

Michael Gaj

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/5933460/publications.pdf>

Version: 2024-02-01

93
papers

5,229
citations

94381

37
h-index

82499

72
g-index

95
all docs

95
docs citations

95
times ranked

7630
citing authors

#	ARTICLE	IF	CITATIONS
1	Organic photovoltaics. <i>Energy and Environmental Science</i> , 2009, 2, 251.	15.6	1,142
2	Large-area low-noise flexible organic photodiodes for detecting faint visible light. <i>Science</i> , 2020, 370, 698-701.	6.0	235
3	Stability of Doped Transparent Carbon Nanotube Electrodes. <i>Advanced Functional Materials</i> , 2008, 18, 2548-2554.	7.8	183
4	High performance polymeric charge recombination layer for organic tandem solar cells. <i>Energy and Environmental Science</i> , 2012, 5, 9827.	15.6	183
5	Copolymers of perylene diimide with dithienothiophene and dithienopyrrole as electron-transport materials for all-polymer solar cells and field-effect transistors. <i>Journal of Materials Chemistry</i> , 2009, 19, 5794.	6.7	165
6	Top-Gate Organic Field-Effect Transistors with High Environmental and Operational Stability. <i>Advanced Materials</i> , 2011, 23, 1293-1298.	11.1	158
7	Dithienopyrrole-based donor-acceptor copolymers: low band-gap materials for charge transport, photovoltaics and electrochromism. <i>Journal of Materials Chemistry</i> , 2010, 20, 123-134.	6.7	154
8	High-performance pentacene field-effect transistors using Al ₂ O ₃ gate dielectrics prepared by atomic layer deposition (ALD). <i>Organic Electronics</i> , 2007, 8, 718-726.	1.4	133
9	Solution-based electrical doping of semiconducting polymer films over a limited depth. <i>Nature Materials</i> , 2017, 16, 474-480.	13.3	121
10	Solvent and polymer matrix effects on TIPS-pentacene/polymer blend organic field-effect transistors. <i>Journal of Materials Chemistry</i> , 2012, 22, 5531.	6.7	109
11	Room-temperature discotic liquid-crystalline coronene diimides exhibiting high charge-carrier mobility in air. <i>Journal of Materials Chemistry</i> , 2009, 19, 6688.	6.7	107
12	Stable organic thin-film transistors. <i>Science Advances</i> , 2018, 4, eaao1705.	4.7	107
13	Solution-Processed Molecular Bis(Naphthalene Diimide) Derivatives with High Electron Mobility. <i>Chemistry of Materials</i> , 2011, 23, 3408-3410.	3.2	106
14	All-plastic solar cells with a high photovoltaic dynamic range. <i>Journal of Materials Chemistry A</i> , 2014, 2, 3492.	5.2	97
15	Inverted organic solar cells with ITO electrodes modified with an ultrathin Al ₂ O ₃ buffer layer deposited by atomic layer deposition. <i>Journal of Materials Chemistry</i> , 2010, 20, 6189.	6.7	93
16	A Nonvolatile Organic Memory Device Using ITO Surfaces Modified by Ag Nanodots. <i>Advanced Functional Materials</i> , 2008, 18, 1112-1118.	7.8	78
17	Stabilization of the work function of indium tin oxide using organic surface modifiers in organic light-emitting diodes. <i>Applied Physics Letters</i> , 2008, 93, .	1.5	78
18	Enhanced Charge-Carrier Injection and Collection Via Lamination of Doped Polymer Layers p-Doped with a Solution-Processible Molybdenum Complex. <i>Advanced Functional Materials</i> , 2014, 24, 2197-2204.	7.8	77

