

Kenjiro Fukuda

List of Publications by Year in descending order

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100
papers

6,880
citations

57631

44
h-index

60497

81
g-index

105
all docs

105
docs citations

105
times ranked

7498
citing authors

#	ARTICLE	IF	CITATIONS
1	Flexible organic photodetectors and their use in wearable systems. , 2022, 125, 103145.		13
2	Developing the Nondevelopable: Creating Curvedâ€Surface Electronics from Nonstretchable Devices. Advanced Materials, 2022, 34, e2106683.	11.1	22
3	Smart Face Mask Based on an Ultrathin Pressure Sensor for Wireless Monitoring of Breath Conditions. Advanced Materials, 2022, 34, e2107758.	11.1	75
4	Roadmap on soft robotics: multifunctionality, adaptability and growth without borders. Multifunctional Materials, 2022, 5, 032001.	2.4	37
5	Ultrathin and Efficient Organic Photovoltaics with Enhanced Air Stability by Suppression of Zinc Element Diffusion. Advanced Science, 2022, 9, e2105288.	5.6	24
6	Smart Face Mask Based on an Ultrathin Pressure Sensor for Wireless Monitoring of Breath Conditions (Adv. Mater. 6/2022). Advanced Materials, 2022, 34, .	11.1	4
7	Solution-Processed Electron-Transport Layer-free Organic Photovoltaics with Liquid Metal Cathodes. ACS Applied Materials & Interfaces, 2022, 14, 14165-14173.	4.0	11
8	Flexible Thin-Film Device for Powering Soft Robots. Journal of Robotics and Mechatronics, 2022, 34, 227-230.	0.5	4
9	Flexible self-charging power sources. Nature Reviews Materials, 2022, 7, 870-886.	23.3	159
10	Airâ€Stable Ultraâ€Flexible Organic Photonic System for Cardiovascular Monitoring. Advanced Materials Technologies, 2022, 7, .	3.0	5
11	Developing the Nondevelopable: Creating Curvedâ€Surface Electronics from Nonstretchable Devices (Adv. Mater. 22/2022). Advanced Materials, 2022, 34, .	11.1	0
12	Antimicrobial second skin using copper nanomesh. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	3.3	10
13	Ultraflexible Integrated Organic Electronics for Ultrasensitive Photodetection. Advanced Materials Technologies, 2021, 6, .	3.0	15
14	Well-rounded devices: the fabrication of electronics on curved surfaces â€ a review. Materials Horizons, 2021, 8, 1926-1958.	6.4	39
15	Simultaneous measurement of contractile force and field potential of dynamically beating human iPSC-derived cardiac cell sheet-tissue with flexible electronics. Lab on A Chip, 2021, 21, 3899-3909.	3.1	9
16	Flexible organic thin-film transistor immunosensor printed on a one-micron-thick film. Communications Materials, 2021, 2, .	2.9	42
17	Recent Progress of Flexible Image Sensors for Biomedical Applications. Advanced Materials, 2021, 33, e2004416.	11.1	117
18	Self-powered ultraflexible photonic skin for continuous bio-signal detection via air-operation-stable polymer light-emitting diodes. Nature Communications, 2021, 12, 2234.	5.8	121

