

# Junya Suehiro

## List of Publications by Year in descending order

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94  
papers

2,467  
citations

279701

23  
h-index

197736

49  
g-index

95  
all docs

95  
docs citations

95  
times ranked

2133  
citing authors

#	ARTICLE	IF	CITATIONS
1	Fabrication of a carbon nanotube-based gas sensor using dielectrophoresis and its application for ammonia detection by impedance spectroscopy. <i>Journal Physics D: Applied Physics</i> , 2003, 36, L109-L114.	1.3	276
2	Dielectrophoretic fabrication and characterization of a ZnO nanowire-based UV photosensor. <i>Nanotechnology</i> , 2006, 17, 2567-2573.	1.3	211
3	Selective detection of viable bacteria using dielectrophoretic impedance measurement method. <i>Journal of Electrostatics</i> , 2003, 57, 157-168.	1.0	187
4	Controlled fabrication of carbon nanotube NO <sub>2</sub> gas sensor using dielectrophoretic impedance measurement. <i>Sensors and Actuators B: Chemical</i> , 2005, 108, 398-403.	4.0	141
5	Quantitative estimation of biological cell concentration suspended in aqueous medium by using dielectrophoretic impedance measurement method. <i>Journal Physics D: Applied Physics</i> , 1999, 32, 2814-2820.	1.3	139
6	Detection of partial discharge in SF <sub>6</sub> gas using a carbon nanotube-based gas sensor. <i>Sensors and Actuators B: Chemical</i> , 2005, 105, 164-169.	4.0	127
7	Schottky-type response of carbon nanotube NO <sub>2</sub> gas sensor fabricated onto aluminum electrodes by dielectrophoresis. <i>Sensors and Actuators B: Chemical</i> , 2006, 114, 943-949.	4.0	124
8	The dielectrophoretic movement and positioning of a biological cell using a three-dimensional grid electrode system. <i>Journal Physics D: Applied Physics</i> , 1998, 31, 3298-3305.	1.3	94
9	Selective detection of bacteria by a dielectrophoretic impedance measurement method using an antibody-immobilized electrode chip. <i>Sensors and Actuators B: Chemical</i> , 2006, 119, 319-326.	4.0	81
10	A rapid bacteria detection technique utilizing impedance measurement combined with positive and negative dielectrophoresis. <i>Sensors and Actuators B: Chemical</i> , 2013, 181, 439-445.	4.0	76
11	High sensitive detection of biological cells using dielectrophoretic impedance measurement method combined with electroporation. <i>Sensors and Actuators B: Chemical</i> , 2003, 96, 144-151.	4.0	75
12	Dielectrophoretic filter for separation and recovery of biological cells in water. <i>IEEE Transactions on Industry Applications</i> , 2003, 39, 1514-1521.	3.3	75
13	Selective detection of specific bacteria using dielectrophoretic impedance measurement method combined with an antigen-antibody reaction. <i>Journal of Electrostatics</i> , 2003, 58, 229-246.	1.0	66
14	Analysis of PD-generated SF <sub>6</sub> decomposition gases adsorbed on carbon nanotubes. <i>IEEE Transactions on Dielectrics and Electrical Insulation</i> , 2006, 13, 1200-1207.	1.8	58
15	Application of dielectrophoresis to fabrication of carbon nanohorn gas sensor. <i>Journal of Electrostatics</i> , 2006, 64, 408-415.	1.0	52
16	Enhancement of microplasma-based water-solubilization of single-walled carbon nanotubes using gas bubbling in water. <i>Nanotechnology</i> , 2007, 18, 335602.	1.3	52
17	Preparation of water-soluble carbon nanotubes using a pulsed streamer discharge in water. <i>Nanotechnology</i> , 2006, 17, 3421-3427.	1.3	51
18	Improvement of electric pulse shape for electroporation-assisted dielectrophoretic impedance measurement for high sensitive bacteria detection. <i>Sensors and Actuators B: Chemical</i> , 2005, 109, 209-215.	4.0	50