#	ARTICLE	IF	CITATIONS
19	A Study on Reducing Contact Resistance in Solution-Processed Organic Field-Effect Transistors. ACS Applied Materials & Interfaces, 2016, 8, 24744-24752.	4.0	77
20	Low-voltage flexible organic complementary inverters with high noise margin and high dc gain. Applied Physics Letters, 2009, 94, .	1.5	73
21	Flexible all-solution-processed all-plastic multijunction solar cells for powering electronic devices. Materials Horizons, 2016, 3, 452-459.	6.4	73
22	Tailoring the work function of indium tin oxide electrodes in electrophosphorescent organic light-emitting diodes. Journal of Applied Physics, 2009, 105, 084507.	1.1	70
23	Norbornene-Based Copolymers with Iridium Complexes and Bis(carbazolyl)fluorene Groups in Their Side-Chains and Their Use in Light-Emitting Diodes. Chemistry of Materials, 2007, 19, 5602-5608.	3.2	65
24	Thermal transport properties of thin films of small molecule organic semiconductors. Applied Physics Letters, 2005, 87, 241908.	1.5	63
25	High electron mobility in nickel bis(dithiolene) complexes. Journal of Materials Chemistry, 2007, 17, 2642.	6.7	61
26	Highly efficient Organic Light-Emitting Diodes from thermally activated delayed fluorescence using a sulfone-carbazole host material. Organic Electronics, 2015, 16, 109-112.	1.4	58
27	High-performance C60-n-channel organic field-effect transistors through optimization of interfaces. Journal of Applied Physics, 2008, 104, .	1.1	56
28	Stable Low-Voltage Operation Top-Gate Organic Field-Effect Transistors on Cellulose Nanocrystal Substrates. ACS Applied Materials & Interfaces, 2015, 7, 4804-4808.	4.0	55
29	Dithienopyrrole-quinoxaline/pyridopyrazine donor-acceptor polymers: synthesis and electrochemical, optical, charge-transport, and photovoltaic properties. Journal of Materials Chemistry, 2011, 21, 4971.	6.7	54
30	ITO-free large-area flexible organic solar cells with an embedded metal grid. Organic Electronics, 2015, 17, 349-354.	1.4	52
31	Reduction of contact resistance by selective contact doping in fullerene n-channel organic field-effect transistors. Applied Physics Letters, 2013, 102, .	1.5	51
32	Flexible large-area organic tandem solar cells with high defect tolerance and device yield. Journal of Materials Chemistry A, 2017, 5, 3186-3192.	5.2	51
33	Effects of surface modification of indium tin oxide electrodes on the performance of molecular multilayer organic photovoltaic devices. Journal of Materials Chemistry, 2009, 19, 5298.	6.7	50
34	Oriented Growth of Al ₂ O ₃ :ZnO Nanolaminates for Use as Electron-Selective Electrodes in Inverted Polymer Solar Cells. Advanced Functional Materials, 2012, 22, 1531-1538.	7.8	47
35	Systematic Reliability Study of Top-Gate p- and n-Channel Organic Field-Effect Transistors. ACS Applied Materials & Interfaces, 2014, 6, 3378-3386.	4.0	45
36	Fluorenyl-substituted silole molecules: geometric, electronic, optical, and device properties. Journal of Materials Chemistry, 2008, 18, 3157.	6.7	41

#	ARTICLE	IF	CITATIONS
37	Stable Organic Field-Effect Transistors for Continuous and Nondestructive Sensing of Chemical and Biologically Relevant Molecules in Aqueous Environment. ACS Applied Materials & Interfaces, 2014, 6, 1616-1622.	4.0	38
38	Organic light-emitting diodes on shape memory polymer substrates for wearable electronics. Organic Electronics, 2015, 25, 151-155.	1.4	38
39	Top-gate organic field-effect transistors fabricated on paper with high operational stability. Organic Electronics, 2017, 41, 340-344.	1.4	35
40	Roles of thermally-induced vertical phase segregation and crystallization on the photovoltaic performance of bulk heterojunction inverted polymer solar cells. Energy and Environmental Science, 2011, 4, 3456.	15.6	34
41	2-Bromo perylene diimide: synthesis using C-H activation and use in the synthesis of bis(peryleno) Tj ETQq1 1 0.784314 rgBT /Overbo	2.7	34
42	A comprehensive analysis of the contributions to the nonlinear optical properties of thin Ag films. Journal of Applied Physics, 2010, 107, .	1.1	33
43	Bilayer Structure with Ultrahigh Energy/Power Density Using Hybrid Sol-Gel Dielectric and Charge-Blocking Monolayer. Advanced Energy Materials, 2015, 5, 1500767.	10.2	33
44	Effect of phosphonic acid surface modifiers on the work function of indium tin oxide and on the charge injection barrier into organic single-layer diodes. Journal of Applied Physics, 2009, 105, .	1.1	32
45	Stable solvent for solution-based electrical doping of semiconducting polymer films and its application to organic solar cells. Energy and Environmental Science, 2018, 11, 2216-2224.	15.6	32
46	Third-harmonic generation and its applications in optical image processing. Journal of Materials Chemistry, 2009, 19, 7394.	6.7	31
47	Enhanced carrier mobility and electrical stability of n-channel polymer thin film transistors by use of low-k dielectric buffer layer. Applied Physics Letters, 2011, 99, .	1.5	30
48	Skin-like low-noise elastomeric organic photodiodes. Science Advances, 2021, 7, eabj6565.	4.7	30
49	Pyrrole[3,2-d:4,5-d']bisthiazole-bridged bis(naphthalene diimide)s as electron-transport materials. Journal of Materials Chemistry C, 2014, 2, 124-131.	2.7	28
50	Comparison of Pentacene and Amorphous Silicon AMOLED Display Driver Circuits. IEEE Transactions on Circuits and Systems I: Regular Papers, 2008, 55, 1177-1184.	3.5	27
51	High performance blue-emitting organic light-emitting diodes from thermally activated delayed fluorescence: A guest/host ratio study. Journal of Applied Physics, 2018, 124, .	1.1	25
52	Thermally Activated Delayed Fluorescence Sensitization for Highly Efficient Blue Fluorescent Emitters. Advanced Functional Materials, 2020, 30, 2005898.	7.8	25
53	Self-(Un)rolling Biopolymer Microstructures: Rings, Tubules, and Helical Tubules from the Same Material. Angewandte Chemie - International Edition, 2015, 54, 8490-8493.	7.2	24
54	Benzo[1,2-b:6,5-b']dithiophene(dithiazole)-4,5-dione derivatives: synthesis, electronic properties, crystal packing and charge transport. Journal of Materials Chemistry C, 2013, 1, 1467.	2.7	23

