Xian Huang

List of Publications by Year in descending order

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80 papers	7,783 citations	117453 34 h-index	60497 81 g-index
87 all docs	87 docs citations	87 times ranked	10392 citing authors

#	Article	IF	Citations
1	Stretchable batteries with self-similar serpentine interconnects and integrated wireless recharging systems. Nature Communications, 2013, 4, 1543.	5.8	1,169
2	Injectable, Cellular-Scale Optoelectronics with Applications for Wireless Optogenetics. Science, 2013, 340, 211-216.	6.0	1,010
3	Soft Microfluidic Assemblies of Sensors, Circuits, and Radios for the Skin. Science, 2014, 344, 70-74.	6.0	982
4	Highâ€Performance Biodegradable/Transient Electronics on Biodegradable Polymers. Advanced Materials, 2014, 26, 3905-3911.	11.1	359
5	Materials and Designs for Wireless Epidermal Sensors of Hydration and Strain. Advanced Functional Materials, 2014, 24, 3846-3854.	7.8	263
6	Materials, Designs, and Operational Characteristics for Fully Biodegradable Primary Batteries. Advanced Materials, 2014, 26, 3879-3884.	11.1	263
7	Stretchable, Wireless Sensors and Functional Substrates for Epidermal Characterization of Sweat. Small, 2014, 10, 3083-3090.	5.2	247
8	Capacitive Epidermal Electronics for Electrically Safe, Longâ€Term Electrophysiological Measurements. Advanced Healthcare Materials, 2014, 3, 642-648.	3.9	231
9	Epidermal photonic devices for quantitative imaging of temperature and thermal transport characteristics of the skin. Nature Communications, 2014, 5, 4938.	5.8	227
10	Epidermal Electronics with Advanced Capabilities in Near-Field Communication. Small, 2015, 11, 906-912.	5.2	224
11	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.	3.3	197
12	Materials for Bioresorbable Radio Frequency Electronics. Advanced Materials, 2013, 25, 3526-3531.	11.1	189
13	Fabrication and application of flexible, multimodal light-emitting devices for wireless optogenetics. Nature Protocols, 2013, 8, 2413-2428.	5.5	177
14	Biodegradable Materials for Multilayer Transient Printed Circuit Boards. Advanced Materials, 2014, 26, 7371-7377.	11.1	136
15	Materials, Processes, and Facile Manufacturing for Bioresorbable Electronics: A Review. Advanced Materials, 2018, 30, e1707624.	11.1	133
16	Epidermal Differential Impedance Sensor for Conformal Skin Hydration Monitoring. Biointerphases, 2012, 7, 52.	0.6	123
17	Epidermal Impedance Sensing Sheets for Precision Hydration Assessment and Spatial Mapping. IEEE Transactions on Biomedical Engineering, 2013, 60, 2848-2857.	2.5	95
18	Lowâ€Cost Manufacturing of Bioresorbable Conductors by Evaporationâ€“Condensationâ€Mediated Laser Printing and Sintering of Zn Nanoparticles. Advanced Materials, 2017, 29, 1700172.	11.1	88

