Michael Gaj

List of Publications by Citations

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	Organic photovoltaics. *Energy and Environmental Science*, **2009**, 2, 251	35.4	1049
87	Stability of Doped Transparent Carbon Nanotube Electrodes. *Advanced Functional Materials*, **2008**, 18, 2548-2554	15.6	174
86	High performance polymeric charge recombination layer for organic tandem solar cells. *Energy and Environmental Science*, **2012**, 5, 9827	35.4	171
85	Copolymers of perylene diimide with dithienothiophene and dithienopyrrole as electron-transport materials for all-polymer solar cells and field-effect transistors. *Journal of Materials Chemistry*, **2009**, 19, 5794		158
84	Top-gate organic field-effect transistors with high environmental and operational stability. *Advanced Materials*, **2011**, 23, 1293-8	24	140
83	Dithienopyrrole-based donor–acceptor copolymers: low band-gap materials for charge transport, photovoltaics and electrochromism. *Journal of Materials Chemistry*, **2010**, 20, 123-134		140
82	High-performance pentacene field-effect transistors using Al2O3 gate dielectrics prepared by atomic layer deposition (ALD). *Organic Electronics*, **2007**, 8, 718-726	3.5	125
81	Solution-Processed Molecular Bis(Naphthalene Diimide) Derivatives with High Electron Mobility. *Chemistry of Materials*, **2011**, 23, 3408-3410	9.6	104
80	Room-temperature discotic liquid-crystalline coronene diimides exhibiting high charge-carrier mobility in air. *Journal of Materials Chemistry*, **2009**, 19, 6688		100
79	Solvent and polymer matrix effects on TIPS-pentacene/polymer blend organic field-effect transistors. *Journal of Materials Chemistry*, **2012**, 22, 5531		96
78	Solution-based electrical doping of semiconducting polymer films over a limited depth. *Nature Materials*, **2017**, 16, 474-480	27	95
77	Large-area low-noise flexible organic photodiodes for detecting faint visible light. *Science*, **2020**, 370, 698-701	33.3	95
76	Inverted organic solar cells with ITO electrodes modified with an ultrathin Al2O3 buffer layer deposited by atomic layer deposition. *Journal of Materials Chemistry*, **2010**, 20, 6189		88
75	All-plastic solar cells with a high photovoltaic dynamic range. *Journal of Materials Chemistry A*, **2014**, 2, 3492	13	87
74	Stable organic thin-film transistors. *Science Advances*, **2018**, 4, eaao1705	14.3	74
73	A Nonvolatile Organic Memory Device Using ITO Surfaces Modified by Ag-Nanodots. *Advanced Functional Materials*, **2008**, 18, 1112-1118	15.6	73
72	Stabilization of the work function of indium tin oxide using organic surface modifiers in organic light-emitting diodes. *Applied Physics Letters*, **2008**, 93, 163308	3.4	71

71	Enhanced Charge-Carrier Injection and Collection Via Lamination of Doped Polymer Layers p-Doped with a Solution-Processible Molybdenum Complex. *Advanced Functional Materials*, **2014**, 24, 2197-2204	15.6	70
70	Low-voltage flexible organic complementary inverters with high noise margin and high dc gain. *Applied Physics Letters*, **2009**, 94, 043312	3.4	68
69	Tailoring the work function of indium tin oxide electrodes in electrophosphorescent organic light-emitting diodes. *Journal of Applied Physics*, **2009**, 105, 084507	2.5	65
68	Flexible all-solution-processed all-plastic multijunction solar cells for powering electronic devices. *Materials Horizons*, **2016**, 3, 452-459	14.4	63
67	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	9.6	59
66	High electron mobility in nickel bis(dithiolene) complexes. *Journal of Materials Chemistry*, **2007**, 17, 2642		57
65	A Study on Reducing Contact Resistance in Solution-Processed Organic Field-Effect Transistors. *ACS Applied Materials & Interfaces*, **2016**, 8, 24744-52	9.5	55
64	High-performance C60 n-channel organic field-effect transistors through optimization of interfaces. *Journal of Applied Physics*, **2008**, 104, 104504	2.5	54
63	Thermal transport properties of thin films of small molecule organic semiconductors. *Applied Physics Letters*, **2005**, 87, 241908	3.4	54
62	Dithienopyrrole–quinoxaline/pyridopyrazine donor–acceptor polymers: synthesis and electrochemical, optical, charge-transport, and photovoltaic properties. *Journal of Materials Chemistry*, **2011**, 21, 4971		51
61	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		49
60	Highly efficient Organic Light-Emitting Diodes from thermally activated delayed fluorescence using a sulfone–carbazole host material. *Organic Electronics*, **2015**, 16, 109-112	3.5	48
59	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
58	Stable low-voltage operation top-gate organic field-effect transistors on cellulose nanocrystal substrates. *ACS Applied Materials & Interfaces*, **2015**, 7, 4804-8	9.5	47
57	Oriented Growth of Al2O3:ZnO Nanolaminates for Use as Electron-Selective Electrodes in Inverted Polymer Solar Cells. *Advanced Functional Materials*, **2012**, 22, 1531-1538	15.6	47
56	Reduction of contact resistance by selective contact doping in fullerene n-channel organic field-effect transistors. *Applied Physics Letters*, **2013**, 102, 153303	3.4	43
55	ITO-free large-area flexible organic solar cells with an embedded metal grid. *Organic Electronics*, **2015**, 17, 349-354	3.5	41
54	Fluorenyl-substituted silole molecules: geometric, electronic, optical, and device properties. *Journal of Materials Chemistry*, **2008**, 18, 3157		40