#	ARTICLE	IF	CITATIONS
55	Organic Field-Effect Transistors with a Bilayer Gate Dielectric Comprising an Oxide Nanolaminate Grown by Atomic Layer Deposition. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 29872-29876.	4.0	23
56	Polynorbornenes with pendant perylene diimides for organic electronic applications. <i>Polymer Chemistry</i> , 2012, 3, 2996.	1.9	22
57	Inverted Tandem Polymer Solar Cells with Polyethylenimine-Modified MoO ₃ /Al ₂ O ₃ :ZnO Nanolaminate as the Charge Recombination Layers. <i>Advanced Energy Materials</i> , 2014, 4, 1400048.	10.2	21
58	A Comparative Study of Charge Mobility Measurements in a Diamine and in a Hexaazatrinaphthylene Using Different Techniques. <i>Molecular Crystals and Liquid Crystals</i> , 2008, 481, 80-93.	0.4	18
59	Simultaneous cross-linking and p-doping of a polymeric semiconductor film by immersion into a phosphomolybdic acid solution for use in organic solar cells. <i>Chemical Communications</i> , 2016, 52, 3825-3827.	2.2	17
60	Effect of the Number and Substitution Pattern of Carbazole Donors on the Singlet and Triplet State Energies in a Series of Carbazole-Oxadiazole Derivatives Exhibiting Thermally Activated Delayed Fluorescence. <i>Chemistry of Materials</i> , 2018, 30, 6389-6399.	3.2	17
61	SPICE Optimization of Organic FET Models Using Charge Transport Elements. <i>IEEE Transactions on Electron Devices</i> , 2009, 56, 38-42.	1.6	16
62	An organic complementary differential amplifier for flexible AMOLED applications. , 2010, , .		16
63	Measurements of the field-effect electron mobility of the acceptor ITIC. <i>Organic Electronics</i> , 2018, 58, 290-293.	1.4	16
64	Optimizing Crack Onset Strain for Silicon Nitride/Fluoropolymer Nanolaminate Barrier Films. <i>ACS Applied Nano Materials</i> , 2019, 2, 2525-2532.	2.4	16
65	Organic Thin-Film Transistors with a Bottom Bilayer Gate Dielectric Having a Low Operating Voltage and High Operational Stability. <i>ACS Applied Electronic Materials</i> , 2020, 2, 2813-2818.	2.0	15
66	Self-forming electrode modification in organic field-effect transistors. <i>Journal of Materials Chemistry C</i> , 2016, 4, 8297-8303.	2.7	14
67	Experimental investigation of defect-assisted and intrinsic water vapor permeation through ultrabARRIER films. <i>Review of Scientific Instruments</i> , 2016, 87, 033902.	0.6	13
68	Efficient Electrical Doping of Organic Semiconductors Via an Orthogonal Liquid-Liquid Contact. <i>Advanced Functional Materials</i> , 2021, 31, 2009660.	7.8	10
69	Efficient blue-emitting electrophosphorescent organic light-emitting diodes using 2-(3,5-di(carbazol-9-yl)phenyl)-5-phenyl-1,3,4-oxadiazole as an ambipolar host. <i>RSC Advances</i> , 2013, 3, 23514.	1.7	9
70	Bis(naphthalene diimide) derivatives with mono- and dicarbonyl-fused tricyclic heterocyclic bridges as electron-transport materials. <i>Journal of Organic Semiconductors</i> , 2013, 1, 7-15.	1.2	8
71	Stacked inverted top-emitting white organic light-emitting diodes composed of orange and blue light-emitting units. <i>Applied Physics Letters</i> , 2013, 103, 193303.	1.5	6
72	Benzocyclobutene polymer as an additive for a benzocyclobutene-fullerene: application in stable perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2021, 9, 9347-9353.	5.2	6

