Kuniharu Takei

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46 151 12,574 111 h-index g-index citations papers 6.62 169 14,346 10.3 L-index avg, IF ext. citations ext. papers

#	Paper	IF	Citations
151	High-performance single layered WSelp-FETs with chemically doped contacts. <i>Nano Letters</i> , 2012 , 12, 3788-92	11.5	1322
150	Nanowire active-matrix circuitry for low-voltage macroscale artificial skin. <i>Nature Materials</i> , 2010 , 9, 82	1 26 7	1013
149	User-interactive electronic skin for instantaneous pressure visualization. <i>Nature Materials</i> , 2013 , 12, 89	9 <i>-2</i> 904	911
148	Degenerate n-doping of few-layer transition metal dichalcogenides by potassium. <i>Nano Letters</i> , 2013 , 13, 1991-5	11.5	567
147	Optically- and thermally-responsive programmable materials based on carbon nanotube-hydrogel polymer composites. <i>Nano Letters</i> , 2011 , 11, 3239-44	11.5	411
146	Flexible Electronics toward Wearable Sensing. Accounts of Chemical Research, 2019, 52, 523-533	24.3	378
145	Toward the Development of Printable Nanowire Electronics and Sensors. <i>Advanced Materials</i> , 2009 , 21, 3730-3743	24	336
144	Fully printed, high performance carbon nanotube thin-film transistors on flexible substrates. <i>Nano Letters</i> , 2013 , 13, 3864-9	11.5	334
143	Ultrathin compound semiconductor on insulator layers for high-performance nanoscale transistors. <i>Nature</i> , 2010 , 468, 286-9	50.4	327
142	Wearable, Human-Interactive, Health-Monitoring, Wireless Devices Fabricated by Macroscale Printing Techniques. <i>Advanced Functional Materials</i> , 2014 , 24, 3299-3304	15.6	323
141	Printed Carbon Nanotube Electronics and Sensor Systems. <i>Advanced Materials</i> , 2016 , 28, 4397-414	24	284
140	Multifunctional Skin-Inspired Flexible Sensor Systems for Wearable Electronics. <i>Advanced Materials Technologies</i> , 2019 , 4, 1800628	6.8	258
139	Extremely bendable, high-performance integrated circuits using semiconducting carbon nanotube networks for digital, analog, and radio-frequency applications. <i>Nano Letters</i> , 2012 , 12, 1527-33	11.5	258
138	Ordered arrays of dual-diameter nanopillars for maximized optical absorption. <i>Nano Letters</i> , 2010 , 10, 3823-7	11.5	249
137	Carbon nanotube active-matrix backplanes for conformal electronics and sensors. <i>Nano Letters</i> , 2011 , 11, 5408-13	11.5	245
136	Carbon nanotube electronicsmoving forward. Chemical Society Reviews, 2013, 42, 2592-609	58.5	243
135	Fully printed, highly sensitive multifunctional artificial electronic whisker arrays integrated with strain and temperature sensors. <i>ACS Nano</i> , 2014 , 8, 3921-7	16.7	238

