

Ling Li

List of Publications by Year in descending order

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71
papers

1,956
citations

279798

23
h-index

276875

41
g-index

73
all docs

73
docs citations

73
times ranked

2764
citing authors

#	ARTICLE	IF	CITATIONS
1	Investigation of Hump Behavior of Amorphous Indium-Gallium-Zinc-Oxide Thin-Film Transistor Under Positive Bias Stress. IEEE Transactions on Electron Devices, 2022, 69, 549-554.	3.0	2
2	Novel Vertical Channel-All-Around (CAA) In-Ga-Zn-O FET for 2T0C-DRAM With High Density Beyond $4F^2$ by Monolithic Stacking. IEEE Transactions on Electron Devices, 2022, 69, 2196-2202.	3.0	30
3	Investigation of Asymmetric Characteristics of Novel Vertical Channel-All-Around (CAA) In-Ga-Zn-O Field Effect Transistors. IEEE Electron Device Letters, 2022, 43, 894-897.	3.9	8
4	Decoupling the Roles of Thermionic and Field Emissions in Contact Resistance of Field Effect Transistors. IEEE Electron Device Letters, 2022, 43, 1065-1068.	3.9	0
5	Directly probing the charge transport in initial molecular layers of organic polycrystalline field effect transistors. Journal of Materials Chemistry C, 2021, 9, 649-656.	5.5	9
6	Understanding the adsorption behavior of small molecule in MoS_2 device based on first-principles calculations. Materials Research Express, 2021, 8, 055010.	1.6	5
7	A novel extraction method of device parameters for thin-film transistors (TFTs). Physics Letters, Section A: General, Atomic and Solid State Physics, 2021, 403, 127386.	2.1	5
8	A tied Fermi liquid to Luttinger liquid model for nonlinear transport in conducting polymers. Nature Communications, 2021, 12, 58.	12.8	15
9	Investigation of positive bias temperature instability for monolayer polycrystalline MoS_2 field-effect transistors. Science China: Physics, Mechanics and Astronomy, 2020, 63, 1.	5.1	3
10	Possible Luttinger liquid behavior of edge transport in monolayer transition metal dichalcogenide crystals. Nature Communications, 2020, 11, 659.	12.8	23
11	Room Temperature-Processed a -IGZO Schottky Diode for Rectifying Circuit and Bipolar 1D1R Crossbar Applications. IEEE Transactions on Electron Devices, 2019, 66, 4087-4091.	3.0	22
12	Charge transport mechanism in low temperature polycrystalline silicon (LTPS) thin-film transistors. AIP Advances, 2019, 9, .	1.3	9
13	Optimization of Electrical Properties of MoS_2 Field-Effect Transistors by Dipole Layer Coulombic Interaction With Trap States. Physica Status Solidi - Rapid Research Letters, 2019, 13, 1900007.	2.4	5
14	Thickness of accumulation layer in amorphous indium-gallium-zinc-oxide thin-film transistors by Kelvin Probe Force Microscopy. Applied Physics Letters, 2019, 114, .	3.3	11
15	A physical model for dual gate a -InGaZnO thin film transistors based on multiple trapping and release mechanism. Microelectronics Journal, 2019, 86, 1-6.	2.0	1
16	Field-Dependent Mobility Enhancement and Contact Resistance in a -IGZO TFTs. IEEE Transactions on Electron Devices, 2019, 66, 5166-5169.	3.0	16
17	Anomalous Positive Bias Stress Instability in MoS_2 Transistors With High-Hydrogen-Concentration SiO_2 Gate Dielectrics. IEEE Electron Device Letters, 2019, 40, 232-235.	3.9	9
18	Understanding the transport mechanism of organic-inorganic perovskite solar cells: The effect of exciton or free-charge on diffusion length. Organic Electronics, 2019, 66, 163-168.	2.6	14

