Hany Aziz

List of Publications by Year
in descending order

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121 papers	4,992 citations	87888 38 h-index	98798 67 g-index
122 all docs	122 docs citations	122 times ranked	4735 citing authors

#	Article	IF	Citations
1	Record High Electron Mobility of 6.3 cm²V^{âˆ’1}s^{âˆ’1} Achieved for Polymer Semiconductors Using a New Building Block. Advanced Materials, 2014, 26, 2636-2642.	21.0	382
2	Degradation Phenomena in Small-Molecule Organic Light-Emitting Devices. Chemistry of Materials, 2004, 16, 4522-4532.	6.7	287
3	Humidity-induced crystallization of tris (8-hydroxyquinoline) aluminum layers in organic light-emitting devices. Applied Physics Letters, 1998, 72, 756-758.	3.3	217
4	Syntheses, Structures, and Electroluminescence of New Blue/Green Luminescent Chelate Compounds:Â Zn(2-py-in)2(THF), BPh2(2-py-in), Be(2-py-in)2, and BPh2(2-py-aza) [2-py-in = 2-(2-pyridyl)indole; 2-py-aza = 2-(2-pyridyl)-7-azaindole]. Journal of the American Chemical Society, 2000, 122, 3671-3678.	13.7	203
5	Correlation Between Tripletâ€“Triplet Annihilation and Electroluminescence Efficiency in Doped Fluorescent Organic Lightâ€Emitting Devices. Advanced Functional Materials, 2010, 20, 1285-1293.	14.9	201
6	Degradation processes at the cathode/organic interface in organic light emitting devices with Mg:Ag cathodes. Applied Physics Letters, 1998, 72, 2642-2644.	3.3	181
7	Causes of efficiency roll-off in phosphorescent organic light emitting devices: Triplet-triplet annihilation versus triplet-polaron quenching. Applied Physics Letters, 2010, 97, .	3.3	177
8	Investigation of the sites of dark spots in organic light-emitting devices. Applied Physics Letters, 2000, 77, 2650-2652.	3.3	150
9	Study of organic light emitting devices with a 5,6,11,12-tetraphenylnaphthacene (rubrene)-doped hole transport layer. Applied Physics Letters, 2002, 80, 2180-2182.	3.3	124
10	Degradation of Organic/Organic Interfaces in Organic Light-Emitting Devices due to Polaronâ€“Exciton Interactions. ACS Applied Materials & Interfaces, 2013, 5, 8733-8739.	8.0	112
11	Organic light emitting devices with enhanced operational stability at elevated temperatures. Applied Physics Letters, 2002, 81, 370-372.	3.3	111
12	Excitonâ€“Polaronâ€Induced Aggregation of Wideâ€Bandgap Materials and its Implication on the Electroluminescence Stability of Phosphorescent Organic Lightâ€Emitting Devices. Advanced Functional Materials, 2014, 24, 2975-2985.	14.9	92
13	A conjugated polyazine containing diketopyrrolopyrrole for ambipolar organic thin film transistors. Chemical Communications, 2012, 48, 8413.	4.1	90
14	Simultaneous electroluminescence and photoluminescence aging studies of tris(8-hydroxyquinoline) aluminum-based organic light-emitting devices. Journal of Applied Physics, 2001, 89, 4673-4675.	2.5	81
15	The Photoâ€Stability of Polymer Solar Cells: Contact Photoâ€Degradation and the Benefits of Interfacial Layers. Advanced Functional Materials, 2013, 23, 2239-2247.	14.9	80
16	Delayed electroluminescence in small-molecule-based organic light-emitting diodes: Evidence for triplet-triplet annihilation and recombination-center-mediated light-generation mechanism. Journal of Applied Physics, 2005, 98, 013510.	2.5	75
17	Multifunctional Dithiadiazolyl Radicals: Fluorescence, Electroluminescence, and Photoconducting Behavior in Pyren-1â€²-yl-dithiadiazolyl. Journal of the American Chemical Society, 2018, 140, 6260-6270.	13.7	75
18	Temperature dependence of operational stability of organic light emitting diodes based on mixed emitter layers. Synthetic Metals, 2004, 143, 69-73.	3.9	71

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19	Integration of Organic Light Emitting Diodes and Organic Photodetectors for Lab-on-a-Chip Bio-Detection Systems. Electronics (Switzerland), 2014, 3, 43-75.	3.1	68
