

Ling Yan Liang

List of Publications by Citations

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101
papers

2,157
citations

25
h-index

43
g-index

105
ext. papers

2,579
ext. citations

4.9
avg, IF

4.86
L-index

#	Paper	IF	Citations
101	Microstructural, optical, and electrical properties of SnO thin films prepared on quartz via a two-step method. <i>ACS Applied Materials & Interfaces</i> , 2010 , 2, 1060-5	9.5	176
100	Ultrasensitive Memristive Synapses Based on Lightly Oxidized Sulfide Films. <i>Advanced Materials</i> , 2017 , 29, 1606927	24	127
99	Microstructure, optical, and electrical properties of p-type SnO thin films. <i>Applied Physics Letters</i> , 2010 , 96, 042113	3.4	122
98	Phase and Optical Characterizations of Annealed SnO Thin Films and Their p-Type TFT Application. <i>Journal of the Electrochemical Society</i> , 2010 , 157, H598	3.9	102
97	Structural, chemical, optical, and electrical evolution of SnO(x) films deposited by reactive rf magnetron sputtering. <i>ACS Applied Materials & Interfaces</i> , 2012 , 4, 5673-7	9.5	93
96	High-temperature tolerance in WTi-Al ₂ O ₃ cermet-based solar selective absorbing coatings with low thermal emissivity. <i>Nano Energy</i> , 2017 , 37, 232-241	17.1	84
95	Ambipolar inverters using SnO thin-film transistors with balanced electron and hole mobilities. <i>Applied Physics Letters</i> , 2012 , 100, 263502	3.4	72
94	High-Performance Visible-Blind Ultraviolet Photodetector Based on IGZO TFT Coupled with p-n Heterojunction. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 8102-8109	9.5	67
93	Control of Ambipolar Transport in SnO Thin-Film Transistors by Back-Channel Surface Passivation for High Performance Complementary-like Inverters. <i>ACS Applied Materials & Interfaces</i> , 2015 , 7, 17023-31	9.5	63
92	Aqueous Solution-Deposited Gallium Oxide Dielectric for Low-Temperature, Low-Operating-Voltage Indium Oxide Thin-Film Transistors: A Facile Route to Green Oxide Electronics. <i>ACS Applied Materials & Interfaces</i> , 2015 , 7, 14720-5	9.5	55
91	Synaptic devices based on purely electronic memristors. <i>Applied Physics Letters</i> , 2016 , 108, 013504	3.4	52
90	Thermal aging characteristics of CrN _x O _y solar selective absorber coating for flat plate solar thermal collector applications. <i>Solar Energy Materials and Solar Cells</i> , 2013 , 114, 186-191	6.4	49
89	Optoelectronic neuromorphic thin-film transistors capable of selective attention and with ultra-low power dissipation. <i>Nano Energy</i> , 2019 , 62, 772-780	17.1	48
88	Semiconducting ZnSnN ₂ thin films for Si/ZnSnN ₂ p-n junctions. <i>Applied Physics Letters</i> , 2016 , 108, 142104	3.4	44
87	Determination of some basic physical parameters of SnO based on SnO/Si pn heterojunctions. <i>Applied Physics Letters</i> , 2015 , 106, 132102	3.4	43
86	Mechanism for resistive switching in chalcogenide-based electrochemical metallization memory cells. <i>AIP Advances</i> , 2015 , 5, 057125	1.5	41
85	Fully solution-processed metal oxide thin-film transistors via a low-temperature aqueous route. <i>Ceramics International</i> , 2017 , 43, 6130-6137	5.1	39

