

Zhiqiang Fang

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

117
papers

4,747
citations

31
h-index

67
g-index

123
ext. papers

5,632
ext. citations

7.8
avg, IF

5.64
L-index

#	Paper	IF	Citations
117	Molecular design and experimental study of cellulose conversion to 5-hydroxymethylfurfural catalyzed by different ratios of Brønsted/Lewis acid ionic liquids.. <i>Carbohydrate Polymers</i> , 2022 , 278, 118936	10.3	0
116	Designed biomass materials for green electronics: A review of materials, fabrications, devices, and perspectives. <i>Progress in Materials Science</i> , 2022 , 125, 100917	42.2	5
115	Fabrication of flexible electrochromic film based on amorphous isopolytungstate by low-temperature inkjet-printed process with a solution crystallization kinetic-controlled strategy. <i>Chemical Engineering Journal</i> , 2022 , 427, 131840	14.7	1
114	Monodispersed Lignin Colloidal Spheres with Tailorable Sizes for Bio-Photonic Materials.. <i>Small</i> , 2022 , e2200671	11	2
113	Rapid preparation of highly transparent paper with high built-in haze by an ion exchange approach. <i>Chemical Engineering Journal</i> , 2022 , 439, 135776	14.7	1
112	Wood-inspired strategy to toughen transparent cellulose nanofibril films. <i>Carbohydrate Polymers</i> , 2021 , 259, 117759	10.3	5
111	Versatile Wood Cellulose for Biodegradable Electronics. <i>Advanced Materials Technologies</i> , 2021 , 6, 2000928	12.8	13
110	48.1: Invited Paper: Inkjet printing of homogeneous and green cellulose nanofibrils dielectric for high performance IGZO TFTs. <i>Digest of Technical Papers SID International Symposium</i> , 2021 , 52, 580-581	0.5	
109	Wood Cellulose Paper for Solar Cells 2020 , 279-295		3
108	Approaching Theoretical Haze of Highly Transparent All-Cellulose Composite Films. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 31998-32005	9.5	26
107	Human Dermal Fibroblast Viability and Adhesion on Cellulose Nanomaterial Coatings: Influence of Surface Characteristics. <i>Biomacromolecules</i> , 2020 , 21, 1560-1567	6.9	17
106	Critical Role of Degree of Polymerization of Cellulose in Super-Strong Nanocellulose Films. <i>Matter</i> , 2020 , 2, 1000-1014	12.7	49
105	Sol-gel synthesis of large-sized polycrystalline stannous oxide and its oxidation behavior. <i>CrystEngComm</i> , 2020 , 22, 1834-1838	3.3	0
104	Fabrication of high-performance solution processed thin film transistors by introducing a buffer layer. <i>Applied Surface Science</i> , 2020 , 504, 144360	6.7	5
103	Effect of oxygen pressure on GZO film as active layer of the TFT fabricated at room temperature. <i>Superlattices and Microstructures</i> , 2020 , 137, 106317	2.8	5
102	Favorable combination of foldability and toughness of transparent cellulose nanofibril films by a PET fiber-reinforced strategy. <i>International Journal of Biological Macromolecules</i> , 2020 , 164, 3268-3274	7.9	4
101	Inkjet printing of homogeneous and green cellulose nanofibril dielectrics for high performance IGZO TFTs. <i>Journal of Materials Chemistry C</i> , 2020 , 8, 12578-12586	7.1	4