#	ARTICLE	IF	CITATIONS
19	Fabrication of interfaces between carbon nanotubes and catalytic palladium using dielectrophoresis and its application to hydrogen gas sensor. <i>Sensors and Actuators B: Chemical</i> , 2007, 127, 505-511.	4.0	50
20	Effect of mixing ratio on NO <sub>2</sub> gas sensor response with SnO <sub>2</sub> -decorated carbon nanotube channels fabricated by one-step dielectrophoretic assembly. <i>Sensors and Actuators B: Chemical</i> , 2021, 344, 130257.	4.0	41
21	Dielectrophoresis and dielectrophoretic impedance detection of adenovirus and rotavirus. <i>Japanese Journal of Applied Physics</i> , 2016, 55, 017001.	0.8	33
22	Detection of SF <sub>6</sub> decomposition products generated by DC corona discharge using a carbon nanotube gas sensor. <i>IEEE Transactions on Dielectrics and Electrical Insulation</i> , 2012, 19, 671-676.	1.8	28
23	Fabrication and characterization of nanomaterial-based sensors using dielectrophoresis. <i>Biomicrofluidics</i> , 2010, 4, 022804.	1.2	23
24	Gas sensor using single-wall carbon nanohorns. <i>Advanced Powder Technology</i> , 2007, 18, 455-466.	2.0	20
25	Detection of partial discharge in SF <sub>6</sub> gas using a carbon nanotube-based gas sensor. <i>Sensors and Actuators B: Chemical</i> , 2005, 105, 164-169.	4.0	20
26	Production of Carbon Nanoparticles Using Pulsed Arc Discharge Triggered by Dielectric Breakdown in Water. <i>Japanese Journal of Applied Physics</i> , 2003, 42, L1483-L1485.	0.8	18
27	Fabrication of bio/nano interfaces between biological cells and carbon nanotubes using dielectrophoresis. <i>Microfluidics and Nanofluidics</i> , 2008, 5, 741-747.	1.0	18
28	Rapid microbead-based DNA detection using dielectrophoresis and impedance measurement. <i>Europhysics Letters</i> , 2014, 108, 28003.	0.7	17
29	DC corona discharge from floating particle in low pressure SF <sub>6</sub> . <i>IEEE Transactions on Dielectrics and Electrical Insulation</i> , 2006, 13, 1208-1216.	1.8	16
30	AC particle-triggered corona discharge in low pressure SF <sub>6</sub> gas. <i>IEEE Transactions on Dielectrics and Electrical Insulation</i> , 2007, 14, 91-100.	1.8	16
31	Factors affecting PD detection in GIS using a carbon nanotube gas sensor. <i>IEEE Transactions on Dielectrics and Electrical Insulation</i> , 2007, 14, 718-725.	1.8	15
32	Effects of pH on Water-Solubilization of Carbon Nanotube Using Microplasma in Aqueous Solution. <i>Japanese Journal of Applied Physics</i> , 2009, 48, 065004.	0.8	11
33	Response properties of nitrogen dioxide gas sensors with tin oxide decorated carbon nanotube channel fabricated by two-step dielectrophoretic assembly. <i>AIP Advances</i> , 2020, 10, .	0.6	10
34	Wire Particle Motion Behavior and Breakdown Characteristics around Different Shaped Spacers within Diverging Air Gap. <i>IEEJ Transactions on Power and Energy</i> , 2003, 123, 1288-1295.	0.1	10
35	Chemical Detection of SF <sub>6</sub> Decomposition Products Generated by AC and DC Corona Discharges Using a Carbon Nanotube Gas Sensor. <i>Advanced Materials Research</i> , 0, 699, 909-914.	0.3	9
36	Simple microfluidic device for detecting the negative dielectrophoresis of DNA labeled microbeads. <i>Biomicrofluidics</i> , 2019, 13, 064109.	1.2	9

