

Ling Yan Liang

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/5403920/publications.pdf>

Version: 2024-02-01

104
papers

2,955
citations

172386

29
h-index

182361

51
g-index

105
all docs

105
docs citations

105
times ranked

3352
citing authors

#	ARTICLE	IF	CITATIONS
1	Microstructural, Optical, and Electrical Properties of SnO Thin Films Prepared on Quartz via a Two-Step Method. ACS Applied Materials & Interfaces, 2010, 2, 1060-1065.	4.0	206
2	Ultrasensitive Memristive Synapses Based on Lightly Oxidized Sulfide Films. Advanced Materials, 2017, 29, 1606927.	11.1	158
3	Microstructure, optical, and electrical properties of p-type SnO thin films. Applied Physics Letters, 2010, 96, .	1.5	149
4	Phase and Optical Characterizations of Annealed SnO Thin Films and Their p-Type TFT Application. Journal of the Electrochemical Society, 2010, 157, H598.	1.3	120
5	Structural, Chemical, Optical, and Electrical Evolution of SnO _x Films Deposited by Reactive rf Magnetron Sputtering. ACS Applied Materials & Interfaces, 2012, 4, 5673-5677.	4.0	118
6	High-temperature tolerance in WTi-Al ₂ O ₃ cermet-based solar selective absorbing coatings with low thermal emissivity. Nano Energy, 2017, 37, 232-241.	8.2	108
7	High-Performance Visible-Blind Ultraviolet Photodetector Based on IGZO TFT Coupled with p-n Heterojunction. ACS Applied Materials & Interfaces, 2018, 10, 8102-8109.	4.0	106
8	Optoelectronic neuromorphic thin-film transistors capable of selective attention and with ultra-low power dissipation. Nano Energy, 2019, 62, 772-780.	8.2	103
9	Ambipolar inverters using SnO thin-film transistors with balanced electron and hole mobilities. Applied Physics Letters, 2012, 100, .	1.5	90
10	Control of Ambipolar Transport in SnO Thin-Film Transistors by Back-Channel Surface Passivation for High Performance Complementary-like Inverters. ACS Applied Materials & Interfaces, 2015, 7, 17023-17031.	4.0	83
11	Synaptic devices based on purely electronic memristors. Applied Physics Letters, 2016, 108, .	1.5	71
12	Aqueous Solution-Deposited Gallium Oxide Dielectric for Low-Temperature, Low-Operating-Voltage Indium Oxide Thin-Film Transistors: A Facile Route to Green Oxide Electronics. ACS Applied Materials & Interfaces, 2015, 7, 14720-14725.	4.0	60
13	Semiconducting ZnSnN ₂ thin films for Si/ZnSnN ₂ p-n junctions. Applied Physics Letters, 2016, 108, .	1.5	59
14	Thermal aging characteristics of CrN O solar selective absorber coating for flat plate solar thermal collector applications. Solar Energy Materials and Solar Cells, 2013, 114, 186-191.	3.0	56
15	Mechanism for resistive switching in chalcogenide-based electrochemical metallization memory cells. AIP Advances, 2015, 5, .	0.6	56
16	Electrochromism of Nanocrystal-in-Glass Tungsten Oxide Thin Films under Various Conduction Cations. Inorganic Chemistry, 2019, 58, 2089-2098.	1.9	53
17	Determination of some basic physical parameters of SnO based on SnO/Si pn heterojunctions. Applied Physics Letters, 2015, 106, .	1.5	52
18	Determination of the basic optical parameters of ZnSnN ₂ . Optics Letters, 2015, 40, 1282.	1.7	51

