

# Xungai Wang

## List of Publications by Year in descending order

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88  
papers

2,457  
citations

201385

27  
h-index

233125

45  
g-index

89  
all docs

89  
docs citations

89  
times ranked

2757  
citing authors

#	ARTICLE	IF	CITATIONS
1	Reduced Graphene Oxide/ZnO Composite: Reusable Adsorbent for Pollutant Management. ACS Applied Materials & Interfaces, 2012, 4, 3084-3090.	4.0	264
2	Modification of wool fiber using steam explosion. European Polymer Journal, 2006, 42, 2168-2173.	2.6	116
3	Stable Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> MXene-Boron Nitride Membranes with Low Internal Resistance for Enhanced Salinity Gradient Energy Harvesting. ACS Nano, 2021, 15, 6594-6603.	7.3	116
4	Compressive and flexural properties of hemp fiber reinforced concrete. Fibers and Polymers, 2004, 5, 187-197.	1.1	104
5	Enhanced Ion Sieving of Graphene Oxide Membranes via Surface Amine Functionalization. Journal of the American Chemical Society, 2021, 143, 5080-5090.	6.6	99
6	Weibull analysis of the tensile behavior of fibers with geometrical irregularities. Journal of Materials Science, 2002, 37, 1401-1406.	1.7	89
7	Characterization of conductive polypyrrole coated wool yarns. Fibers and Polymers, 2002, 3, 24-30.	1.1	66
8	Trace Analysis and Chemical Identification on Cellulose Nanofibers-Textured SERS Substrates Using the "Coffee Ring" Effect. ACS Sensors, 2017, 2, 1060-1067.	4.0	62
9	Studies of JetRing Spinning Part I: Reducing Yarn Hairiness with the JetRing. Textile Research Journal, 1997, 67, 253-258.	1.1	60
10	Multifunctionalization of cotton through in situ green synthesis of silver nanoparticles. Cellulose, 2013, 20, 3053-3065.	2.4	54
11	Reducing Yarn Hairiness with a Modified Yam Path in Worsted Ring Spinning. Textile Research Journal, 2003, 73, 327-332.	1.1	53
12	Comparative Study of Strain-Dependent Structural Changes of Silkworm Silks: Insight into the Structural Origin of Strain-Stiffening. Small, 2017, 13, 1702266.	5.2	53
13	Textiles in soft robots: Current progress and future trends. Biosensors and Bioelectronics, 2022, 196, 113690.	5.3	50
14	Ultrathin Ti <sub>3</sub> C <sub>2</sub> T <sub>x</sub> (MXene) membrane for pressure-driven electrokinetic power generation. Nano Energy, 2020, 75, 104954.	8.2	49
15	The effects of ultrasonic agitation in laundering on the properties of wool fabrics. Ultrasonics Sonochemistry, 2008, 15, 1069-1074.	3.8	46
16	Surface-Enhanced Raman Spectroscopy Substrates for Food Safety and Quality Analysis. Journal of Agricultural and Food Chemistry, 2022, 70, 5463-5476.	2.4	44
17	Cellulose nanofibre textured SERS substrate. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2015, 468, 309-314.	2.3	42
18	Paper-based microfluidics for food safety and quality analysis. Trends in Food Science and Technology, 2021, 118, 273-284.	7.8	42

#	ARTICLE	IF	CITATIONS
19	Scaling up the production rate of nanofibers by needleless electrospinning from multiple ring. <i>Fibers and Polymers</i> , 2014, 15, 961-965.	1.1	41
20	Environmentally Friendly Flexible Strain Sensor from Waste Cotton Fabrics and Natural Rubber Latex. <i>Polymers</i> , 2019, 11, 404.	2.0	41
21	Wet-spinning of fluorescent fibers based on gold nanoclusters-loaded alginate for sensing of heavy metal ions and anti-counterfeiting. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2020, 230, 118031.	2.0	40
22	In situ synthesis of gold nanoparticles on cotton fabric for multifunctional applications. <i>Cellulose</i> , 2017, 24, 4547-4560.	2.4	36
23	An experimental investigation of yarn tension in simulated ring spinning. <i>Fibers and Polymers</i> , 2004, 5, 275-279.	1.1	31
24	Frictional and tensile properties of conducting polymer coated wool and alpaca fibers. <i>Fibers and Polymers</i> , 2005, 6, 259-262.	1.1	31
25	Electric field analysis of spinneret design for needleless electrospinning of nanofibers. <i>Journal of Materials Research</i> , 2012, 27, 3013-3019.	1.2	30
26	Functional Application of Noble Metal Nanoparticles In Situ Synthesized on Ramie Fibers. <i>Nanoscale Research Letters</i> , 2015, 10, 366.	3.1	28
27	Titanium dioxide coated carbon foam as microreactor for improved sunlight driven treatment of cotton dyeing wastewater. <i>Journal of Cleaner Production</i> , 2020, 246, 118949.	4.6	28
28	Fibrous-Structured Freestanding Electrodes for Oxygen Electrocatalysis. <i>Small</i> , 2021, 17, e1903760.	5.2	28
29	Effects of ultrasonic treatment on wool fibre and fabric properties. <i>Journal of the Textile Institute</i> , 2012, 103, 662-668.	1.0	27
30	Hollow Au/Polypyrrole Capsules to Form Porous and Neural Network-Like Nanofibrous Film for Wearable, Super-Rapid, and Ultrasensitive NH <sub>3</sub> Sensor at Room Temperature. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 55056-55063.	4.0	25
31	Degumming methods for bast fibers—A mini review. <i>Industrial Crops and Products</i> , 2021, 174, 114158.	2.5	25
32	Comparing the Hairiness of Solospun and Ring Spun Worsted Yarns. <i>Textile Research Journal</i> , 2003, 73, 640-644.	1.1	24
33	Evaluating the Softness of Animal Fibers. <i>Textile Research Journal</i> , 2004, 74, 535-538.	1.1	24
34	An investigation of solubility of aliquat 336 in different extracted solutions. <i>Fibers and Polymers</i> , 2003, 4, 27-31.	1.1	23
35	Glycerol-plasticised silk membranes made using formic acid are ductile, transparent and degradation-resistant. <i>Materials Science and Engineering C</i> , 2017, 80, 165-173.	3.8	23
36	Structural design and mechanism analysis of hierarchical porous carbon fibers for advanced energy and environmental applications. <i>Journal of Materials Chemistry A</i> , 2021, 10, 10-49.	5.2	23