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19	Bulk-Like Electrical Properties Induced by Contact-Limited Charge Transport in Organic Diodes: Revised Space Charge Limited Current. <i>Advanced Electronic Materials</i> , 2018, 4, 1700493.	5.1	15
20	Full imitation of synaptic metaplasticity based on memristor devices. <i>Nanoscale</i> , 2018, 10, 5875-5881.	5.6	99
21	A new surface-potential-based compact model for the MoS ₂ field effect transistors in active matrix display applications. <i>Journal of Applied Physics</i> , 2018, 123, .	2.5	21
22	A Review for Compact Model of Thin-Film Transistors (TFTs). <i>Micromachines</i> , 2018, 9, 599.	2.9	39
23	Electric field modified Arrhenius description of charge transport in amorphous oxide semiconductor thin film transistors. <i>Physical Review B</i> , 2018, 98, .	3.2	19
24	Charge Transfer within the F ₄ TCNQ-MoS ₂ van der Waals Interface: Toward Electrical Properties Tuning and Gas Sensing Application. <i>Advanced Functional Materials</i> , 2018, 28, 1806244.	14.9	62
25	Photoelectric Plasticity in Oxide Thin Film Transistors with Tunable Synaptic Functions. <i>Advanced Electronic Materials</i> , 2018, 4, 1800556.	5.1	94
26	Improvement of durability and switching speed by incorporating nanocrystals in the HfOx based resistive random access memory devices. <i>Applied Physics Letters</i> , 2018, 113, .	3.3	72
27	A review for polaron dependent charge transport in organic semiconductor. <i>Organic Electronics</i> , 2018, 61, 223-234.	2.6	35
28	A review for compact model of graphene field-effect transistors. <i>Chinese Physics B</i> , 2017, 26, 036804.	1.4	26
29	Carrier thermoelectric transport model for black phosphorus field-effect transistors. <i>Chemical Physics Letters</i> , 2017, 678, 271-274.	2.6	2
30	Current Status and Opportunities of Organic Thin-Film Transistor Technologies. <i>IEEE Transactions on Electron Devices</i> , 2017, 64, 1906-1921.	3.0	224
31	Temperature, electric-field, and carrier-density dependence of hopping magnetoresistivity in disordered organic semiconductors. <i>Physical Review B</i> , 2017, 96, .	3.2	6
32	Understanding mobility degeneration mechanism in organic thin-film transistors (OTFT). <i>Chemical Physics Letters</i> , 2017, 681, 36-39.	2.6	5
33	A unified description of thermal transport performance in disordered organic semiconductors. <i>Organic Electronics</i> , 2017, 41, 294-300.	2.6	13
34	Analytical carrier density and quantum capacitance for graphene. <i>Applied Physics Letters</i> , 2016, 108, 013503.	3.3	21
35	Surface potential measurement on contact resistance of amorphous-InGaZnO thin film transistors by Kelvin probe force microscopy. <i>Applied Physics Letters</i> , 2016, 109, 023509.	3.3	9
36	Unified percolation model for bipolaron-assisted organic magnetoresistance in the unipolar transport regime. <i>Physical Review B</i> , 2016, 94, .	3.2	9