#	ARTICLE	IF	CITATIONS
73	Organic field-effect transistor circuits using atomic layer deposited gate dielectrics patterned by reverse stamping. <i>Organic Electronics</i> , 2014, 15, 3780-3786.	1.4	5
74	Control of Singlet Emission Energy in a Diphenyloxadiazone Containing Fluorophore Leading To Thermally Activated Delayed Fluorescence. <i>ACS Omega</i> , 2018, 3, 14918-14923.	1.6	5
75	Mutual electrical doping in polymers. <i>Nature Materials</i> , 2020, 19, 702-704.	13.3	5
76	Increasing Volume in Conjugated Polymers to Facilitate Electrical Doping with Phosphomolybdic Acid. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 23260-23267.	4.0	5
77	Indium tin oxide modified by titanium dioxide nanoparticles dispersed in poly(N-vinylpyrrolidone) for use as an electron-collecting layer in organic solar cells with an inverted structure. <i>Journal of Materials Research</i> , 2013, 28, 535-540.	1.2	4
78	Effects of particle inclusions on cracking in ultrathin barrier films. <i>Thin Solid Films</i> , 2020, 714, 138387.	0.8	4
79	High performance polymer/BaTiO ₃ nanocomposites based on surface-modified metal oxide nanoparticles using functional phosphonic acids for electronic applications. <i>Materials Research Society Symposia Proceedings</i> , 2008, 1113, 1.	0.1	2
80	Impact of interface materials on side permeation in indirect encapsulation of organic electronics. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2020, 38, 033203.	0.9	2
81	Fullerene Based n-type Organic Thin-Film Transistors. <i>Materials Research Society Symposia Proceedings</i> , 2005, 871, 1.	0.1	1
82	Colorless Molecular Dopants for Low-Operating-Voltage Nematic Liquid Crystals. <i>Molecular Crystals and Liquid Crystals</i> , 2005, 428, 17-32.	0.4	1
83	Area-scaling of Organic Solar Cells and Integrated Modules. <i>Materials Research Society Symposia Proceedings</i> , 2009, 1212, 1.	0.1	1
84	Energy Storage: Bilayer Structure with Ultrahigh Energy/Power Density Using Hybrid Sol-Gel Dielectric and Charge-Blocking Monolayer (Adv. Energy Mater. 19/2015). <i>Advanced Energy Materials</i> , 2015, 5, .	10.2	1
85	ORGANIC PHOTOVOLTAICS: PHYSICAL CONCEPTS BEHIND DEVICE OPERATION. <i>Materials and Energy</i> , 2016, , 115-157.	2.5	1
86	Luminaire for Connected Lighting System with Spectrum that Mimics Natural Light. , 2022, , .		1
87	Molecular Multilayer Organic Solar Cells with Large Excitonic Diffusion Length. <i>Materials Research Society Symposia Proceedings</i> , 2006, 965, 1.	0.1	0
88	Organic Photovoltaics. , 2007, , .		0
89	Third-harmonic generation in organic thin films as an alternative to degenerate four-wave mixing ultrafast optical image processing. , 2008, , .		0
90	Nonlinear refraction and absorption in highly transmissive one-dimensional metal-organic photonic bandgap structures. , 2008, , .		0

#	ARTICLE	IF	CITATIONS
91	The future of plastic optoelectronics. , 2011, , .		0
92	Recent advances in printable OLED materials and devices. , 2012, , .		0
93	On the Characterization and Modeling of the Current Characteristics of Organic Photodiodes. , 2019, , .		0