84	Determination of the basic optical parameters of ZnSnN(2). <i>Optics Letters</i> , 2015 , 40, 1282-5	3	39
83	The structural, optical and electrical properties of Y-doped SnO thin films and their p-type TFT application. <i>Journal Physics D: Applied Physics</i> , 2012 , 45, 085101	3	37
82	Enhancement of electrical performance in In ₂ O ₃ thin-film transistors by improving the densification and surface morphology of channel layers. <i>Solid-State Electronics</i> , 2010 , 54, 479-483	1.7	33
81	Template-Free Growth of Well-Ordered Silver Nano Forest/Ceramic Metamaterial Films with Tunable Optical Responses. <i>Advanced Materials</i> , 2017 , 29, 1605324	24	32
80	Magnetron-Sputtered SnO Thin Films for p-Type and Ambipolar TFT Applications. <i>ECS Journal of Solid State Science and Technology</i> , 2014 , 3, Q3091-Q3094	2	31
79	Improvement of phase stability and accurate determination of optical constants of SnO thin films by using Al ₂ O ₃ capping layer. <i>ACS Applied Materials & Interfaces</i> , 2010 , 2, 1565-8	9.5	31
78	Substrate biasing effect on the physical properties of reactive RF-magnetron-sputtered aluminum oxide dielectric films on ITO glasses. <i>ACS Applied Materials & Interfaces</i> , 2014 , 6, 2255-61	9.5	30
77	Electrochromism of Nanocrystal-in-Glass Tungsten Oxide Thin Films under Various Conduction Cations. <i>Inorganic Chemistry</i> , 2019 , 58, 2089-2098	5.1	29
76	Band Offset Engineering in ZnSnN ₂ -Based Heterojunction for Low-Cost Solar Cells. <i>ACS Photonics</i> , 2018 , 5, 2094-2099	6.3	25
75	Anomalous bias-stress-induced unstable phenomena of InZnO thin-film transistors using Ta ₂ O ₅ gate dielectric. <i>Journal Physics D: Applied Physics</i> , 2012 , 45, 205103	3	25
74	Influence of the channel layer thickness on electrical properties of indium zinc oxide thin-film transistor. <i>Microelectronic Engineering</i> , 2010 , 87, 2019-2023	2.5	25
73	Threshold Voltage Tuning in a-IGZO TFTs With Ultrathin SnO _x Capping Layer and Application to Depletion-Load Inverter. <i>IEEE Electron Device Letters</i> , 2016 , 37, 422-425	4.4	24
72	High-performance transparent thin-film transistor based on Y ₂ O ₃ /In ₂ O ₃ with low interface traps. <i>Applied Physics Letters</i> , 2010 , 97, 122108	3.4	24
71	Silver nanoparticles with an armor layer embedded in the alumina matrix to form nanocermet thin films with sound thermal stability. <i>ACS Applied Materials & Interfaces</i> , 2014 , 6, 11550-7	9.5	23
70	Thin Film Solar Cell Based on ZnSnN ₂ /SnO Heterojunction. <i>Physica Status Solidi - Rapid Research Letters</i> , 2018 , 12, 1700332	2.5	22
69	Tunable crystallographic grain orientation and Raman fingerprints of polycrystalline SnO thin films. <i>Journal of Materials Chemistry C</i> , 2015 , 3, 1077-1081	7.1	21
68	Plasmonic AgAl Bimetallic Alloy Nanoparticle/Al ₂ O ₃ Nanocermet Thin Films with Robust Thermal Stability for Solar Thermal Applications. <i>Advanced Materials Interfaces</i> , 2016 , 3, 1600248	4.6	20
67	Extended-gate-type IGZO electric-double-layer TFT immunosensor with high sensitivity and low operation voltage. <i>Applied Physics Letters</i> , 2016 , 109, 173501	3.4	19