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37	Characteristics of NbTi Mechanical Persistent Current Switch and Mechanism of Superconducting Connection at Contact.. TEION KOGAKU (Journal of Cryogenics and Superconductivity Society of) Tj ETQq1 1 0.784314 rgBT9/Overlo		
38	Improvement of the Ozone Generation Efficiency by Silent Discharge at Cryogenic Temperature. IEEJ Transactions on Fundamentals and Materials, 2004, 124, 791-796.	0.2	8
39	Comparison of Sensitivity and Quantitation between Microbead Dielectrophoresis-Based DNA Detection and Real-Time PCR. Biosensors, 2017, 7, 44.	2.3	8
40	Time-resolved imaging of the electrical breakdown of planar microelectrode gap in atmospheric air. Journal of Electrostatics, 2017, 87, 167-172.	1.0	7
41	Modes and characteristics of corona discharge in high-temperature air. Electrical Engineering in Japan (English Translation of Denki Gakkai Ronbunshi), 1988, 108, 10-21.	0.2	6
42	Estimation of partial discharge onset characteristics in gases around a triple junction. Electrical Engineering in Japan (English Translation of Denki Gakkai Ronbunshi), 2003, 144, 1-11.	0.2	6
43	Corona Discharge Mechanism and Breakdown Voltage Characteristics from Metallic Floating Particle in SF6 Gas under dc Voltage. , 2006, , .		6
44	Carbon Nanotube-Based Hydrogen Gas Sensor Electrochemically Functionalized with Palladium. , 2007, , .		6
45	Effects of gas bubbling on water-solubilization of carbon nanotube using microplasma generated in water. Surface and Coatings Technology, 2008, 202, 5271-5274.	2.2	6
46	Optical observations of partial discharge-induced bubbles generated in subcooled liquid nitrogen at atmospheric pressure. IEEE Transactions on Dielectrics and Electrical Insulation, 2008, 15, 620-625.	1.8	6
47	Characterization of Extra-Cellular Vesicle Dielectrophoresis and Estimation of Its Electric Properties. Sensors, 2022, 22, 3279.	2.1	6
48	Dielectrophoretic Assembly of Semiconducting Carbon Nanotubes Separated and Enriched by Spin Column Chromatography and Its Application to Gas Sensing. Japanese Journal of Applied Physics, 2012, 51, 045102.	0.8	5
49	Pretreatment of cell membranes for improved electropermeabilization-assisted dielectrophoretic impedance measurement. Sensors and Actuators B: Chemical, 2012, 173, 676-681.	4.0	5
50	DNA detection using microbeads-based dielectrophoretic impedance measurement. , 2014, , .		5
51	Concentration of bacteria in high conductive medium using negative dielectrophoresis. , 2015, , .		5
52	Frequency-dependent conductance change of dielectrophoretic-trapped DNA-labeled microbeads and its application in DNA size determinations. Microfluidics and Nanofluidics, 2018, 22, 1.	1.0	5
53	Effect of a thin insulation film on thermal bubble-triggered breakdown phenomena in liquid nitrogen. Electrical Engineering in Japan (English Translation of Denki Gakkai Ronbunshi), 1999, 127, 18-28.	0.2	4
54	Production of magnetic iron oxide nanoparticles by using graphite arc discharge in Fe(OH) <sub>3</sub> colloidal solution. Electronics and Communications in Japan, 2008, 91, 55-62.	0.3	4

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55	Electrical detection of norovirus capsid using dielectrophoretic impedance measurement method. , 2012, , .		4
56	DNA-induced changes in traveling wave dielectrophoresis velocity of microparticles. AIP Advances, 2020, 10, .	0.6	4
57	Dielectrophoretic properties of submicron diamond particles in sodium chloride aqueous solution. Japanese Journal of Applied Physics, 2020, 59, 046502.	0.8	4
58	Enhancement and Stabilization of Pulsed Streamer Discharge in Water by Adding Carbon Nanotubes. Japanese Journal of Applied Physics, 2010, 49, 086203.	0.8	3
59	Detection of norovirus and rotavirus by dielectrophoretic impedance measurement. , 2013, , .		3
60	Detection of acetylene dissolved in insulation oil using pt-decorated ZnO gas sensor. , 2016, , .		3
61	Bacterial detection based on polymerase chain reaction and microbead dielectrophoresis characteristics. IET Nanobiotechnology, 2017, 11, 562-567.	1.9	3
62	Rapid and low-cost amplicon visualization for nucleic acid amplification tests using magnetic microbeads. Analyst, The, 2021, 146, 2818-2824.	1.7	3
63	Particle-initiated Breakdown Characteristics around Spacer under Lightning Impulse Voltage Superimposed on Pre-stressed DC. IEEE Transactions on Fundamentals and Materials, 2004, 124, 547-552.	0.2	3
64	Dielectrophoretic Assembly of Semiconducting Carbon Nanotubes Separated and Enriched by Spin Column Chromatography and Its Application to Gas Sensing. Japanese Journal of Applied Physics, 2012, 51, 045102.	0.8	3
65	The similarity relationship in unipolar ion flow fields with rod-to-plane gaps.. IEEE Transactions on Fundamentals and Materials, 1987, 107, 233-240.	0.2	3
66	Methods for the improvement of electrical insulation in vacuum in the presence of transverse magnetic field. Electrical Engineering in Japan (English Translation of Denki Gakkai Ronbunshi), 1990, 110, 27-35.	0.2	2
67	Influence of gap length on the gas-puff z-pinch plasma produced by an inductive pulsed power system. Electrical Engineering in Japan (English Translation of Denki Gakkai Ronbunshi), 2003, 144, 1-8.	0.2	2
68	Quench time lag of NbTi mechanical PCS with ramped current waveforms. Cryogenics, 2003, 43, 19-24.	0.9	2
69	Solubilization of Single-Walled Carbon Nanotubes Using Ozone Generated by Dielectric Barrier Discharge. Japanese Journal of Applied Physics, 2010, 49, 055002.	0.8	2
70	Effect of DNA length on dielectrophoretic characteristics of DNA-labeled microbeads. , 2015, , .		2
71	Dielectrophoretic modification of carbon nanotube with ZnO nanoparticles for NO <sub>2</sub> gas sensing. , 2016, , .		2
72	Influence of liquid temperature and electrode size on insulated breakdown characteristics in saturated superfluid helium. Electrical Engineering in Japan (English Translation of Denki Gakkai) Tj ETQq0 0 0 rgBT (Overlock)10 Tf 50 5		