#	ARTICLE	IF	CITATIONS
19	Long-term-stable WO ₃ -PB complementary electrochromic devices. Journal of Alloys and Compounds, 2021, 861, 158534.	2.8	50
20	Fully solution-processed metal oxide thin-film transistors via a low-temperature aqueous route. Ceramics International, 2017, 43, 6130-6137.	2.3	48
21	Band Offset Engineering in ZnSnN ₂ -Based Heterojunction for Low-Cost Solar Cells. ACS Photonics, 2018, 5, 2094-2099.	3.2	46
22	Template-Free Growth of Well-Ordered Silver Nano Forest/Ceramic Metamaterial Films with Tunable Optical Responses. Advanced Materials, 2017, 29, 1605324.	11.1	42
23	The structural, optical and electrical properties of Y-doped SnO thin films and their p-type TFT application. Journal Physics D: Applied Physics, 2012, 45, 085101.	1.3	40
24	Magnetron-Sputtered SnO Thin Films for p-Type and Ambipolar TFT Applications. ECS Journal of Solid State Science and Technology, 2014, 3, Q3091-Q3094.	0.9	39
25	Thin Film Solar Cell Based on ZnSnN ₂ /SnO Heterojunction. Physica Status Solidi - Rapid Research Letters, 2018, 12, 1700332.	1.2	38
26	Enhancement of electrical performance in In ₂ O ₃ thin-film transistors by improving the densification and surface morphology of channel layers. Solid-State Electronics, 2010, 54, 479-483.	0.8	37
27	Improvement of Phase Stability and Accurate Determination of Optical Constants of SnO Thin Films by Using Al ₂ O ₃ Capping Layer. ACS Applied Materials & Interfaces, 2010, 2, 1565-1568.	4.0	36
28	Substrate Biasing Effect on the Physical Properties of Reactive RF-Magnetron-Sputtered Aluminum Oxide Dielectric Films on ITO Glasses. ACS Applied Materials & Interfaces, 2014, 6, 2255-2261.	4.0	31
29	Threshold Voltage Tuning in a-IGZO TFTs With Ultrathin SnO _x Capping Layer and Application to Depletion-Load Inverter. IEEE Electron Device Letters, 2016, 37, 422-425.	2.2	30
30	Silver Nanoparticles with an Armor Layer Embedded in the Alumina Matrix To Form Nanocermet Thin Films with Sound Thermal Stability. ACS Applied Materials & Interfaces, 2014, 6, 11550-11557.	4.0	29
31	Plasmonic AgAl Bimetallic Alloy Nanoparticle/Al ₂ O ₃ Nanocermet Thin Films with Robust Thermal Stability for Solar Thermal Applications. Advanced Materials Interfaces, 2016, 3, 1600248.	1.9	29
32	Anomalous bias-stress-induced unstable phenomena of InZnO thin-film transistors using Ta ₂ O ₅ gate dielectric. Journal Physics D: Applied Physics, 2012, 45, 205103.	1.3	27
33	Influence of the channel layer thickness on electrical properties of indium zinc oxide thin-film transistor. Microelectronic Engineering, 2010, 87, 2019-2023.	1.1	26
34	Solution-processed amorphous Ga ₂ O ₃ :CdO TFT-type deep-UV photodetectors. Applied Physics Letters, 2020, 116, .	1.5	26
35	Direct Growth of Vertically Orientated Nanocavity Arrays for Plasmonic Color Generation. Advanced Functional Materials, 2020, 30, 2002287.	7.8	26
36	Flexible Electrochromic V ₂ O ₅ Thin Films with Ultrahigh Coloration Efficiency on Graphene Electrodes. Journal of the Electrochemical Society, 2018, 165, D183-D189.	1.3	25

