

Yanxiong Pan

List of Publications by Year in descending order

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82
papers

3,923
citations

172207

29
h-index

123241

61
g-index

83
all docs

83
docs citations

83
times ranked

4354
citing authors

#	ARTICLE	IF	CITATIONS
1	Recent advances in shape-memory polymers: Structure, mechanism, functionality, modeling and applications. <i>Progress in Polymer Science</i> , 2012, 37, 1720-1763.	11.8	1,058
2	A review of stimuli-responsive polymers for smart textile applications. <i>Smart Materials and Structures</i> , 2012, 21, 053001.	1.8	467
3	Recent Progress in Protective Membranes Fabricated via Electrospinning: Advanced Materials, Biomimetic Structures, and Functional Applications. <i>Advanced Materials</i> , 2022, 34, e2107938.	11.1	141
4	Evaluation of Hydrophobic Polyvinyl-Alcohol Formaldehyde Sponges As Absorbents for Oil Spill. <i>ACS Applied Materials & Interfaces</i> , 2014, 6, 8651-8659.	4.0	140
5	How Do Enzymes Orient When Trapped on Metal-Organic Framework (MOF) Surfaces?. <i>Journal of the American Chemical Society</i> , 2018, 140, 16032-16036.	6.6	138
6	Enhancing Enzyme Immobilization on Carbon Nanotubes via Metal-Organic Frameworks for Large-Substrate Biocatalysis. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 12133-12141.	4.0	82
7	Functional shape memory composite nanofibers with graphene oxide filler. <i>Composites Part A: Applied Science and Manufacturing</i> , 2015, 76, 115-123.	3.8	67
8	Covalent Organic Framework Decorated with Vanadium as a New Platform for Prins Reaction and Sulfide Oxidation. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 3070-3079.	4.0	66
9	A Spider-Capture-Silk-Like Fiber with Extremely High-Volume Directional Water Collection. <i>Advanced Functional Materials</i> , 2020, 30, 2002437.	7.8	65
10	Ultrafast-Response/Recovery Flexible Piezoresistive Sensors with DNA-Like Double Helix Yarns for Epidermal Pulse Monitoring. <i>Advanced Materials</i> , 2022, 34, e2104313.	11.1	63
11	Self-fitting shape memory polymer foam inducing bone regeneration: A rabbit femoral defect study. <i>Biochimica Et Biophysica Acta - General Subjects</i> , 2018, 1862, 936-945.	1.1	62
12	Cellulose/Chitosan Composite Multifilament Fibers with Two-Switch Shape Memory Performance. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 6981-6990.	3.2	62
13	Mapping out the Degree of Freedom of Hosted Enzymes in Confined Spatial Environments. <i>CheM</i> , 2019, 5, 3184-3195.	5.8	62
14	A temperature-regulating fiber made of PEG-based smart copolymer. <i>Solar Energy Materials and Solar Cells</i> , 2008, 92, 1245-1252.	3.0	60
15	Animal Hairs as Water-stimulated Shape Memory Materials: Mechanism and Structural Networks in Molecular Assemblies. <i>Scientific Reports</i> , 2016, 6, 26393.	1.6	60
16	Wool Can Be Cool: Water-Actuating Woolen Knitwear for Both Hot and Cold. <i>Advanced Functional Materials</i> , 2020, 30, 2005033.	7.8	58
17	Novel hydrophobic polyvinyl alcohol-formaldehyde foams for organic solvents absorption and effective separation. <i>RSC Advances</i> , 2014, 4, 660-669.	1.7	53
18	Highly efficient macroporous adsorbents for toxic metal ions in water systems based on polyvinyl alcohol-formaldehyde sponges. <i>Journal of Materials Chemistry A</i> , 2016, 4, 2537-2549.	5.2	53