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19	Photoactive layer formation in the dark for high performance of air-processable organic photovoltaics. <i>JPhys Materials</i> , 2021, 4, 044016.	1.8	4
20	Stretchable organic optoelectronic devices: Design of materials, structures, and applications. <i>Materials Science and Engineering Reports</i> , 2021, 146, 100631.	14.8	48
21	Direct gold bonding for flexible integrated electronics. <i>Science Advances</i> , 2021, 7, eabl6228.	4.7	25
22	Efficient and Mechanically Robust Ultraflexible Organic Solar Cells Based on Mixed Acceptors. <i>Joule</i> , 2020, 4, 128-141.	11.7	101
23	Robust metal ion-chelated polymer interfacial layer for ultraflexible non-fullerene organic solar cells. <i>Nature Communications</i> , 2020, 11, 4508.	5.8	141
24	The Future of Flexible Organic Solar Cells. <i>Advanced Energy Materials</i> , 2020, 10, 2000765.	10.2	391
25	Supercapacitors: An Efficient Ultraflexible Photocharging System Integrating Organic Photovoltaics and Supercapacitors (<i>Adv. Energy Mater.</i> 20/2020). <i>Advanced Energy Materials</i> , 2020, 10, 2070090.	10.2	4
26	Highly efficient organic photovoltaics with enhanced stability through the formation of doping-induced stable interfaces. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 6391-6397.	3.3	53
27	Nanograting Structured Ultrathin Substrate for Ultraflexible Organic Photovoltaics. <i>Small Methods</i> , 2020, 4, 1900762.	4.6	18
28	An Efficient Ultraflexible Photocharging System Integrating Organic Photovoltaics and Supercapacitors. <i>Advanced Energy Materials</i> , 2020, 10, 2000523.	10.2	46
29	Ultraflexible Organic Photovoltaics: Nanograting Structured Ultrathin Substrate for Ultraflexible Organic Photovoltaics (<i>Small Methods</i> 3/2020). <i>Small Methods</i> , 2020, 4, 2070013.	4.6	0
30	Organic Photovoltaics: Toward Self-Powered Wearable Electronics. <i>Proceedings of the IEEE</i> , 2019, 107, 2137-2154.	16.4	56
31	Highly Stretchable Metallic Nanowire Networks Reinforced by the Underlying Randomly Distributed Elastic Polymer Nanofibers via Interfacial Adhesion Improvement. <i>Advanced Materials</i> , 2019, 31, e1903446.	11.1	106
32	Flexible Electronics: Highly Stretchable Metallic Nanowire Networks Reinforced by the Underlying Randomly Distributed Elastic Polymer Nanofibers via Interfacial Adhesion Improvement (<i>Adv. Mater.</i>)	11.1	106
33	A Highly Responsive Organic Image Sensor Based on a Two-Terminal Organic Photodetector with Photomultiplication. <i>Advanced Materials</i> , 2019, 31, e1903687.	11.1	123
34	Ultrathin Organic Electrochemical Transistor with Nonvolatile and Thin Gel Electrolyte for Long-Term Electrophysiological Monitoring. <i>Advanced Functional Materials</i> , 2019, 29, 1906982.	7.8	79
35	High Operation Stability of Ultraflexible Organic Solar Cells with Ultraviolet-Filtering Substrates. <i>Advanced Materials</i> , 2019, 31, e1808033.	11.1	44
36	Durable Ultraflexible Organic Photovoltaics with Novel Metal-Free Cathode. <i>Advanced Functional Materials</i> , 2019, 29, 1808378.	7.8	34

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37	Ultrasoft electronics to monitor dynamically pulsing cardiomyocytes. <i>Nature Nanotechnology</i> , 2019, 14, 156-160.	15.6	195
38	Thermally stable, highly efficient, ultraflexible organic photovoltaics. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, 4589-4594.	3.3	106
39	Self-powered ultra-flexible electronics via nano-grating-patterned organic photovoltaics. <i>Nature</i> , 2018, 561, 516-521.	13.7	743
40	Transparent Electrodes: Reverse-Offset Printed Ultrathin Ag Mesh for Robust Conformal Transparent Electrodes for High-Performance Organic Photovoltaics (<i>Adv. Mater.</i> 26/2018). <i>Advanced Materials</i> , 2018, 30, 1870190.	11.1	2
41	Low-Power Monolithically Stacked Organic Photodiode-Blocking Diode Imager by Turn-On Voltage Engineering. <i>Advanced Electronic Materials</i> , 2018, 4, 1800311.	2.6	18
42	Ultraflexible Near-Infrared Organic Photodetectors for Conformal Photoplethysmogram Sensors. <i>Advanced Materials</i> , 2018, 30, e1802359.	11.1	171
43	Reverse-Offset Printed Ultrathin Ag Mesh for Robust Conformal Transparent Electrodes for High-Performance Organic Photovoltaics. <i>Advanced Materials</i> , 2018, 30, e1707526.	11.1	59
44	Simple action potential measurement of cardiac cell sheet utilizing electronic sheet. <i>Artificial Life and Robotics</i> , 2018, 23, 321-327.	0.7	2
45	High Mobility WS_2 Transistors Realized by Multilayer Graphene Electrodes and Application to High Responsivity Flexible Photodetectors. <i>Advanced Functional Materials</i> , 2017, 27, 1703448.	7.8	113
46	Stretchable and waterproof elastomer-coated organic photovoltaics for washable electronic textile applications. <i>Nature Energy</i> , 2017, 2, 780-785.	19.8	369
47	Printing Technology: Recent Progress in the Development of Printed Thin-Film Transistors and Circuits with High-Resolution Printing Technology (<i>Adv. Mater.</i> 25/2017). <i>Advanced Materials</i> , 2017, 29, .	11.1	2
48	Recent Progress in the Development of Printed Thin-Film Transistors and Circuits with High-Resolution Printing Technology. <i>Advanced Materials</i> , 2017, 29, 1602736.	11.1	243
49	Recent progress of fully-printed and ultra-flexible integrated circuits. , 2016, , .		0
50	Fully printed and flexible ferroelectric capacitors based on a ferroelectric polymer for pressure detection. <i>Japanese Journal of Applied Physics</i> , 2016, 55, 10TA18.	0.8	14
51	Fabrication of Ultra-Thin Printed Organic TFT CMOS Logic Circuits Optimized for Low-Voltage Wearable Sensor Applications. <i>Scientific Reports</i> , 2016, 6, 25714.	1.6	134
52	Free-Standing Organic Transistors and Circuits with Sub-Micron Thicknesses. <i>Scientific Reports</i> , 2016, 6, 27450.	1.6	39
53	Printed 2 V-operating organic inverter arrays employing a small-molecule/polymer blend. <i>Scientific Reports</i> , 2016, 6, 34723.	1.6	41
54	Three-Dimensional, Inkjet-Printed Organic Transistors and Integrated Circuits with 100% Yield, High Uniformity, and Long-Term Stability. <i>ACS Nano</i> , 2016, 10, 10324-10330.	7.3	112

