

Takashi Nagase

List of Publications by Year in descending order

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108
papers

1,430
citations

331670

21
h-index

414414

32
g-index

111
all docs

111
docs citations

111
times ranked

1710
citing authors

#	ARTICLE	IF	CITATIONS
1	Determination of Charge-Carrier Mobility in Organic Light-Emitting Diodes by Impedance Spectroscopy in Presence of Localized States. Japanese Journal of Applied Physics, 2008, 47, 8965.	1.5	66
2	Fabrication of nano-gap electrodes for measuring electrical properties of organic molecules using a focused ion beam. Thin Solid Films, 2003, 438-439, 374-377.	1.8	55
3	Direct fabrication of nano-gap electrodes by focused ion beam etching. Thin Solid Films, 2006, 499, 279-284.	1.8	55
4	Solution-Processed Dioctylbenzothienobenzothiophene-Based Top-Gate Organic Transistors with High Mobility, Low Threshold Voltage, and High Electrical Stability. Applied Physics Express, 2010, 3, 121601.	2.4	50
5	Temperature dependence of photoluminescence properties in a thermally activated delayed fluorescence emitter. Applied Physics Letters, 2014, 104, .	3.3	48
6	Contributions of a Higher Triplet Excited State to the Emission Properties of a Thermally Activated Delayed-Fluorescence Emitter. Physical Review Applied, 2017, 7, .	3.8	45
7	Determination of localized-state distributions in organic light-emitting diodes by impedance spectroscopy. Applied Physics Letters, 2009, 94, .	3.3	43
8	Soluble Organic Semiconductor Precursor with Specific Phase Separation for High-Performance Printed Organic Transistors. Advanced Materials, 2015, 27, 727-732.	21.0	43
9	Influence of injection barrier on the determination of charge-carrier mobility in organic light-emitting diodes by impedance spectroscopy. Thin Solid Films, 2008, 517, 1331-1334.	1.8	42
10	High resolution measurement of localized-state distributions from transient photoconductivity in amorphous and polymeric semiconductors. Journal of Applied Physics, 1999, 86, 5026-5035.	2.5	39
11	Low-Temperature Processable Organic-Inorganic Hybrid Gate Dielectrics for Solution-Based Organic Field-Effect Transistors. Advanced Materials, 2010, 22, 4706-4710.	21.0	39
12	Device characteristics of short-channel polymer field-effect transistors. Applied Physics Letters, 2010, 97, .	3.3	36
13	Optical memory characteristics of solution-processed organic transistors with self-organized organic floating gates for printable multi-level storage devices. Organic Electronics, 2019, 67, 109-115.	2.6	31
14	Factors associated with presence and severity of toenail onychomycosis in patients with diabetes: A cross-sectional study. International Journal of Nursing Studies, 2011, 48, 1101-1108.	5.6	29
15	Maskless fabrication of nanoelectrode structures with nanogaps by using Ga focused ion beams. Microelectronic Engineering, 2005, 78-79, 253-259.	2.4	28
16	Equivalent circuits of polymer light-emitting diodes with hole-injection layer studied by impedance spectroscopy. Thin Solid Films, 2008, 517, 1327-1330.	1.8	25
17	High-performance and electrically stable solution-processed polymer field-effect transistors with a top-gate configuration. Japanese Journal of Applied Physics, 2015, 54, 011601.	1.5	25
18	Localized-state distributions in molecularly doped polymers determined from time-of-flight transient photocurrent. Journal of Applied Physics, 2000, 88, 252-259.	2.5	24

