

# Peng Xiao

## List of Publications by Citations

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68

papers

2,757

citations

30

h-index

52

g-index

70

ext. papers

3,564

ext. citations

10.1

avg, IF

5.31

L-index

#	Paper	IF	Citations
68	Janus polymer/carbon nanotube hybrid membranes for oil/water separation. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2014</b> , 6, 16204-9	9.5	236
67	Proton-Conducting Graphene Oxide-Coupled Neuron Transistors for Brain-Inspired Cognitive Systems. <i>Advanced Materials</i> , <b>2016</b> , 28, 3557-63	24	181
66	Functionalization of Biodegradable PLA Nonwoven Fabric as Superoleophilic and Superhydrophobic Material for Efficient Oil Absorption and Oil/Water Separation. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2017</b> , 9, 5968-5973	9.5	180
65	Robust preparation of superhydrophobic polymer/carbon nanotube hybrid membranes for highly effective removal of oils and separation of water-in-oil emulsions. <i>Journal of Materials Chemistry A</i> , <b>2014</b> , 2, 15268	13	168
64	A Multiresponsive Anisotropic Hydrogel with Macroscopic 3D Complex Deformations. <i>Advanced Functional Materials</i> , <b>2016</b> , 26, 8670-8676	15.6	153
63	Mimosa inspired bilayer hydrogel actuator functioning in multi-environments. <i>Journal of Materials Chemistry C</i> , <b>2018</b> , 6, 1320-1327	7.1	125
62	Network cracks-based wearable strain sensors for subtle and large strain detection of human motions. <i>Journal of Materials Chemistry C</i> , <b>2018</b> , 6, 5140-5147	7.1	114
61	A Universal high accuracy wearable pulse monitoring system via high sensitivity and large linearity graphene pressure sensor. <i>Nano Energy</i> , <b>2019</b> , 59, 422-433	17.1	113
60	Bioinspired Self-Healing Human-Machine Interactive Touch Pad with Pressure-Sensitive Adhesiveness on Targeted Substrates. <i>Advanced Materials</i> , <b>2020</b> , 32, e2004290	24	83
59	High Performance Humidity Fluctuation Sensor for Wearable Devices via a Bioinspired Atomic-Precise Tunable Graphene-Polymer Heterogeneous Sensing Junction. <i>Chemistry of Materials</i> , <b>2018</b> , 30, 4343-4354	9.6	80
58	Controlled functionalization of carbon nanotubes as superhydrophobic material for adjustable oil/water separation. <i>Journal of Materials Chemistry A</i> , <b>2015</b> , 3, 4124-4128	13	77
57	A scalable, low-cost and robust photo-thermal fabric with tunable and programmable 2D/3D structures towards environmentally adaptable liquid/solid-medium water extraction. <i>Nano Energy</i> , <b>2019</b> , 65, 104002	17.1	63
56	Asymmetric elastoplasticity of stacked graphene assembly actualizes programmable untethered soft robotics. <i>Nature Communications</i> , <b>2020</b> , 11, 4359	17.4	54
55	Mechanical Robust and Self-Healable Supramolecular Hydrogel. <i>Macromolecular Rapid Communications</i> , <b>2016</b> , 37, 265-70	4.8	53
54	Collective behaviors mediated multifunctional black sand aggregate towards environmentally adaptive solar-to-thermal purified water harvesting. <i>Nano Energy</i> , <b>2020</b> , 68, 104311	17.1	51
53	Exploring interface confined water flow and evaporation enables solar-thermal-electro integration towards clean water and electricity harvest via asymmetric functionalization strategy. <i>Nano Energy</i> , <b>2020</b> , 68, 104385	17.1	51
52	Biodegradable PLA Nonwoven Fabric with Controllable Wettability for Efficient Water Purification and Photocatalysis Degradation. <i>ACS Sustainable Chemistry and Engineering</i> , <b>2018</b> , 6, 2445-2452	8.3	49