20	A pyridine-flanked diketopyrrolopyrrole (DPP)-based donorâ€“acceptor polymer showing high mobility in ambipolar and n-channel organic thin film transistors. Polymer Chemistry, 2015, 6, 938-945.	3.9	67
21	Time-resolved fluorescence studies of degradation in tris(8-hydroxyquinoline) aluminum (AlQ3)-based organic light emitting devices (OLEDs). Synthetic Metals, 2001, 123, 179-181.	3.9	58
22	Electron-Induced Quenching of Excitons in Luminescent Materials. Chemistry of Materials, 2007, 19, 2288-2291.	6.7	58
23	Transparent organic light-emitting devices using a MoO3/Ag/MoO3 cathode. Journal of Applied Physics, 2011, 110, .	2.5	55
24	Host to Guest Energy Transfer Mechanism in Phosphorescent and Fluorescent Organic Light-Emitting Devices Utilizing Exciplex-Forming Hosts. Journal of Physical Chemistry C, 2014, 118, 24006-24012.	3.1	55
25	Syntheses, Structures, and Luminescence/Electroluminescence of BPh2(mqp), Al(CH3)(mqp)2, and Al(mqp)3(mqp = 2-(4â€˜-Methylquinolinyl)-2-phenolato). Organometallics, 2000, 19, 5709-5714.	2.3	54
26	High electron mobility triazine for lower driving voltage and higher efficiency organic light emitting devices. Organic Electronics, 2008, 9, 285-290.	2.6	53
27	Influence of side chain length and bifurcation point on the crystalline structure and charge transport of diketopyrrolopyrrole-quaterthiophene copolymers (PDQTs). Journal of Materials Chemistry C, 2014, 2, 2183-2190.	5.5	51
28	Electroplex as a New Concept of Universal Host for Improved Efficiency and Lifetime in Red, Yellow, Green, and Blue Phosphorescent Organic Lightâ€Emitting Diodes. Advanced Science, 2018, 5, 1700608.	11.2	51
29	Diketopyrrolopyrrole-based semiconducting polymer bearing thermocleavable side chains. Journal of Materials Chemistry, 2012, 22, 18950.	6.7	50
30	Polyethylenimine (PEI) As an Effective Dopant To Conveniently Convert Ambipolar and p-Type Polymers into Unipolar n-Type Polymers. ACS Applied Materials & Interfaces, 2015, 7, 18662-18671.	8.0	49
31	Reduced reflectance cathode for organic light-emitting devices using metalorganic mixtures. Applied Physics Letters, 2003, 83, 186-188.	3.3	48
32	Exciton-Induced Degradation of Carbazole-Based Host Materials and Its Role in the Electroluminescence Spectral Changes in Phosphorescent Organic Light Emitting Devices with Electrical Aging. ACS Applied Materials & Interfaces, 2017, 9, 14145-14152.	8.0	45
33	Excitonâ€“Polaronâ€Induced Aggregation of Organic Electroluminescent Materials: A Major Degradation Mechanism in Wideâ€Bandgap Phosphorescent and Fluorescent Organic Lightâ€Emitting Devices. Advanced Optical Materials, 2015, 3, 967-975.	7.3	44
34	Guiding the Selection of Processing Additives for Increasing the Efficiency of Bulk Heterojunction Polymeric Solar Cells. Advanced Energy Materials, 2014, 4, 1300752.	19.5	43
35	Modification of Exciton Lifetime by the Metal Cathode in Phosphorescent OLEDs, and Implications on Device Efficiency and Efficiency Rollâ€off Behavior. Advanced Functional Materials, 2011, 21, 2311-2317.	14.9	42
36	Similar Roles of Electrons and Holes in Luminescence Degradation of Organic Light-Emitting Devices. Chemistry of Materials, 2007, 19, 2079-2083.	6.7	40

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37	Influence of the Guest on Aggregation of the Host by Excitonâ€“Polaron Interactions and Its Effects on the Stability of Phosphorescent Organic Light-Emitting Devices. ACS Applied Materials & Interfaces, 2016, 8, 14088-14095.	8.0	40
38	Triplet-polaron quenching by charges on guest molecules in phosphorescent organic light emitting devices. Applied Physics Letters, 2012, 101, 063502.	3.3	39
39	Degradation Mechanisms in Organic Light-Emitting Diodes with Polyethylenimine as a Solution-Processed Electron Injection Layer. ACS Applied Materials & Interfaces, 2017, 9, 2776-2785.	8.0	39