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19	Control of the Singlet-Triplet Energy Gap in a Thermally Activated Delayed Fluorescence Emitter by Using a Polar Host Matrix. <i>Nanoscale Research Letters</i> , 2017, 12, 268.	5.7	23
20	Drastic Improvement in Wettability of 6,13-Bis(triisopropylsilylethynyl)pentacene by Addition of Silica Nanoparticles for Solution-Processable Organic Field-Effect Transistors. <i>Applied Physics Express</i> , 2010, 3, 091602.	2.4	22
21	High operational stability of solution-processed organic field-effect transistors with top-gate configuration. <i>Organic Electronics</i> , 2016, 32, 65-69.	2.6	22
22	Electron injection in inverted organic light-emitting diodes with poly(ethyleneimine) electron injection layers. <i>Organic Electronics</i> , 2017, 50, 290-295.	2.6	21
23	Triplet-triplet annihilation in a thermally activated delayed fluorescence emitter lightly doped in a host. <i>Applied Physics Letters</i> , 2018, 113, .	3.3	21
24	Density of states in amorphous semiconductors determined from transient photoconductivity experiment: Computer simulation and experiment. <i>Journal of Non-Crystalline Solids</i> , 1996, 198-200, 363-366.	3.1	20
25	Analysis of time-of-flight transient photocurrent in organic semiconductors with coplanar-blocking-electrodes configuration. <i>Thin Solid Films</i> , 2008, 516, 2595-2599.	1.8	18
26	Air-mediated self-organization of polymer semiconductors for high-performance solution-processable organic transistors. <i>Applied Physics Letters</i> , 2011, 98, 063304.	3.3	18
27	Mobility enhancement in solution-processable organic transistors through polymer chain alignment by roll-transfer printing. <i>Organic Electronics</i> , 2011, 12, 2140-2143.	2.6	17
28	Characterization of transport properties of organic semiconductors using impedance spectroscopy. <i>Journal of Materials Science: Materials in Electronics</i> , 2015, 26, 4463-4474.	2.2	17
29	Fabrication and Characterization of Poly(3-hexylthiophene)-Based Field-Effect Transistors with Silsesquioxane Gate Insulators. <i>Japanese Journal of Applied Physics</i> , 2008, 47, 3196.	1.5	16
30	Continuous-wave photoinduced absorption studies in polythiophene and fullerene blended thin films. <i>Physical Review B</i> , 2011, 83, .	3.2	16
31	High performance top-gate field-effect transistors based on poly(3-alkylthiophenes) with different alkyl chain lengths. <i>Organic Electronics</i> , 2014, 15, 372-377.	2.6	16
32	Inverted organic light-emitting diodes with an electrochemically deposited zinc oxide electron injection layer. <i>Journal of Applied Physics</i> , 2016, 120, 185501.	2.5	16
33	Determination of deep trapping lifetime in organic semiconductors using impedance spectroscopy. <i>Applied Physics Letters</i> , 2016, 108, 053305.	3.3	16
34	Fabrication of Au-molecule-Au junctions using electromigration method. <i>Thin Solid Films</i> , 2006, 499, 90-94.	1.8	15
35	Transient photoconductivity study of localized-state distributions in metallophthalocyanines. <i>Thin Solid Films</i> , 1998, 331, 82-88.	1.8	14
36	Electrically programmable multilevel nonvolatile memories based on solution-processed organic floating-gate transistors. <i>Applied Physics Letters</i> , 2021, 118, .	3.3	14

