Xiaoyuan Hou

List of Publications by Year
in descending order

74 papers	1,978 citations	236612 25 h-index	253896 43 g-index
74 all docs	74 docs citations	74 times ranked	1962 citing authors

#	Article	IF	Citations
1	Memory Devices via Unipolar Resistive Switching in Symmetric Organicâ€“Inorganic Perovskite Nanoscale Heterolayers. ACS Applied Nano Materials, 2020, 3, 11889-11896.	2.4	11
2	Tristep Mechanism To Explain the Illuminated <i>C</i>â€“<i>V</i> Characteristic of an Organic Device. Journal of Physical Chemistry C, 2019, 123, 17384-17389.	1.5	1
3	Enabling Self-passivation by Attaching Small Grains on Surfaces of Large Grains toward High-Performance Perovskite LEDs. IScience, 2019, 19, 378-387.	1.9	26
4	Amplified Spontaneous Emission Realized by Cogrowing Large/Small Grains with Selfâ€Passivating Defects and Aligning Transition Dipoles. Advanced Optical Materials, 2019, 7, 1900345.	3.6	19
5	Recovery of electroluminescence in electron-only organic light-emitting diode by inserting a thin MoO3 layer at Bphen/NPB interface. AIP Advances, 2019, 9, .	0.6	2
6	Quantitative C-V study of the electric-field-assisted generation of mobile holes. Journal of Applied Physics, 2019, 126, 204501.	1.1	2
7	Field-dependent, organics assistant filamentary mechanism in both vertical and planar organic memories. Organic Electronics, 2018, 53, 83-87.	1.4	1
8	Highly Efficient Charge Collection in Bulk-Heterojunction Organic Solar Cells by Anomalous Hole Transfer and Improved Interfacial Contact. ACS Applied Materials & Interfaces, 2018, 10, 28256-28261.	4.0	8
9	Square wave voltages-induced ON states of organic resistive memory devices. Applied Physics Letters, 2016, 109, 153303.	1.5	2
10	Experimental evidence of harmful exciton dissociation at MoO3/CuPc interface in OPV. Journal of Applied Physics, 2016, 120, 145501.	1.1	5
11	Capacitance measurements to directly investigate exciton behaviors in organic photovoltaic materials. Journal Physics D: Applied Physics, 2015, 48, 455108.	1.3	5
12	TOP-electrode-eliminated organic bi-stable devices and their two switching modes in different atmospheres. Organic Electronics, 2015, 22, 127-131.	1.4	5
13	Bias-dependent interface roughening and its effect on electric bistability of organic devices. Applied Physics Letters, 2014, 104, 011603.	1.5	4
14	In situ observation of structure and electrical property changes of a Ga-doped ZnO/graphene flexible transparent electrode during deformation. Applied Physics Letters, 2014, 104, 221907.	1.5	2
15	Transient photovoltage study on the dynamics of excitons and carriers in tris-(8-hydroxyquinolinato)aluminum. Journal of Applied Physics, 2014, 116, 153704.	1.1	3
16	Photoinduced Injection Enhancement in Fullerene-Based Organic Solar Cell Originates from Excitonâ€“Electron Interaction. Journal of Physical Chemistry C, 2014, 118, 11928-11934.	1.5	10
17	Photoinduced charge injection in the metal/organic interface studied by transient photovoltage measurements with bias. Science China: Physics, Mechanics and Astronomy, 2013, 56, 2012-2015.	2.0	2
18	Obvious efficiency enhancement of organic light-emitting diodes by parylene-N buffer layer. Applied Physics Letters, 2012, 100, 163303.	1.5	3