100	Investigation of direct inkjet-printed versus spin-coated ZrO for sputter IGZO thin film transistor. <i>Nanoscale Research Letters</i> , 2019 , 14, 80	5	7
99	Insight into the dispersive mechanism of Carboxylated Nanofibrillated cellulose for individual montmorillonite in water. <i>Composites Part B: Engineering</i> , 2019 , 177, 107399	10	0
98	All-Sputtering, High-Transparency, Good-Stability Coplanar Top-Gate Thin Film Transistors. <i>Applied Sciences (Switzerland)</i> , 2019 , 9, 83	2.6	3
97	A Janus evaporator with low tortuosity for long-term solar desalination. <i>Journal of Materials Chemistry A</i> , 2019 , 7, 15333-15340	13	95
96	Strong Cellulose-Based Materials by Coupling Sodium Hydroxide-Anthraquinone (NaOH-AQ) Pulping with Hot Pressing from Wood. <i>ACS Omega</i> , 2019 , 4, 7861-7865	3.9	6
95	Flexible and Highly Sensitive Humidity Sensor Based on Cellulose Nanofibers and Carbon Nanotube Composite Film. <i>Langmuir</i> , 2019 , 35, 4834-4842	4	88
94	Evaluation of NdAl doped indium-zinc oxide thin-film transistors by a EPCD method. <i>Semiconductor Science and Technology</i> , 2019 , 34, 055011	1.8	3
93	Application of Nanocellulose in Energy Materials and Devices 2019 , 397-421		1
92	Evaporation induced hollow cracks and the adhesion of silver nanoparticle film. <i>Journal of Materials Science</i> , 2019 , 54, 7987-7996	4.3	3
91	Nanocellulose-based films and their emerging applications. <i>Current Opinion in Solid State and Materials Science</i> , 2019 , 23, 100764	12	62
90	Mechanically strong and electrically stable polypyrrole paper using high molecular weight sulfonated alkaline lignin as a dispersant and dopant. <i>Journal of Colloid and Interface Science</i> , 2019 , 556, 47-53	9.3	8
89	Influence of the S:Ni ratio in raw materials on the Ni _x S _y electrocatalysts. <i>Applied Surface Science</i> , 2019 , 491, 590-594	6.7	14
88	A Strategy toward Realizing Ultrashort Channels and Microstructures Array by Piezoelectric Inkjet Printing. <i>Nanomaterials</i> , 2019 , 9,	5.4	1
87	Efficient Removal of Cu in Water by Carboxymethylated Cellulose Nanofibrils: Performance and Mechanism. <i>Biomacromolecules</i> , 2019 , 20, 4466-4475	6.9	27
86	Effective Evaluation Strategy Toward Low Temperature Solution-Processed Oxide Dielectrics for TFT Device. <i>IEEE Journal of the Electron Devices Society</i> , 2019 , 7, 1140-1144	2.3	1
85	Thermal effect of annealing-temperature on solution-processed high- ZrO dielectrics.. <i>RSC Advances</i> , 2019 , 9, 42415-42422	3.7	5
84	Gel-Switchable Droplet Front for Large-Scale Uniformity of Inkjet Printed Silver Patterns. <i>Advanced Materials Technologies</i> , 2019 , 4, 1800243	6.8	5
83	Paper in Electronic and Optoelectronic Devices. <i>Advanced Electronic Materials</i> , 2018 , 4, 1700593	6.4	47

82	Flexible and biocompatible nanopaper-based electrode arrays for neural activity recording. <i>Nano Research</i> , 2018 , 11, 5604-5614	10	15
81	Transparent and Hazy All-Cellulose Composite Films with Superior Mechanical Properties. <i>ACS Sustainable Chemistry and Engineering</i> , 2018 , 6, 6974-6980	8.3	31
80	A study on the transmission haze and mechanical properties of highly transparent paper with different fiber species. <i>Cellulose</i> , 2018 , 25, 2051-2061	5.5	15
79	Effect of ITO Serving as a Barrier Layer for Cu Electrodes on Performance of a-IGZO TFT. <i>IEEE Electron Device Letters</i> , 2018 , 39, 504-507	4.4	18
78	High-performance flexible oxide TFTs: optimization of a-IGZO film by modulating the voltage waveform of pulse DC magnetron sputtering without post treatment. <i>Journal of Materials Chemistry C</i> , 2018 , 6, 2522-2532	7.1	24
77	Starch/polyvinyl alcohol (PVA)-coated painting paper with exceptional organic solvent barrier properties for art preservation purposes. <i>Journal of Materials Science</i> , 2018 , 53, 5450-5457	4.3	15
76	Reduced contact resistance of a-IGZO thin film transistors with inkjet-printed silver electrodes. <i>Journal Physics D: Applied Physics</i> , 2018 , 51, 165103	3	9
75	Effect of Al ₂ O ₃ Passivation Layer and Cu Electrodes on High Mobility of Amorphous IZO TFT. <i>IEEE Journal of the Electron Devices Society</i> , 2018 , 6, 733-737	2.3	16
74	Induced nano-scale self-formed metal-oxide interlayer in amorphous silicon tin oxide thin film transistors. <i>Scientific Reports</i> , 2018 , 8, 4160	4.9	3
73	Low-temperature fabrication of sputtered high-k HfO ₂ gate dielectric for flexible a-IGZO thin film transistors. <i>Applied Physics Letters</i> , 2018 , 112, 103503	3.4	66
72	Inkjet Printed Electrodes in Thin Film Transistors. <i>IEEE Journal of the Electron Devices Society</i> , 2018 , 6, 774-790	2.3	15
71	Isotropic Paper Directly from Anisotropic Wood: Top-Down Green Transparent Substrate Toward Biodegradable Electronics. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 28566-28571	9.5	49
70	Mobility Enhancement in Amorphous In-Ga-Zn-O Thin-Film Transistor by Induced Metallic in Nanoparticles and Cu Electrodes. <i>Nanomaterials</i> , 2018 , 8,	5.4	16
69	High-performance spin-coated aluminum oxide dielectric fabricated by a simple oxygen plasma-treatment process. <i>Journal Physics D: Applied Physics</i> , 2018 , 51, 365101	3	9
68	Bias Stability Enhancement in Thin-Film Transistor with a Solution-Processed ZrO ₂ Dielectric as Gate Insulator. <i>Applied Sciences (Switzerland)</i> , 2018 , 8, 806	2.6	5
67	Effect of Source/Drain Electrodes on the Electrical Properties of Silicon?Tin Oxide Thin-Film Transistors. <i>Nanomaterials</i> , 2018 , 8,	5.4	6
66	A full utilization of rice husk to evaluate phytochemical bioactivities and prepare cellulose nanocrystals. <i>Scientific Reports</i> , 2018 , 8, 10482	4.9	21
65	Paper-Based Electronics: Paper in Electronic and Optoelectronic Devices (Adv. Electron. Mater. 5/2018). <i>Advanced Electronic Materials</i> , 2018 , 4, 1870025	6.4	4