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37	Preparation and Optical Properties of Aligned $\hat{\Gamma}^2$ -Phase Polyfluorene Thin Films. Japanese Journal of Applied Physics, 2007, 46, L1093-L1095.	1.5	13
38	Anisotropic optical properties of aligned $\hat{\Gamma}^2$ -phase polyfluorene thin films. Thin Solid Films, 2008, 517, 1324-1326.	1.8	13
39	Effect of non-chlorinated solvents on the enhancement of field-effect mobility in dioctylbenzothienobenzothiophene-based top-gate organic transistors processed by spin coating. Organic Electronics, 2019, 69, 181-189.	2.6	13
40	Intersystem Crossing Rate in Thermally Activated Delayed Fluorescence Emitters. Physica Status Solidi (A) Applications and Materials Science, 2020, 217, 1900616.	1.8	13
41	Correlation between the crystallization of polyfluorene and the surface free energy of substrates. Thin Solid Films, 2008, 517, 1340-1342.	1.8	12
42	Effective Europium Coordination Luminophores Linked with Bi- and Tridentate Carbazole Phosphine Oxides for Organic Electroluminescent Devices. Journal of Physical Chemistry C, 2018, 122, 9599-9605.	3.1	12
43	Fowler-Nordheim Tunneling in Electromigrated Break Junctions with Porphyrin Molecules. Japanese Journal of Applied Physics, 2007, 46, 2683-2686.	1.5	11
44	Observation of negative differential resistance and single-electron tunneling in electromigrated break junctions. Thin Solid Films, 2008, 516, 2762-2766.	1.8	11
45	Effects of Bimolecular Recombination on Impedance Spectra in Organic Semiconductors: Analytical Approach. Journal of Nanoscience and Nanotechnology, 2016, 16, 3322-3326.	0.9	11
46	Determination of free carrier recombination lifetime in amorphous semiconductors: application to the study of iodine doping effect in arsenic triselenide. Journal of Non-Crystalline Solids, 1998, 227-230, 824-828.	3.1	10
47	Improvement of energy resolution of transient photoconductivity analysis for measuring localized-state distributions in amorphous semiconductors. Journal of Non-Crystalline Solids, 2000, 266-269, 367-371.	3.1	10
48	Effective control of surface property on poly(silsesquioxane) films by chemical modification. Thin Solid Films, 2008, 517, 1335-1339.	1.8	10
49	Electroabsorption study of ordered polyfluorene thin films: Origin of oscillatory structure near the bottom of the continuum state. Physical Review B, 2010, 81, .	3.2	10
50	Determination of Carrier Lifetime in Bulk-Heterojunction Solar Cells by Continuous-Wave Photoinduced Absorption Spectroscopy. Applied Physics Express, 2011, 4, 126602.	2.4	10
51	Polysilsesquioxanes for Gate-Insulating Materials of Organic Thin-Film Transistors. International Journal of Polymer Science, 2012, 2012, 1-10.	2.7	10
52	Angular distribution of field-effect mobility in oriented poly[5,5-bis(3-dodecyl-2-thienyl)-2,2'-bithiophene] fabricated by roll-transfer printing. Applied Physics Letters, 2014, 104, .	3.3	10
53	Modulated Photocurrent Spectroscopy for Determination of Electron and Hole Mobilities in Working Organic Solar Cells. Scientific Reports, 2019, 9, 20346.	3.3	10
54	Inverted organic light-emitting diodes using different transparent conductive oxide films as a cathode. Japanese Journal of Applied Physics, 2016, 55, 03DC06.	1.5	9

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55	Determination of Interface-State Distributions in Polymer-Based Metal-Insulator-Semiconductor Capacitors by Impedance Spectroscopy. <i>Applied Sciences (Switzerland)</i> , 2018, 8, 1493.	2.5	9
56	Maskless fabrication of nanogap electrodes by using Ga-focused ion beam etching. <i>Journal of Micro/Nanolithography, MEMS, and MOEMS</i> , 2006, 5, 011006.	0.9	8
57	Field-effect transistor characteristics and microstructure of regioregular poly(3-hexylthiophene) on alkylsilane self-assembled monolayers prepared by microcontact printing. <i>Organic Electronics</i> , 2010, 11, 1323-1326.	2.6	8
58	Solution-processed dinaphtho[2,3- <i>b</i> :2'-3'']thieno[3,2- <i>b</i>]thiophene transistor memory based on phosphorus-doped silicon nanoparticles as a nano-floating gate. <i>Applied Physics Express</i> , 2015, 8, 101601.	2.4	8
59	Effects of silica nanoparticle addition on polymer semiconductor wettability and carrier mobility in solution-processable organic transistors on hydrophobic substrates. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2016, 54, 509-516.	2.1	8
60	High-performance didodecylbenzothienobenzothiophene-based top-gate organic transistors processed by spin coating using binary solvent mixtures. <i>Organic Electronics</i> , 2018, 58, 306-312.	2.6	8
61	Optical properties of air-stable semiconducting copolymer based on polythiophene. <i>Applied Physics Letters</i> , 2007, 91, 141909.	3.3	7
62	Electrical characteristics of polymer field-effect transistors with poly(methylsilsequioxane) gate dielectrics on plastic substrates. <i>Thin Solid Films</i> , 2008, 517, 1343-1345.	1.8	7
63	Impedance spectroscopy for high resolution measurements of energetic distributions of localized states in organic semiconductors. <i>Thin Solid Films</i> , 2014, 554, 218-221.	1.8	7
64	Determination of bimolecular recombination constants in organic double-injection devices using impedance spectroscopy. <i>Applied Physics Letters</i> , 2019, 114, 123301.	3.3	7
65	Emission properties of thermally activated delayed fluorescence emitters: analysis based on a four-level model considering a higher triplet excited state. <i>Journal of Photonics for Energy</i> , 2018, 8, 1.	1.3	7
66	Write-once memory effects observed in Ga-doped ZnO/organic semiconductor/MoO ₃ /Au structures. <i>Japanese Journal of Applied Physics</i> , 2016, 55, 03DC05.	1.5	6
67	Full characterization of electronic transport properties in working polymer light-emitting diodes via impedance spectroscopy. <i>Journal of Applied Physics</i> , 2019, 125, 115501.	2.5	6
68	Operation mechanism and efficiency-limiting factors in solution-processed quantum-dots light-emitting diodes. <i>Organic Electronics</i> , 2020, 86, 105865.	2.6	6
69	Transient photocurrent of (silicon nanocrystals)â€“(organic polysilane) compositesâ€”detection of surface states of silicon nanocrystals. <i>Thin Solid Films</i> , 2006, 499, 119-122.	1.8	5
70	Electrical characterization of thieno[3,4- <i>b</i>]thiophene and benzodithiophene copolymer using field-effect transistor configuration. <i>Japanese Journal of Applied Physics</i> , 2014, 53, 050305.	1.5	5
71	Effect of contact resistance on mobility determination by impedance spectroscopy. <i>Japanese Journal of Applied Physics</i> , 2014, 53, 02BE02.	1.5	5
72	Photoluminescence Properties of Polymorphic Modifications of Low Molecular Weight Poly(3-hexylthiophene). <i>Nanoscale Research Letters</i> , 2017, 12, 368.	5.7	5