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134	Toward flexible and wearable human-interactive health-monitoring devices. <i>Advanced Healthcare Materials</i> , 2015 , 4, 487-500	10.1	229
133	p-Type InP nanopillar photocathodes for efficient solar-driven hydrogen production. <i>Angewandte Chemie - International Edition</i> , 2012 , 51, 10760-4	16.4	226
132	Photoactuators and motors based on carbon nanotubes with selective chirality distributions. <i>Nature Communications</i> , 2014 , 5, 2983	17.4	223
131	Toward Flexible Surface-Enhanced Raman Scattering (SERS) Sensors for Point-of-Care Diagnostics. <i>Advanced Science</i> , 2019 , 6, 1900925	13.6	218
130	Wearable, Flexible, and Multifunctional Healthcare Device with an ISFET Chemical Sensor for Simultaneous Sweat pH and Skin Temperature Monitoring. <i>ACS Sensors</i> , 2017 , 2, 443-448	9.2	214
129	Fully printed flexible fingerprint-like three-axis tactile and slip force and temperature sensors for artificial skin. <i>ACS Nano</i> , 2014 , 8, 12851-7	16.7	213
128	Dramatic reduction of surface recombination by in situ surface passivation of silicon nanowires. <i>Nano Letters</i> , 2011 , 11, 2527-32	11.5	211
127	Metal-catalyzed crystallization of amorphous carbon to graphene. <i>Applied Physics Letters</i> , 2010 , 96, 063	13 1. p	208
126	Printed multifunctional flexible device with an integrated motion sensor for health care monitoring. <i>Science Advances</i> , 2016 , 2, e1601473	14.3	202
125	Highly sensitive electronic whiskers based on patterned carbon nanotube and silver nanoparticle composite films. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014 , 111, 1703-7	11.5	191
124	Efficient Skin Temperature Sensor and Stable Gel-Less Sticky ECG Sensor for a Wearable Flexible Healthcare Patch. <i>Advanced Healthcare Materials</i> , 2017 , 6, 1700495	10.1	152
123	A wearable pH sensor with high sensitivity based on a flexible charge-coupled device. <i>Nature Electronics</i> , 2018 , 1, 596-603	28.4	106
122	Nanopillar photovoltaics: Materials, processes, and devices. <i>Nano Energy</i> , 2012 , 1, 132-144	17.1	100
121	Parallel array InAs nanowire transistors for mechanically bendable, ultrahigh frequency electronics. <i>ACS Nano</i> , 2010 , 4, 5855-60	16.7	94
120	Highly selective flexible tactile strain and temperature sensors against substrate bending for an artificial skin. <i>RSC Advances</i> , 2015 , 5, 30170-30174	3.7	88
119	Quantum confinement effects in nanoscale-thickness InAs membranes. <i>Nano Letters</i> , 2011 , 11, 5008-12	11.5	88
118	Carbon nanotube active-matrix backplanes for mechanically flexible visible light and X-ray imagers. <i>Nano Letters</i> , 2013 , 13, 5425-30	11.5	76
117	Nanoscale InGaSb heterostructure membranes on Si substrates for high hole mobility transistors. Nano Letters, 2012 , 12, 2060-6	11.5	74

116	III-V complementary metal-oxide-semiconductor electronics on silicon substrates. <i>Nano Letters</i> , 2012 , 12, 3592-5	11.5	74
115	High-performance, mechanically flexible, and vertically integrated 3D carbon nanotube and InGaZnO complementary circuits with a temperature sensor. <i>Advanced Materials</i> , 2015 , 27, 4674-80	24	73
114	Nanoscale Bipolar and Complementary Resistive Switching Memory Based on Amorphous Carbon. <i>IEEE Transactions on Electron Devices</i> , 2011 , 58, 3933-3939	2.9	72
113	Short-channel transistors constructed with solution-processed carbon nanotubes. <i>ACS Nano</i> , 2013 , 7, 798-803	16.7	68
112	Highly stable kirigami-structured stretchable strain sensors for perdurable wearable electronics. Journal of Materials Chemistry C, 2019 , 7, 9609-9617	7.1	67
111	Self-aligned, extremely high frequency III-V metal-oxide-semiconductor field-effect transistors on rigid and flexible substrates. <i>Nano Letters</i> , 2012 , 12, 4140-5	11.5	67
110	Black Ge based on crystalline/amorphous core/shell nanoneedle arrays. <i>Nano Letters</i> , 2010 , 10, 520-3	11.5	65
109	Monolayer resist for patterned contact printing of aligned nanowire arrays. <i>Journal of the American Chemical Society</i> , 2009 , 131, 2102-3	16.4	64
108	Nanoscale doping of InAs via sulfur monolayers. <i>Applied Physics Letters</i> , 2009 , 95, 072108	3.4	63
107	Multimodal Plant Healthcare Flexible Sensor System. <i>ACS Nano</i> , 2020 , 14, 10966-10975	16.7	50
106	Roll-to-roll anodization and etching of aluminum foils for high-throughput surface nanotexturing. <i>Nano Letters</i> , 2011 , 11, 3425-30	11.5	49
105	Molecular monolayers for conformal, nanoscale doping of InP nanopillar photovoltaics. <i>Applied Physics Letters</i> , 2011 , 98, 203101	3.4	46
104	Flexible carbon-nanofiber connectors with anisotropic adhesion properties. Small, 2010, 6, 22-6	11	41
103	Nanoscale semiconductor "X" on substrate "Y"processes, devices, and applications. <i>Advanced Materials</i> , 2011 , 23, 3115-27	24	39
102	Physical and Chemical Sensing With Electronic Skin. <i>Proceedings of the IEEE</i> , 2019 , 107, 2155-2167	14.3	37
101	Air Ambient-Operated pNIPAM-Based Flexible Actuators Stimulated by Human Body Temperature and Sunlight. <i>ACS Applied Materials & Interfaces</i> , 2015 , 7, 11002-6	9.5	37
100	Benchmarking the performance of ultrathin body InAs-on-insulator transistors as a function of body thickness. <i>Applied Physics Letters</i> , 2011 , 99, 103507	3.4	37
99	A Wearable Body Condition Sensor System with Wireless Feedback Alarm Functions. <i>Advanced Materials</i> , 2021 , 33, e2008701	24	37

