

# Masayuki Chikamatsu

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/4850871/publications.pdf>

Version: 2024-02-01

82  
papers

2,539  
citations

186265  
28  
h-index

197818  
49  
g-index

82  
all docs

82  
docs citations

82  
times ranked

4285  
citing authors

#	ARTICLE	IF	CITATIONS
1	Optical Transitions in Hybrid Perovskite Solar Cells: Ellipsometry, Density Functional Theory, and Quantum Efficiency Analyses for $\text{CH}_3\text{NH}_3\text{PbI}_3$ . Physical Review Applied, 2016, 5, .	3.8	322
2	Degradation mechanism of $\text{CH}_3\text{NH}_3\text{PbI}_3$ perovskite materials upon exposure to humid air. Journal of Applied Physics, 2016, 119, .	2.5	168
3	Effects of Substituted Alkyl Chain Length on Solution-Processable Layered Organic Semiconductor Crystals. Chemistry of Materials, 2015, 27, 3809-3812.	6.7	144
4	Ambipolar organic field-effect transistors based on a low band gap semiconductor with balanced hole and electron mobilities. Applied Physics Letters, 2007, 91, .	3.3	120
5	Solution-processed n-type organic thin-film transistors with high field-effect mobility. Applied Physics Letters, 2005, 87, 203504.	3.3	116
6	Simple push coating of polymer thin-film transistors. Nature Communications, 2012, 3, 1176.	12.8	111
7	Universal rules for visible-light absorption in hybrid perovskite materials. Journal of Applied Physics, 2017, 121, .	2.5	91
8	Highly polarized polymer light-emitting diodes utilizing friction-transferred poly(9,9-dioctylfluorene) thin films. Applied Physics Letters, 2005, 87, 243503.	3.3	83
9	Crystallization Dynamics of Organolead Halide Perovskite by Real-Time X-ray Diffraction. Nano Letters, 2015, 15, 5630-5634.	9.1	77
10	High-Performance n-Type Organic Thin-Film Transistors Based on Solution-Processable Perfluoroalkyl-Substituted C <sub>60</sub> Derivatives. Chemistry of Materials, 2008, 20, 7365-7367.	6.7	69
11	Doping effect of solution-processed thin-film transistors based on polyfluorene. Journal of Materials Chemistry, 2007, 17, 1416.	6.7	65
12	Highly efficient polarized polymer light-emitting diodes utilizing oriented films of $\hat{\Gamma}^2$ -phase poly(9,9-dioctylfluorene). Applied Physics Letters, 2008, 93, .	3.3	65
13	Effects of intrinsic layer thickness on solar cell parameters of organic p-n heterojunction photovoltaic cells. Applied Physics Letters, 2004, 85, 6412-6414.	3.3	57
14	Stable Delocalized Singlet Biradical Hydrocarbon for Organic Field-Effect Transistors. Advanced Functional Materials, 2016, 26, 277-283.	14.9	57
15	Insertion of Thin Interlayers under the Negative Electrode of C <sub>60</sub> Schottky-Type Photovoltaic Cells. Journal of Physical Chemistry B, 2004, 108, 1-3.	2.6	49
16	Optical Characteristics and Operational Principles of Hybrid Perovskite Solar Cells. Physica Status Solidi (A) Applications and Materials Science, 2018, 215, 1700730.	1.8	48
17	Uniaxially oriented polycrystalline thin films and air-stable n-type transistors based on donor-acceptor semiconductor (diC <sub>8</sub> BTBT)(F <sub>4</sub> TCNQ) [n-type, 2, 4]. Applied Physics Letters, 2015, 106, .	3.3	46
18	Light up-conversion from near-infrared to blue using a photoresponsive organic light-emitting device. Applied Physics Letters, 2002, 81, 769-771.	3.3	45