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19	Sub-thermionic, ultra-high-gain organic transistors and circuits. Nature Communications, 2021, 12, 1928.	5.8	83
20	Materials for Programmed, Functional Transformation in Transient Electronic Systems. Advanced Materials, 2015, 27, 47-52.	11.1	81
21	Materials and Techniques for Implantable Nutrient Sensing Using Flexible Sensors Integrated with Metalâ€“Organic Frameworks. Advanced Materials, 2018, 30, e1800917.	11.1	80
22	A MEMS affinity glucose sensor using a biocompatible glucose-responsive polymer. Sensors and Actuators B: Chemical, 2009, 140, 603-609.	4.0	76
23	Multifunctional Stretchable Sensors for Continuous Monitoring of Long-Term Leaf Physiology and Microclimate. ACS Omega, 2019, 4, 9522-9530.	1.6	76
24	Epidermal radio frequency electronics for wireless power transfer. Microsystems and Nanoengineering, 2016, 2, 16052.	3.4	72
25	Physical and Chemical Sensors on the Basis of Laser-Induced Graphene: Mechanisms, Applications, and Perspectives. ACS Nano, 2021, 15, 18708-18741.	7.3	70
26	Origami NdFeB Flexible Magnetic Membranes with Enhanced Magnetism and Programmable Sequences of Polarities. Advanced Functional Materials, 2019, 29, 1904977.	7.8	55
27	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, 4265-4280.	2.7	53
28	Risk assessment of bioaccessible trace elements in smoke haze aerosols versus urban aerosols using simulated lung fluids. Atmospheric Environment, 2016, 125, 505-511.	1.9	53
29	Mechanically Milled Irregular Zinc Nanoparticles for Printable Bioresorbable Electronics. Small, 2017, 13, 1700065.	5.2	50
30	Fully Flexible Electromagnetic Vibration Sensors with Annular Field Confinement Origami Magnetic Membranes. Advanced Functional Materials, 2020, 30, 2001553.	7.8	49
31	Mechanisms and Materials of Flexible and Stretchable Skin Sensors. Micromachines, 2017, 8, 69.	1.4	46
32	Elevation of Brain Magnesium Prevents and Reverses Cognitive Deficits and Synaptic Loss in Alzheimer's Disease Mouse Model. Journal of Neuroscience, 2013, 33, 8423-8441.	1.7	43
33	Lithium normalizes elevated intracellular sodium. Bipolar Disorders, 2007, 9, 298-300.	1.1	38
34	Mutation screening of the HDC gene in Chinese Han patients with Tourette syndrome. American Journal of Medical Genetics Part B: Neuropsychiatric Genetics, 2012, 159B, 72-76.	1.1	38
35	Analysis of a concentric coplanar capacitor for epidermal hydration sensing. Sensors and Actuators A: Physical, 2013, 203, 149-153.	2.0	33
36	Electronic Skin from High-Throughput Fabrication of Intrinsically Stretchable Lead Zirconate Titanate Elastomer. Research, 2020, 2020, 1085417.	2.8	33

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37	The Antiepileptic Effect of the Glycolytic Inhibitor 2-Deoxy-d-Glucose is Mediated by Upregulation of KATP Channel Subunits Kir6.1 and Kir6.2. Neurochemical Research, 2013, 38, 677-685.	1.6	32
38	A novel Cu-metal-organic framework with two-dimensional layered topology for electrochemical detection using flexible sensors. Nanotechnology, 2019, 30, 424002.	1.3	31
39	A Capacitive MEMS Viscometric Sensor for Affinity Detection of Glucose. Journal of Microelectromechanical Systems, 2009, 18, 1246-1254.	1.7	30
40	Near-infrared light remotely up-regulate autophagy with spatiotemporal precision via upconversion optogenetic nanosystem. Biomaterials, 2019, 199, 22-31.	5.7	30
41	Flexible Electronics and Materials for Synchronized Stimulation and Monitoring in Multiâ€Encephalic Regions. Advanced Functional Materials, 2020, 30, 2002644.	7.8	27
42	Reconfigurable Flexible Electronics Driven by Origami Magnetic Membranes. Advanced Materials Technologies, 2021, 6, 2001124.	3.0	27
43	Metal-organic frameworks as functional materials for implantable flexible biochemical sensors. Nano Research, 2021, 14, 2981-3009.	5.8	26
44	Materials and applications of bioresorbable electronics. Journal of Semiconductors, 2018, 39, 011003.	2.0	25
45	Aerosol printing and photonic sintering of bioresorbable zinc nanoparticle ink for transient electronics manufacturing. Science China Information Sciences, 2018, 61, 1.	2.7	25
46	A dielectric affinity microbiosensor. Applied Physics Letters, 2010, 96, 033701.	1.5	24
47	Droplets as Carriers for Flexible Electronic Devices. Advanced Science, 2019, 6, 1901862.	5.6	23
48	A hydrogel-based glucose affinity microsensor. Sensors and Actuators B: Chemical, 2016, 237, 992-998.	4.0	22
49	A differential dielectric affinity glucose sensor. Lab on A Chip, 2014, 14, 294-301.	3.1	21
50	Highly sensitive ionic pressure sensor based on concave meniscus for electronic skin. Journal of Micromechanics and Microengineering, 2020, 30, 015009.	1.5	20
51	Thermally tunable polymer microlenses. Applied Physics Letters, 2008, 92, 251904.	1.5	19
52	A MEMS differential viscometric sensor for affinity glucose detection in continuous glucose monitoring. Journal of Micromechanics and Microengineering, 2013, 23, 055020.	1.5	19
53	Processing Techniques for Bioresorbable Nanoparticles in Fabricating Flexible Conductive Interconnects. Materials, 2018, 11, 1102.	1.3	16
54	A comparative chemical study of PM10 in three Latin American cities: Lima, MedellÃn, and SÃ£o Paulo. Air Quality, Atmosphere and Health, 2019, 12, 1141-1152.	1.5	16