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19	Enhanced surface losses of organic solar cells induced by efficient polaron pair dissociation at the metal/organic interface. Journal of Applied Physics, 2012, 112, 034510.	1.1	3
20	Field-induced evolution of metallic nano-tips in indium tin oxide-tris-(8-hydroxyquinoline) aluminum-aluminum device. Applied Physics Letters, 2012, 100, 123304.	1.5	13
21	Large enhancement of transient photovoltage induced by the absorption of the metal Al. Science China: Physics, Mechanics and Astronomy, 2012, 55, 1240-1244.	2.0	1
22	Using Magneto-Electroluminescence As a Fingerprint to Identify the Carrier-to-Photon Conversion Process in Dye-Doped OLEDs. Journal of Physical Chemistry C, 2011, 115, 20295-20300.	1.5	13
23	Determination of capacitance-voltage characteristics of organic semiconductor devices by combined current-voltage and voltage decay measurements. Science China Technological Sciences, 2011, 54, 826-829.	2.0	9
24	Transient photovoltage and photoluminescence study of exciton dissociation at indium tin oxide/pentacene interface. Science China: Physics, Mechanics and Astronomy, 2011, 54, 1112-1115.	2.0	1
25	Interfacial processes in small molecule organic solar cells. Science China: Physics, Mechanics and Astronomy, 2010, 53, 288-300.	2.0	8
26	Magnetic field effects on the electroluminescence of organic light emitting devices: A tool to indicate the carrier mobility. Applied Physics Letters, 2010, 97, 163302.	1.5	24
27	A combined theoretical and experimental investigation on the transient photovoltage in organic photovoltaic cells. Applied Physics Letters, 2010, 96, .	1.5	16
28	Magnetic field modulated exciton generation in organic semiconductors: An intermolecular quantum correlated effect. Physical Review B, 2010, 82, .	1.1	20
29	Conductance-dependent negative differential resistance in organic memory devices. Applied Physics Letters, 2010, 97, 233301.	1.5	30
30	Interfacial reactions at Al/LiF and LiF/Al. Applied Physics Letters, 2009, 94, .	1.5	18
31	Photoemission study of C60-induced barrier reduction for hole injection at N, Nâ€²-bis(naphthalene-1-y1)-N, Nâ€²-bis(phenyl) benzidine/Al. Journal of Applied Physics, 2009, 105, 106105.	1.1	6
32	Dissociation of excitons in the C60 film studied by transient photovoltage measurements. Applied Physics Letters, 2008, 93, .	1.5	16
33	Electroluminescence and magnetoresistance of the organic light-emitting diode with a La0.7Sr0.3MnO3 anode. Applied Physics Letters, 2008, 93, 183307.	1.5	16
34	The dissociation of excitons at indium tin oxide-copper phthalocyanine interface in organic solar cells. Journal of Applied Physics, 2008, 104, 103702.	1.1	15
35	Field emission enhancement by the quantum structure in an ultrathin multilayer planar cold cathode. Applied Physics Letters, 2008, 92, 142102.	1.5	11
36	Delayed-switch-on effect in metal-insulator-metal organic memories. Applied Physics Letters, 2007, 91, 143511.	1.5	25

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37	Role of buffer in organic solar cells using C60 as an acceptor. Applied Physics Letters, 2007, 90, 071109.	1.5	65
38	Exciton Dissociation in Organic Light Emitting Diodes at the Donor-Acceptor Interface. Physical Review Letters, 2007, 98, 176403.	2.9	34
39	Carrier density dependence of mobility in organic solids: A Monte Carlo simulation. Physical Review B, 2007, 75, .	1.1	96
40	Degradation of small-molecule organic solar cells. Applied Physics Letters, 2006, 89, 251118.	1.5	86
41	Exciton dissociation at the indium tin oxide-N,Nâ€²-Bis(naphthalen-1-yl)-N,Nâ€²-bis(phenyl) benzidine interface: A transient photovoltage study. Applied Physics Letters, 2006, 88, 232101.	1.5	41
42	From nanowires to nanoislands: Morphological evolutions of erbium silicide nanostructures formed on the vicinal Si(001) surface. Journal of Applied Physics, 2006, 100, 114312.	1.1	27
43	Role of hole playing in improving performance of organic light-emitting devices with an Al2O3 layer inserted at the cathode-organic interface. Applied Physics Letters, 2006, 89, 043502.	1.5	52
44	Structural enhancement mechanism of field emission from multilayer semiconductor films. Physical Review B, 2005, 72, .	1.1	26
45	Buffer-layer-induced barrier reduction: Role of tunneling in organic light-emitting devices. Applied Physics Letters, 2004, 84, 425-427.	1.5	80
46	Electron blocking and hole injection: The role of N,Nâ€²-Bis(naphthalen-1-y)-N,Nâ€²-bis(phenyl)benzidine in organic light-emitting devices. Applied Physics Letters, 2004, 84, 2916-2918.	1.5	64
47	Multipeak characteristics of field emission energy distribution from semiconductors. Physical Review B, 2004, 70, .	1.1	5
48	Enhancement of electron injection in organic light-emitting devices using an Ag/LiF cathode. Journal of Applied Physics, 2004, 95, 3828-3830.	1.1	67
49	Dual role of LiF as a hole-injection buffer in organic light-emitting diodes. Applied Physics Letters, 2004, 84, 2913-2915.	1.5	72
50	Sodium stearate, an effective amphiphilic molecule buffer material between organic and metal layers in organic light-emitting devices. Applied Physics Letters, 2003, 83, 1656-1658.	1.5	39
51	Aggregation and permeation of 4-(dicyanomethylene)-2-methyl-6-(p-dimethylaminostyryl)-4H-pyran molecules in Alq. Applied Physics Letters, 2002, 81, 1122-1124.	1.5	36
52	Real-Time Observation of Temperature Rise and Thermal Breakdown Processes in Organic LEDs Using an IR Imaging and Analysis System. Advanced Materials, 2000, 12, 265-269.	11.1	178
53	The structural, chemical, and electronic properties of a stable GaS/GaAs interface. Journal of Applied Physics, 1999, 86, 6940-6944.	1.1	11
54	Photoluminescence from Si-based SiNxOy films. Science Bulletin, 1998, 43, 124-126.	1.7	0