51	Highly Efficient Actuator of Graphene/Polydopamine Uniform Composite Thin Film Driven by Moisture Gradients. <i>Advanced Materials Interfaces</i> , <b>2016</b> , 3, 1600169	4.6	49
50	Micro-/Macroscopically Synergetic Control of Switchable 2D/3D Photothermal Water Purification Enabled by Robust, Portable, and Cost-Effective Cellulose Papers. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2019</b> , 11, 15498-15506	9.5	48
49	Novel Thermoplastic Cellulose Esters Containing Bulky Moieties and Soft Segments. <i>ACS Sustainable Chemistry and Engineering</i> , <b>2018</b> , 6, 4931-4939	8.3	47
48	Ultrafast Formation of Free-Standing 2D Carbon Nanotube Thin Films through Capillary Force Driving Compression on an Air/Water Interface. <i>Chemistry of Materials</i> , <b>2016</b> , 28, 7125-7133	9.6	47
47	Converting Pomelo Peel into Eco-friendly and Low-Consumption Photothermic Biomass Sponge toward Multifunctional Solar-to-Heat Conversion. <i>ACS Sustainable Chemistry and Engineering</i> , <b>2020</b> , 8, 5328-5337	8.3	40
46	A self-protective, reproducible textile sensor with high performance towards human-machine interactions. <i>Journal of Materials Chemistry A</i> , <b>2019</b> , 7, 26631-26640	13	40
45	2D Janus Hybrid Materials of Polymer-Grafted Carbon Nanotube/Graphene Oxide Thin Film as Flexible, Miniature Electric Carpet. <i>Advanced Functional Materials</i> , <b>2015</b> , 25, 2428-2435	15.6	38
44	Tillandsia-Inspired Hygroscopic Photothermal Organogels for Efficient Atmospheric Water Harvesting. <i>Angewandte Chemie - International Edition</i> , <b>2020</b> , 59, 19237-19246	16.4	37
43	A microcontact printing induced supramolecular self-assembled photoactive surface for patterning polymer brushes. <i>Chemical Communications</i> , <b>2013</b> , 49, 11167-9	5.8	35
42	Construction of superhydrophilic and under-water superoleophobic carbon-based membranes for water purification. <i>RSC Advances</i> , <b>2016</b> , 6, 73399-73403	3.7	35
41	Polymer brush functionalized Janus graphene oxide/chitosan hybrid membranes. <i>RSC Advances</i> , <b>2014</b> , 4, 22759	3.7	33
40	Hydrophilic/Hydrophobic Interphase-Mediated Bubble-like Stretchable Janus Ultrathin Films toward Self-Adaptive and Pneumatic Multifunctional Electronics. <i>ACS Nano</i> , <b>2019</b> , 13, 4368-4378	16.7	31
39	Micro-contact printing of graphene oxide nanosheets for fabricating patterned polymer brushes. <i>Chemical Communications</i> , <b>2014</b> , 50, 7103-6	5.8	31
38	Insight into the heat resistance of fish via blood: Effects of heat stress on metabolism, oxidative stress and antioxidant response of olive flounder <i>Paralichthys olivaceus</i> and turbot <i>Scophthalmus maximus</i> . <i>Fish and Shellfish Immunology</i> , <b>2016</b> , 58, 125-135	4.3	29
37	Synthesis, characterization and properties of novel cellulose derivatives containing phosphorus: cellulose diphenyl phosphate and its mixed esters. <i>Cellulose</i> , <b>2014</b> , 21, 2369-2378	5.5	28
36	Macroscopic Ultrathin Film as Bio-Inspired Interfacial Reactor for Fabricating 2D Freestanding Janus CNTs/AuNPs Hybrid Nanosheets with Enhanced Electrical Performance. <i>Advanced Materials Interfaces</i> , <b>2016</b> , 3, 1600170	4.6	26
35	Au nanoparticle-loaded PDMAEMA brush grafted graphene oxide hybrid systems for thermally smart catalysis. <i>RSC Advances</i> , <b>2014</b> , 4, 44480-44485	3.7	25
34	Scalable fabrication of free-standing, stretchable CNT/TPE ultrathin composite films for skin adhesive epidermal electronics. <i>Journal of Materials Chemistry C</i> , <b>2018</b> , 6, 6666-6671	7.1	23