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55	Development of Novel Glucose Sensing Fluids with Potential Application to Microelectromechanical Systems-Based Continuous Glucose Monitoring. Journal of Diabetes Science and Technology, 2008, 2, 1066-1074.	1.3	14
56	Anhydrideâ€Assisted Spontaneous Room Temperature Sintering of Printed Bioresorbable Electronics. Advanced Functional Materials, 2020, 30, 1905024.	7.8	14
57	Flexible Magnetoelectrical Devices with Intrinsic Magnetism and Electrical Conductivity. Advanced Electronic Materials, 2019, 5, 1900111.	2.6	13
58	A Multichannel Flexible Optoelectronic Fiber Device for Distributed Implantable Neurological Stimulation and Monitoring. Small, 2021, 17, e2005925.	5.2	12
59	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, 1060-1067.	1.3	11
60	A MEMS Dielectric Affinity Glucose Biosensor. Journal of Microelectromechanical Systems, 2014, 23, 14-20.	1.7	11
61	A Flexible and Stretchable 12â€Lead Electrocardiogram System with Individually Deformable Interconnects. Advanced Materials Technologies, 2022, 7, 2100904.	3.0	11
62	Micro and nano materials and processing techniques for printed biodegradable electronics. Materials Today Nano, 2022, 18, 100201.	2.3	11
63	Tunable flexible pressure sensor based on bioinspired capillary-driven method. Microelectronic Engineering, 2020, 231, 111370.	1.1	10
64	Thermally Tunable Polymer Microlenses for Biological Imaging. Journal of Microelectromechanical Systems, 2010, 19, 1444-1449.	1.7	8
65	Stretchable Electronics: Epidermal Electronics with Advanced Capabilities in Near-Field Communication (Small 8/2015). Small, 2015, 11, 905-905.	5.2	8
66	Miniaturized soft centrifugal pumps with magnetic levitation for fluid handling. Science Advances, 2021, 7, eabi7203.	4.7	8
67	Water-Sintered Transient Nanocomposites Used as Electrical Interconnects for Dissolvable Consumer Electronics. ACS Applied Materials & Interfaces, 2021, 13, 32136-32148.	4.0	7
68	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, .	1.7	7
69	Recent development of bioresorbable electronics using additive manufacturing. Current Opinion in Chemical Engineering, 2020, 28, 118-126.	3.8	6
70	Additive Manufacturing of Sandwichâ€“Structured Conductors for Applications in Flexible and Stretchable Electronics. Advanced Engineering Materials, 2021, 23, 2100286.	1.6	6
71	Continuous Monitoring of Glucose in Subcutaneous Tissue Using Microfabricated Differential Affinity Sensors. Journal of Diabetes Science and Technology, 2012, 6, 1436-1444.	1.3	4
72	Transient Electronics: Materials for Programmed, Functional Transformation in Transient Electronic Systems (Adv. Mater. 1/2015). Advanced Materials, 2015, 27, 187-187.	11.1	3

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73	Largeâ€Area Transient Conductive Films Obtained through Photonic Sintering of 2D Materials. Advanced Materials Technologies, 2022, 7, 2100439.	3.0	3
74	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.	0.5	3
75	Techniques to Achieve Stretchable Photovoltaic Devices from Physically Nonâ€Stretchable Devices through Chemical Thinning and Stressâ€Releasing Adhesive. Advanced Optical Materials, 2022, 10, .	3.6	3
76	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.	11.1	2
77	Bioresorbable Electronics: Mechanically Milled Irregular Zinc Nanoparticles for Printable Bioresorbable Electronics (Small 17/2017). Small, 2017, 13, .	5.2	1
78	Bioresorbable Electronics: Anhydrideâ€Assisted Spontaneous Room Temperature Sintering of Printed Bioresorbable Electronics (Adv. Funct. Mater. 29/2020). Advanced Functional Materials, 2020, 30, 2070194.	7.8	1
79	Flexible Optoelectronic Fibers: A Multichannel Flexible Optoelectronic Fiber Device for Distributed Implantable Neurological Stimulation and Monitoring (Small 4/2021). Small, 2021, 17, 2170014.	5.2	0
80	Largeâ€Area Transient Conductive Films Obtained through Photonic Sintering of 2D Materials (Adv.) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5	3.0	0