Fukai Shan

List of Publications by Year in Descending Order

110 papers	4,037 citations	36 h-index	61 g-index
115 ext. papers	4,583 ext. citations	4.9 avg, IF	5.48 L-index

#	Paper	IF	Citations
110	UV-Treated ZrO Passivation for Transparent and High-Stability In O Thin Film Transistor. *IEEE Transactions on Electron Devices*, **2022**, 1-5	2.9	2
109	Advanced tape-exfoliated method for preparing large-area 2D monolayers: a review. *2D Materials*, **2021**, 8, 032002	5.9	9
108	Performance Enhancement of Field-Effect Transistors Based on In O Nanofiber Networks by Plasma Treatment. *IEEE Electron Device Letters*, **2021**, 42, 176-179	4.4	5
107	P-1.5: High-performance indium oxide thin-film transistors with UV-treated zirconium oxide passivation layer. *Digest of Technical Papers SID International Symposium*, **2021**, 52, 694-694	0.5	
106	Field-Effect Transistors Based on Welded SnGaO Nanowire Networks. *IEEE Electron Device Letters*, **2021**, 42, 58-61	4.4	3
105	A high performance UWB MIMO antenna with defected ground structure and U-shape branches. *International Journal of RF and Microwave Computer-Aided Engineering*, **2021**, 31, e22270	1.5	7
104	Welded silver nanowire networks as high-performance transparent conductive electrodes: Welding techniques and device applications. *Applied Materials Today*, **2020**, 20, 100634	6.6	19
103	Improved flexible ZnO/CsPbBr3/Graphene UV photodetectors with interface optimization by solution process. *Materials Research Bulletin*, **2020**, 130, 110956	5.1	7
102	Synthesizing BaTiO Nanostructures to Explore Morphological Influence, Kinetics, and Mechanism of Piezocatalytic Dye Degradation. *ACS Applied Materials & Interfaces*, **2020**, 12, 17443-17451	9.5	41
101	Solution-Processed High-Performance p-Type Perovskite NdAlO3 Thin Films for Transparent Electronics. *Advanced Electronic Materials*, **2020**, 6, 1901110	6.4	2
100	The photovoltaic and photoconductive photodetector based on GeSe/2D semiconductor van der Waals heterostructure. *Applied Physics Letters*, **2020**, 116, 141101	3.4	16
99	Cladded Surface-Plasmon-Enhanced BP Photodetector Based on the Damage-Free Metal Semiconductor Interface. *IEEE Transactions on Electron Devices*, **2020**, 1-4	2.9	2
98	The role of oxygen in determining the electrical performance of ZnSnO nanofiber field-effect transistors. *Journal Physics D: Applied Physics*, **2020**, 53, 015109	3	5
97	Advances of 2D bismuth in energy sciences. *Chemical Society Reviews*, **2020**, 49, 263-285	58.5	78
96	Fast electrochromic switching of electrospun Cu-doped NiO nanofibers. *Scripta Materialia*, **2020**, 178, 472-476	5.6	10
95	Self-Welding and Low-Temperature Formation of Metal Oxide Nanofiber Networks and its Application to Electronic Devices. *IEEE Electron Device Letters*, **2020**, 41, 62-65	4.4	15
94	Low-Temperature Fabrication of Nontoxic Indium Oxide Nanofibers and Their Application in Field-Effect Transistors. *IEEE Electron Device Letters*, **2020**, 41, 413-416	4.4	11

