Le Cai

List of Publications by Citations

51 papers	2,939 citations	28 h-index	53 g-index
53 ext. papers	3,415 ext. citations	9.7 avg, IF	5.15 L-index

#	Paper	IF	Citations
51	Super-stretchable, transparent carbon nanotube-based capacitive strain sensors for human motion detection. *Scientific Reports*, **2013**, 3, 3048	4.9	476
50	A "skeleton/skin" strategy for preparing ultrathin free-standing single-walled carbon nanotube/polyaniline films for high performance supercapacitor electrodes. *Energy and Environmental Science*, **2012**, 5, 8726	35.4	282
49	Caffeine Improves the Performance and Thermal Stability of Perovskite Solar Cells. *Joule*, **2019**, 3, 1464-1477	17.7	266
48	High-performance and compact-designed flexible thermoelectric modules enabled by a reticulate carbon nanotube architecture. *Nature Communications*, **2017**, 8, 14886	17.4	200
47	Highly Transparent and Conductive Stretchable Conductors Based on Hierarchical Reticulate Single-Walled Carbon Nanotube Architecture. *Advanced Functional Materials*, **2012**, 22, 5238-5244	15.6	136
46	Superfast-response and ultrahigh-power-density electromechanical actuators based on hierarchal carbon nanotube electrodes and chitosan. *Nano Letters*, **2011**, 11, 4636-41	11.5	127
45	Ultrashort Channel Length Black Phosphorus Field-Effect Transistors. *ACS Nano*, **2015**, 9, 9236-43	16.7	122
44	Stretchable Light-Emitting Diodes with Organometal-Halide-Perovskite-Polymer Composite Emitters. *Advanced Materials*, **2017**, 29, 1607053	24	113
43	Carbon Nanotube Flexible and Stretchable Electronics. *Nanoscale Research Letters*, **2015**, 10, 1013	5	92
42	Fully Printed Stretchable Thin-Film Transistors and Integrated Logic Circuits. *ACS Nano*, **2016**, 10, 11459-11468	16.7	89
41	Photothermal Effect Induced Negative Photoconductivity and High Responsivity in Flexible Black Phosphorus Transistors. *ACS Nano*, **2017**, 11, 6048-6056	16.7	71
40	Air-Stable Humidity Sensor Using Few-Layer Black Phosphorus. *ACS Applied Materials & Interfaces*, **2017**, 9, 10019-10026	9.5	68
39	Ultrahigh-Power-Factor Carbon Nanotubes and an Ingenious Strategy for Thermoelectric Performance Evaluation. *Small*, **2016**, 12, 3407-14	11	60
38	Fully Printed Silver-Nanoparticle-Based Strain Gauges with Record High Sensitivity. *Advanced Electronic Materials*, **2017**, 3, 1700067	6.4	55
37	Wireless, battery-free subdermally implantable photometry systems for chronic recording of neural dynamics. *Proceedings of the National Academy of Sciences of the United States of America*, **2020**, 117, 2835-2845	11.5	55
36	Direct Printing for Additive Patterning of Silver Nanowires for Stretchable Sensor and Display Applications. *Advanced Materials Technologies*, **2018**, 3, 1700232	6.8	53
35	Epidermal Supercapacitor with High Performance. *Advanced Functional Materials*, **2016**, 26, 8178-8184	15.6	45