#	ARTICLE	IF	CITATIONS
19	Organic Memory Device Based on Carbazole-Substituted Cellulose. <i>Macromolecular Rapid Communications</i> , 2007, 28, 1479-1484.	3.9	40
20	Mg-doped C60 thin film as improved n-type organic semiconductor for a solar cell. <i>Applied Physics Letters</i> , 2004, 84, 127-129.	3.3	39
21	Tail state formation in solar cell materials: First principles analyses of zincblende, chalcopyrite, kesterite, and hybrid perovskite crystals. <i>Physical Review Materials</i> , 2018, 2, .	2.4	39
22	Investigation of self-assembled monolayer treatment on SiO <sub>2</sub> gate insulator of poly(3-hexylthiophene) thin-film transistors. <i>Thin Solid Films</i> , 2009, 518, 642-646.	1.8	37
23	Adjustment of Conduction Band Edge of Compact TiO <sub>2</sub> Layer in Perovskite Solar Cells Through TiCl <sub>4</sub> Treatment. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 36708-36714.	8.0	35
24	Crystal Structure of Friction-Transferred Poly(2,5-dioctyloxy-1,4-phenylenevinylene). <i>Journal of Physical Chemistry B</i> , 2007, 111, 4349-4354.	2.6	34
25	Organic Light-Emitting Diode Application of Fluorescent Cellulose as a Natural Polymer. <i>Macromolecular Chemistry and Physics</i> , 2007, 208, 2000-2006.	2.2	33
26	Very thin photoalignment films for liquid crystalline conjugated polymers: Application to polarized light-emitting diodes. <i>Applied Physics Letters</i> , 2007, 91, .	3.3	32
27	Anisotropic field-effect hole mobility of liquid crystalline conjugated polymer layers formed on photoaligned polyimide films. <i>Journal of Applied Physics</i> , 2011, 109, .	2.5	29
28	A Sodium Chloride Modification of SnO <sub>2</sub> Electron Transport Layers to Enhance the Performance of Perovskite Solar Cells. <i>ACS Omega</i> , 2021, 6, 17880-17889.	3.5	29
29	Structure and Electrical Properties of Unsubstituted Oligothiophenes End-Capped at the $\hat{\Gamma}$ -Position. <i>Chemistry of Materials</i> , 2007, 19, 2694-2701.	6.7	28
30	Influence of O <sub>2</sub> plasma treatment on NiO <sub>x</sub> layer in perovskite solar cells. <i>Japanese Journal of Applied Physics</i> , 2018, 57, 04FS07.	1.5	26
31	C60 thin-film transistors with low work-function metal electrodes. <i>Applied Physics Letters</i> , 2004, 85, 2396-2398.	3.3	25
32	Highly Controlled Codeposition Rate of Organolead Halide Perovskite by Laser Evaporation Method. <i>ACS Applied Materials &amp; Interfaces</i> , 2016, 8, 26013-26018.	8.0	25
33	Industrially Feasible Approach to Transparent, Flexible, and Conductive Carbon Nanotube Films: Cellulose-Assisted Film Deposition Followed by Solution and Photonic Processing. <i>Applied Physics Express</i> , 2013, 6, 025101.	2.4	24
34	Determination and interpretation of the optical constants for solar cell materials. <i>Applied Surface Science</i> , 2017, 421, 276-282.	6.1	24
35	High-Performance Poly(3-hexylthiophene) Field-Effect Transistors Fabricated by a Slide-Coating Method. <i>Applied Physics Express</i> , 0, 1, 061802.	2.4	23
36	Device Performance of an n-Channel Organic Thin-Film Transistor with LiF/Al Bilayer Source and Drain Electrodes. <i>Japanese Journal of Applied Physics</i> , 2002, 41, L808-L810.	1.5	19