53	Systematic reliability study of top-gate p- and n-channel organic field-effect transistors. *ACS Applied Materials & Interfaces*, **2014**, 6, 3378-86	9.5	39
52	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, 1616-22	9.5	34
51	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	35.4	34
50	2-Bromo perylene diimide: synthesis using C H activation and use in the synthesis of bis(perylene diimide) onor electron-transport materials. *Journal of Materials Chemistry C*, **2013**, 1, 5093	7.1	32
49	Organic light-emitting diodes on shape memory polymer substrates for wearable electronics. *Organic Electronics*, **2015**, 25, 151-155	3.5	31
48	Bilayer Structure with Ultrahigh Energy/Power Density Using Hybrid Sol el Dielectric and Charge-Blocking Monolayer. *Advanced Energy Materials*, **2015**, 5, 1500767	21.8	29
47	A comprehensive analysis of the contributions to the nonlinear optical properties of thin Ag films. *Journal of Applied Physics*, **2010**, 107, 123114	2.5	29
46	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, 074511	2.5	29
45	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, 173303	3.4	26
44	Third-harmonic generation and its applications in optical image processing. *Journal of Materials Chemistry*, **2009**, 19, 7394		26
43	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	35.4	26
42	Top-gate organic field-effect transistors fabricated on paper with high operational stability. *Organic Electronics*, **2017**, 41, 340-344	3.5	25
41	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	7.1	25
40	High performance blue-emitting organic light-emitting diodes from thermally activated delayed fluorescence: A guest/host ratio study. *Journal of Applied Physics*, **2018**, 124, 055501	2.5	21
39	Inverted Tandem Polymer Solar Cells with Polyethylenimine-Modified MoOX/Al2O3:ZnO Nanolaminate as the Charge Recombination Layers. *Advanced Energy Materials*, **2014**, 4, 1400048	21.8	21
38	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
37	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	7.1	19
36	Polynorbornenes with pendant perylene diimides for organic electronic applications. *Polymer Chemistry*, **2012**, 3, 2996	4.9	18