40	Perspective: Toward highly stable electroluminescent quantum dot light-emitting devices in the visible range. Applied Physics Letters, 2020, 116, .	3.3	37
41	Temperature dependence of electroluminescence degradation in organic light emitting devices without and with a copper phthalocyanine buffer layer. Organic Electronics, 2002, 3, 9-13.	2.6	36
42	Increased Electromer Formation and Charge Trapping in Solution-Processed versus Vacuum-Deposited Small Molecule Host Materials of Organic Light-Emitting Devices. ACS Applied Materials & Interfaces, 2017, 9, 40564-40572.	8.0	34
43	Recent Progress in High Mobility Polymer Semiconductors for Organic Thin Film Transistors. Reviews in Advanced Sciences and Engineering, 2012, 1, 200-224.	0.6	33
44	Photo-degradation of the indium tin oxide (ITO)/organic interface in organic optoelectronic devices and a new outlook on the role of ITO surface treatments and interfacial layers in improving device stability. Organic Electronics, 2012, 13, 2075-2082.	2.6	32
45	Dramatically enhanced molecular ordering and charge transport of a DPP-based polymer assisted by oligomers through antiplasticization. Journal of Materials Chemistry C, 2013, 1, 4423.	5.5	31
46	Role of the donor material and the donorâ€“acceptor mixing ratio in increasing the efficiency of Schottky junction organic solar cells. Organic Electronics, 2013, 14, 2392-2400.	2.6	31
47	Electric-field-induced fluorescence quenching in dye-doped tris(8-hydroxyquinoline) aluminum layers. Applied Physics Letters, 2006, 89, 103505.	3.3	30
48	Probing triplet-triplet annihilation zone and determining triplet exciton diffusion length by using delayed electroluminescence. Journal of Applied Physics, 2010, 107, .	2.5	30
49	Photodegradation of the organic/metal cathode interface in organic light-emitting devices. Applied Physics Letters, 2010, 97, 063309.	3.3	29
50	Significant Enhancement in Quantum Dot Light-Emitting Device Stability via a Cascading Hole Transport Layer. ACS Applied Materials & Interfaces, 2020, 12, 16782-16791.	8.0	29
51	Photochemical deterioration of the organic/metal contacts in organic optoelectronic devices. Journal of Applied Physics, 2012, 112, .	2.5	28
52	The role of polyethylenimine in enhancing the efficiency of quantum dot light-emitting devices. Nanoscale, 2018, 10, 2623-2631.	5.6	28
53	Very High Brightness Quantum Dot Light-Emitting Devices via Enhanced Energy Transfer from a Phosphorescent Sensitizer. ACS Applied Materials & Interfaces, 2015, 7, 25828-25834.	8.0	27
54	The Root Causes of the Limited Stability of Solutionâ€Coated Smallâ€Molecule Organic Lightâ€Emitting Devices: Faster Host Aggregation by Excitonâ€“Polaron Interactions. Advanced Functional Materials, 2016, 26, 8662-8669.	14.9	27

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55	Dependence of carrier recombination mechanism on the thickness of the emission layer in green phosphorescent organic light emitting devices. Organic Electronics, 2011, 12, 582-588.	2.6	25
56	Acid dyeing for green solvent processing of solvent resistant semiconducting organic thin films. Materials Horizons, 2020, 7, 2959-2969.	12.2	24
57	Luminescence degradation in phosphorescent organic light-emitting devices by hole space charges. Journal of Applied Physics, 2011, 109, 044501-044501-6.	2.5	23
58	Formulation strategies for optimizing the morphology of polymeric bulk heterojunction organic solar cells: a brief review. Journal of Photonics for Energy, 2014, 4, 040998.	1.3	22
59	Degradation Mechanisms in Blue Phosphorescent Organic Light-Emitting Devices by Excitonâ€"Polaron Interactions: Loss in Quantum Yield versus Loss in Charge Balance. ACS Applied Materials & Interfaces, 2017, 9, 636-643.	8.0	22
