

Michael Gaj

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

88

papers

4,501

citations

36

h-index

66

g-index

95

ext. papers

4,867

ext. citations

10.1

avg, IF

5.58

L-index

#	Paper	IF	Citations
88	Increasing Volume in Conjugated Polymers to Facilitate Electrical Doping with Phosphomolybdic Acid. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 23260-23267	9.5	0
87	Efficient Electrical Doping of Organic Semiconductors Via an Orthogonal Liquid-Liquid Contact. <i>Advanced Functional Materials</i> , 2021 , 31, 2009660	15.6	6
86	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	13	2
85	Skin-like low-noise elastomeric organic photodiodes. <i>Science Advances</i> , 2021 , 7, eabj6565	14.3	4
84	Large-area low-noise flexible organic photodiodes for detecting faint visible light. <i>Science</i> , 2020 , 370, 698-701	33.3	95
83	Effects of particle inclusions on cracking in ultrathin barrier films. <i>Thin Solid Films</i> , 2020 , 714, 138387	2.2	1
82	Mutual electrical doping in polymers. <i>Nature Materials</i> , 2020 , 19, 702-704	27	2
81	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	4	9
80	Thermally Activated Delayed Fluorescence Sensitization for Highly Efficient Blue Fluorescent Emitters. <i>Advanced Functional Materials</i> , 2020 , 30, 2005898	15.6	11
79	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	2.9	1
78	Optimizing Crack Onset Strain for Silicon Nitride/Fluoropolymer Nanolaminate Barrier Films. <i>ACS Applied Nano Materials</i> , 2019 , 2, 2525-2532	5.6	6
77	Measurements of the field-effect electron mobility of the acceptor ITIC. <i>Organic Electronics</i> , 2018 , 58, 290-293	3.5	15
76	Stable organic thin-film transistors. <i>Science Advances</i> , 2018 , 4, eaao1705	14.3	74
75	High performance blue-emitting organic light-emitting diodes from thermally activated delayed fluorescence: A guest/host ratio study. <i>Journal of Applied Physics</i> , 2018 , 124, 055501	2.5	21
74	Control of Singlet Emission Energy in a Diphenyloxadiazole Containing Fluorophore Leading To Thermally Activated Delayed Fluorescence. <i>ACS Omega</i> , 2018 , 3, 14918-14923	3.9	4
73	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	9.6	14
72	Stable solvent for solution-based electrical doping of semiconducting polymer films and its application to organic solar cells. <i>Energy and Environmental Science</i> , 2018 , 11, 2216-2224	35.4	26

71 Solid-State Organic Photovoltaics **2017**, 255-266

70 Flexible large-area organic tandem solar cells with high defect tolerance and device yield. *Journal of Materials Chemistry A*, **2017**, 5, 3186-3192 13 47

69 Solution-based electrical doping of semiconducting polymer films over a limited depth. *Nature Materials*, **2017**, 16, 474-480 27 95

68 Top-gate organic field-effect transistors fabricated on paper with high operational stability. *Organic Electronics*, **2017**, 41, 340-344 3.5 25

67 Self-forming electrode modification in organic field-effect transistors. *Journal of Materials Chemistry C*, **2016**, 4, 8297-8303 7.1 11

66 Organic Field-Effect Transistors with a Bilayer Gate Dielectric Comprising an Oxide Nanolaminate Grown by Atomic Layer Deposition. *ACS Applied Materials & Interfaces*, **2016**, 8, 29872-29876 9.5 14

65 Flexible all-solution-processed all-plastic multijunction solar cells for powering electronic devices. *Materials Horizons*, **2016**, 3, 452-459 14.4 63

64 Simultaneous cross-linking and p-doping of a polymeric semiconductor film by immersion into a phosphomolybdic acid solution for use in organic solar cells. *Chemical Communications*, **2016**, 52, 3825-7 5.8 12

63 Experimental investigation of defect-assisted and intrinsic water vapor permeation through ultrabARRIER films. *Review of Scientific Instruments*, **2016**, 87, 033902 1.7 10

62 A Study on Reducing Contact Resistance in Solution-Processed Organic Field-Effect Transistors. *ACS Applied Materials & Interfaces*, **2016**, 8, 24744-52 9.5 55

61 ORGANIC PHOTOVOLTAICS: PHYSICAL CONCEPTS BEHIND DEVICE OPERATION. *Materials and Energy*, **2016**, 115-157 1

60 Organic light-emitting diodes on shape memory polymer substrates for wearable electronics. *Organic Electronics*, **2015**, 25, 151-155 3.5 31