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73	Production of Magnetic Iron Oxide Nanoparticles by using Graphite Arc Discharge in Fe(OH) <sub>3</sub> Colloidal Solution. IEEJ Transactions on Fundamentals and Materials, 2006, 126, 349-354.	0.2	1
74	Identification of DC corona generating SF <sub>6</sub> decomposition gases adsorbed on CNT gas sensor using FTIR spectroscopy. , 2010, , .		1
75	Fabrication of a Large-Scale Conductive Composite Film Containing Electrically Aligned Carbon Nanotubes. Advanced Materials Research, 2013, 699, 513-518.	0.3	1
76	Solution-Based Fabrication of Carbon Nanotube Gas Sensor by Using Dielectrophoresis and Spin-Column Chromatography. Advanced Materials Research, 2013, 699, 915-920.	0.3	1
77	Higher throughput of optical detection of bacteria concentrated by negative dielectrophoresis. , 2013, , .		1
78	DNA detection microfluidic device based on negative dielectrophoresis of DNA labeled microbeads. , 2017, , .		1
79	Partial Discharge Characteristics in an Artificial Air-filled Void under Superimposed Sinusoidal Voltages at LN <sub>2</sub> Temperature. IEEJ Transactions on Power and Energy, 2003, 123, 1280-1287.	0.1	1
80	Response of a Carbon Nanotube Gas Sensor to Impulse Discharges in SF <sub>6</sub> Gas. IEEJ Transactions on Fundamentals and Materials, 2012, 132, 978-979.	0.2	1
81	Modes and characteristics of corona discharge in high temperature air.. IEEJ Transactions on Fundamentals and Materials, 1987, 107, 379-386.	0.2	1
82	Methods for the improvement of electrical insulation in vacuum in the presence of transverse magnetic field.. IEEJ Transactions on Fundamentals and Materials, 1989, 109, 375-382.	0.2	1
83	Sensitive and quantitative DNA detection by beads-based dielectrophoretic impedance measurement. , 2015, , .		0
84	Dielectrophoretic fabrication and characterization of ZnO nanowire-based acetylene gas sensor. , 2015, , .		0
85	Breakup of carbon nanotube aggregates under high electric field and its application to nanocomposite film. , 2016, , .		0
86	Evaluation on Insulation Performance of Snow Accreted Insulators by using Artificial Snow Created in a Laboratory. IEEJ Transactions on Fundamentals and Materials, 2017, 137, 590-597.	0.2	0
87	Detection of SARS-CoV-2 Gene by Microbeads Dielectrophoresis-based DNA Detection Method. IEEJ Transactions on Sensors and Micromachines, 2021, 141, 233-236.	0.0	0
88	Solubilization of Carbon Nanotubes Using Microplasma Generated in Water. Transactions of the Materials Research Society of Japan, 2007, 32, 517-522.	0.2	0
89	Dielectrophoretic Manipulation of Nanomaterials and its Application to Device Fabrication. IEEJ Transactions on Fundamentals and Materials, 2009, 129, 435-438.	0.2	0
90	Electrical Conductivity Enhancement of a Large-scale Composite Film Containing Electrically Aligned Carbon Nanotubes. IEEJ Transactions on Fundamentals and Materials, 2012, 132, 980-981.	0.2	0

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91	Sensitivity Improvement of Dielectrophoretic Impedance Measurement by Bacteria Concentration using Negative Dielectrophoresis. IEEJ Transactions on Sensors and Micromachines, 2016, 136, 148-152.	0.0	0
92	DNA Detection Method based on the Microbead Velocity under Traveling Wave Dielectrophoresis. , 2019, , .		0
93	Applications of dielectrophoresis in life science. Denki Eido, 2020, 64, 15-18.	0.0	0
94	A New Scheme for Residual CF4 Detection in Gas-Insulated Switchgear Using Plasma-induced CF4 Decomposition into CO2. , 2020, , .		0