66	Direct Growth of Vertically Orientated Nanocavity Arrays for Plasmonic Color Generation. <i>Advanced Functional Materials</i> , 2020 , 30, 2002287	15.6	18
65	Flexible Electrochromic V ₂ O ₅ Thin Films with Ultrahigh Coloration Efficiency on Graphene Electrodes. <i>Journal of the Electrochemical Society</i> , 2018 , 165, D183-D189	3.9	18
64	Single-crystalline metal filament-based resistive switching in a nitrogen-doped carbon film containing conical nanopores. <i>Applied Physics Letters</i> , 2015 , 106, 083104	3.4	17
63	Forming-free resistive switching in a nanoporous nitrogen-doped carbon thin film with ready-made metal nanofilaments. <i>Carbon</i> , 2014 , 76, 459-463	10.4	16
62	Long-term-stable WO ₃ -PB complementary electrochromic devices. <i>Journal of Alloys and Compounds</i> , 2021 , 861, 158534	5.7	15
61	The electrical properties of n-ZnO/p-SnO heterojunction diodes. <i>Applied Physics Letters</i> , 2016 , 109, 123504	3.4	15
60	Solution-processed amorphous Ga ₂ O ₃ :CdO TFT-type deep-UV photodetectors. <i>Applied Physics Letters</i> , 2020 , 116, 192102	3.4	14
59	Anomalous rectification in a purely electronic memristor. <i>Applied Physics Letters</i> , 2016 , 109, 143505	3.4	14
58	Effect of post-annealing on structural and electrochromic properties of Mo-doped V ₂ O ₅ thin films. <i>Journal of Sol-Gel Science and Technology</i> , 2016 , 77, 604-609	2.3	13
57	Alloyed nanoparticle-embedded alumina nanocermet film: A new attempt to improve the thermotolerance. <i>Applied Surface Science</i> , 2015 , 331, 285-291	6.7	11
56	Carrier trapping anisotropy in ambipolar SnO thin-film transistors. <i>Solid-State Electronics</i> , 2017 , 129, 88-92	3.7	10
55	Polarity Control of GaN and Realization of GaN Schottky Barrier Diode Based on Lateral Polarity Structure. <i>IEEE Transactions on Electron Devices</i> , 2017 , 64, 4424-4429	2.9	10
54	Ultrafast carrier dynamics in SnO _x thin films. <i>Applied Physics Letters</i> , 2015 , 106, 102103	3.4	10
53	Enhancement of a-IZO TTFT Performance by Using Y ₂ O ₃ /Al ₂ O ₃ Bilayer Dielectrics. <i>Electrochemical and Solid-State Letters</i> , 2011 , 14, H88		10
52	Broadband Optoelectronic Synaptic Thin-Film Transistors Based on Oxide Semiconductors. <i>Physica Status Solidi - Rapid Research Letters</i> , 2020 , 14, 1900630	2.5	10
51	Separative extended-gate AlGaAs/GaAs HEMT biosensors based on capacitance change strategy. <i>Applied Physics Letters</i> , 2020 , 116, 123704	3.4	9
50	A Direct Method to Extract Transient Sub-Gap Density of State (DOS) Based on Dual Gate Pulse Spectroscopy. <i>Scientific Reports</i> , 2016 , 6, 24096	4.9	9
49	Influence of AlGaIn/GaN interface polarization fields on the properties of photoconductive detectors. <i>Journal of Applied Physics</i> , 2004 , 95, 5925-5927	2.5	9