34	Biaxially stretchable supercapacitors based on the buckled hybrid fiber electrode array. *Nanoscale*, **2015**, 7, 12492-7	7.7	44
33	Fully Printed Foldable Integrated Logic Gates with Tunable Performance Using Semiconducting Carbon Nanotubes. *Advanced Functional Materials*, **2015**, 25, 5698-5705	15.6	43
32	Black Phosphorus Schottky Diodes: Channel Length Scaling and Application as Photodetectors. *Advanced Electronic Materials*, **2016**, 2, 1500346	6.4	43
31	Hydro-actuation of hybrid carbon nanotube yarn muscles. *Nanoscale*, **2016**, 8, 17881-17886	7.7	42
30	Highly stretchable pseudocapacitors based on buckled reticulate hybrid electrodes. *Nano Research*, **2014**, 7, 1680-1690	10	41
29	Optical visualization and polarized light absorption of the single-wall carbon nanotube to verify intrinsic thermal applications. *Light: Science and Applications*, **2015**, 4, e318-e318	16.7	40
28	Single Pixel Black Phosphorus Photodetector for Near-Infrared Imaging. *Small*, **2018**, 14, 1702082	11	38
27	High performance bipolar resistive switching memory devices based on Zn2SnO4 nanowires. *Nanoscale*, **2012**, 4, 2571-4	7.7	35
26	Fully Printed Flexible Dual-Gate Carbon Nanotube Thin-Film Transistors with Tunable Ambipolar Characteristics for Complementary Logic Circuits. *ACS Nano*, **2018**, 12, 11572-11578	16.7	31
25	High performance, freestanding and superthin carbon nanotube/epoxy nanocomposite films. *Nanoscale*, **2011**, 3, 3731-6	7.7	30
24	Surface modification effect on photoluminescence of individual ZnO nanorods with different diameters. *Nanoscale*, **2013**, 5, 4443-8	7.7	29
23	Wireless and battery-free technologies for neuroengineering. *Nature Biomedical Engineering*, **2021**,	19	26
22	Temperature dependent Raman spectra of isolated suspended single-walled carbon nanotubes. *Nanoscale*, **2014**, 6, 3949-53	7.7	23
21	Wireless and battery-free platforms for collection of biosignals. *Biosensors and Bioelectronics*, **2021**, 178, 113007	11.8	22
20	CNT-based sensor arrays for local strain measurements in soft pneumatic actuators. *International Journal of Intelligent Robotics and Applications*, **2017**, 1, 157-166	1.7	18
19	Fully printed flexible carbon nanotube photodetectors. *Applied Physics Letters*, **2017**, 110, 123105	3.4	18
18	High Performance Indium-Gallium-Zinc Oxide Thin Film Transistor via Interface Engineering. *Advanced Functional Materials*, **2020**, 30, 2003285	15.6	16
17	Bolometric-Effect-Based Wavelength-Selective Photodetectors Using Sorted Single Chirality Carbon Nanotubes. *Scientific Reports*, **2015**, 5, 17883	4.9	16

16	Field-Dependent Mobility Enhancement and Contact Resistance in a-IGZO TFTs. *IEEE Transactions on Electron Devices*, **2019**, 66, 5166-5169	2.9	11
15	Capacitance-Voltage Characteristics of Thin-film Transistors Fabricated with Solution-Processed Semiconducting Carbon Nanotube Networks. *Nanoscale Research Letters*, **2015**, 10, 999	5	8
14	Substrate-induced effects on the optical properties of individual ZnO nanorods with different diameters. *Nanoscale*, **2014**, 6, 483-91	7.7	8
13	Osseosurface electronics-thin, wireless, battery-free and multimodal musculoskeletal biointerfaces. *Nature Communications*, **2021**, 12, 6707	17.4	6
12	Cluster Size Control toward High Performance Solution Processed InGaZnO Thin Film Transistors. *ACS Applied Electronic Materials*, **2019**, 1, 2483-2488	4	5
11	Carbon Nanotube Based Flexible and Stretchable Electronics **2018**, 7-51		4
10	Radiation effects in printed flexible single-walled carbon nanotube thin-film transistors. *AIP Advances*, **2019**, 9, 105121	1.5	4
9	In-situ Raman spectra of single-walled carbon nanotube/epoxy nanocomposite film under strain. *Journal of Nanoscience and Nanotechnology*, **2013**, 13, 1145-8	1.3	4
8	Soft, Wireless and subdermally implantable recording and neuromodulation tools. *Journal of Neural Engineering*, **2021**,	5	4
7	A facile method to fabricate ultrathin vertical ZnO nanowall arrays. *Journal of Nanoscience and Nanotechnology*, **2013**, 13, 1291-4	1.3	3
6	Nicotine Sensors for Wearable Battery-Free Monitoring of Vaping. *ACS Sensors*, **2021**,	9.2	3
5	Indium tin oxide nanowires grown by one-step thermal evaporation-deposition process at low temperature. *Journal of Nanoscience and Nanotechnology*, **2013**, 13, 1300-3	1.3	2
4	Optical and electrical performance of HfO2 coated ZnO nanorod arrays. *Journal of Nanoscience and Nanotechnology*, **2013**, 13, 1082-6	1.3	2
3	Temperature dependent resistance of as-grown and chemical treated single walled carbon nanotubes films. *Journal of Nanoscience and Nanotechnology*, **2013**, 13, 1327-30	1.3	
2	Comparison of transport scattering and single-particle relaxation times in modulation-doped heterostructures. *Journal of Applied Physics*, **1994**, 76, 390-394	2.5	
1	Positive-Bias Stress Stability of Solution-Processed Oxide Semiconductor Thin-Film Transistor. *IEEE Transactions on Electron Devices*, **2022**, 1-5	2.9	