#	ARTICLE	IF	CITATIONS
37	IGZO/CsPbBr ₃ -Nanoparticles/IGZO Neuromorphic Phototransistors and Their Optoelectronic Coupling Applications. ACS Applied Materials & Interfaces, 2021, 13, 30165-30173.	4.0	25
38	High-performance transparent thin-film transistor based on Y ₂ O ₃ /In ₂ O ₃ with low interface traps. Applied Physics Letters, 2010, 97, .	1.5	24
39	Tunable crystallographic grain orientation and Raman fingerprints of polycrystalline SnO thin films. Journal of Materials Chemistry C, 2015, 3, 1077-1081.	2.7	24
40	Crystal Orientation-Dependent Oxidation of Epitaxial TiN Films with Tunable Plasmonics. ACS Photonics, 2021, 8, 847-856.	3.2	23
41	Interfacial Charge Transfer and Zinc Ion Intercalation and Deintercalation Dynamics in Flexible Multicolor Electrochromic Energy Storage Devices. ACS Applied Energy Materials, 2022, 5, 88-97.	2.5	23
42	Anomalous rectification in a purely electronic memristor. Applied Physics Letters, 2016, 109, 143505.	1.5	21
43	Extended-gate-type IGZO electric-double-layer TFT immunosensor with high sensitivity and low operation voltage. Applied Physics Letters, 2016, 109, .	1.5	21
44	Aluminum-ion-intercalation nickel oxide thin films for high-performance electrochromic energy storage devices. Journal of Materials Chemistry C, 2021, 9, 17427-17436.	2.7	20
45	Forming-free resistive switching in a nanoporous nitrogen-doped carbon thin film with ready-made metal nanofilaments. Carbon, 2014, 76, 459-463.	5.4	19
46	Single-crystalline metal filament-based resistive switching in a nitrogen-doped carbon film containing conical nanopores. Applied Physics Letters, 2015, 106, 083104.	1.5	19
47	Broadband Optoelectronic Synaptic Thin-Film Transistors Based on Oxide Semiconductors. Physica Status Solidi - Rapid Research Letters, 2020, 14, 1900630.	1.2	19
48	The electrical properties of n-ZnO/p-SnO heterojunction diodes. Applied Physics Letters, 2016, 109, 123507.	1.5	17
49	Effect of post-annealing on structural and electrochromic properties of Mo-doped V ₂ O ₅ thin films. Journal of Sol-Gel Science and Technology, 2016, 77, 604-609.	1.1	17
50	Praseodymium-Doped In-Sn-Zn-O TFTs With Effective Improvement of Negative-Bias Illumination Stress Stability. IEEE Transactions on Electron Devices, 2022, 69, 152-155.	1.6	16
51	Huge mobility enhancement of InSnZnO thin-film transistors via Al-induced microstructure regularization. Applied Physics Letters, 2021, 119, .	1.5	15
52	A Direct Method to Extract Transient Sub-Gap Density of State (DOS) Based on Dual Gate Pulse Spectroscopy. Scientific Reports, 2016, 6, 24096.	1.6	14
53	Boosting charge-transfer kinetics and cyclic stability of complementary WO ₃ /NiO electrochromic devices via SnO _x interfacial layer. Journal of Science: Advanced Materials and Devices, 2021, 6, 494-500.	1.5	14
54	Alloyed nanoparticle-embedded alumina nanocermet film: A new attempt to improve the thermotolerance. Applied Surface Science, 2015, 331, 285-291.	3.1	13