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98	Mechanically Flexible and High-Performance CMOS Logic Circuits. <i>Scientific Reports</i> , 2015 , 5, 15099	4.9	36
97	Highly Precise Multifunctional Thermal Management-Based Flexible Sensing Sheets. <i>ACS Nano</i> , 2019 , 13, 14348-14356	16.7	35
96	p-Type InP Nanopillar Photocathodes for Efficient Solar-Driven Hydrogen Production. <i>Angewandte Chemie</i> , 2012 , 124, 10918-10922	3.6	34
95	Textile-Based Flexible Tactile Force Sensor Sheet. <i>Advanced Functional Materials</i> , 2019 , 29, 1807957	15.6	34
94	Human-Like Electronic Skin-Integrated Soft Robotic Hand. <i>Advanced Intelligent Systems</i> , 2019 , 1, 19000	18	33
93	Multifunctional, flexible electronic systems based on engineered nanostructured materials. <i>Nanotechnology</i> , 2012 , 23, 344001	3.4	32
92	Spin-On Organic Polymer Dopants for Silicon. <i>Journal of Physical Chemistry Letters</i> , 2013 , 4, 3741-3746	6.4	31
91	Hierarchical polymer micropillar arrays decorated with ZnO nanowires. <i>Nanotechnology</i> , 2010 , 21, 2953	0 5 .4	30
90	High quality interfaces of InAs-on-insulator field-effect transistors with ZrO2 gate dielectrics. <i>Applied Physics Letters</i> , 2013 , 102, 153513	3.4	29
89	Flexible Hybrid Sensor Systems with Feedback Functions. <i>Advanced Functional Materials</i> , 2020 , 31, 2007	4366	28
88	Shape-controlled synthesis of single-crystalline nanopillar arrays by template-assisted vapor-liquid-solid process. <i>Journal of the American Chemical Society</i> , 2010 , 132, 13972-4	16.4	28
87	Electrical interfacing between neurons and electronics via vertically integrated sub-4 microm-diameter silicon probe arrays fabricated by vapor-liquid-solid growth. <i>Biosensors and Bioelectronics</i> , 2010 , 25, 1809-15	11.8	27
86	A Planar, Multisensing Wearable Health Monitoring Device Integrated with Acceleration, Temperature, and Electrocardiogram Sensors. <i>Advanced Materials Technologies</i> , 2017 , 2, 1700057	6.8	25
85	Printed wearable temperature sensor for health monitoring 2014,		23
84	Out-of-plane microtube arrays for drug deliveryliquid flow properties and an application to the nerve block test. <i>Biomedical Microdevices</i> , 2009 , 11, 539-45	3.7	23
83	Ultrathin-Body High-Mobility InAsSb-on-Insulator Field-Effect Transistors. <i>IEEE Electron Device Letters</i> , 2012 , 33, 504-506	4.4	22
82	Rationally Designed, Three-Dimensional Carbon Nanotube Back-Contacts for Efficient Solar Devices. <i>Advanced Energy Materials</i> , 2011 , 1, 1040-1045	21.8	22
81	Nanoscale structural engineering via phase segregation: Au-Ge system. <i>Nano Letters</i> , 2010 , 10, 393-7	11.5	20