60	Root Causes of the Limited Electroluminescence Stability of Organic Light-Emitting Devices Made by Solution-Coating. ACS Applied Materials & Interfaces, 2018, 10, 18113-18122.	8.0	22
61	Investigating the influence of the solution-processing method on the morphological properties of organic semiconductor films and their impact on OLED performance and lifetime. Organic Electronics, 2020, 78, 105509.	2.6	22
62	Highly Efficient Organic Lightâ€Emitting Devices Prepared with a Phosphorescent Heteroleptic Iridium (III) Complex Containing 7,8â€Benzoquinoline as the Cyclometalated Ligand. Advanced Optical Materials, 2014, 2, 262-266.	7.3	21
63	Significant Photostability Enhancement of Inverted Organic Solar Cells by Inserting an N-Annulated Perylene Diimide (PDIN-H) between the ZnO Electron Extraction Layer and the Organic Active Layer. ACS Applied Energy Materials, 2020, 3, 11655-11665.	5.1	20
64	Explaining the different efficiency behaviors of PHOLEDs with/without a hole injection barrier at the hole transport layer/emitter layer interface. Organic Electronics, 2013, 14, 2510-2517.	2.6	19
65	Concentration-insensitive phosphorescent organic light emitting devices (PhOLEDs) for easy manufacturing. Journal of Luminescence, 2014, 151, 34-40.	3.1	18
66	Enhanced photo-stability of inverted organic solar cells via using polyethylenimine in the electron extraction layers. Organic Electronics, 2019, 73, 26-35.	2.6	18
67	Improving the stability of organic light-emitting devices by using a thin Mg anode buffer layer. Applied Physics Letters, 2006, 89, 103515.	3.3	17
68	Evidence of intermolecular species formation with electrical aging in anthracene-based blue organic light-emitting devices. Journal of Applied Physics, 2010, 107, .	2.5	17
69	Causes of driving voltage rise in phosphorescent organic light emitting devices during prolonged electrical driving. Applied Physics Letters, 2012, 101, .	3.3	17
70	Impact of N-substitution of a carbazole unit on molecular packing and charge transport of DPPâ€"carbazole copolymers. Journal of Materials Chemistry C, 2014, 2, 1683.	5.5	17
71	The role of excitons within the hole transporting layer in quantum dot light emitting device degradation. Nanoscale, 2019, 11, 8310-8318.	5.6	17
72	Temperature dependence of photoluminescence efficiency in doped and blended organic thin films. Chemical Physics Letters, 2008, 458, 319-322.	2.6	16

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73	The influence of the hole blocking layers on the electroluminescence stability of phosphorescent organic light emitting devices. Organic Electronics, 2011, 12, 2056-2060.	2.6	16
74	Simplified Organic Light-Emitting Devices Utilizing Ultrathin Electron Transport Layers and New Insights on Their Roles. ACS Applied Materials & Interfaces, 2014, 6, 1697-1701.	8.0	16
75	Degradation of PEDOT:PSS hole injection layers by electrons in organic light emitting devices. Organic Electronics, 2019, 69, 313-319.	2.6	16
76	Charge-carrier mobility in an organic semiconductor thin film measured by photoinduced electroluminescence. Applied Physics Letters, 2006, 88, 242101.	3.3	15
77	Influences of using a high mobility donor polymer on solar cell performance. Organic Electronics, 2013, 14, 3484-3492.	2.6	15
78	Degradation mechanism in simplified phosphorescent organic light-emitting devices utilizing one material for hole transport and emitter host. Applied Physics Letters, 2013, 103, 063307.	3.3	15
79	The influence of charge injection from intermediate connectors on the performance of tandem organic light-emitting devices. Journal of Applied Physics, 2014, 116, .	2.5	15
80	Pure red phosphorescent OLED (PhOLED) based on a cyclometalated iridium complex with a dibenzoylmethane (dbm) moiety as the ancillary ligand. Thin Solid Films, 2014, 562, 530-537.	1.8	15