33	Flexible PVDF membranes with exceptional robust superwetting surface for continuous separation of oil/water emulsions. <i>Scientific Reports</i> , <b>2017</b> , 7, 14099	4.9	22
32	Exploring the potential of exfoliated ternary ultrathin Ti4AlN3 nanosheets for fabricating hybrid patterned polymer brushes. <i>RSC Advances</i> , <b>2015</b> , 5, 70339-70344	3.7	21
31	A lotus-inspired janus hybrid film enabled by interfacial self-assembly and in situ asymmetric modification. <i>Chemical Communications</i> , <b>2018</b> , 54, 12804-12807	5.8	20
30	Mechanically robust, solar-driven, and degradable lignin-based polyurethane adsorbent for efficient crude oil spill remediation. <i>Chemical Engineering Journal</i> , <b>2021</b> , 415, 128956	14.7	19
29	Rationally Programmable Paper-Based Artificial Trees Toward Multipath Solar-Driven Water Extraction from Liquid/Solid Substrates. <i>Solar Rrl</i> , <b>2019</b> , 3, 1900004	7.1	18
28	Integration of a patterned conductive carbon nanotube thin film with an insulating hydrophobic polymer carpet into robust 2D Janus hybrid flexible electronics. <i>Journal of Materials Chemistry C</i> , <b>2016</b> , 4, 9750-9755	7.1	16
27	Atmospheric Hygroscopic Ionogels with Dynamically Stable Cooling Interfaces Enable a Durable Thermoelectric Performance Enhancement. <i>Advanced Materials</i> , <b>2021</b> , 33, e2103937	24	15
26	Multifunctional Cellulose Ester Containing Hindered Phenol Groups with Free-Radical-Scavenging and UV-Resistant Activities. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2019</b> , 11, 4302-4310	9.5	15
25	Recent Progress in Superhydrophilic Carbon-Based Composite Membranes for Oil/Water Emulsion Separation. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2021</b> , 13, 36679-36696	9.5	14
24	Asymmetrical Molecular Decoration of Gold Nanorods for Engineering of Shape-Controlled AuNR@Ag Core-Shell Nanostructures. <i>Langmuir</i> , <b>2019</b> , 35, 16900-16906	4	13
23	Single cell migration dynamics mediated by geometric confinement. <i>Colloids and Surfaces B: Biointerfaces</i> , <b>2016</b> , 145, 72-78	6	11
22	Reaction-Driven Self-Assembled Micellar Nanoprobes for Ratiometric Fluorescence Detection of CS2 with High Selectivity and Sensitivity. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2016</b> , 8, 20100-9	9.5	10
21	Biomimetic underwater self-perceptive actuating soft system based on highly compliant, morphable and conductive sandwiched thin films. <i>Nano Energy</i> , <b>2021</b> , 81, 105617	17.1	10
20	Controlled evaporative self-assembly of Fe3O4 nanoparticles assisted by an external magnetic field. <i>RSC Advances</i> , <b>2015</b> , 5, 31519-31524	3.7	9
19	Polymerization driven monomer passage through monolayer chemical vapour deposition graphene. <i>Nature Communications</i> , <b>2018</b> , 9, 4051	17.4	9
18	Interfacial self-assembled GR/GO ultrathin membranes on a large scale for molecular sieving. <i>Journal of Materials Chemistry A</i> , <b>2020</b> , 8, 18735-18744	13	8
17	Fabricating a morphology tunable patterned bio-inspired polydopamine film directly via microcontact printing. <i>RSC Advances</i> , <b>2015</b> , 5, 60990-60992	3.7	7
16	Air/Water Interfacial Formation of Clean Tiny AuNPs Anchored Densely on CNT Film for Electrocatalytic Alcohol Oxidation. <i>Advanced Materials Interfaces</i> , <b>2017</b> , 4, 1601105	4.6	6