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55	The effect of mechanical strain on contact resistance in flexible printed organic thin-film transistors. <i>Flexible and Printed Electronics</i> , 2016, 1, 035005.	1.5	11
56	Ultrathin flexible memory devices based on organic ferroelectric transistors. <i>Japanese Journal of Applied Physics</i> , 2016, 55, 10TA04.	0.8	7
57	Vertically Stacked Complementary Organic Field-Effect Transistors and Logic Circuits Fabricated by Inkjet Printing. <i>Advanced Electronic Materials</i> , 2016, 2, 1600046.	2.6	31
58	Enhanced memory characteristics in organic ferroelectric field-effect transistors through thermal annealing. <i>AIP Advances</i> , 2015, 5, .	0.6	4
59	Reverse-Offset Printing Optimized for Scalable Organic Thin-Film Transistors with Submicrometer Channel Lengths. <i>Advanced Electronic Materials</i> , 2015, 1, 1500145.	2.6	67
60	Biosensors: Printed Organic Transistors with Uniform Electrical Performance and Their Application to Amplifiers in Biosensors (<i>Adv. Electron. Mater.</i> 7/2015). <i>Advanced Electronic Materials</i> , 2015, 1, .	2.6	3
61	Flip-flop logic circuit based on fully solution-processed organic thin film transistor devices with reduced variations in electrical performance. <i>Japanese Journal of Applied Physics</i> , 2015, 54, 04DK03.	0.8	17
62	Cysteine detection in water using an organic field-effect transistor with a gold extended-gate electrode. <i>Japanese Journal of Applied Physics</i> , 2015, 54, 04DK01.	0.8	10
63	Extended-gate organic field-effect transistor for the detection of histamine in water. <i>Japanese Journal of Applied Physics</i> , 2015, 54, 04DK02.	0.8	16
64	Enhanced adhesion mechanisms between printed nano-silver electrodes and underlying polymer layers. <i>Nanotechnology</i> , 2015, 26, 321001.	1.3	20
65	A novel OFET-based biosensor for the selective and sensitive detection of lactate levels. <i>Biosensors and Bioelectronics</i> , 2015, 74, 45-48.	5.3	98
66	Printed Organic Transistors with Uniform Electrical Performance and Their Application to Amplifiers in Biosensors. <i>Advanced Electronic Materials</i> , 2015, 1, 1400052.	2.6	71
67	Control of threshold voltage in organic thin-film transistors by modifying gate electrode surface with MoOX aqueous solution and inverter circuit applications. <i>Applied Physics Letters</i> , 2015, 106, .	1.5	20
68	Printed Organic Thin-Film Transistors. , 2015, , 139-154.		3
69	Highly stable flexible printed organic thin-film transistor devices under high strain conditions using semiconducting polymers. <i>Japanese Journal of Applied Physics</i> , 2015, 54, 04DK10.	0.8	13
70	Inkjet-printed copper electrodes using photonic sintering and their application to organic thin-film transistors. <i>Organic Electronics</i> , 2015, 25, 131-134.	1.4	52
71	A Label-Free Immunosensor for IgG Based on an Extended-Gate Type Organic Field Effect Transistor. <i>Materials</i> , 2014, 7, 6843-6852.	1.3	53
72	Accurate and reproducible detection of proteins in water using an extended-gate type organic transistor biosensor. <i>Applied Physics Letters</i> , 2014, 104, .	1.5	85

