

# Dai Taguchi

## List of Publications by Year in descending order

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85  
papers

1,106  
citations

430874

18  
h-index

434195

31  
g-index

87  
all docs

87  
docs citations

87  
times ranked

867  
citing authors

#	ARTICLE	IF	CITATIONS
1	Catalyst-Free Plasma Enhanced Growth of Graphene from Sustainable Sources. Nano Letters, 2015, 15, 5702-5708.	9.1	124
2	Probing of carrier behavior in organic electroluminescent diode using electric field induced optical second-harmonic generation measurement. Applied Physics Letters, 2009, 95, .	3.3	66
3	Analysis of Organic Light-Emitting Diode As a Maxwell-Wagner Effect Element by Time-Resolved Optical Second Harmonic Generation Measurement. Journal of Physical Chemistry Letters, 2010, 1, 803-807.	4.6	55
4	Modeling of threshold voltage in pentacene organic field-effect transistors. Journal of Applied Physics, 2010, 107, .	2.5	48
5	The Charge Transport in Organic Field-Effect Transistor as an Interface Charge Propagation: The Maxwell-Wagner Effect Model and Transmission Line Approximation. Japanese Journal of Applied Physics, 2010, 49, 071603.	1.5	46
6	Analysis of Carrier Transients in Double-Layer Organic Light Emitting Diodes by Electric-Field-Induced Second-Harmonic Generation Measurement. Journal of Physical Chemistry C, 2010, 114, 15136-15140.	3.1	46
7	Analyzing carrier lifetime of double-layer organic solar cells by using optical electric-field-induced second-harmonic generation measurement. Applied Physics Letters, 2011, 98, .	3.3	44
8	Direct Probing of Photovoltaic Effect Generated in Double-Layer Organic Solar Cell by Electric-Field-Induced Optical Second-Harmonic Generation. Applied Physics Express, 2011, 4, 021602.	2.4	42
9	Probing of interfacial charging and discharging in double-layer devices with a polyimide blocking layer by time-resolved optical second harmonic generation. Journal of Applied Physics, 2010, 108, .	2.5	35
10	Interaction of interfacial charge and ferroelectric polarization in a pentacene/poly(vinylidene fluoride)/ITO/polymer/ITO structure. Applied Physics Letters, 2010, 97, .	3.3	33
11	Insight into the contact resistance problem by direct probing of the potential drop in organic field-effect transistors. Applied Physics Letters, 2010, 97, .	3.3	29
12	Probing interfacial charge accumulation in ITO/NPD/Alq3/Al diodes under two electroluminescence operational modes by electric-field induced optical second-harmonic generation. Journal of Applied Physics, 2012, 112, .	2.5	28
13	Probing and modeling of interfacial carrier motion in organic devices by optical second harmonic generation. Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics, 2010, 28, C5F12-C5F16.	1.2	26
14	Analyzing photovoltaic effect of double-layer organic solar cells as a Maxwell-Wagner effect system by optical electric-field-induced second-harmonic generation measurement. Journal of Applied Physics, 2011, 110, .	2.5	24
15	Analyzing photo-induced interfacial charging in IZO/pentacene/C60/bathocuproine/Al organic solar cells by electric-field-induced optical second-harmonic generation measurement. Journal of Applied Physics, 2012, 111, .	2.5	24
16	Analysis of interface carrier accumulation and relaxation in pentacene/C60 double-layer organic solar cell by impedance spectroscopy and electric-field-induced optical second harmonic generation. Journal of Applied Physics, 2011, 110, .	2.5	23
17	Charge injection and accumulation in organic light-emitting diode with PEDOT:PSS anode. Journal of Applied Physics, 2015, 117, .	2.5	23
18	Enhancement of the carrier mobility of conducting polymers by formation of their graphene composites. RSC Advances, 2017, 7, 11913-11920.	3.6	19