#	ARTICLE	IF	CITATIONS
37	Solution-processable Oligothiophene Derivatives with Branched Alkyl Chains and Their Thin-film Transistor Characteristics. <i>Chemistry Letters</i> , 2010, 39, 60-61.	1.3	18
38	Correlation of molecular structure, packing motif and thin-film transistor characteristics of solution-processed n-type organic semiconductors based on dodecyl-substituted C60 derivatives. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2006, 182, 245-249.	3.9	17
39	High-Performance Solution-Processed n-Channel Organic Thin-Film Transistors Based on a Long Chain Alkyl-Substituted C <sub>60</sub> Derivative. <i>Applied Physics Express</i> , 2010, 3, 101601.	2.4	16
40	Highly polarized polymer-based light-emitting diodes fabricated by using very thin photoaligned polyimide layers. <i>Journal of Applied Physics</i> , 2010, 107, .	2.5	14
41	Synergistic effect of polymer and oligomer blends for solution-processable organic thin-film transistors. <i>Organic Electronics</i> , 2008, 9, 952-958.	2.6	13
42	Optimization of thermal treatment of vapor-deposited thiophene/phenylene co-oligomer films. <i>Journal of Crystal Growth</i> , 2012, 345, 39-43.	1.5	11
43	Novel Cobalt Complexes as a Dopant for Hole-transporting Material in Perovskite Solar Cells. <i>Electrochemistry</i> , 2017, 85, 226-230.	1.4	11
44	Epitaxial growth of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> on rubrene single crystal. <i>APL Materials</i> , 2020, 8, .	5.1	11
45	Direct observation of energy band development in a one-dimensional biradical molecular chain by ultraviolet photoemission spectroscopy. <i>Applied Physics Letters</i> , 2013, 102, 134103.	3.3	10
46	Fabrication of carbon nanotube hybrid films as transparent electrodes for small-molecule photovoltaic cells. <i>RSC Advances</i> , 2016, 6, 25062-25069.	3.6	10
47	Photoresponsive organic electroluminescent devices. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2003, 158, 215-218.	3.9	9
48	Nanocrystalline metal electrodes for high-efficiency organic solar cells. <i>Applied Physics Letters</i> , 2004, 85, 1832-1834.	3.3	9
49	ITO surface smoothing with argon cluster ion beam. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , 2006, 242, 140-142.	1.4	9
50	Color Control and White Emission of Organic Light-Emitting Device by External Light. <i>Japanese Journal of Applied Physics</i> , 2007, 46, L345-L347.	1.5	8
51	Single-Crystal-like Structure of Poly(9,9-dioctylfluorene) Thin Films Evaluated by Synchrotron-Sourced Grazing-Incidence X-ray Diffraction. <i>Polymer Journal</i> , 2007, 39, 1306-1311.	2.7	8
52	Soluble Fullerene-Based n-Channel Organic Thin-Film Transistors Printed by Using a Polydimethylsiloxane Stamp. <i>ACS Applied Materials &amp; Interfaces</i> , 2011, 3, 836-841.	8.0	8
53	Organic field-effect transistor based on paramagnetic Cu(II) neutral complexes coordinated by Schiff base-type TTF ligands. <i>Polyhedron</i> , 2017, 136, 70-73.	2.2	8
54	LiF/Al bilayer source and drain electrodes for n-channel organic field-effect transistors. <i>Synthetic Metals</i> , 2003, 137, 953-954.	3.9	7