80	Strain engineering of epitaxially transferred, ultrathin layers of III-V semiconductor on insulator. <i>Applied Physics Letters</i> , 2011 , 98, 012111	3.4	19
79	Enlarged gold-tipped silicon microprobe arrays and signal compensation for multi-site electroretinogram recordings in the isolated carp retina. <i>Biosensors and Bioelectronics</i> , 2011 , 26, 2368-	75 ^{11.8}	18
78	Surface Charge Transfer Doping of IIIIV Nanostructures. <i>Journal of Physical Chemistry C</i> , 2013 , 117, 178	453.18784	19 17
77	High optical quality polycrystalline indium phosphide grown on metal substrates by metalorganic chemical vapor deposition. <i>Journal of Applied Physics</i> , 2012 , 111, 123112	2.5	17
76	Photoresponse of graphene field-effect-transistor with n-type Si depletion layer gate. <i>Scientific Reports</i> , 2018 , 8, 4811	4.9	15
75	Morphological and spatial control of InP growth using closed-space sublimation. <i>Journal of Applied Physics</i> , 2012 , 112, 123102	2.5	15
74	Wireless and Flexible Skin Moisture and Temperature Sensor Sheets toward the Study of Thermoregulator Center. <i>Advanced Healthcare Materials</i> , 2021 , 10, e2100103	10.1	14
73	Photoactivation of Strong Photoluminescence in Superacid-Treated Monolayer Molybdenum Disulfide. <i>ACS Applied Materials & Disulfide</i> , 12, 36496-36504	9.5	13
72	Highly Stable LiquidBolid Metal Contact Toward Multilayered Detachable Flexible Devices. <i>Advanced Electronic Materials</i> , 2015 , 1, 1500080	6.4	13
71	Development of a compact neutron source based on field ionization processes. <i>Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics</i> , 2011 , 29, 02B107	1.3	13
70	Highly stable Pd/HNbO-based flexible humidity sensor for perdurable wireless wearable applications. <i>Nanoscale Horizons</i> , 2021 , 6, 260-270	10.8	13
69	Bendable CMOS Digital and Analog Circuits Monolithically Integrated with a Temperature Sensor. <i>Advanced Materials Technologies</i> , 2016 , 1, 1600058	6.8	12
68	An all-solution-processed tactile memory flexible device integrated with a NiO ReRAM. <i>Journal of Materials Chemistry C</i> , 2016 , 4, 9261-9265	7.1	12
67	Artificially controlled synthesis of graphene intramolecular heterojunctions for phonon engineering. <i>Physica Status Solidi - Rapid Research Letters</i> , 2014 , 8, 692-697	2.5	11
66	Resonance Control of a Graphene Drum Resonator in a Nonlinear Regime by a Standing Wave of Light. <i>ACS Omega</i> , 2017 , 2, 5792-5797	3.9	11
65	Highly photosensitive graphene field-effect transistor with optical memory function. <i>Scientific Reports</i> , 2015 , 5, 15491	4.9	11
64	Enhancing the Thermoelectric Device Performance of Graphene Using Isotopes and Isotopic Heterojunctions. <i>Advanced Electronic Materials</i> , 2015 , 1, 1500175	6.4	11
63	Out-of-plane electric whiskers based on nanocarbon strain sensors for multi-directional detection. <i>Carbon</i> , 2020 , 158, 698-703	10.4	11