48	IGZO/CsPbBr-Nanoparticles/IGZO Neuromorphic Phototransistors and Their Optoelectronic Coupling Applications. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 30165-30173	9.5	9
47	Influence of the substrate bias voltage on the physical properties of dc reactive sputtered Ta ₂ O ₅ films. <i>Journal of Alloys and Compounds</i> , 2013 , 550, 258-262	5.7	8
46	Effects of sputtering pressure and post-metallization annealing on the physical properties of rf-sputtered Y ₂ O ₃ films. <i>Journal of Alloys and Compounds</i> , 2011 , 509, 5810-5815	5.7	8
45	Evolution of the amount of InAs in wetting layers in an InAs/GaAs quantum-dot system studied by reflectance difference spectroscopy. <i>Nanotechnology</i> , 2006 , 17, 2207-2211	3.4	8
44	Combined control of the cation and anion to make ZnSnON thin films for visible-light phototransistors with high responsivity. <i>Journal of Materials Chemistry C</i> , 2017 , 5, 6480-6487	7.1	7
43	Ambipolar SnO Thin-Film Transistors and Inverters. <i>ECS Transactions</i> , 2013 , 50, 289-297	1	7
42	The two- to three-dimensional growth transition of InAs/GaAs epitaxy layer studied by reflectance difference spectroscopy. <i>Journal of Applied Physics</i> , 2010 , 108, 083513	2.5	7
41	Broadband hyperbolic metamaterial covering the whole visible-light region. <i>Optics Letters</i> , 2019 , 44, 2970-2973	3	7
40	MBE InAs quantum dots grown on metamorphic InGaAs for long wavelength emitting. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2006 , 35, 194-198	3	6
39	Praseodymium-Doped In-Sn-Zn-O TFTs With Effective Improvement of Negative-Bias Illumination Stress Stability. <i>IEEE Transactions on Electron Devices</i> , 2022 , 69, 152-155	2.9	6
38	Specific phase modulation and infrared photon confinement in solar selective absorbers. <i>Applied Materials Today</i> , 2020 , 18, 100533	6.6	6
37	Crystal Orientation-Dependent Oxidation of Epitaxial TiN Films with Tunable Plasmonics. <i>ACS Photonics</i> , 2021 , 8, 847-856	6.3	6
36	Design, Properties, and TFT Application of Solution-Processed In-Ga-Cd-O Thin Films. <i>Physica Status Solidi - Rapid Research Letters</i> , 2018 , 12, 1800034	2.5	5
35	Tin oxide-based thin-film transistors and their circuits 2020 , 441-476		5
34	Boosting charge-transfer kinetics and cyclic stability of complementary WO ₃ /NiO electrochromic devices via SnO _x interfacial layer. <i>Journal of Science: Advanced Materials and Devices</i> , 2021 , 6, 494-500	4.2	5
33	Interfacial Charge Transfer and Zinc Ion Intercalation and Deintercalation Dynamics in Flexible Multicolor Electrochromic Energy Storage Devices. <i>ACS Applied Energy Materials</i> , 2022 , 5, 88-97	6.1	5
32	Coexistence of two types of metal filaments in oxide memristors. <i>AIP Advances</i> , 2017 , 7, 025102	1.5	4
31	Ultrafast carrier dynamics in type-II ZnO-SnO heterostructure thin films. <i>Applied Physics Letters</i> , 2017 , 110, 172102	3.4	4

30	Aqueous solution-processed, self-flattening AlO _x :Y dielectrics for fully-transparent thin-film transistors. <i>Ceramics International</i> , 2019 , 45, 15883-15891	5.1	4
29	Proton conducting sodium-alginate-gated oxide thin-film transistors with varying device structure. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2016 , 213, 3103-3109	1.6	4
28	Structural and electrical characteristics of RF sputtered YON gate dielectrics and their thin-film transistor applications. <i>Journal Physics D: Applied Physics</i> , 2011 , 44, 155403	3	4
27	Anomalous photoluminescence of InAs quantum dots implanted by Mn ions. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2007 , 36, 221-225	3	4
26	Huge mobility enhancement of InSnZnO thin-film transistors via Al-induced microstructure regularization. <i>Applied Physics Letters</i> , 2021 , 119, 212102	3.4	4
25	Effects of Target Quality on Electrical Performance and Stability of In-Sn-Zn-O Thin-Film Transistors. <i>IEEE Electron Device Letters</i> , 2021 , 42, 529-532	4.4	4
24	Structural and Electrochromic Properties of Undoped and Mo-Doped V ₂ O ₅ Thin Films by a Two-Electrode Electrodeposition. <i>Journal of Nanoscience and Nanotechnology</i> , 2018 , 18, 7502-7507	1.3	3
23	Aqueous Solution Induced High-Dielectric-Constant AlO _x :Y Films for Thin-Film Transistor Applications. <i>Journal of Nanoscience and Nanotechnology</i> , 2018 , 18, 7566-7572	1.3	3
22	Improving Negative-Bias-Temperature-Stress Stability for Thin-Film Transistors by Doping Mg Into ScInO Semiconductor. <i>IEEE Transactions on Electron Devices</i> , 2019 , 66, 2620-2623	2.9	2
21	Solution-processed Ga ₂ O ₃ thin-films with tunable bandgaps and their transistors. <i>Journal Physics D: Applied Physics</i> , 2018 , 51, 335101	3	2
20	Preparation and AFM characterization of self-ordered porous alumina films on semi-insulated GaAs substrate. <i>Materials Science in Semiconductor Processing</i> , 2006 , 9, 337-340	4.3	2
19	Optimization of sensing-pad functionalizing strategy toward separative extended-gate FET biosensors for PSA detection.. <i>Journal of Pharmaceutical and Biomedical Analysis</i> , 2022 , 211, 114597	3.5	2
18	A Self-Bleaching Electrochromic Mirror Based on Metal Organic Frameworks. <i>Materials</i> , 2021 , 14,	3.5	2
17	In situ TEM investigation of hexagonal WO ₃ irreversible transformation to Li ₂ WO ₄ . <i>Scripta Materialia</i> , 2021 , 203, 114090	5.6	2
16	Growth of high density self-assembled InAs quantum dots on As-pressure-modulated InAlAs multilayer structures on InP(001) substrate. <i>Nanotechnology</i> , 2007 , 18, 215302	3.4	1
15	Molecular beam epitaxy InAs dot arrays on InGaAs/GaAs. <i>Nanotechnology</i> , 2006 , 17, 5846-5850	3.4	1
14	Ultrafast Carrier Dynamics of Amorphous Zinc Tin Oxide Graded Thin Films. <i>Journal of Physical Chemistry C</i> , 2021 , 125, 9350-9355	3.8	1
13	Solution-processed amorphous p-type Cu-Sn-I thin films for transparent Cu-Sn-I/IGZO p _n junctions. <i>Applied Physics Letters</i> , 2021 , 118, 222107	3.4	1