59 Highly efficient Organic Light-Emitting Diodes from thermally activated delayed fluorescence using a sulfone-barbazole host material. *Organic Electronics*, **2015**, 16, 109-112 3.5 48

58 Energy Storage: Bilayer Structure with Ultrahigh Energy/Power Density Using Hybrid Sol-Gel Dielectric and Charge-Blocking Monolayer (Adv. Energy Mater. 19/2015). *Advanced Energy Materials*, **2015**, 5, 21.8 1

57 Self-(Un)rolling Biopolymer Microstructures: Rings, Tubules, and Helical Tubules from the Same Material. *Angewandte Chemie*, **2015**, 127, 8610-8613 3.6 7

56 Self-(Un)rolling Biopolymer Microstructures: Rings, Tubules, and Helical Tubules from the Same Material. *Angewandte Chemie - International Edition*, **2015**, 54, 8490-3 16.4 20

55 Bilayer Structure with Ultrahigh Energy/Power Density Using Hybrid Sol-Gel Dielectric and Charge-Blocking Monolayer. *Advanced Energy Materials*, **2015**, 5, 1500767 21.8 29

54 ITO-free large-area flexible organic solar cells with an embedded metal grid. *Organic Electronics*, **2015**, 17, 349-354 3.5 41

53	Stable low-voltage operation top-gate organic field-effect transistors on cellulose nanocrystal substrates. <i>ACS Applied Materials & Interfaces</i> , 2015 , 7, 4804-8	9.5	47
52	Inverted Tandem Polymer Solar Cells with Polyethylenimine-Modified MoOX/Al ₂ O ₃ :ZnO Nanolaminate as the Charge Recombination Layers. <i>Advanced Energy Materials</i> , 2014 , 4, 1400048	21.8	21
51	Systematic reliability study of top-gate p- and n-channel organic field-effect transistors. <i>ACS Applied Materials & Interfaces</i> , 2014 , 6, 3378-86	9.5	39
50	Stable organic field-effect transistors for continuous and nondestructive sensing of chemical and biologically relevant molecules in aqueous environment. <i>ACS Applied Materials & Interfaces</i> , 2014 , 6, 1616-22	9.5	34
49	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	15.6	70
48	Pyrrole[3,2-d:4,5-d']bisthiazole-bridged bis(naphthalene diimide)s as electron-transport materials. <i>Journal of Materials Chemistry C</i> , 2014 , 2, 124-131	7.1	25
47	All-plastic solar cells with a high photovoltaic dynamic range. <i>Journal of Materials Chemistry A</i> , 2014 , 2, 3492	13	87
46	Organic field-effect transistor circuits using atomic layer deposited gate dielectrics patterned by reverse stamping. <i>Organic Electronics</i> , 2014 , 15, 3780-3786	3.5	4
45	2-Bromo perylene diimide: synthesis using C ₆₀ activation and use in the synthesis of bis(peryrene diimide) donor electron-transport materials. <i>Journal of Materials Chemistry C</i> , 2013 , 1, 5093	7.1	32
44	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	3.7	9
43	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	2.5	4
42	Benzo[1,2-b:6,5-b']dithiophene(dithiazole)-4,5-dione derivatives: synthesis, electronic properties, crystal packing and charge transport. <i>Journal of Materials Chemistry C</i> , 2013 , 1, 1467	7.1	19
41	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	3.4	6
40	Reduction of contact resistance by selective contact doping in fullerene n-channel organic field-effect transistors. <i>Applied Physics Letters</i> , 2013 , 102, 153303	3.4	43
39	Bis(naphthalene diimide) derivatives with mono- and dicarbonyl-fused tricyclic heterocyclic bridges as electron-transport materials 2013 , 1, 7-15		8
38	Polynorbornenes with pendant perylene diimides for organic electronic applications. <i>Polymer Chemistry</i> , 2012 , 3, 2996	4.9	18
37	High performance polymeric charge recombination layer for organic tandem solar cells. <i>Energy and Environmental Science</i> , 2012 , 5, 9827	35.4	171
36	Solvent and polymer matrix effects on TIPS-pentacene/polymer blend organic field-effect transistors. <i>Journal of Materials Chemistry</i> , 2012 , 22, 5531		96