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62	Effects of palladium coating on field-emission properties of carbon nanofibers in a hydrogen plasma. <i>Thin Solid Films</i> , 2013 , 534, 488-491	2.2	10	
61	Microtube-based electrode arrays for low invasive extracellular recording with a high signal-to-noise ratio. <i>Biomedical Microdevices</i> , 2010 , 12, 41-8	3.7	10	
60	Multimodal Wearable Sensor Sheet for Health-Related Chemical and Physical Monitoring. <i>ACS Sensors</i> , 2021 , 6, 1918-1924	9.2	10	
59	Oscillation control of carbon nanotube mechanical resonator by electrostatic interaction induced retardation. <i>Scientific Reports</i> , 2016 , 6, 22600	4.9	10	
58	Effect of defect-induced carrier scattering on the thermoelectric power of graphene. <i>Applied Physics Letters</i> , 2017 , 110, 263501	3.4	9	
57	Flexible Electronics: Wearable, Human-Interactive, Health-Monitoring, Wireless Devices Fabricated by Macroscale Printing Techniques (Adv. Funct. Mater. 22/2014). <i>Advanced Functional Materials</i> , 2014 , 24, 3298-3298	15.6	8	
56	Human-interactive multi-functional electronic wallpaper integrated with sensors and memory. <i>Materials Horizons</i> , 2017 , 4, 1079-1084	14.4	8	
55	Printable and foldable electrodes based on a carbon nanotubepolymer composite. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2014 , 211, 2631-2634	1.6	8	
54	High performance, flexible CMOS circuits and sensors toward wearable healthcare applications 2016 ,		8	
53	Carbon Nanotubes: Printed Carbon Nanotube Electronics and Sensor Systems (Adv. Mater. 22/2016). <i>Advanced Materials</i> , 2016 , 28, 4396	24	7	
52	Effect of buffer layer on photoresponse of MoS2 phototransistor. <i>Japanese Journal of Applied Physics</i> , 2018 , 57, 06HB01	1.4	6	
51	Flapping-Wing Dynamics as a Natural Detector of Wind Direction. <i>Advanced Intelligent Systems</i> , 2021 , 3, 2000174	6	6	
50	A Multi-Tasking Flexible Sensor via Reservoir Computing Advanced Materials, 2022, e2201663	24	6	
49	Graphene and Carbon Nanotube Heterojunction Transistors with Individual Gate Control. <i>ACS Nano</i> , 2019 , 13, 4771-4777	16.7	5	
48	Wrist flexible heart pulse sensor integrated with a soft pump and a pneumatic balloon membrane <i>RSC Advances</i> , 2020 , 10, 17353-17358	3.7	5	
47	Transformable Pneumatic Balloon-Type Soft Robot Using Attachable Shells. <i>Advanced Materials Technologies</i> , 2020 , 5, 2000201	6.8	5	
46	A soft lithographic approach to fabricate InAs nanowire field-effect transistors. <i>Scientific Reports</i> , 2018 , 8, 3204	4.9	5	
45	Release and nonvolatile operation of carbon nanotube nanorelay by resonant vibration. <i>Applied Physics Letters</i> , 2013 , 103, 203504	3.4	5	

44	Graphitic interfacial layer to carbon nanotube for low electrical contact resistance 2010,		5
43	Very Thin, Macroscale, Flexible, Tactile Pressure Sensor Sheet. <i>ACS Omega</i> , 2020 , 5, 17721-17725	3.9	5
42	Detachable Flexible ISFET-Based pH Sensor Array with a Flexible Connector. <i>Advanced Electronic Materials</i> , 2020 , 6, 2000583	6.4	5
41	Carbon Nanotube Based Flexible and Stretchable Electronics 2018 , 7-51		4
40	Tuning of the temperature dependence of the resonance frequency shift in atomically thin mechanical resonators with van der Waals heterojunctions. <i>2D Materials</i> , 2018 , 5, 045022	5.9	4
39	Superhydrophobic and Self-cleaning Macrosize Surfaces of Silicone Rubber and Its Mechanical Flexibility. <i>BioNanoScience</i> , 2014 , 4, 301-305	3.4	4
38	Direct measurement of optical trapping force gradient on polystyrene microspheres using a carbon nanotube mechanical resonator. <i>Scientific Reports</i> , 2017 , 7, 2825	4.9	4
37	In-situ optical microscopy observations of the growth of individual carbon nanocoils. <i>Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics</i> , 2014 , 32, 031807	1.3	4
36	Cantilevered carbon nanotube hygrometer. <i>Applied Physics Letters</i> , 2014 , 104, 193104	3.4	4
35	Out-of-Plane Microtube Arrays for Biomedical Sensors Using Vapor-Liquid-Solid Growth Method. <i>IEEE Sensors Journal</i> , 2008 , 8, 470-475	4	4
34	Self-Organization of Remote Reservoirs: Transferring Computation to Spatially Distant Locations. <i>Advanced Intelligent Systems</i> ,2100166	6	4
33	Active-Matrix-Based Flexible Optical Image Sensor. <i>Advanced Materials Technologies</i> , 2021 , 6, 2100259	6.8	4
32	Electronic Skin-Integrated Soft Robotic Hand 2019 ,		3
31	Reduction of carbon byproducts for high-purity carbon nanocoil growth by suppressing catalyst collision. <i>Carbon</i> , 2015 , 89, 225-231	10.4	3
30	Resistive switching of carbon-based RRAM with CNT electrodes for ultra-dense memory 2010 ,		3
29	Conductive Nanosheets for Ultra-Conformable Smart Electronics 2018 , 253-285		2
28	Flexible Supercapacitors Based on Two-Dimensional Materials 2018 , 161-197		2
27	An extremely highly selective flexible compliant tactile touch sensor sheet. <i>Physica Status Solidi (A)</i> Applications and Materials Science, 2016 , 213, 2345-2351	1.6	2