#	ARTICLE	IF	CITATIONS
19	Bulk-trap modulated Maxwell-Wagner type interfacial carrier relaxation process in a fullerene/polyimide double-layer device investigated by time-resolved second harmonic generation. Journal of Applied Physics, 2011, 110, .	2.5	18
20	Selective observation of photo-induced electric fields inside different material components in bulk-heterojunction organic solar cell. Applied Physics Letters, 2014, 104, .	3.3	18
21	Stability in 3D and 2D/3D hybrid perovskite solar cells studied by EFISHG and IS techniques under light and heat soaking. Organic Electronics, 2019, 66, 7-12.	2.6	18
22	Displacement current analysis of carrier behavior in pentacene field effect transistor with poly(vinylidene fluoride and tetrafluoroethylene) gate insulator. Journal of Applied Physics, 2009, 106, 024505.	2.5	16
23	Transport limited interfacial carrier relaxation in a double-layer device investigated by time-resolved second harmonic generation and impedance spectroscopy. Applied Physics Letters, 2011, 98, .	3.3	16
24	Direct probing of contact electrification by using optical second harmonic generation technique. Scientific Reports, 2015, 5, 13019.	3.3	16
25	Modeling and visualization of carrier motion in organic films by optical second harmonic generation and Maxwell-displacement current. Journal Physics D: Applied Physics, 2015, 48, 373001.	2.8	16
26	Direct probing of the selective electron and hole accumulation at organic/organic interfaces in a triple-layer organic device by time-resolved optical second harmonic generation. Applied Physics Letters, 2011, 99, 083301.	3.3	14
27	Probing and modeling of carrier motion in organic devices by electric-field-induced optical second-harmonic generation. Japanese Journal of Applied Physics, 2014, 53, 100101.	1.5	14
28	Analysis of carrier transport and carrier trapping in organic diodes with polyimide-6,13-Bis(triisopropylsilylethynyl)pentacene double-layer by charge modulation spectroscopy and optical second harmonic generation measurement. Applied Physics Letters, 2014, 105, 073301.	3.3	14
29	Trapping effect of metal nanoparticle mono- and multilayer in the organic field-effect transistor. Journal of Applied Physics, 2011, 109, 064512.	2.5	12
30	Analyzing two electroluminescence modes of indium tin oxide/ $\text{I}\pm\text{NPD}/\text{Alq3}/\text{Al}$ diodes by using large alternating current square voltages. Journal of Applied Physics, 2011, 110, 103707.	2.5	12
31	Consequence of aging at Au/HTM/perovskite interface in triple cation 3D and 2D/3D hybrid perovskite solar cells. Scientific Reports, 2021, 11, 33.	3.3	12
32	Study of Carrier Behavior in Pentacene in a Au/Pentacene/Ferroelectric Poly(vinylidene) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 227 Td (flu Generation Measurement. Japanese Journal of Applied Physics, 2010, 49, 121601.	1.5	11
33	The Maxwell-Wagner model for charge transport in ambipolar organic field-effect transistors: The role of zero-potential position. Applied Physics Letters, 2012, 101, 243302.	3.3	11
34	Analyzing a two-step polarization process in a pentacene/poly(vinylidene fluoride - trifluoroethylene) double-layer device using Maxwell-Wagner model. Journal of Applied Physics, 2012, 111, 023706.	2.5	10
35	Direct probing of selective electron and hole accumulation processes along the channel of an ambipolar double-layer field-effect transistor by optical modulation spectroscopy. Applied Physics Letters, 2012, 100, 103301.	3.3	8
36	Cooperative molecular field effect and induced orientational ordering effect in polar liquid crystalline films on metals. Journal of Chemical Physics, 2007, 127, 044703.	3.0	7