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55	Phonon modes of ZnS1â^'xTex alloys epitaxially grown on (100) GaAs substrates. Journal of Applied Physics, 1997, 81, 3465-3467.	1.1	9
56	Photoluminescence from C+-implanted SiNxOy films grown on crystalline silicon. Applied Physics Letters, 1997, 71, 2193-2195.	1.5	9
57	Lateral magnetoresistances of epitaxial ZnSe and CdMnTe thin films measured by the microwave contactless method. Journal of Applied Physics, 1997, 82, 477-479.	1.1	0
58	Growth and optical characterization of diluted magnetic semiconductor Zn1â^'xMnxSe/ZnSe strained-layer superlattices. Journal of Applied Physics, 1997, 81, 5148-5150.	1.1	11
59	Passivation of porous silicon by wet thermal oxidation. Journal of Applied Physics, 1996, 79, 3282-3285.	1.1	45
60	Passivation of GaAs surface by sulfur glow discharge. Applied Physics Letters, 1996, 69, 1429-1431.	1.5	17
61	Passivation of lightâ€emitting porous silicon by rapid thermal treatment in NH3. Journal of Applied Physics, 1996, 80, 5967-5970.	1.1	34
62	Raman scattering characterization of the crystalline qualities of ZnSe films grown on Sâ€passivated GaAs(100) substrates. Applied Physics Letters, 1995, 67, 2043-2045.	1.5	15
63	A mild electrochemical sulfur passivation method for GaAs(100) surfaces. Journal of Applied Physics, 1995, 78, 2764-2766.	1.1	21
64	Energy band lineup at the porousâ€silicon/silicon heterointerface measured by electron spectroscopy. Applied Physics Letters, 1994, 64, 3602-3604.	1.5	36
65	S2Cl2 treatment: A new sulfur passivation method of GaAs surface. Applied Physics Letters, 1994, 64, 3425-3427.	1.5	64
66	Molecularâ€beamâ€epitaxy growth of GaN on GaAs(100) by using reactive nitrogen source. Applied Physics Letters, 1994, 64, 315-317.	1.5	52
67	Study of the Raman peak shift and the linewidth of lightâ€emitting porous silicon. Journal of Applied Physics, 1994, 75, 651-653.	1.1	128
68	Critical conditions for achieving blue light emission from porous silicon. Applied Physics Letters, 1993, 63, 2363-2365.	1.5	52
69	Large blue shift of light emitting porous silicon by boiling water treatment. Applied Physics Letters, 1993, 62, 1097-1098.	1.5	82
70	Electrochemical sulfur passivation of GaAs. Applied Physics Letters, 1992, 60, 2252-2254.	1.5	60
71	Blue Light Emission from Porous Silicon. Materials Research Society Symposia Proceedings, 1992, 283, 89.	0.1	6
72	Sulfurized Passivation of GaAs (100) Surfaces. Materials Research Society Symposia Proceedings, 1992, 284, 607.	0.1	2

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73	Anomalous Hole-Transfer and Heterogeneous Interfacial Contact Effect in Bulk-Heterojunction Organic Solar Cells. , 0, , .		0
74	Anomalous Hole-Transfer and Heterogeneous Interfacial Contact Effect in Bulk-Heterojunction Organic Solar Cells. , 0, , .		0