64	Protonation Process to Enhance the Water Resistance of Transparent and Hazy Paper. <i>ACS Sustainable Chemistry and Engineering</i> , 2018 , 6, 12385-12392	8.3	15
63	48.2: Invited Paper: High conductivity & transparent aluminum-based multi-layer source/drain electrodes for thin film transistors. <i>Digest of Technical Papers SID International Symposium</i> , 2018 , 49, 504-508	0.5	
62	35.3: Self-formed nano-scale metal-oxide contact interlayer for amorphous silicon tin oxide TFTs. <i>Digest of Technical Papers SID International Symposium</i> , 2018 , 49, 385-394	0.5	
61	Inkjet printing satellite-free silver electrodes array in a-IGZO TFTs by regulating piezoelectric waveforms. <i>Molecular Crystals and Liquid Crystals</i> , 2018 , 676, 36-43	0.5	0
60	The effect of different annealing temperature on transparent conductive SnO ₂ thin film by solution process. <i>Molecular Crystals and Liquid Crystals</i> , 2018 , 676, 44-49	0.5	2
59	Zigzag Hollow Cracks of Silver Nanoparticle Film Regulated by Its Drying Micro-environment. <i>Nanoscale Research Letters</i> , 2018 , 13, 354	5	1
58	Highly Conductive and Transparent AZO Films Fabricated by PLD as Source/Drain Electrodes for TFTs. <i>Materials</i> , 2018 , 11,	3.5	4
57	Capillary force induced air film for self-aligned short channel: pushing the limits of inkjet printing. <i>Soft Matter</i> , 2018 , 14, 9402-9410	3.6	4
56	A study of contact properties between molybdenum and amorphous silicon tin oxide thin film transistors. <i>Journal of the Society for Information Display</i> , 2018 , 26, 681-686	2.1	2
55	Effect of Molecular Weight on the Reactivity and Dispersibility of Sulfomethylated Alkali Lignin Modified by Horseradish Peroxidase. <i>ACS Sustainable Chemistry and Engineering</i> , 2018 , 6, 14197-14202	8.3	3
54	Critical Impact of Solvent Evaporation on the Resolution of Inkjet Printed Nanoparticles Film. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 22883-22888	9.5	8
53	Programmable Shape Recovery Process of Water-Responsive Shape-Memory Poly(vinyl alcohol) by Wettability Contrast Strategy. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 5495-5502	9.5	40
52	Enhancing moisture resistance of starch-coated paper by improving the film forming capability of starch film. <i>Industrial Crops and Products</i> , 2017 , 100, 12-18	5.9	21
51	Durable superhydrophobic paper enabled by surface sizing of starch-based composite films. <i>Applied Surface Science</i> , 2017 , 409, 45-51	6.7	37
50	One-pot synthesis of nickel sulfide with sulfur powder as sulfur source in solution and their electrochemical properties for hydrogen evolution reaction. <i>Inorganic Chemistry Communication</i> , 2017 , 79, 1-4	3.1	12
49	Homogeneous Surface Profiles of Inkjet-Printed Silver Nanoparticle Films by Regulating Their Drying Microenvironment. <i>Journal of Physical Chemistry C</i> , 2017 , 121, 8992-8998	3.8	13
48	High Mobility Amorphous Indium-Gallium-Zinc-Oxide Thin-Film Transistor by Aluminum Oxide Passivation Layer. <i>IEEE Electron Device Letters</i> , 2017 , 38, 879-882	4.4	38
47	Highly conductive AZO thin films obtained by rationally optimizing substrate temperature and oxygen partial pressure. <i>Molecular Crystals and Liquid Crystals</i> , 2017 , 644, 190-196	0.5	2