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37	The Influence of the Interior Structure of Aliquat 336/PVC Membranes to their Extraction Behavior. Separation Science and Technology, 2005, 39, 3527-3539.	1.3	22
38	Noble-Metal Nanoparticle-Based Colorimetric Diagnostic Assays for Point-of-Need Applications. ACS Applied Nano Materials, 2021, 4, 12808-12824.	2.4	22
39	Functionalization of Silk with In-Situ Synthesized Platinum Nanoparticles. Materials, 2018, 11, 1929.	1.3	21
40	Robust Membrane for Osmotic Energy Harvesting from Organic Solutions. ACS Applied Materials & Interfaces, 2020, 12, 52771-52778.	4.0	20
41	Intrinsic tensile properties of cocoon silk fibres can be estimated by removing flaws through repeated tensile tests. Journal of the Royal Society Interface, 2015, 12, 20150177.	1.5	19
42	Comparative analysis of two selective bleaching methods on Alpaca fibers. Fibers and Polymers, 2003, 4, 124-128.	1.1	18
43	Waste Fiber Powder Functionalized with Silver Nanoprism for Enhanced Raman Scattering Analysis. Nanoscale Research Letters, 2017, 12, 341.	3.1	18
44	Quantitative and sensory evaluation of odor retention on polyester/wool blends. Textile Research Journal, 2019, 89, 2729-2738.	1.1	18
45	Deodorizing for fiber and fabric: Adsorption, catalysis, source control and masking. Advances in Colloid and Interface Science, 2020, 283, 102243.	7.0	17
46	Correlating the fineness and residual gum content of degummed hemp fibres. Fibers and Polymers, 2002, 3, 129-133.	1.1	16
47	Internal structure and pigment granules in colored alpaca fibers. Fibers and Polymers, 2005, 6, 263-268.	1.1	16
48	Photoinduced synthesis of gold nanoparticle-bacterial cellulose nanocomposite and its application for in-situ detection of trace concentration of dyes in textile and paper. Cellulose, 2018, 25, 3941-3953.	2.4	16
49	In Situ Synthesis of Gold Nanoparticles on Wool Powder and Their Catalytic Application. Materials, 2017, 10, 295.	1.3	15
50	Efficient extraction of technical fibers from hemp in an ethanol-water mixture. Industrial Crops and Products, 2022, 178, 114620.	2.5	15
51	Resistance to Compression Behavior of Alpaca and Wool. Textile Research Journal, 2004, 74, 265-270.	1.1	13
52	Silver Nanoprism-Loaded Eggshell Membrane: A Facile Platform for In Situ SERS Monitoring of Catalytic Reactions. Crystals, 2017, 7, 45.	1.0	13
53	Effect of jade nanoparticle content and twist of cool-touch polyester filaments on comfort performance of knitted fabrics. Textile Research Journal, 2020, 90, 2385-2398.	1.1	13
54	An experimental study on fabric softness evaluation. International Journal of Clothing Science and Technology, 2006, 18, 83-95.	0.5	12