81	Maskless RGB color patterning of vacuum-deposited small molecule OLED displays by diffusion of luminescent dopant molecules. Optics Express, 2015, 23, 16650.	3.4	15
82	Poor photo-stability of the organic/LiF/Al contact in organic optoelectronic devices. Organic Electronics, 2011, 12, 1571-1575.	2.6	14
83	The effect of charge extraction layers on the photo-stability of vacuum-deposited versus solution-coated organic solar cells. Organic Electronics, 2014, 15, 47-56.	2.6	14
84	Facile conversion of polymer organic thin film transistors from ambipolar and p-type into unipolar n-type using polyethyleneimine (PEI)-modified electrodes. Organic Electronics, 2014, 15, 3787-3794.	2.6	13
85	Excitonâ€Induced Degradation of Hole Transport Layers and Its Effect on the Efficiency and Stability of Phosphorescent Organic Lightâ€Emitting Devices. Advanced Optical Materials, 2019, 7, 1800923.	7.3	13
86	Role of Guest Materials in the Lower Stability of Solution-Coated versus Vacuum-Deposited Phosphorescent OLEDs. ACS Applied Materials & Interfaces, 2022, 14, 8199-8208.	8.0	13
87	Phosphorescent organic light-emitting devices (PhOLEDs) based on heteroleptic bis-cyclometalated complexes using acetylacetonate as the ancillary ligand. Synthetic Metals, 2014, 198, 131-136.	3.9	12
88	Enhanced stability in inverted simplified phosphorescent organic light-emitting devices and its origins. Organic Electronics, 2015, 22, 69-73.	2.6	12
89	Effect of exciton diffusion on electroluminescence of organic light-emitting devices. Organic Electronics, 2008, 9, 1128-1131.	2.6	10
90	Interplay between efficiency and device architecture for small molecule organic solar cells. Physical Chemistry Chemical Physics, 2014, 16, 11398.	2.8	10

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91	The different influence of singlet and triplet excitons in the degradation of phosphorescent organic light-emitting devices due to excitonâ€“polaron-induced aggregation of host materials. Organic Electronics, 2015, 26, 464-470.	2.6	10
92	Utilization of hole trapping effect of aromatic amines to convert polymer semiconductor from ambipolar into n-type. Organic Electronics, 2016, 37, 190-196.	2.6	10
93	Differences in Photoluminescence Stability and Host-to-Guest Energy Transfer in Solution-Coated Versus Vacuum-Deposited Electroluminescent Host:Guest Small-Molecule Materials. Journal of Physical Chemistry C, 2020, 124, 11701-11707.	3.1	10
94	Reducing ultraviolet-induced open-circuit voltage loss in inverted organic solar cells by maintaining charge selectivity of the electron collection contact using polyethylenimine. Solar Energy, 2020, 198, 427-433.	6.1	10
95	Significant enhancement in quantum-dot light emitting device stability <i>via</i> a ZnO:polyethylenimine mixture in the electron transport layer. Nanoscale Advances, 2021, 3, 5900-5907.	4.6	10
96	Small feature sizes and high aperture ratio organic light-emitting diodes by using laser-patterned polyimide shadow masks. Applied Physics Letters, 2014, 104, 053303.	3.3	9
97	Vacuum deposited ternary mixture organic solar cells. Organic Electronics, 2015, 17, 229-239.	2.6	9
98	Detecting luminescence from triplet states of organic semiconductors at room temperatures using delayed electroluminescence spectroscopy. Applied Physics Letters, 2014, 105, .	3.3	8
99	Phosphorescent organic light-emitting devices (PhOLEDs) based on 1-methyl-3-propyl-5-(2,4,5-trifluorophenyl)-1H-1,2,4-triazole as the cyclometalated ligand: Influence of the ancillary ligand on the emissive properties. Synthetic Metals, 2014, 195, 312-320.	3.9	8
100	Insights into charge balance and its limitations in simplified phosphorescent organic light-emitting devices. Organic Electronics, 2016, 30, 76-82.	2.6	8