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73	15.1: <i>Invited Paper</i>: Printed Organic TFT Array and Integrated Circuits. Digest of Technical Papers SID International Symposium, 2014, 45, 180-182.	0.1	4
74	An extended-gate type organic field effect transistor functionalised by phenylboronic acid for saccharide detection in water. Chemical Communications, 2014, 50, 15613-15615.	2.2	65
75	Fine patterning method for silver nanoparticle electrodes using differential hydrophobic and hydrophilic surface properties. Japanese Journal of Applied Physics, 2014, 53, 04EK01.	0.8	6
76	Fully-printed high-performance organic thin-film transistors and circuitry on one-micron-thick polymer films. Nature Communications, 2014, 5, 4147.	5.8	337
77	High-speed operation in printed organic inverter circuits with short channel length. Organic Electronics, 2014, 15, 2696-2701.	1.4	30
78	Improvement of mechanical durability on organic TFT with printed electrodes prepared from nanoparticle ink. Applied Surface Science, 2014, 294, 20-23.	3.1	19
79	Fully Solution-Processed Flexible Organic Thin Film Transistor Arrays with High Mobility and Exceptional Uniformity. Scientific Reports, 2014, 4, 3947.	1.6	187
80	Integrated circuits using fully solution-processed organic TFT devices with printed silver electrodes. Organic Electronics, 2013, 14, 3362-3370.	1.4	47
81	Suppression of threshold voltage shifts in organic thin-film transistors with bilayer gate dielectrics. Physica Status Solidi (A) Applications and Materials Science, 2013, 210, 839-844.	0.8	13
82	Strain sensitivity and durability in p-type and n-type organic thin-film transistors with printed silver electrodes. Scientific Reports, 2013, 3, 2048.	1.6	50
83	Profile Control of Inkjet Printed Silver Electrodes and Their Application to Organic Transistors. ACS Applied Materials & Interfaces, 2013, 5, 3916-3920.	4.0	107
84	Patterning Method for Silver Nanoparticle Electrodes in Fully Solution-Processed Organic Thin-Film Transistors Using Selectively Treated Hydrophilic and Hydrophobic Surfaces. Japanese Journal of Applied Physics, 2013, 52, 05DB05.	0.8	11
85	Stable organic thin-film transistors using full solution-processing and low-temperature sintering silver nanoparticle inks. Organic Electronics, 2012, 13, 1660-1664.	1.4	31
86	Organic transistors with high thermal stability for medical applications. Nature Communications, 2012, 3, 723.	5.8	290
87	Organic integrated circuits using room-temperature sintered silver nanoparticles as printed electrodes. Organic Electronics, 2012, 13, 3296-3301.	1.4	46
88	Reverse DC bias stress shifts in organic thin-film transistors with gate dielectrics using parylene. Physica Status Solidi (A) Applications and Materials Science, 2012, 209, 2073-2077.	0.8	31
89	Organic Thin-film Transistors Fabricated by Printing Technology. Journal of the Society of Mechanical Engineers, 2012, 115, 463-466.	0.0	0
90	Investigation of organic thin-film transistors for electrostatic discharge applications. , 2011, , .		0

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91	Study of Organic Thin-Film Transistors Under Electrostatic Discharge Stresses. IEEE Electron Device Letters, 2011, 32, 967-969.	2.2	11
92	Organic Pseudo-CMOS Circuits for Low-Voltage Large-Gain High-Speed Operation. IEEE Electron Device Letters, 2011, 32, 1448-1450.	2.2	61
93	Fe ₃ Si nanodots epitaxially grown on Si(111) substrates using ultrathin SiO ₂ film technique. Thin Solid Films, 2011, 519, 8512-8515.	0.8	8
94	Pseudo-CMOS: A Design Style for Low-Cost and Robust Flexible Electronics. IEEE Transactions on Electron Devices, 2011, 58, 141-150.	1.6	213
95	A 4 V Operation, Flexible Braille Display Using Organic Transistors, Carbon Nanotube Actuators, and Organic Static Random Access Memory. Advanced Functional Materials, 2011, 21, 4019-4027.	7.8	128
96	Control of threshold voltage in low-voltage organic complementary inverter circuits with floating gate structures. Applied Physics Letters, 2011, 98, .	1.5	56
97	Pseudo-CMOS: A novel design style for flexible electronics. , 2010, , .		9
98	Thermal stability of organic thin-film transistors with self-assembled monolayer dielectrics. Applied Physics Letters, 2010, 96, 053302.	1.5	48
99	Effects of the alkyl chain length in phosphonic acid self-assembled monolayer gate dielectrics on the performance and stability of low-voltage organic thin-film transistors. Applied Physics Letters, 2009, 95, .	1.5	117
100	Effects of annealing on electronic and structural characteristics of pentacene thin-film transistors on polyimide gate dielectrics. Applied Physics Letters, 2009, 95, .	1.5	24