35	Oriented Growth of Al ₂ O ₃ :ZnO Nanolaminates for Use as Electron-Selective Electrodes in Inverted Polymer Solar Cells. <i>Advanced Functional Materials</i> , 2012 , 22, 1531-1538	15.6	47
34	Dithienopyrrole-quinoxaline/pyridopyrazine donor-acceptor polymers: synthesis and electrochemical, optical, charge-transport, and photovoltaic properties. <i>Journal of Materials Chemistry</i> , 2011 , 21, 4971		51
33	Roles of thermally-induced vertical phase segregation and crystallization on the photovoltaic performance of bulk heterojunction inverted polymer solar cells. <i>Energy and Environmental Science</i> , 2011 , 4, 3456	35.4	34
32	Solution-Processed Molecular Bis(Naphthalene Diimide) Derivatives with High Electron Mobility. <i>Chemistry of Materials</i> , 2011 , 23, 3408-3410	9.6	104
31	Top-gate organic field-effect transistors with high environmental and operational stability. <i>Advanced Materials</i> , 2011 , 23, 1293-8	24	140
30	Enhanced carrier mobility and electrical stability of n-channel polymer thin film transistors by use of low-k dielectric buffer layer. <i>Applied Physics Letters</i> , 2011 , 99, 173303	3.4	26
29	A comprehensive analysis of the contributions to the nonlinear optical properties of thin Ag films. <i>Journal of Applied Physics</i> , 2010 , 107, 123114	2.5	29
28	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		140
27	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		88
26	An organic complementary differential amplifier for flexible AMOLED applications 2010 ,		12
25	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. <i>Journal of Applied Physics</i> , 2009 , 105, 074511	2.5	29
24	Tailoring the work function of indium tin oxide electrodes in electrophosphorescent organic light-emitting diodes. <i>Journal of Applied Physics</i> , 2009 , 105, 084507	2.5	65
23	Area-scaling of Organic Solar Cells and Integrated Modules. <i>Materials Research Society Symposia Proceedings</i> , 2009 , 1212, 1		1
22	SPICE Optimization of Organic FET Models Using Charge Transport Elements. <i>IEEE Transactions on Electron Devices</i> , 2009 , 56, 38-42	2.9	10
21	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		158
20	Effects of surface modification of indium tin oxide electrodes on the performance of molecular multilayer organic photovoltaic devices. <i>Journal of Materials Chemistry</i> , 2009 , 19, 5298		49
19	Room-temperature discotic liquid-crystalline coronene diimides exhibiting high charge-carrier mobility in air. <i>Journal of Materials Chemistry</i> , 2009 , 19, 6688		100
18	Third-harmonic generation and its applications in optical image processing. <i>Journal of Materials Chemistry</i> , 2009 , 19, 7394		26

17	Organic photovoltaics. <i>Energy and Environmental Science</i> , 2009 , 2, 251	35.4	1049
16	Low-voltage flexible organic complementary inverters with high noise margin and high dc gain. <i>Applied Physics Letters</i> , 2009 , 94, 043312	3.4	68
15	Fluorenyl-substituted silole molecules: geometric, electronic, optical, and device properties. <i>Journal of Materials Chemistry</i> , 2008 , 18, 3157		40
14	High-performance C60 n-channel organic field-effect transistors through optimization of interfaces. <i>Journal of Applied Physics</i> , 2008 , 104, 104504	2.5	54
13	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		
12	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	0.5	15
11	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, 163308	3.4	71
10	Comparison of Pentacene and Amorphous Silicon AMOLED Display Driver Circuits. <i>IEEE Transactions on Circuits and Systems I: Regular Papers</i> , 2008 , 55, 1177-1184	3.9	18
9	A Nonvolatile Organic Memory Device Using ITO Surfaces Modified by Ag-Nanodots. <i>Advanced Functional Materials</i> , 2008 , 18, 1112-1118	15.6	73
8	Stability of Doped Transparent Carbon Nanotube Electrodes. <i>Advanced Functional Materials</i> , 2008 , 18, 2548-2554	15.6	174
7	High electron mobility in nickel bis(dithiolene) complexes. <i>Journal of Materials Chemistry</i> , 2007 , 17, 2642		57
6	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	3.5	125
5	Norbornene-Based Copolymers with Iridium Complexes and Bis(carbazolyl)fluorene Groups in Their Side-Chains and Their Use in Light-Emitting Diodes. <i>Chemistry of Materials</i> , 2007 , 19, 5602-5608	9.6	59
4	Molecular Multilayer Organic Solar Cells with Large Excitonic Diffusion Length. <i>Materials Research Society Symposia Proceedings</i> , 2006 , 965, 1		
3	Colorless Molecular Dopants for Low-Operating-Voltage Nematic Liquid Crystals. <i>Molecular Crystals and Liquid Crystals</i> , 2005 , 428, 17-32	0.5	1
2	Thermal transport properties of thin films of small molecule organic semiconductors. <i>Applied Physics Letters</i> , 2005 , 87, 241908	3.4	54
1	Fullerene Based n-type Organic Thin-Film Transistors. <i>Materials Research Society Symposia Proceedings</i> , 2005 , 871, 1		