Ki Jun Yu

List of Publications by Year
in descending order

49 papers	10,777 citations	109321 35 h-index	197818 49 g-index
52 all docs	52 docs citations	52 times ranked	12685 citing authors

#	Article	IF	Citations
1	Epidermal Electronics. Science, 2011, 333, 838-843.	12.6	3,944
2	A Physically Transient Form of Silicon Electronics. Science, 2012, 337, 1640-1644.	12.6	1,085
3	Ultrathin conformal devices for precise and continuous thermal characterization of humanÂskin. Nature Materials, 2013, 12, 938-944.	27.5	1,002
4	Bioresorbable silicon electronics for transient spatiotemporal mapping of electrical activity fromÂthe cerebral cortex. Nature Materials, 2016, 15, 782-791.	27.5	400
5	Soft network composite materials with deterministic and bio-inspired designs. Nature Communications, 2015, 6, 6566.	12.8	392
6	Self-assembled three dimensional network designs for soft electronics. Nature Communications, 2017, 8, 15894.	12.8	325
7	Large-area MRI-compatible epidermal electronic interfaces for prosthetic control and cognitive monitoring. Nature Biomedical Engineering, 2019, 3, 194-205.	22.5	253
8	Soft Materials in Neuroengineering for Hard Problems in Neuroscience. Neuron, 2015, 86, 175-186.	8.1	251
9	Electronic and Thermal Properties of Graphene and Recent Advances in Graphene Based Electronics Applications. Nanomaterials, 2019, 9, 374.	4.1	238
10	Materials and Fabrication Processes for Transient and Bioresorbable Highâ€Performance Electronics. Advanced Functional Materials, 2013, 23, 4087-4093.	14.9	222
11	Capacitively coupled arrays of multiplexed flexible silicon transistors for long-term cardiac electrophysiology. Nature Biomedical Engineering, 2017, 1, .	22.5	210
12	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
13	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
14	Development of a neural interface for high-definition, long-term recording in rodents and nonhuman primates. Science Translational Medicine, 2020, 12, .	12.4	145
15	Inorganic semiconducting materials for flexible and stretchable electronics. Npj Flexible Electronics, 2017, 1, .	10.7	144
16	Inâ€Plane Deformation Mechanics for Highly Stretchable Electronics. Advanced Materials, 2017, 29, 1604989.	21.0	141
17	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
18	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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19	Multilayer Transfer Printing for Pixelated, Multicolor Quantum Dot Light-Emitting Diodes. ACS Nano, 2016, 10, 4920-4925.	14.6	115
20	Biodegradable Monocrystalline Silicon Photovoltaic Microcells as Power Supplies for Transient Biomedical Implants. Advanced Energy Materials, 2018, 8, 1703035.	19.5	98
21	Soft, wireless periocular wearable electronics for real-time detection of eye vergence in a virtual reality toward mobile eye therapies. Science Advances, 2020, 6, eaay1729.	10.3	98
22	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
23	Ultrahigh Sensitive Auâ€Doped Silicon Nanomembrane Based Wearable Sensor Arrays for Continuous Skin Temperature Monitoring with High Precision. Advanced Materials, 2022, 34, e2105865.	21.0	69
24	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
25	Compact monocrystalline silicon solar modules with high voltage outputs and mechanically flexible designs. Energy and Environmental Science, 2010, 3, 208.	30.8	65
26	Light Trapping in Ultrathin Monocrystalline Silicon Solar Cells. Advanced Energy Materials, 2013, 3, 1401-1406.	19.5	61
27	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
28	Adaptive self-healing electronic epineurium for chronic bidirectional neural interfaces. Nature Communications, 2020, 11, 4195.	12.8	60
29	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
30	Flexible and Stretchable Bio-Integrated Electronics Based on Carbon Nanotube and Graphene. Materials, 2018, 11, 1163.	2.9	54
31	Emerging Materials and Technologies with Applications in Flexible Neural Implants: A Comprehensive Review of Current Issues with Neural Devices. Advanced Materials, 2021, 33, e2005786.	21.0	51
32	Conductively coupled flexible silicon electronic systems for chronic neural electrophysiology. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E9542-E9549.	7.1	50
33	Transferred, Ultrathin Oxide Bilayers as Biofluid Barriers for Flexible Electronic Implants. Advanced Functional Materials, 2018, 28, 1702284.	14.9	49
34	Kinetics and Chemistry of Hydrolysis of Ultrathin, Thermally Grown Layers of Silicon Oxide as Biofluid Barriers in Flexible Electronic Systems. ACS Applied Materials & Interfaces, 2017, 9, 42633-42638.	8.0	45
35	Novel Nano-Materials and Nano-Fabrication Techniques for Flexible Electronic Systems. Micromachines, 2018, 9, 263.	2.9	38
36	Recent developments of emerging inorganic, metal and carbon-based nanomaterials for pressure sensors and their healthcare monitoring applications. Nano Research, 2021, 14, 3096-3111.	10.4	37

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37	Deterministic assembly of releasable single crystal silicon-metal oxide field-effect devices formed from bulk wafers. Applied Physics Letters, 2013, 102, .	3.3	34
38	On-Demand Drug Release from Gold Nanoturf for a Thermo- and Chemotherapeutic Esophageal Stent. ACS Nano, 2018, 12, 6756-6766.	14.6	34
39	Ultraâ€Low Cost, Facile Fabrication of Transparent Neural Electrode Array for Electrocorticography with Photoelectric Artifactâ€Free Optogenetics. Advanced Functional Materials, 2022, 32, .	14.9	34
40	Wireless Soft Scalp Electronics and Virtual Reality System for Motor Imageryâ€Based Brainâ€“Machine Interfaces. Advanced Science, 2021, 8, e2101129.	11.2	31
41	Ultra-Lightweight, Flexible InGaP/GaAs Tandem Solar Cells with a Dual-Function Encapsulation Layer. ACS Applied Materials & Interfaces, 2021, 13, 13248-13253.	8.0	25
42	Transparent neural implantable devices: a comprehensive review of challenges and progress. Npj Flexible Electronics, 2022, 6, .	10.7	25
43	Ultrathin, High Capacitance Capping Layers for Silicon Electronics with Conductive Interconnects in Flexible, Longâ€Lived Bioimplants. Advanced Materials Technologies, 2020, 5, 1900800.	5.8	17
44	VR-enabled portable brain-computer interfaces via wireless soft bioelectronics. Biosensors and Bioelectronics, 2022, 210, 114333.	10.1	14
45	Flexible InGaP/GaAs Tandem Solar Cells Encapsulated with Ultrathin Thermally Grown Silicon Dioxide as a Permanent Water Barrier and an Antireflection Coating. ACS Applied Energy Materials, 2022, 5, 227-233.	5.1	6
46	Stretchable Electronics: Inâ€Plane Deformation Mechanics for Highly Stretchable Electronics (Adv.) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	21.0	5
47	Light Trapping: Light Trapping in Ultrathin Monocrystalline Silicon Solar Cells (Adv. Energy Mater.) Tj ETQq1 1 0.784314 rgBT /Overlock	19.5	4
48	Flexible GaAs Photodetectors with Ultrathin Thermally Grown Silicon Dioxide as a Longâ€Lived Barrier for Chronic Biomedical Implants. Advanced Photonics Research, 2021, 2, 2000051.	3.6	4
49	Flexible Water-proof Bio-Integrated Electronics. , 2019, , .		0