#	ARTICLE	IF	CITATIONS
55	Relationship between photostability and nanostructures in DTS(FBTTh <sub>2</sub> ):fullerene bulk-heterojunction films. <i>Solar Energy Materials and Solar Cells</i> , 2016, 151, 96-101.	6.2	7
56	Investigation of the power generation of organic photovoltaic modules connected to the power grid for more than three years. <i>Japanese Journal of Applied Physics</i> , 2019, 58, 052001.	1.5	7
57	Structural Study on Cast Films of C <sub>60</sub> Derivatives with Long Alkyl Chains. <i>Molecular Crystals and Liquid Crystals</i> , 1998, 316, 157-160.	0.3	5
58	Polymer-Supported Anisotropic Submicrometer-Patterned Electrodes for Displays. <i>Advanced Materials</i> , 2005, 17, 297-301.	21.0	5
59	Constructing Nanostructured Donor/Acceptor Bulk Heterojunctions via Interfacial Templates for Efficient Organic Photovoltaics. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 43893-43901.	8.0	5
60	Electrical and Optical Properties of a Potassium-doped Film of a Long Alkyl Chain-linked C <sub>60</sub> . <i>Molecular Crystals and Liquid Crystals</i> , 2002, 377, 353-356.	0.9	4
61	Development of organic thin film devices based on Cu(II) complex with tetrathiafulvalene moieties in the ligands. <i>Molecular Crystals and Liquid Crystals</i> , 2016, 641, 81-85.	0.9	4
62	Influences of submonolayer proteins on organic light-emitting diodes. <i>Applied Physics Letters</i> , 2007, 91, 024101.	3.3	3
63	Structure, Physical Properties and Thin-Film Transistor Characteristics of Sexithiophene Isomers. <i>Molecular Crystals and Liquid Crystals</i> , 2007, 472, 137/[527]-143/[533].	0.9	3
64	Thermal stabilization of organic photovoltaic cells using [6,6]-phenyl C <sub>61</sub> -butyric acid methyl ester analogs: Effects of alkyl substituents on the nanostructures of bulk heterojunction films and their stabilities. <i>Synthetic Metals</i> , 2016, 221, 61-66.	3.9	3
65	Improvement of properties of an ambipolar organic field-effect transistor by using a singlet biradicaloid film. <i>Japanese Journal of Applied Physics</i> , 2016, 55, 011601.	1.5	3
66	Hysteresis Analysis of Organolead Halide Perovskite Solar Cells by Transient Current Measurement. <i>Electrochemistry</i> , 2017, 85, 276-279.	1.4	3
67	Ultra-thin Cadmium Sulfide Electron-transporting Layer for Planar Perovskite Solar Cell. <i>Chemistry Letters</i> , 2018, 47, 1350-1353.	1.3	3
68	Insights into Microscopic Crystal Growth Dynamics of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> under a Laser Deposition Process Revealed by <i>In Situ</i> X-ray Diffraction. <i>ACS Applied Materials &amp; Interfaces</i> , 2021, 13, 22559-22566.	8.0	3
69	Color-variable organic light-emitting device by external light irradiation. <i>Applied Physics Letters</i> , 2006, 89, 223520.	3.3	2
70	Understanding Device-Structure-Induced Variations in Open-Circuit Voltage for Organic Photovoltaics. <i>ACS Applied Materials &amp; Interfaces</i> , 2015, 7, 10814-10822.	8.0	2
71	Organic-Inorganic Hybrid Perovskite Solar Cells. <i>Springer Series in Optical Sciences</i> , 2018, , 463-507.	0.7	2
72	Characteristics change in organic photovoltaics by thermal recovery and photodegradation. <i>Japanese Journal of Applied Physics</i> , 2020, 59, SCCD04.	1.5	2

#	ARTICLE	IF	CITATIONS
73	Investigation of Slide-Coating Method for Poly(3-hexylthiophene) Field-Effect Transistors. Japanese Journal of Applied Physics, 2010, 49, 01AE12.	1.5	1
74	Organic-Inorganic Hybrid Perovskites. Springer Series in Optical Sciences, 2018, , 471-493.	0.7	1
75	Development of New D-A Systems Based on Fullerene and TTF for Organic Devices. Molecular Crystals and Liquid Crystals, 2006, 455, 387-394.	0.9	0
76	Preliminary study on organic memory embedded metal nanoparticle stacking layers. , 2008, , .		0
77	Complementary Inverters Based on Soluble P- and N-Channel Organic Semiconductors. IEICE Transactions on Electronics, 2011, E94-C, 1845-1847.	0.6	0
78	Laser deposition for the controlled co-deposition of organolead halide perovskite. , 2016, , .		0
79	Effects of optical interference and optimized crystallinity in organic photovoltaic cells with a low-bandgap small molecule fabricated by dry process. Japanese Journal of Applied Physics, 2019, 58, SBBG12.	1.5	0
80	Improvement in thermal stability of solar cell using a non-fullerene n-type liquid crystalline semiconductor. Japanese Journal of Applied Physics, 2020, 59, 031004.	1.5	0
81	Preparation of Anisotropic Fine Metal Electrodes and Application to the Electroluminescent Devices. Shinku/Journal of the Vacuum Society of Japan, 2003, 46, 835-839.	0.2	0
82	Overview on Research and Development of Perovskite Solar Cells in National Institute of Advanced Industrial Science and Technology. Denki Kagaku, 2020, 88, 184-185.	0.0	0