101	Direct Observation of Exciton-Induced Molecular Aggregation in Organic Small-Molecule Electroluminescent Materials. Journal of Physical Chemistry C, 2019, 123, 16424-16429.	3.1	8
102	The Root Causes of the Limited Electroluminescence Stability of Solution-Coated Versus Vacuum-Deposited Small-Molecule OLEDs: A Mini-Review. Frontiers in Chemistry, 2022, 10, 857551.	3.6	8
103	Implications of the device structure on the photo-stability of organic solar cells. Solar Energy Materials and Solar Cells, 2014, 128, 320-329.	6.2	7
104	The Use of Greenâ€Solvent Processable Molecules with Large Dipole Moments in the Electron Extraction Layer of Inverted Organic Solar Cells as a Universal Route for Enhancing Stability. Advanced Sustainable Systems, 2022, 6, 2100078.	5.3	7
105	Enhanced bulk conductivity and bipolar transport in mixtures of MoOx and organic hole transport materials. Thin Solid Films, 2013, 536, 202-205.	1.8	6
106	Study of Vertical and Lateral Charge Transport Properties of DPP-Based Polymer/PC61BM Films Using Space Charge Limited Current (SCLC) and Field Effect Transistor Methods and their Effects on Photovoltaic Characteristics. Australian Journal of Chemistry, 2015, 68, 1741.	0.9	6
107	Host-to-Guest Energy Transfer and Its Role in the Lower Stability of Solution-Coated versus Vacuum-Deposited Phosphorescent OLEDs. Journal of Physical Chemistry C, 2021, 125, 20094-20103.	3.1	6
108	P-153L:Late-News Poster: Vacuum Deposition of OLEDs with Feature Sizes â‰ 20um Using a Contact Shadow Mask Patterned In-situ by Laser Ablation. Digest of Technical Papers SID International Symposium, 2012, 43, 1544-1547.	0.3	5

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109	Exciton-induced degradation of organic/electrode interfaces in ultraviolet organic photodetectors. Organic Electronics, 2013, 14, 3030-3036.	2.6	5
110	Electroluminescence Stability of Organic Light-Emitting Devices Utilizing a Nondoped Pt-Based Emission Layer. ACS Omega, 2018, 3, 4760-4765.	3.5	5
111	Diffusion barriers for achieving controlled concentrations of luminescent dopants via diffusion for mask-less RGB color patterning of organic light emitting devices. Optics Express, 2015, 23, 30783.	3.4	3
112	Triplet-induced degradation: An important consideration in the design of solution-processed hole injection materials for organic light-emitting devices. Organic Electronics, 2017, 48, 217-222.	2.6	3
113	69â€4: Active Backplane Design for Digital Video Walls. Digest of Technical Papers SID International Symposium, 2017, 48, 1020-1023.	0.3	2
114	The negative effect of toluene on poly(3,4-ethylenedioxythiophene)-poly(styrenesulfonate) (PEDOT:PSS) hole injection layer and its role in reducing the stability of solution-coated organic light-emitting devices. Synthetic Metals, 2021, 273, 116704.	3.9	2
115	Poor confinement of e-h recombination zone in blue oleds. Canadian Conference on Electrical and Computer Engineering, 2008, , .	0.0	1
116	P-125: Maskless RGB Color Patterning via Dye Diffusion for Vacuum-Deposited Small Molecule OLED Displays. Digest of Technical Papers SID International Symposium, 2015, 46, 1636-1638.	0.3	0
117	Blade Coating System for Organic Electronics. , 2019, , .		0
118	The influence of charge carriers in the hole transport layer on stability of quantum dot light-emitting devices. , 2021, , .		0
119	Improvement in the stability of phosphorescent OLED with solution-coated hole-transport layer via exciplexâ€“triplet energy transfer. , 2021, , .		0
120	The potential benefits of polyethylenimine as an electron extraction layer for facilitating the manufacturing of inverted organic solar cells. , 2021, , .		0
121	Stability Enhancement of Quantum Dot Light-Emitting Devices Through Charge Management in the Hole Transporting Layer. , 2021, , .		0