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55	Cocoon of the silkworm <i>Antheraea pernyi</i> as an example of a thermally insulating biological interface. <i>Biointerphases</i> , 2014, 9, 031013.	0.6	12
56	Sunlight-Induced Coloration of Silk. <i>Nanoscale Research Letters</i> , 2016, 11, 293.	3.1	12
57	Improving the Tensile Properties of Wet Spun Silk Fibers Using Rapid Bayesian Algorithm. <i>ACS Biomaterials Science and Engineering</i> , 2020, 6, 3197-3207.	2.6	12
58	Spinning Regenerated Silk Fibers with Improved Toughness by Plasticizing with Low Molecular Weight Silk. <i>Biomacromolecules</i> , 2021, 22, 788-799.	2.6	12
59	A new design concept for knitted external vein-graft support mesh. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2015, 48, 125-133.	1.5	11
60	Toughening Wet-Spun Silk Fibers by Silk Nanofiber Templating. <i>Macromolecular Rapid Communications</i> , 2022, 43, e2100891.	2.0	11
61	Simultaneous electrokinetic energy conversion and organic molecular sieving by two-dimensional confined nanochannels. <i>Chemical Engineering Journal</i> , 2022, 446, 136870.	6.6	11
62	A comparative study on yarn hairiness results from manual test and two commercial hairiness metres. <i>Journal of the Textile Institute</i> , 2013, 104, 494-501.	1.0	10
63	Patterning and process parameter effects in 3D suspension near-field electrospinning of nanoarrays. <i>Nanotechnology</i> , 2019, 30, 495301.	1.3	9
64	Palladium nanoparticle colored cotton fabric as a highly efficient catalyst for colorimetric sensing of H <sub>2</sub> O <sub>2</sub> . <i>Cellulose</i> , 2020, 27, 7791-7803.	2.4	9
65	Porous, colorful and gas-adsorption powder from wool waste for textile functionalization. <i>Journal of Cleaner Production</i> , 2022, 366, 132805.	4.6	9
66	Investigating the cotton ring spun yarn structure using micro computerized tomography and digital image processing techniques. <i>Textile Research Journal</i> , 2019, 89, 3007-3023.	1.1	8
67	Fabrication of PANI@TiO <sub>2</sub> nanocomposite and its sunlight-driven photocatalytic effect on cotton fabrics. <i>Journal of the Textile Institute</i> , 2020, , 1-9.	1.0	8
68	Effects of bleaching and dyeing on the quality of alpaca tops and yarns. <i>Fibers and Polymers</i> , 2004, 5, 128-133.	1.1	7
69	Protection of silica-coated ZnO nanoparticles on pre-dyed polyester fabrics against photofading. <i>Journal of the Textile Institute</i> , 2017, 108, 95-101.	1.0	7
70	A direct 3D suspension near-field electrospinning technique for the fabrication of polymer nanoarrays. <i>Nanotechnology</i> , 2019, 30, 195301.	1.3	7
71	Fine powders from dyed waste wool as odor adsorbent and coloration pigment. <i>Powder Technology</i> , 2022, 400, 117261.	2.1	7
72	Facile synthesis of silver submicrospheres and their applications. <i>RSC Advances</i> , 2015, 5, 98293-98298.	1.7	6

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73	Ultrasonic assisted industrial wool scouring. <i>Procedia Engineering</i> , 2017, 200, 39-44.	1.2	6
74	The mechanism of hairiness reduction in offset ring spinning with a diagonal yarn path. <i>Textile Reseach Journal</i> , 2019, 89, 1546-1556.	1.1	6
75	Kinetic and thermodynamic studies on gas adsorption behaviour of natural fibres. <i>Journal of the Textile Institute</i> , 2021, 112, 1390-1402.	1.0	5
76	A novel polymer membrane for extraction applications. <i>Fibers and Polymers</i> , 2002, 3, 68-72.	1.1	4
77	Improved membranes for the extraction of heavy metals. <i>Fibers and Polymers</i> , 2004, 5, 68-74.	1.1	3
78	Modeling the tensile behavior of fiber bundles with irregular constituent fibers. <i>Journal of Applied Polymer Science</i> , 2004, 93, 2664-2668.	1.3	3
79	Structure and properties of Camphor silk. <i>Journal of the Textile Institute</i> , 2018, 109, 1186-1192.	1.0	3
80	Objective comparison of the softness of Australian Soft Rolling Skin wool and ordinary Merino wool. <i>Textile Reseach Journal</i> , 2022, 92, 3060-3070.	1.1	3
81	Biomedicine: electrospun nanofibrous hormonal therapies through skin/tissue—a review. <i>International Journal of Polymeric Materials and Polymeric Biomaterials</i> , 0, , 1-19.	1.8	3
82	Water and dye-free coloration of wool. <i>Fibers and Polymers</i> , 2017, 18, 102-109.	1.1	2
83	Understanding the difference in softness of Australian Soft Rolling Skin wool and conventional Merino wool. <i>Textile Reseach Journal</i> , 2022, 92, 3130-3141.	1.1	2
84	Numerical modeling of the dynamic tensile behavior of irregular fibers. <i>Journal of Applied Polymer Science</i> , 2004, 91, 2855-2861.	1.3	1
85	Directional moisture transfer through a wild silkworm cocoon wall. <i>Biointerphases</i> , 2016, 11, 021008.	0.6	1
86	A modified resistance to compression (RtC) test for evaluation of natural fiber softness. <i>Textile Reseach Journal</i> , 0, , 004051752110694.	1.1	1
87	Numerical analysis of heat transfer in ring spinning. <i>Textile Reseach Journal</i> , 0, , 004051752210985.	1.1	1
88	The combined tensile and torsional behavior of irregular fibers. <i>Fibers and Polymers</i> , 2002, 3, 31-37.	1.1	0