	Large-Area Transient Conductive Films Obtained through Photonic Sintering of 2D Materials (Adv. Mater. Technol. 2/2022). *Advanced Materials Technologies*, **2022**, 7, 2270008	6.8	
1	Flexible Optoelectronic Fibers: A Multichannel Flexible Optoelectronic Fiber Device for Distributed Implantable Neurological Stimulation and Monitoring (Small 4/2021). *Small*, **2021**, 17, 2170014	11	