12	Inkjet-Printed Self-Aligned Short-Channel Metal-Oxide Thin-Film Transistors Based on Coffee Stripe Dewetting Method. <i>IEEE Electron Device Letters</i> , 2019 , 40, 228-231	4.4	1
11	Substrate-bias-aided preparation and properties of amorphous gallium oxide films and their deep-ultraviolet photodetectors. <i>Ceramics International</i> , 2021 , 47, 32138-32143	5.1	1
10	Aluminum-ion-intercalation nickel oxide thin films for high-performance electrochromic energy storage devices. <i>Journal of Materials Chemistry C</i> , 2021 , 9, 17427-17436	7.1	0
9	Mechanistic insights into the dry prelithiated WO ₃ thin films in electrochromic devices. <i>Solid State Ionics</i> , 2021 , 373, 115814	3.3	0
8	Annealing induced morphology evolution and phase transition in SnO _x thin films grown by e-beam evaporation method. <i>Inorganic Chemistry Communication</i> , 2022 , 140, 109473	3.1	0
7	The same batch enabled threshold voltage tuning for vertically- or laterally-gated transparent InZnO thin-film transistors. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2017 , 214, 1600918	1.6	1
6	50.4: Invited Paper: Photonic neuromorphic thin-film transistors with ultra-low power dissipation. <i>Digest of Technical Papers SID International Symposium</i> , 2019 , 50, 566-566	0.5	
5	29.2: Invited Paper: Investigation on the Electrical Performance and Stability of InSnZnO Thin-Film Transistors. <i>Digest of Technical Papers SID International Symposium</i> , 2021 , 52, 399-399	0.5	
4	P-1.9: Huge Mobility Enhancement of ITZO TFTs achieved via Ta-Induced Crystallization. <i>Digest of Technical Papers SID International Symposium</i> , 2021 , 52, 700-700	0.5	
3	P-1.11: Effects of Source and Drain Contacts on Electrical Performance of Oxide Thin-Film Transistors. <i>Digest of Technical Papers SID International Symposium</i> , 2021 , 52, 702-702	0.5	
2	P-1.10: Pr-doped ITZO TFTs with Improved Negative-Bias Illumination Stability. <i>Digest of Technical Papers SID International Symposium</i> , 2021 , 52, 701-701	0.5	
1	Air Nanocolumn-SiO ₂ composite film with adjustable anisotropic refractive index. <i>Materials Today Physics</i> , 2022 , 26, 100722	8	