93	Solution-Processed, Electrolyte-Gated InO Flexible Synaptic Transistors for Brain-Inspired Neuromorphic Applications. *ACS Applied Materials & Interfaces*, **2020**, 12, 1061-1068	9.5	27
92	High-Performance Indium Oxide Thin-Film Transistors With Aluminum Oxide Passivation. *IEEE Electron Device Letters*, **2019**, 40, 1949-1952	4.4	16
91	Electrospun ZnSnO Nanofibers for Neuromorphic Transistors With Ultralow Energy Consumption. *IEEE Electron Device Letters*, **2019**, 40, 1776-1779	4.4	27
90	Sol□el Processed p-Type CuAlO2 Semiconductor Thin Films and the Integration in Transistors. *IEEE Transactions on Electron Devices*, **2019**, 66, 1458-1463	2.9	16
89	Enhancement-mode field-effect transistors based on Ti-doped In2O3 nanowires fabricated by electrospinning. *Journal Physics D: Applied Physics*, **2019**, 52, 225102	3	4
88	High-piezocatalytic performance of eco-friendly (Bi1/2Na1/2)TiO3-based nanofibers by electrospinning. *Nano Energy*, **2019**, 65, 104024	17.1	55
87	High thermoelectric efficiency of p-type BiSbTe-based composites with CuGaTe2 nanoinclusions. *Scripta Materialia*, **2019**, 172, 88-92	5.6	13
86	P-5.7: Low-temperature, nontoxic indium oxide nanofibers and their application in field-effect transistors. *Digest of Technical Papers SID International Symposium*, **2019**, 50, 738-738	0.5	
85	P-5.6: High performance solution-processed p-type NdAlO3 semiconductor thin films and their application in transistors. *Digest of Technical Papers SID International Symposium*, **2019**, 50, 737-737	0.5	
84	P-5.5: High performance indium oxide thin-film transistors with aluminum oxide passivation. *Digest of Technical Papers SID International Symposium*, **2019**, 50, 736-736	0.5	
83	P-5.8: High-performance field effect transistor based on welded In2O3 nanobelts with low temperature process. *Digest of Technical Papers SID International Symposium*, **2019**, 50, 739-739	0.5	
82	P-5.9: Low temperature, solution-processed In2O3 synaptic transistors for brain-inspired neuromorphic applications. *Digest of Technical Papers SID International Symposium*, **2019**, 50, 740-740	0.5	
81	Solution-processed ternary p-type CuCrO2 semiconductor thin films and their application in transistors. *Journal of Materials Chemistry C*, **2018**, 6, 1393-1398	7.1	41
80	Thin-Film Transistors: ZnO Nanofiber Thin-Film Transistors with Low-Operating Voltages (Adv. Electron. Mater. 1/2018). *Advanced Electronic Materials*, **2018**, 4, 1870007	6.4	
79	Draw Spinning of Wafer-Scale Oxide Fibers for Electronic Devices. *Advanced Electronic Materials*, **2018**, 4, 1700644	6.4	10
78	Electrospun p-Type Nickel Oxide Semiconducting Nanowires for Low-Voltage Field-Effect Transistors. *ACS Applied Materials & Interfaces*, **2018**, 10, 25841-25849	9.5	35
77	Low-voltage and high-performance field-effect transistors based on ZnSnO nanofibers with a ZrO dielectric. *Nanoscale*, **2018**, 10, 14712-14718	7.7	21
76	Electronic Devices Based on Oxide Thin Films Fabricated by Fiber-to-Film Process. *ACS Applied Materials & Interfaces*, **2018**, 10, 18057-18065	9.5	11