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37	Analysis of carrier behavior in C60/P(VDF-TrFE) double-layer capacitor by using electric-field-induced optical second-harmonic generation measurement. <i>Journal of Applied Physics</i> , 2013, 114, 234504.	2.5	7
38	Interfacial charge trapping in the polymer solar cells and its elimination by solvent annealing. <i>AIP Advances</i> , 2016, 6, 095012.	1.3	7
39	Organic double layer element driven by triboelectric nanogenerator: Study of carrier behavior by non-contact optical method. <i>Chemical Physics Letters</i> , 2016, 646, 64-68.	2.6	7
40	Study of carrier energetics in ITO/P(VDF-TrFE)/pentacene/Au diode by using electric-field-induced optical second harmonic generation measurement and charge modulation spectroscopy. <i>Journal of Applied Physics</i> , 2017, 121, 065501.	2.5	7
41	Organic Electronics: Relaxation Time Controlled Devices. <i>Japanese Journal of Applied Physics</i> , 2010, 49, 04DK15.	1.5	6
42	Effect of Photogenerated Carriers on Ferroelectric Polarization Reversal. <i>Applied Physics Express</i> , 2011, 4, 121601.	2.4	6
43	Direct Probing of Carrier Behavior in Electroluminescence Indium-Zinc-Oxide/N,N'-Di-[(1-naphthyl)-N,N'-diphenyl]-(1,1'-biphenyl)-4,4'-diamine/Tris(8-hydroxy-quinolinato)aluminum(III)/LiF/Al Diode by Time-Resolved Optical Second-Harmonic Generation. <i>Japanese Journal of Applied Physics</i> , 2011, 50, 04DK08.	1.5	6
44	A way for studying the impact of PEDOT:PSS interface layer on carrier transport in PCDTBT:PCBM bulk hetero junction solar cells by electric field induced optical second harmonic generation measurement. <i>Journal of Applied Physics</i> , 2015, 117, 163101.	2.5	6
45	Research trend in thermally stimulated current method for development of materials and devices in Japan. <i>Japanese Journal of Applied Physics</i> , 2018, 57, 03EA04.	1.5	6
46	Modeling and analysis of I-V hysteresis behaviors caused by defects in tin perovskite thin films. <i>Journal of Applied Physics</i> , 2018, 124, .	2.5	6
47	Study of effect of inserted pentacene layer in ITO/P(VDF-TrFE)/NPD/Au capacitor using electric-field-induced optical second-harmonic generation and displacement current. <i>Organic Electronics</i> , 2014, 15, 537-542.	2.6	5
48	Analysis of current-voltage characteristics of Au/pentacene/fluorine polymer/indium zinc oxide diodes by electric-field-induced optical second-harmonic generation. <i>Journal of Applied Physics</i> , 2015, 117, .	2.5	5
49	Imaging of triboelectric charge distribution induced in polyimide film by using optical second-harmonic generation: Electronic charge distribution and dipole alignment. <i>Applied Physics Letters</i> , 2019, 114, 233301.	3.3	5
50	Electroluminescence Generated from ITO/NPD/Alq <sub>3</sub> /Al Diodes by Applying A.C. Square Voltage. <i>Molecular Crystals and Liquid Crystals</i> , 2012, 567, 187-192.	0.9	4
51	Dipolar polarization as an energy source of tribo-electric power generator. <i>Applied Physics Letters</i> , 2021, 119, .	3.3	4
52	Investigation of carrier transit motion in PCDTBT by optical SHG technique. <i>Laser Physics</i> , 2014, 24, 105701.	1.2	3
53	Probing of Electric Field Distribution and Carrier Behavior in Double-Layer Organic Light-Emitting Diodes by a Novel Microscopic Electric-Field-Induced Optical Second-Harmonic Generation Measurement system. <i>Transactions of the Materials Research Society of Japan</i> , 2014, 39, 443-446.	0.2	3
54	Investigation of the Voltage Establishment and Relaxation Processes in a Double-Layer Device by Time-Resolved Optical Second-Harmonic Generation. <i>Japanese Journal of Applied Physics</i> , 2011, 50, 04DK13.	1.5	3

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55	Electroluminescence Enhanced from Electrode Interface in ITO/Tetracene/AI Diodes. <i>Molecular Crystals and Liquid Crystals</i> , 2011, 538, 112-117.	0.9	2
56	Direct Probing of Internal Electric-fields in Fullerene Diodes Using Electric-field-induced Second-harmonic Generation Measurement. <i>Molecular Crystals and Liquid Crystals</i> , 2013, 578, 50-54.	0.9	2
57	Visualizing polarization structure of lipid Langmuir monolayer by surface second-harmonic generation technique. <i>Thin Solid Films</i> , 2014, 554, 8-12.	1.8	2
58	Metal nanoparticles in organic field-effect transistor: Transition from charge trapping to conduction mechanism. <i>Thin Solid Films</i> , 2014, 554, 189-193.	1.8	2
59	Observation of turnover of spontaneous polarization in ferroelectric layer of pentacene/poly-(vinylidene-trifluoroethylene) double-layer capacitor under photo illumination by optical second-harmonic generation measurement. <i>Journal of Applied Physics</i> , 2016, 119, 165502.	2.5	2
60	Direct visualization of polarization reversal of organic ferroelectric memory transistor by using charge modulated reflectance imaging. <i>Journal of Applied Physics</i> , 2017, 122, 185501.	2.5	2
61	Study of I-V Hysteresis of Tin Perovskite Solar Cells Using Capacitance-Voltage Measurement Coupled with Charge Modulation Spectroscopy. <i>Molecular Crystals and Liquid Crystals</i> , 2019, 686, 92-98.	0.9	2
62	Detection of voltage pulse width effect on charge accumulation in PSCs using EFISHG measurement. <i>Results in Physics</i> , 2020, 17, 103063.	4.1	2
63	Visualizing Positive and Negative Charges of Triboelectricity Generated on Polyimide Film. <i>IEICE Transactions on Electronics</i> , 2021, E104.C, 170-175.	0.6	2
64	A Novel Electric Field Induced Optical Second Harmonic Generation Technique for Visualizing Carrier-dynamics in Organic Electronics Materials. <i>IEEJ Transactions on Fundamentals and Materials</i> , 2016, 136, 678-684.	0.2	2
65	Probing of Electric Field Distribution in ITO/PI/P3HT/Au Using Electric Field Induced Second Harmonic Generation. <i>IEICE Transactions on Electronics</i> , 2011, E94-C, 185-186.	0.6	1
66	Analyzing Open-Voltage of Double-Layer Organic Solar Cells Using Optical Electric-Field-Induced Second-Harmonic Generation. <i>Materials Research Society Symposia Proceedings</i> , 2012, 1390, 118.	0.1	1
67	Mechanical strains modulate the carrier behaviors of organic field effect transistors. <i>Journal of Applied Physics</i> , 2012, 111, 054502.	2.5	1
68	Analysis of interfacial energy states in Au/pentacene/polyimide/indium-zinc-oxide diodes by electroluminescence spectroscopy and electric-field-induced optical second-harmonic generation measurement. <i>Japanese Journal of Applied Physics</i> , 2016, 55, 03DC04.	1.5	1
69	Effect of 1,8-Diiodooctane additive on the charge carriers behavior in the PCPDTBT:PC71BM BHJ films investigated by using electric-field-induced optical second-harmonic generation measurement. <i>Journal of Materials Science: Materials in Electronics</i> , 2021, 32, 2845-2852.	2.2	1
70	Spectroscopic Study of Electric Field Induced Optical Second Harmonic Generation from PCPDTBT and PC <sub>71</sub> BM Thin Films. <i>IEICE Transactions on Electronics</i> , 2019, E102.C, 119-124.	0.6	1
71	Orientalional Ordering Process of Liquid Crystalline Molecules Evaporated on Azobenzene Monolayer: Optical Polarized Absorption Measurements and Adsorption Kinetics. <i>International Journal of the Society of Materials Engineering for Resources</i> , 2006, 13, 109-111.	0.1	1
72	Compression Induced Achiral-Chiral Phase Transition of Monolayers Comprised of Banana-Shaped Achiral Molecules at the Air-Water Interface: Importance of In-plane Nematic Order. <i>Molecular Crystals and Liquid Crystals</i> , 2007, 479, 13/[1051]-31/[1069].	0.9	0