#	ARTICLE	IF	CITATIONS
55	Separative extended-gate AlGaAs/GaAs HEMT biosensors based on capacitance change strategy. Applied Physics Letters, 2020, 116, .	1.5	13
56	Carrier trapping anisotropy in ambipolar SnO thin-film transistors. Solid-State Electronics, 2017, 129, 88-92.	0.8	12
57	Combined control of the cation and anion to make ZnSnON thin films for visible-light phototransistors with high responsivity. Journal of Materials Chemistry C, 2017, 5, 6480-6487.	2.7	12
58	Polarity Control of GaN and Realization of GaN Schottky Barrier Diode Based on Lateral Polarity Structure. IEEE Transactions on Electron Devices, 2017, 64, 4424-4429.	1.6	12
59	Ambipolar SnO Thin-Film Transistors and Inverters. ECS Transactions, 2013, 50, 289-297.	0.3	11
60	Ultrafast carrier dynamics in SnOx thin films. Applied Physics Letters, 2015, 106, .	1.5	11
61	In situ TEM investigation of hexagonal WO3 irreversible transformation to Li2WO4. Scripta Materialia, 2021, 203, 114090.	2.6	11
62	Effects of sputtering pressure and post-metallization annealing on the physical properties of rf-sputtered Y2O3 films. Journal of Alloys and Compounds, 2011, 509, 5810-5815.	2.8	10
63	Enhancement of a-IZO TFT Performance by Using Y[sub 2]O[sub 3]âAl[sub 2]O[sub 3] Bilayer Dielectrics. Electrochemical and Solid-State Letters, 2011, 14, H88.	2.2	10
64	A Self-Bleaching Electrochromic Mirror Based on Metal Organic Frameworks. Materials, 2021, 14, 2771.	1.3	10
65	Influence of AlGaN/GaN interface polarization fields on the properties of photoconductive detectors. Journal of Applied Physics, 2004, 95, 5925-5927.	1.1	9
66	Evolution of the amount of InAs in wetting layers in an InAs/GaAs quantum-dot system studied by reflectance difference spectroscopy. Nanotechnology, 2006, 17, 2207-2211.	1.3	9
67	MBE InAs quantum dots grown on metamorphic InGaAs for long wavelength emitting. Physica E: Low-Dimensional Systems and Nanostructures, 2006, 35, 194-198.	1.3	8
68	Influence of the substrate bias voltage on the physical properties of dc reactive sputtered Ta2O5 films. Journal of Alloys and Compounds, 2013, 550, 258-262.	2.8	8
69	Coexistence of two types of metal filaments in oxide memristors. AIP Advances, 2017, 7, .	0.6	8
70	Effects of Target Quality on Electrical Performance and Stability of In-Sn-Zn-O Thin-Film Transistors. IEEE Electron Device Letters, 2021, 42, 529-532.	2.2	8
71	Understanding Electrochemical Intercalation of Al³⁺ Cation into the WO₃ Electrochromic Electrode from Solid Electrolyte Interphase and Mass Changes. ACS Applied Energy Materials, 2022, 5, 1833-1839.	2.5	8
72	The two- to three-dimensional growth transition of InAs/GaAs epitaxy layer studied by reflectance difference spectroscopy. Journal of Applied Physics, 2010, 108, 083513.	1.1	7

#	ARTICLE	IF	CITATIONS
73	Ultrafast carrier dynamics in type-II ZnO-SnO heterostructure thin films. Applied Physics Letters, 2017, 110, .	1.5	7
74	Design, Properties, and TFT Application of Solution-Processed InGaCdO Thin Films. Physica Status Solidi - Rapid Research Letters, 2018, 12, 1800034.	1.2	7
75	Structural and Electrochromic Properties of Undoped and Mo-Doped V ₂ O ₅ Thin Films by a Two-Electrode Electrodeposition. Journal of Nanoscience and Nanotechnology, 2018, 18, 7502-7507.	0.9	7
76	Broadband hyperbolic metamaterial covering the whole visible-light region. Optics Letters, 2019, 44, 2970.	1.7	7
77	Proton conducting sodium-alginate-gated oxide thin-film transistors with varying device structure. Physica Status Solidi (A) Applications and Materials Science, 2016, 213, 3103-3109.	0.8	6
78	Specific phase modulation and infrared photon confinement in solar selective absorbers. Applied Materials Today, 2020, 18, 100533.	2.3	6
79	Solution-processed amorphous p-type Cu-Sn-I thin films for transparent Cu-Sn-I/IGZO p-n junctions. Applied Physics Letters, 2021, 118, .	1.5	6
80	Anomalous photoluminescence of InAs quantum dots implanted by Mn ions. Physica E: Low-Dimensional Systems and Nanostructures, 2007, 36, 221-225.	1.3	5
81	Aqueous Solution Induced High-Dielectric-Constant AlO _x :Y Films for Thin-Film Transistor Applications. Journal of Nanoscience and Nanotechnology, 2018, 18, 7566-7572.	0.9	5
82	Aqueous solution-processed, self-flattening AlO _x :Y dielectrics for fully-transparent thin-film transistors. Ceramics International, 2019, 45, 15883-15891.	2.3	5
83	Tin oxide-based thin-film transistors and their circuits. , 2020, , 441-476.		5
84	Ultrafast Carrier Dynamics of Amorphous Zinc Tin Oxide Graded Thin Films. Journal of Physical Chemistry C, 2021, 125, 9350-9355.	1.5	5
85	Substrate-bias-aided preparation and properties of amorphous gallium oxide films and their deep-ultraviolet photodetectors. Ceramics International, 2021, 47, 32138-32143.	2.3	5
86	Optimization of sensing-pad functionalizing strategy toward separative extended-gate FET biosensors for PSA detection. Journal of Pharmaceutical and Biomedical Analysis, 2022, 211, 114597.	1.4	5
87	Structural and electrical characteristics of RF sputtered YON gate dielectrics and their thin-film transistor applications. Journal Physics D: Applied Physics, 2011, 44, 155403.	1.3	4
88	Solution-processed GaCdO thin-films with tunable bandgaps and their transistors. Journal Physics D: Applied Physics, 2018, 51, 335101.	1.3	4
89	Inkjet-Printed Self-Aligned Short-Channel Metal-Oxide Thin-Film Transistors Based on Coffee Stripe Dewetting Method. IEEE Electron Device Letters, 2019, 40, 228-231.	2.2	4
90	Preparation and AFM characterization of self-ordered porous alumina films on semi-insulated gas substrate. Materials Science in Semiconductor Processing, 2006, 9, 337-340.	1.9	3