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73	Oscillatory Structure in the Electroabsorption Spectrum of π -Conjugated Polymer Thin Films: How to Identify the Franz-Keldysh Oscillation. <i>Journal of the Physical Society of Japan</i> , 2011, 80, 034707.	1.6	4
74	Highly Oriented Polymer Field-Effect Transistors with High Electrical Stability. <i>Japanese Journal of Applied Physics</i> , 2013, 52, 121601.	1.5	4
75	Third-order optical susceptibility in polythiophene thin films prepared by spin-coating from high-boiling-point solvents. <i>Thin Solid Films</i> , 2014, 554, 106-109.	1.8	4
76	Solution-processed organic field-effect transistors based on dinaphthothienothiophene precursor with chemically modified electrodes. <i>Journal of Physics: Conference Series</i> , 2017, 924, 012008.	0.4	4
77	Understanding the influence of contact resistances on short-channel high-mobility organic transistors in linear and saturation regimes. <i>Applied Physics Express</i> , 2021, 14, 041010.	2.4	4
78	Preparation and Dielectric Property of Photo-Curable Polysilsesquioxane Hybrids. <i>Journal of Photopolymer Science and Technology = [Fotoporima Konwakai Shi]</i> , 2008, 21, 319-320.	0.3	3
79	Photoinduced Absorption in P3HT/PCBM Bulk Heterostructures. <i>Materials Science Forum</i> , 0, 658, 503-506.	0.3	3
80	Temperature Dependence of Field-Effect Mobility in Organic Thin-Film Transistors: Similarity to Inorganic Transistors. <i>Journal of Nanoscience and Nanotechnology</i> , 2016, 16, 3219-3222.	0.9	3
81	Relation between active-layer thickness and power conversion efficiency in P3HT:PCBM inverted organic photovoltaics. <i>Journal of Physics: Conference Series</i> , 2017, 924, 012009.	0.4	3
82	Influence of Substrate Modification with Dipole Monolayers on the Electrical Characteristics of Short-Channel Polymer Field-Effect Transistors. <i>Applied Sciences (Switzerland)</i> , 2018, 8, 1274.	2.5	3
83	Enhanced performance of solution-processable floating-gate organic phototransistor memory for organic image sensor applications. <i>Applied Physics Express</i> , 2021, 14, 041007.	2.4	3
84	On the temperature dependence of dispersion parameters in amorphous semiconductors. <i>Journal of Non-Crystalline Solids</i> , 1998, 227-230, 815-819.	3.1	2
85	Frequency Characteristics of Polymer Field-Effect Transistors with Self-Aligned Electrodes Investigated by Impedance Spectroscopy. <i>IEICE Transactions on Electronics</i> , 2011, E94-C, 1727-1732.	0.6	2
86	The Association between Tinea Pedis and Feet-Washing Behavior in Patients with Diabetes: A Cross-sectional Study. <i>Advances in Skin and Wound Care</i> , 2017, 30, 510-516.	1.0	2
87	Modulated Photocurrent Spectroscopy Study of the Electronic Transport Properties of Working Organic Photovoltaics: Degradation Analysis. <i>Materials</i> , 2020, 13, 2660.	2.9	2
88	Simultaneous determination of electron and hole drift mobilities in working inverted organic solar cells: modulated photocurrent spectroscopy versus impedance spectroscopy. <i>Japanese Journal of Applied Physics</i> , 2020, 59, 064002.	1.5	2
89	Enhancement of Third-Order Optical Susceptibility in Polythiophene Thin Films Fabricated by Drop Casting Using Anhydrous Solvent. <i>Japanese Journal of Applied Physics</i> , 2011, 50, 072601.	1.5	2
90	Interpretation of the modulus spectra of organic field-effect transistors with electrode overlap and peripheral regions: determination of the electronic properties of the gate insulator and organic semiconductor. <i>Japanese Journal of Applied Physics</i> , 2020, 59, 094002.	1.5	2