75	ZnO Nanofiber Thin-Film Transistors with Low-Operating Voltages. *Advanced Electronic Materials*, **2018**, 4, 1700336	6.4	24
74	Achieving high power factor of p-type BiSbTe thermoelectric materials via adjusting hot-pressing temperature. *Intermetallics*, **2018**, 93, 338-342	3.5	6
73	High performance electronic devices based on nanofibers via a crosslinking welding process. *Nanoscale*, **2018**, 10, 19427-19434	7.7	13
72	High-performance field-effect transistors based on gadolinium doped indium oxide nanofibers and their application in logic gate. *Applied Physics Letters*, **2018**, 112, 213501	3.4	24
71	Nature-Inspired Capillary-Driven Welding Process for Boosting Metal-Oxide Nanofiber Electronics. *ACS Applied Materials & Interfaces*, **2018**, 10, 20703-20711	9.5	29
70	Redox Chloride Elimination Reaction: Facile Solution Route for Indium-Free, Low-Voltage, and High-Performance Transistors. *Advanced Electronic Materials*, **2017**, 3, 1600513	6.4	55
69	Direct transfer of graphene and application in low-voltage hybrid transistors. *RSC Advances*, **2017**, 7, 2172-2179	3.7	10
68	In situ one-step synthesis of p-type copper oxide for low-temperature, solution-processed thin-film transistors. *Journal of Materials Chemistry C*, **2017**, 5, 2524-2530	7.1	55
67	Photochemical Activation of Electrospun InO Nanofibers for High-Performance Electronic Devices. *ACS Applied Materials & Interfaces*, **2017**, 9, 10805-10812	9.5	56
66	Electrospun p-type CuO nanofibers for low-voltage field-effect transistors. *Applied Physics Letters*, **2017**, 111, 143501	3.4	27
65	Solution Combustion Synthesis: Low-Temperature Processing for p-Type Cu:NiO Thin Films for Transparent Electronics. *Advanced Materials*, **2017**, 29, 1701599	24	113
64	Solution-processed ytterbium oxide dielectrics for low-voltage thin-film transistors and inverters. *Ceramics International*, **2017**, 43, 15194-15200	5.1	45
63	Solution-Processed SrOx-Gated Oxide Thin-Film Transistors and Inverters. *IEEE Transactions on Electron Devices*, **2017**, 64, 4137-4143	2.9	36
62	Inhibition of minority transport for elevating the thermoelectric figure of merit of CuO/BiSbTe nanocomposites at high temperatures. *RSC Advances*, **2016**, 6, 112050-112056	3.7	16
61	Solution-Processed Alkaline Lithium Oxide Dielectrics for Applications in n- and p-Type Thin-Film Transistors. *Advanced Electronic Materials*, **2016**, 2, 1600140	6.4	38
60	Low-temperature, nontoxic water-induced high-k zirconium oxide dielectrics for low-voltage, high-performance oxide thin-film transistors. *Journal of Materials Chemistry C*, **2016**, 4, 10715-10721	7.1	61
59	One-step synthesis of graphene quantum dots from defective CVD graphene and their application in IGZO UV thin film phototransistor. *Carbon*, **2016**, 100, 201-207	10.4	39
58	Synthesis, surface properties and optical characteristics of CuV2O6 nanofibers. *Journal of Alloys and Compounds*, **2016**, 672, 229-237	5.7	8

57	AgV7O18: A new silver vanadate semiconductor with photodegradation ability on dyes under visible-light irradiation. *Materials Letters*, **2016**, 169, 82-85	3.3	7
56	Hole mobility modulation of solution-processed nickel oxide thin-film transistor based on high-k dielectric. *Applied Physics Letters*, **2016**, 108, 233506	3.4	95
55	Solution-processed high-k magnesium oxide dielectrics for low-voltage oxide thin-film transistors. *Applied Physics Letters*, **2016**, 109, 183508	3.4	42
54	Eco-friendly, solution-processed In-W-O thin films and their applications in low-voltage, high-performance transistors. *Journal of Materials Chemistry C*, **2016**, 4, 4478-4484	7.1	38
53	High-mobility p-type NiOx thin-film transistors processed at low temperatures with Al2O3 high-k dielectric. *Journal of Materials Chemistry C*, **2016**, 4, 9438-9444	7.1	60
52	The 2016 oxide electronic materials and oxide interfaces roadmap. *Journal Physics D: Applied Physics*, **2016**, 49, 433001	3	204
51	Graphene quantum dots directly generated from graphite via magnetron sputtering and the application in thin-film transistors. *Carbon*, **2015**, 88, 225-232	10.4	23
50	Solution-processed hafnium oxide dielectric thin films for thin-film transistors applications. *Ceramics International*, **2015**, 41, 13218-13223	5.1	31
49	Graphene nanodots encaged 3-D gold substrate as enzyme loading platform for the fabrication of high performance biosensors. *Sensors and Actuators B: Chemical*, **2015**, 220, 1186-1195	8.5	23
48	A water-induced high-k yttrium oxide dielectric for fully-solution-processed oxide thin-film transistors. *Current Applied Physics*, **2015**, 15, S75-S81	2.6	38
47	The annealing effects on the properties of solution-processed alumina thin film and its application in TFTs. *Ceramics International*, **2015**, 41, S349-S355	5.1	22
46	Low-temperature fabrication of high performance indium oxide thin film transistors. *RSC Advances*, **2015**, 5, 37807-37813	3.7	60
45	Solution-processed yttrium oxide dielectric for high-performance IZO thin-film transistors. *Ceramics International*, **2015**, 41, S337-S343	5.1	25
44	Annealing Dependence of Solution-Processed Ultra-Thin ZrOx Films for Gate Dielectric Applications. *Journal of Nanoscience and Nanotechnology*, **2015**, 15, 2185-91	1.3	31
43	Nanometer-film analysis by the laser-induced breakdown spectroscopy method: the effects of laser focus to sample distance. *Applied Optics*, **2015**, 54, 4812-9	0.2	6
42	Low-Temperature, Nontoxic Water-Induced Metal-Oxide Thin Films and Their Application in Thin-Film Transistors. *Advanced Functional Materials*, **2015**, 25, 2564-2572	15.6	133
41	Eco-friendly water-induced aluminum oxide dielectrics and their application in a hybrid metal oxide/polymer TFT. *RSC Advances*, **2015**, 5, 86606-86613	3.7	49
40	Solution-processed p-type copper oxide thin-film transistors fabricated by using a one-step vacuum annealing technique. *Journal of Materials Chemistry C*, **2015**, 3, 9509-9513	7.1	46