26	Flexible and high selective pressure sensitive rubber for tactile sensing 2016 ,		2
25	Printed Multifunctional Flexible Healthcare Patch 2018,		2
24	Planar-Type Printed Flexible Mechanical Switch. Advanced Electronic Materials, 2018, 4, 1800134	6.4	2
23	Stretchable Health Monitoring Devices/Sensors 2018 , 323-349		1
22	Flexible Floating Gate Memory 2018 , 215-228		1
21	History of Flexible and Stretchable Devices 2018 , 1-6		1
20	Flexible/Stretchable Devices for Medical Applications 2018 , 351-380		1
19	Flexible and Stretchable Wireless Systems 2018 , 229-252		1
18	Inorganic material-based flexible CMOS circuit and optical sensor 2015,		1
17	Wearable Flexible Sensor Sheets toward Continuous Healthcare Monitoring. <i>Journal of Japan Institute of Electronics Packaging</i> , 2020 , 23, 347-352	0.1	1
16	All-Solution-Based Heterogeneous Material Formation for p-n Junction Diodes. <i>ACS Applied Materials & ACS Applied Materials & ACS Applied</i>	9.5	1
15	Controlling the thermal conductivity of multilayer graphene by strain. Scientific Reports, 2021, 11, 19533	4.9	1
14	Wireless, minimized, stretchable, and breathable electrocardiogram sensor system. <i>Applied Physics Reviews</i> , 2022 , 9, 011425	17.3	1
13	Dielectric actuation of optically transparent electromechanical resonator consisting of a cantilevered hexagonal boron nitride sheet. <i>Applied Physics Express</i> , 2019 , 12, 105001	2.4	O
12	Light-induced persistent resonance frequency shift of MoS2 mechanical resonator. <i>Applied Physics Express</i> , 2021 , 14, 035003	2.4	O
11	A wearable, flexible sensor for real-time, home monitoring of sleep apnea IScience, 2022, 25, 104163	6.1	O
10	9-2: Flexible Sensors and Memory Integration Toward Electronic Wallpaper. <i>Digest of Technical Papers SID International Symposium</i> , 2019 , 50, 99-101	0.5	
9	Implantable Flexible Sensors for Neural Recordings 2018 , 381-410		

- 8 Printed Transistors and Sensors **2018**, 83-104
- 7 Flexible Health-Monitoring Devices/Sensors **2018**, 287-321
- Organometal Halide Perovskites for Next Generation Fully Printed and Flexible LEDs and Displays **2018**, 199-214
- 5 Flexible Photovoltaic Systems **2018**, 105-137
- Perspective in Flexible and Stretchable Electronics 2018, 411-411
- 3 Organic-Based Transistors and Sensors **2018**, 53-81
- Materials Design for Flexible Thermoelectric Power Generators **2018**, 139-160
- Wearable Sensors: A Wearable Body Condition Sensor System with Wireless Feedback Alarm Functions (Adv. Mater. 18/2021). *Advanced Materials*, **2021**, 33, 2170141

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