15	3D Graphene Oxide Micropatterns Achieved by Roller-Assisted Microcontact Printing Induced Interface Integral Peel and Transfer. <i>Advanced Materials Interfaces</i> , <b>2017</b> , 4, 1600867	4.6	5
14	Interfacial Fabrication of CNTs/PVDF Bilayer Actuator with Fast Responses to the Light and Organic Solvent Vapor Stimuli. <i>Macromolecular Materials and Engineering</i> , <b>2021</b> , 306, 2000502	3.9	5
13	Breathable and superhydrophobic photothermal fabric enables efficient interface energy management via confined heating strategy for sustainable seawater evaporation. <i>Chemical Engineering Journal</i> , <b>2022</b> , 428, 131142	14.7	5
12	Direct supramolecular interacted graphene oxide assembly on graphene as an active and defect-free functional platform. <i>Chemical Communications</i> , <b>2017</b> , 53, 1949-1952	5.8	4
11	Programmable Interface Asymmetric Integration of Carbon Nanotubes and Gold Nanoparticles toward Flexible, Configurable, and Surface-Enhanced Raman Scattering Active All-In-One Solar-Driven Evaporators. <i>Energy Technology</i> , <b>2019</b> , 7, 1900787	3.5	4
10	Air/water interfacial growth of Pt nanothorns anchored in situ on macroscopic freestanding CNT thin film for efficient methanol oxidation. <i>New Journal of Chemistry</i> , <b>2019</b> , 43, 6063-6068	3.6	3
9	Tillandsia-Inspired Hygroscopic Photothermal Organogels for Efficient Atmospheric Water Harvesting. <i>Angewandte Chemie</i> , <b>2020</b> , 132, 19399-19408	3.6	3
8	Supramolecular fabrication of hyperbranched polyethyleneimine toward nanofiltration membrane for efficient wastewater purification. <i>SusMat</i> , <b>2021</b> , 1, 558		2
7	Bionic Adaptive Thin-Membranes Sensory System Based on Microspring Effect for High-Sensitive Airflow Perception and Noncontact Manipulation. <i>Advanced Functional Materials</i> , 2105323	15.6	2
6	Bioinspired Nanostructured Superwetting Thin-Films in a Self-supported form Enabled "Miniature Umbrella" for Weather Monitoring and Water Rescue.. <i>Nano-Micro Letters</i> , <b>2021</b> , 14, 32	19.5	2
5	Biomimetic Skins Enable Strain-Perception-Strengthening Soft Morphing. <i>Advanced Functional Materials</i> , 2201812	15.6	2
4	A direct microcontact printing induced supramolecular interaction for creating shape-tunable patterned polymeric surfaces. <i>Journal of Materials Chemistry C</i> , <b>2015</b> , 3, 8659-8664	7.1	1
3	Constructing oxidized carbon spheres-based heterogeneous membrane with high surface energy for energy-free water purification. <i>Chemical Engineering Journal</i> , <b>2022</b> , 431, 134132	14.7	1
2	Bioinspired Adaptive, Elastic, and Conductive Graphene Structured Thin-Films Achieving High-Efficiency Underwater Detection and Vibration Perception.. <i>Nano-Micro Letters</i> , <b>2022</b> , 14, 62	19.5	1
1	Thin Films: 2D Janus Hybrid Materials of Polymer-Grafted Carbon Nanotube/Graphene Oxide Thin Film as Flexible, Miniature Electric Carpet (Adv. Funct. Mater. 16/2015). <i>Advanced Functional Materials</i> , <b>2015</b> , 25, 2479-2479	15.6	