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37	Thermal effect on endurance performance of 3-dimensional RRAM crossbar array. Chinese Physics B, 2016, 25, 056501.	1.4	8
38	A review of carrier thermoelectric-transport theory in organic semiconductors. Physical Chemistry Chemical Physics, 2016, 18, 19503-19525.	2.8	95
39	Physical model of Seebeck coefficient under surface dipole effect in organic thin-film transistors. Organic Electronics, 2016, 29, 27-32.	2.6	16
40	Universal carrier thermoelectric-transport model based on percolation theory in organic semiconductors. Physical Review B, 2015, 91, .	3.2	47
41	Thermal crosstalk in 3-dimensional RRAM crossbar array. Scientific Reports, 2015, 5, 13504.	3.3	92
42	Compact model for organic thin-film transistor with Gaussian density of states. AIP Advances, 2015, 5, 047123.	1.3	11
43	Spin diffusion in disordered organic semiconductors. Physical Review B, 2015, 92, .	3.2	5
44	Physical model for electroforming process in valence change resistive random access memory. Journal of Computational Electronics, 2015, 14, 146-150.	2.5	5
45	Combining Bottom-Up and Top-Down Segmentation: A Way to Realize High-Performance Organic Circuit. IEEE Electron Device Letters, 2015, 36, 684-686.	3.9	6
46	Universal description of exciton diffusion length in organic photovoltaic cell. Organic Electronics, 2015, 23, 53-56.	2.6	12
47	Analytical surface-potential compact model for amorphous-IGZO thin-film transistors. Journal of Applied Physics, 2015, 117, .	2.5	29
48	Charge carrier hopping transport based on Marcus theory and variable-range hopping theory in organic semiconductors. Journal of Applied Physics, 2015, 118, .	2.5	39
49	Polaron effect and energetic disorder dependence of Seebeck coefficient in organic transistors. Organic Electronics, 2015, 16, 113-117.	2.6	20
50	Physical origin of nonlinear transport in organic semiconductor at high carrier densities. Journal of Applied Physics, 2014, 116, .	2.5	23
51	Simulation study of conductive filament growth dynamics in oxide-electrolyte-based ReRAM. Journal of Semiconductors, 2014, 35, 104007.	3.7	13
52	Field Effect Mobility Model in Oxide Semiconductor Thin Film Transistors With Arbitrary Energy Distribution of Traps. IEEE Electron Device Letters, 2014, 35, 226-228.	3.9	32
53	General Einstein relation model in disordered organic semiconductors under quasiequilibrium. Physical Review B, 2014, 90, .	3.2	59
54	A unified physical model of Seebeck coefficient in amorphous oxide semiconductor thin-film transistors. Journal of Applied Physics, 2014, 116, 104502.	2.5	14

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55	Polaron effect dependence of thermopower in organic semiconductors. Physics Letters, Section A: General, Atomic and Solid State Physics, 2014, 378, 3579-3581.	2.1	5
56	Short-circuit current model of organic solar cells. Chemical Physics Letters, 2014, 614, 27-30.	2.6	10
57	Physical model of dynamic Joule heating effect for reset process in conductive-bridge random access memory. Journal of Computational Electronics, 2014, 13, 432-438.	2.5	41
58	Thermoelectric Seebeck effect in oxide-based resistive switching memory. Nature Communications, 2014, 5, 4598.	12.8	92
59	Limitation of the concept of transport energy in disordered organic semiconductors. Europhysics Letters, 2014, 106, 17005.	2.0	11
60	Contact-Length-Dependent Contact Resistance of Top-Gate Staggered Organic Thin-Film Transistors. IEEE Electron Device Letters, 2013, 34, 69-71.	3.9	19
61	Self-Rectifying Resistive-Switching Device With Si/WO_3 Bilayer. IEEE Electron Device Letters, 2013, 34, 229-231.	3.9	47
62	Modified Transmission Line Model for Bottom-Contact Organic Transistors. IEEE Electron Device Letters, 2013, 34, 1301-1303.	3.9	19
63	Effect of dipole layer on the density-of-states and charge transport in organic thin film transistors. Applied Physics Letters, 2013, 103, .	3.3	20
64	Charge carrier relaxation model in disordered organic semiconductors. AIP Advances, 2013, 3, 112119.	1.3	5
65	Tail states recombination limit of the open circuit voltage in bulk heterojunction organic solar cells. Organic Electronics, 2012, 13, 230-234.	2.6	16
66	Field effect mobility model in organic thin film transistor. Applied Physics Letters, 2011, 98, .	3.3	29
67	A compact model for polycrystalline pentacene thin-film transistor. Journal of Applied Physics, 2010, 107, .	2.5	24
68	Compact Model for Organic Thin-Film Transistor. IEEE Electron Device Letters, 2010, 31, 210-212.	3.9	44
69	Electric field-dependent charge transport in organic semiconductors. Applied Physics Letters, 2009, 95, .	3.3	37
70	Carrier concentration dependence of the mobility in organic semiconductors. Synthetic Metals, 2007, 157, 243-246.	3.9	33
71	Influence of traps on charge transport in organic semiconductors. Solid-State Electronics, 2007, 51, 445-448.	1.4	19