39	Graphene nanodots-encaged porous gold electrode fabricated via ion beam sputtering deposition for electrochemical analysis of heavy metal ions. *Sensors and Actuators B: Chemical*, **2015**, 206, 592-600	8.5	49
38	Water-Induced Scandium Oxide Dielectric for Low-Operating Voltage n- and p-Type Metal-Oxide Thin-Film Transistors. *Advanced Functional Materials*, **2015**, 25, 7180-7188	15.6	121
37	Fabrication of ultrathin In2O3 hollow fibers for UV light sensing. *Physica Scripta*, **2014**, 89, 115808	2.6	7
36	Fully solution-processed low-voltage aqueous In2O3 thin-film transistors using an ultrathin ZrO(x) dielectric. *ACS Applied Materials & Interfaces*, **2014**, 6, 17364-9	9.5	144
35	Oxygen pressure dependence of Ti-doped In-Zn-O thin film transistors. *Journal of Electroceramics*, **2014**, 33, 31-36	1.5	10
34	Low operating voltage InGaZnO thin-film transistors based on Al2O3 high-k dielectrics fabricated using pulsed laser deposition. *Journal of the Korean Physical Society*, **2014**, 64, 1437-1440	0.6	3
33	Channel layer thickness dependence of In-Ti-Zn-O thin-film transistors fabricated using pulsed laser deposition. *Journal of the Korean Physical Society*, **2014**, 64, 1514-1518	0.6	1
32	Improved performance of InGaZnO thin-film transistors with Ta2O5/Al2O3 stack deposited using pulsed laser deposition. *Current Applied Physics*, **2014**, 14, S2-S6	2.6	19
31	High-performance fully amorphous bilayer metal-oxide thin film transistors using ultra-thin solution-processed ZrOx dielectric. *Applied Physics Letters*, **2014**, 105, 113509	3.4	87
30	Room-temperature fabrication of ultra-thin ZrOx dielectric for high-performance InTiZnO thin-film transistors. *Current Applied Physics*, **2014**, 14, S39-S43	2.6	29
29	Three types of dissociated misfit dislocations in epitaxial Ba0.3Sr0.7TiO3 thin films grown on (001) LaAlO3. *Journal of Applied Physics*, **2009**, 106, 113532	2.5	5
28	Beam Splitter and Deflector in Two-Dimensional Photonic Crystals. *Guangxue Xuebao/Acta Optica Sinica*, **2009**, 29, 818-821	0.8	3
27	Annealing Effects of ZnO Thin Films Deposited on Si (100) by Using Pulsed Laser Deposition. *Journal of the Korean Physical Society*, **2009**, 54, 916-920	0.6	16
26	STRUCTURAL, ELECTRICAL, AND OPTICAL PROPERTIES OF GERMANIUM-DOPED ZnO THIN FILMS DEPOSITED BY PULSED LASER DEPOSITION TECHNIQUE. *Integrated Ferroelectrics*, **2008**, 98, 199-207	0.8	2
25	Structural, electrical, and optical properties of Na-doped ZnO thin films deposited by pulsed laser deposition. *Journal of Nanoscience and Nanotechnology*, **2008**, 8, 5203-7	1.3	7
24	Boron and nitrogen co-doped ZnO thin films for opto-electronic applications. *Ceramics International* , **2008**, 34, 1011-1015	5.1	14
23	The role of oxygen vacancies in epitaxial-deposited ZnO thin films. *Journal of Applied Physics*, **2007**, 101, 053106	2.5	161
22	Optical properties of antimony-implanted ZnO epilayers. *Surface and Coatings Technology*, **2007**, 201, 6797-6799	4.4	14