35	Comparison of Pentacene and Amorphous Silicon AMOLED Display Driver Circuits. *IEEE Transactions on Circuits and Systems I: Regular Papers*, **2008**, 55, 1177-1184	3.9	18
34	Measurements of the field-effect electron mobility of the acceptor ITIC. *Organic Electronics*, **2018**, 58, 290-293	3.5	15
33	A Comparative Study of Charge Mobility Measurements in a Diamine and in a Hexaazatrinaphthylene Using Different Techniques. *Molecular Crystals and Liquid Crystals*, **2008**, 481, 80-93	0.5	15
32	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
31	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. *Chemistry of Materials*, **2018**, 30, 6389-6399	9.6	14
30	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
29	An organic complementary differential amplifier for flexible AMOLED applications **2010**,		12
28	Self-forming electrode modification in organic field-effect transistors. *Journal of Materials Chemistry C*, **2016**, 4, 8297-8303	7.1	11
27	Thermally Activated Delayed Fluorescence Sensitization for Highly Efficient Blue Fluorescent Emitters. *Advanced Functional Materials*, **2020**, 30, 2005898	15.6	11
26	SPICE Optimization of Organic FET Models Using Charge Transport Elements. *IEEE Transactions on Electron Devices*, **2009**, 56, 38-42	2.9	10
25	Experimental investigation of defect-assisted and intrinsic water vapor permeation through ultrabarrier films. *Review of Scientific Instruments*, **2016**, 87, 033902	1.7	10
24	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. *RSC Advances*, **2013**, 3, 23514	3.7	9
23	Organic Thin-Film Transistors with a Bottom Bilayer Gate Dielectric Having a Low Operating Voltage and High Operational Stability. *ACS Applied Electronic Materials*, **2020**, 2, 2813-2818	4	9
22	Bis(naphthalene diimide) derivatives with mono- and dicarbonyl-fused tricyclic heterocyclic bridges as electron-transport materials **2013**, 1, 7-15		8
21	Self-(Un)rolling Biopolymer Microstructures: Rings, Tubules, and Helical Tubules from the Same Material. *Angewandte Chemie*, **2015**, 127, 8610-8613	3.6	7
20	Optimizing Crack Onset Strain for Silicon Nitride/Fluoropolymer Nanolaminate Barrier Films. *ACS Applied Nano Materials*, **2019**, 2, 2525-2532	5.6	6
19	Stacked inverted top-emitting white organic light-emitting diodes composed of orange and blue light-emitting units. *Applied Physics Letters*, **2013**, 103, 193303	3.4	6
18	Efficient Electrical Doping of Organic Semiconductors Via an Orthogonal Liquid-Liquid Contact. *Advanced Functional Materials*, **2021**, 31, 2009660	15.6	6

17	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. *Journal of Materials Research*, **2013**, 28, 535-540	2.5	4
16	Organic field-effect transistor circuits using atomic layer deposited gate dielectrics patterned by reverse stamping. *Organic Electronics*, **2014**, 15, 3780-3786	3.5	4
15	Control of Singlet Emission Energy in a Diphenyloxadiazole Containing Fluorophore Leading To Thermally Activated Delayed Fluorescence. *ACS Omega*, **2018**, 3, 14918-14923	3.9	4
14	Skin-like low-noise elastomeric organic photodiodes.. *Science Advances*, **2021**, 7, eabj6565	14.3	4
13	Mutual electrical doping in polymers. *Nature Materials*, **2020**, 19, 702-704	27	2
12	Benzocyclobutene polymer as an additive for a benzocyclobutene-fullerene: application in stable p□□ perovskite solar cells. *Journal of Materials Chemistry A*, **2021**, 9, 9347-9353	13	2
11	Effects of particle inclusions on cracking in ultrathin barrier films. *Thin Solid Films*, **2020**, 714, 138387	2.2	1
10	Energy Storage: Bilayer Structure with Ultrahigh Energy/Power Density Using Hybrid Sol□□el Dielectric and Charge-Blocking Monolayer (Adv. Energy Mater. 19/2015). *Advanced Energy Materials* , **2015**, 5,	21.8	1
9	Area-scaling of Organic Solar Cells and Integrated Modules. *Materials Research Society Symposia Proceedings*, **2009**, 1212, 1		1
8	Colorless Molecular Dopants for Low-Operating-Voltage Nematic Liquid Crystals. *Molecular Crystals and Liquid Crystals*, **2005**, 428, 17-32	0.5	1
7	ORGANIC PHOTOVOLTAICS: PHYSICAL CONCEPTS BEHIND DEVICE OPERATION. *Materials and Energy*, **2016**, 115-157		1
6	Impact of interface materials on side permeation in indirect encapsulation of organic electronics. *Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films*, **2020**, 38, 033203	2.9	1
5	Increasing Volume in Conjugated Polymers to Facilitate Electrical Doping with Phosphomolybdic Acid. *ACS Applied Materials & Interfaces*, **2021**, 13, 23260-23267	9.5	0
4	Solid-State Organic Photovoltaics **2017**, 255-266		
3	High performance polymer/BaTiO3 nanocomposites based on surface-modified metal oxide nanoparticles using functional phosphonic acids for electronic applications. *Materials Research Society Symposia Proceedings*, **2008**, 1113, 1		
2	Molecular Multilayer Organic Solar Cells with Large Excitonic Diffusion Length. *Materials Research Society Symposia Proceedings*, **2006**, 965, 1		
1	Fullerene Based n-type Organic Thin-Film Transistors. *Materials Research Society Symposia Proceedings*, **2005**, 871, 1		