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73	Spontaneous Orientational Ordering of Liquid Crystal Layer During Evaporation onto Silica. <i>Molecular Crystals and Liquid Crystals</i> , 2009, 512, 100/[1946]-108/[1954].	0.9	0
74	Analysis on carrier trapping mechanism in organic diodes by charge modulation spectroscopy and electric field optical second harmonic generation measurement. , 2014, , .		0
75	Probing and modelling of carrier transport in organic devices by optical second harmonic generation. , 2014, , .		0
76	Texture transformation in circular domain of polar smectic films: Chiral elasticity induced by coupling of flexoelectric and spontaneous polarizations. <i>Chemical Physics Letters</i> , 2015, 628, 96-100.	2.6	0
77	A Novel Microscopic Analyzing System for Characterizing Organic Light-emitting Diodes Using EFISHG and LBIC Measurements. <i>Electronics and Communications in Japan</i> , 2017, 100, 76-83.	0.5	0
78	Probing Internal Electric Field in Organic Photoconductors by Using Electric-Field-Induced Optical Second-Harmonic Generation. <i>IEICE Transactions on Electronics</i> , 2019, E102.C, 113-118.	0.6	0
79	Visualization of Carrier Transport in Organic-Inorganic Perovskite Field-Effect Transistor by Electric-Field-Induced Optical Second-Harmonic Generation (EFISHG). , 2019, , .		0
80	Visualization of Carrier Transport in Luminescent Polymer Thin Film by Using Transient Photoluminescence Decay Imaging. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2020, 217, 1901031.	1.8	0
81	Probing of Maxwell-Wagner Type Interfacial Charging Process in Double-Layer Devices by Time-Resolved Second Harmonic Generation. <i>IEICE Transactions on Electronics</i> , 2011, E94-C, 141-145.	0.6	0
82	Analyzing Two Electroluminescence Modes of ITO/ $\text{I}^{\pm}$ -NPD/Alq <sub>3</sub> /Al Devices by Using A.C. Square Voltages. <i>IEEJ Transactions on Electronics, Information and Systems</i> , 2012, 132, 1408-1412.	0.2	0
83	Investigation of Interfacial Charging Process of Pentacene/C <sub>60</sub> /BCP Triple-Layer Organic Solar Cells. <i>IEICE Transactions on Electronics</i> , 2013, E96.C, 358-361.	0.6	0
84	Mobility Control of TIPS-Pentacene Thin Films Prepared by Blade-Coating Method. <i>IEICE Transactions on Electronics</i> , 2017, E100.C, 130-132.	0.6	0
85	A Novel Microscopic Analyzing System for Characterizing Organic Light-emitting Diodes using EFISHG and LBIC Measurements. <i>IEEJ Transactions on Fundamentals and Materials</i> , 2017, 137, 128-134.	0.2	0