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91	Determination of localized-state distributions in photoconductive polymers from transient photocurrents measured with the time-of-flight method. IEEJ Transactions on Fundamentals and Materials, 1998, 118, 1446-1453.	0.2	1
92	Percolative behavior of transient photoconductivity in metal-free phthalocyanine nanocrystals. Thin Solid Films, 2008, 516, 2558-2561.	1.8	1
93	Enhancement of Third-Order Optical Susceptibility in Polythiophene Thin Films Fabricated by Drop Casting Using Anhydrous Solvent. Japanese Journal of Applied Physics, 2011, 50, 072601.	1.5	1
94	Charge transport enhancement via air-mediated self-organization in polymer semiconductors. Materials Research Society Symposia Proceedings, 2011, 1360, 101201.	0.1	1
95	Continuous-wave photoinduced absorption study on trapped carriers in bulk-heterojunction solar cells connected to load. Thin Solid Films, 2014, 554, 209-212.	1.8	1
96	Simple Calculation of Power Conversion Efficiency of PC61BM and PC71BM Based Organic Solar Cells – Good Agreement with Experiments in Donor Materials with Different Band Gap Energies. Journal of Nanoscience and Nanotechnology, 2016, 16, 3349-3354.	0.9	1
97	Molecular Electronics. Springer Handbooks, 2017, , 1-1.	0.6	1
98	Modulated photocurrent spectroscopies for characterization of the charge transport process in organic photovoltaics. Journal of Physics: Conference Series, 2019, 1220, 012018.	0.4	1
99	19 th News Paper: Characterization of carrier transport properties in working polymer light-emitting diodes. Digest of Technical Papers SID International Symposium, 2019, 50, 263-266.	0.3	1
100	Revisiting open-circuit photovoltage decay in organic solar cells for the determination of bimolecular recombination constants. Japanese Journal of Applied Physics, 2021, 60, 034001.	1.5	1
101	Electronic Structures of Planar and Nonplanar Polyfluorene. Springer Series in Materials Science, 2015, , 63-80.	0.6	1
102	Nano-gap Electrodes Developed Using Focused Ion Beam Technology. , 2015, , 1513-1528.		1
103	Third-order optical susceptibility of ordered and disordered polyfluorene thin films. Journal of Non-Crystalline Solids, 2012, 358, 2530-2533.	3.1	0
104	Fabrication of Vertical Molecular Junction Devices with Conductive Polymer Contacts Using a Peeling Method. Journal of Nanoscience and Nanotechnology, 2016, 16, 3307-3311.	0.9	0
105	Enhanced performance of solution-processable organic floating-gate transistor memories using binary small molecules dispersed polymer storage layers. , 2019, , .		0
106	Interpretation of modulus spectra in organic field-effect transistors: equivalent-circuit approach. Japanese Journal of Applied Physics, 2020, 59, SDDA06.	1.5	0
107	Performance Improvement of Solution-Processed Organic Floating-Gate Transistor Memories via Tuning the Work Function of Gate Electrodes. , 2021, , .		0
108	High Performance of Organic Transistors Using Self-Aggregated Surface of Organic Semiconductor Thin Films. Journal of Smart Processing, 2013, 2, 251-256.	0.1	0