46	Super-Clear Nanopaper from Agro-Industrial Waste for Green Electronics. <i>Advanced Electronic Materials</i> , 2017 , 3, 1600539	6.4	19
45	UV-Cured Inkjet-Printed Silver Gate Electrode with Low Electrical Resistivity. <i>Nanoscale Research Letters</i> , 2017 , 12, 546	5	5
44	Room-Temperature Fabrication of High-Performance Amorphous In-Ga-Zn-O/AlO Thin-Film Transistors on Ultrasoother and Clear Nanopaper. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 27792-27800	9.5	32
43	Highly Transparent and Self-Extinguishing Nanofibrillated Cellulose-Monolayer Clay Nanoplatelet Hybrid Films. <i>Langmuir</i> , 2017 , 33, 8455-8462	4	19
42	Direct patterning of silver electrodes with 2.4 μ m channel length by piezoelectric inkjet printing. <i>Journal of Colloid and Interface Science</i> , 2017 , 487, 68-72	9.3	22
41	Effect of Intrinsic Stress on Structural and Optical Properties of Amorphous Si-Doped SnO ₂ Thin-Film. <i>Materials</i> , 2017 , 10,	3.5	10
40	Direct Inkjet Printing of Silver Source/Drain Electrodes on an Amorphous InGaZnO Layer for Thin-Film Transistors. <i>Materials</i> , 2017 , 10,	3.5	20
39	A Simple Method for High-Performance, Solution-Processed, Amorphous ZrO ₂ Gate Insulator TFT with a High Concentration Precursor. <i>Materials</i> , 2017 , 10,	3.5	19
38	High Conductivity and Adhesion of Cu-Cr-Zr Alloy for TFT Gate Electrode. <i>Applied Sciences (Switzerland)</i> , 2017 , 7, 820	2.6	6
37	Amorphous InGaZnO Thin Film Transistor Fabricated with Printed Silver Salt Ink Source/Drain Electrodes. <i>Applied Sciences (Switzerland)</i> , 2017 , 7, 844	2.6	8
36	Wood-Derived Materials for Green Electronics, Biological Devices, and Energy Applications. <i>Chemical Reviews</i> , 2016 , 116, 9305-74	68.1	802
35	Extreme Light Management in Mesoporous Wood Cellulose Paper for Optoelectronics. <i>ACS Nano</i> , 2016 , 10, 1369-77	16.7	133
34	Effect of Post Treatment For Cu-Cr Source/Drain Electrodes on a-IGZO TFTs. <i>Materials</i> , 2016 , 9,	3.5	17
33	A Tunable Photoluminescent Composite of Cellulose Nanofibrils and CdS Quantum Dots. <i>Nanomaterials</i> , 2016 , 6,	5.4	8
32	A novel nondestructive testing method for amorphous Si ₃ N ₄ films. <i>Journal Physics D: Applied Physics</i> , 2016 , 49, 505102	3	14
31	Solvent resistance of 2,2,6,6-tetramethylpiperidine-1-oxyl (TEMPO) treated cellulose nanofiber film for flexible electronics. <i>Cellulose</i> , 2016 , 23, 1979-1987	5.5	17
30	A new photoelectric ink based on nanocellulose/CdS quantum dots for screen-printing. <i>Carbohydrate Polymers</i> , 2016 , 148, 29-35	10.3	46
29	Effective dispersion of aqueous clay suspension using carboxylated nanofibrillated cellulose as dispersant. <i>RSC Advances</i> , 2016 , 6, 37330-37336	3.7	13