21	CHARACTERIZATIONS OF GALLIUM AND ARSENIC CO-DOPED ZnO THIN FILMS DEPOSITED BY PULSED LASER DEPOSITION TECHNIQUE. *Integrated Ferroelectrics*, **2007**, 90, 30-41	0.8	
20	GROWTH TEMPERATURE DEPENDENCE OF Ga2O3 THIN FILMS DEPOSITED BY PLASMA ENHANCED ATOMIC LAYER DEPOSITION. *Integrated Ferroelectrics*, **2007**, 94, 11-20	0.8	18
19	Growth Temperature Dependence of TiO2 Thin Films Prepared by Using Plasma-Enhanced Atomic Layer Deposition Method. *Journal of the Korean Physical Society*, **2007**, 50, 1827	0.6	20
18	TRANSPARENT TITANIUM DIOXIDE THIN FILM DEPOSITED BY PLASMA-ENHANCED ATOMIC LAYER DEPOSITION. *Integrated Ferroelectrics*, **2006**, 81, 239-248	0.8	3
17	HEXAGONAL ZINC OXIDE THIN FILMS ON CUBIC MGO (100) SUBSTRATES DEPOSITED BY PULSED LASER DEPOSITION. *Integrated Ferroelectrics*, **2006**, 78, 181-190	0.8	3
16	Ga2O3 THIN FILM DEPOSITED BY ATOMIC LAYER DEPOSITION WITH HIGH PLASMA POWER. *Integrated Ferroelectrics*, **2006**, 80, 197-206	0.8	18
15	NANOMIXED TiO2-Ga2O3 THIN FILMS GROWN BY PLASMA ENHANCED ATOMIC LAYER DEPOSITION (PEALD) METHOD. *Integrated Ferroelectrics*, **2006**, 85, 155-164	0.8	5
14	Stokes shift, blue shift and red shift of ZnO-based thin films deposited by pulsed-laser deposition. *Journal of Crystal Growth*, **2006**, 291, 328-333	1.6	79
13	Electrical properties of Ga2O3-based dielectric thin films prepared by plasma enhanced atomic layer deposition (PEALD). *Journal of Electroceramics*, **2006**, 17, 145-149	1.5	25
12	Nanoscale phenomena of gallium-doped ZnO thin films on sapphire substrates. *Journal of Electroceramics*, **2006**, 17, 287-292	1.5	2
11	Aging effect and origin of deep-level emission in ZnO thin film deposited by pulsed laser deposition. *Applied Physics Letters*, **2005**, 86, 221910	3.4	152
10	Transparent conductive ZnO thin films on glass substrates deposited by pulsed laser deposition. *Journal of Crystal Growth*, **2005**, 277, 284-292	1.6	94
9	Structural, electrical, and optical properties of transparent gallium oxide thin films grown by plasma-enhanced atomic layer deposition. *Journal of Applied Physics*, **2005**, 98, 023504	2.5	91
8	Photoluminescence of ZnO:Ga Thin Films Fabricated by Pulsed Laser Deposition Technique. *Journal of Electroceramics*, **2004**, 13, 183-187	1.5	45
7	Studies of ZnO Thin Films On Sapphire (0001) Substrates Deposited by Pulsed Laser Deposition. *Journal of Electroceramics*, **2004**, 13, 189-194	1.5	12
6	Aging and Annealing Effects of ZnO Thin Films on GaAs Substrates Deposited by Pulsed Laser Deposition. *Journal of Electroceramics*, **2004**, 13, 195-200	1.5	27
5	Substrate effects of ZnO thin films prepared by PLD technique. *Journal of the European Ceramic Society*, **2004**, 24, 1015-1018	6	91
4	Optical properties of As doped ZnO thin films prepared by pulsed laser deposition technique. *Journal of the European Ceramic Society*, **2004**, 24, 1861-1864	6	32

3	Band gap energy of pure and Al-doped ZnO thin films. *Journal of the European Ceramic Society*, **2004**, 24, 1869-1872	6	195
2	Blueshift of near band edge emission in Mg doped ZnO thin films and aging. *Journal of Applied Physics*, **2004**, 95, 4772-4776	2.5	258
1	Epitaxial growth and properties of Ga-doped ZnO films grown by pulsed laser deposition. *Journal of Crystal Growth*, **2003**, 259, 130-136	1.6	77