#	ARTICLE	IF	CITATIONS
91	Structural and thermoelectric properties of nanostructured p-SnO thin films grown by e-beam evaporation method. International Journal of Hydrogen Energy, 2021, , .	3.8	3
92	Improving Negative-Bias-Temperature-Stress Stability for Thin-Film Transistors by Doping Mg Into ScInO Semiconductor. IEEE Transactions on Electron Devices, 2019, 66, 2620-2623.	1.6	2
93	Annealing induced morphology evolution and phase transition in SnOx thin films grown by e-beam evaporation method. Inorganic Chemistry Communication, 2022, 140, 109473.	1.8	2
94	Molecular beam epitaxy InAs dot arrays on InGaAs/GaAs. Nanotechnology, 2006, 17, 5846-5850.	1.3	1
95	Growth of high density self-assembled InAs quantum dots on As-pressure-modulated InAlAs multilayer structures on InP(001) substrate. Nanotechnology, 2007, 18, 215302.	1.3	1
96	Mechanistic insights into the dry prelithiated WO3 thin films in electrochromic devices. Solid State Ionics, 2021, 373, 115814.	1.3	1
97	Air Nanocolumn-SiO2 composite film with adjustable anisotropic refractive index. Materials Today Physics, 2022, 26, 100722.	2.9	1
98	Characterization of self-organized InAs/GaAs quantum dots under strain-induced and temperature-controlled nucleation mechanisms by atomic force microscopy and photoluminescence spectroscopy. , 2008, , .		0
99	The same batch enabled threshold voltage tuning for vertically or laterally gated transparent InZnO thin-film transistors. Physica Status Solidi (A) Applications and Materials Science, 2017, 214, 1600918.	0.8	0
100	50.4: <i>Invited Paper:</i> Photonic neuromorphic thin-film transistors with ultra-low power dissipation. Digest of Technical Papers SID International Symposium, 2019, 50, 566-566.	0.1	0
101	29.2: Invited Paper: Investigation on the Electrical Performance and Stability of InSnZnO Thin-Film Transistors. Digest of Technical Papers SID International Symposium, 2021, 52, 399-399.	0.1	0
102	P.9: Huge Mobility Enhancement of ITZO TFTs achieved via Ta-induced Crystallization. Digest of Technical Papers SID International Symposium, 2021, 52, 700-700.	0.1	0
103	P.11: Effects of Source and Drain Contacts on Electrical Performance of Oxide Thin-Film Transistors. Digest of Technical Papers SID International Symposium, 2021, 52, 702-702.	0.1	0
104	P.10: Pr-doped ITZO TFTs with Improved Negative-Bias Illumination Stability. Digest of Technical Papers SID International Symposium, 2021, 52, 701-701.	0.1	0