28	Hybridizing wood cellulose and graphene oxide toward high-performance fibers. <i>NPG Asia Materials</i> , 2015 , 7, e150-e150	10.3	75
27	Advanced Broadband Antireflection Coatings Based on Cellulose Microfiber Paper. <i>IEEE Journal of Photovoltaics</i> , 2015 , 5, 577-583	3.7	15
26	Nanocellulose as green dispersant for two-dimensional energy materials. <i>Nano Energy</i> , 2015 , 13, 346-354	7.1	208
25	Nanocellulose-based Translucent Diffuser for Optoelectronic Device Applications with Dramatic Improvement of Light Coupling. <i>ACS Applied Materials & Interfaces</i> , 2015 , 7, 26860-4	9.5	58
24	Rapid Dissolving-Debonding Strategy for Optically Transparent Paper Production. <i>Scientific Reports</i> , 2015 , 5, 17703	4.9	6
23	A Facile Approach to Evaluate Thermal Insulation Performance of Paper Cups. <i>International Journal of Polymer Science</i> , 2015 , 2015, 1-8	2.4	2
22	Light management in flexible glass by wood cellulose coating. <i>Scientific Reports</i> , 2014 , 4, 5842	4.9	15
21	Paper-Based Anti-Reflection Coatings for Photovoltaics. <i>Advanced Energy Materials</i> , 2014 , 4, 1301804	21.8	51
20	Highly thermally conductive papers with percolative layered boron nitride nanosheets. <i>ACS Nano</i> , 2014 , 8, 3606-13	16.7	337
19	Silver nanowire transparent conducting paper-based electrode with high optical haze. <i>Journal of Materials Chemistry C</i> , 2014 , 2, 1248-1254	7.1	120
18	Flexible, transparent, and conductive defrosting glass. <i>Thin Solid Films</i> , 2014 , 556, 13-17	2.2	33
17	Novel nanostructured paper with ultrahigh transparency and ultrahigh haze for solar cells. <i>Nano Letters</i> , 2014 , 14, 765-73	11.5	348
16	Transparent paper: fabrications, properties, and device applications. <i>Energy and Environmental Science</i> , 2014 , 7, 269-287	35.4	392
15	Lightweight, conductive hollow fibers from nature as sustainable electrode materials for microbial energy harvesting. <i>Nano Energy</i> , 2014 , 10, 268-276	17.1	48
14	Highly transparent paper with tunable haze for green electronics. <i>Energy and Environmental Science</i> , 2014 , 7, 3313-3319	35.4	96
13	Solar Cells: Paper-Based Anti-Reflection Coatings for Photovoltaics (Adv. Energy Mater. 9/2014). <i>Advanced Energy Materials</i> , 2014 , 4,	21.8	3
12	Aqueous gating of van der Waals materials on bilayer nanopaper. <i>ACS Nano</i> , 2014 , 8, 10606-12	16.7	30
11	A gravure printed antenna on shape-stable transparent nanopaper. <i>Nanoscale</i> , 2014 , 6, 9110-5	7.7	78

10	Development, application and commercialization of transparent paper. <i>Translational Materials Research</i> , 2014 , 1, 015004		42
9	The Application of Starch - Sodium Alginate Composite Coating on Transparent Paper for Food Packaging. <i>Advanced Materials Research</i> , 2014 , 893, 472-477	0.5	7
8	Highly transparent and writable wood all-cellulose hybrid nanostructured paper. <i>Journal of Materials Chemistry C</i> , 2013 , 1, 6191	7.1	98
7	Strong transparent magnetic nanopaper prepared by immobilization of Fe ₃ O ₄ nanoparticles in a nanofibrillated cellulose network. <i>Journal of Materials Chemistry A</i> , 2013 , 1, 15278	13	96
6	Scalable, printable, surfactant-free graphene ink directly from graphite. <i>Nanotechnology</i> , 2013 , 24, 205304	9.4	52
5	Biodegradable transparent substrates for flexible organic-light-emitting diodes. <i>Energy and Environmental Science</i> , 2013 , 6, 2105	35.4	249
4	Application of Chitosan as a Barrier Coating on Coated Ivory Board. <i>Applied Mechanics and Materials</i> , 2012 , 200, 180-185	0.3	4
3	Synthesis of silver nanorings through a glycerol-base polyol method. <i>Molecular Crystals and Liquid Crystals</i> , 1-7	0.5	0
2	Lignin: a sustainable photothermal block for smart elastomers. <i>Green Chemistry</i> ,	10	4
1	Research progress on the formation mechanism of azeotrope and its separation process in microwave field. <i>Journal of Chemical Technology and Biotechnology</i> ,	3.5	1