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19	Size-Tunable Metal-Organic Framework-Coated Magnetic Nanoparticles for Enzyme Encapsulation and Large-Substrate Biocatalysis. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 41794-41801.	4.0	47
20	Vanadium Docked Covalent-Organic Frameworks: An Effective Heterogeneous Catalyst for Modified Mannich-Type Reaction. <i>ACS Sustainable Chemistry and Engineering</i> , 2019, 7, 4878-4888.	3.2	46
21	Enzyme Immobilization on Graphite Oxide (GO) Surface via One-Pot Synthesis of GO/Metal-Organic Framework Composites for Large-Substrate Biocatalysis. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 23119-23126.	4.0	45
22	Mechanically Robust Shape Memory Polyurethane Nanocomposites for Minimally Invasive Bone Repair. <i>ACS Applied Bio Materials</i> , 2019, 2, 1056-1065.	2.3	44
23	Probing the Aggregation Mechanism of Gold Nanoparticles Triggered by a Globular Protein. <i>Journal of Physical Chemistry C</i> , 2017, 121, 1377-1386.	1.5	43
24	From Fragile Plastic to Room-Temperature Self-Healing Elastomer: Tuning Quadruple Hydrogen Bonding Interaction through One-Pot Synthesis. <i>ACS Applied Polymer Materials</i> , 2019, 1, 425-436.	2.0	38
25	Shape-Memory Biopolymers Based on β -Sheet Structures of Polyalanine Segments Inspired by Spider Silks. <i>Macromolecular Bioscience</i> , 2013, 13, 161-166.	2.1	36
26	Properties of shape memory polyurethane used as a low-temperature thermoplastic biomedical orthotic material: influence of hard segment content. <i>Journal of Biomaterials Science, Polymer Edition</i> , 2008, 19, 1437-1454.	1.9	35
27	Probing the structural basis and adsorption mechanism of an enzyme on nano-sized protein carriers. <i>Nanoscale</i> , 2017, 9, 3512-3523.	2.8	34
28	An Innovative Solvent-Responsive Coiling-Expanding Stent. <i>Advanced Materials</i> , 2021, 33, e2101005.	11.1	33
29	Characterization of the microstructure of impact polypropylene alloys by preparative temperature rising elution fractionation. <i>European Polymer Journal</i> , 2011, 47, 1646-1653.	2.6	32
30	Quick water-responsive shape memory hybrids with cellulose nanofibers. <i>Journal of Polymer Science Part A</i> , 2017, 55, 767-775.	2.5	30
31	Shape Memory Investigation of α -Keratin Fibers as Multi-Coupled Stimuli of Responsive Smart Materials. <i>Polymers</i> , 2017, 9, 87.	2.0	26
32	A Mixed-Metal Porphyrinic Framework Promoting Gas-Phase CO ₂ Photoreduction without Organic Sacrificial Agents. <i>ChemSusChem</i> , 2020, 13, 6273-6277.	3.6	26
33	A general Ca-MOM platform with enhanced acid-base stability for enzyme biocatalysis. <i>Chem Catalysis</i> , 2021, 1, 146-161.	2.9	26
34	Single-Pore versus Dual-Pore Bipyridine-Based Covalent-Organic Frameworks: An Insight into the Heterogeneous Catalytic Activity for Selective C ₂ H ₂ Functionalization. <i>Small</i> , 2021, 17, e2003970.	5.2	25
35	One-pot synthesis of enzyme@metal-organic material (MOM) biocomposites for enzyme biocatalysis. <i>Green Chemistry</i> , 2021, 23, 4466-4476.	4.6	25
36	Knit Architecture for Water-Actuating Woolen Knitwear and Its Personalized Thermal Management. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 6298-6308.	4.0	25

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37	Iridium complex immobilization on covalent organic framework for effective C-H borylation. <i>APL Materials</i> , 2019, 7, .	2.2	24
38	Self-adaptive water vapor permeability and its hydrogen bonding switches of bio-inspired polymer thin films. <i>Materials Chemistry Frontiers</i> , 2017, 1, 2027-2030.	3.2	22
39	A programmable, fast-fixing, osteo-regenerative, biomechanically robust bone screw. <i>Acta Biomaterialia</i> , 2020, 103, 293-305.	4.1	21
40	Synthesis of a new kind of macroporous polyvinyl-alcohol formaldehyde based sponge and its water superabsorption performance. <i>RSC Advances</i> , 2015, 5, 78780-78789.	1.7	20
41	Preparation and absorption behavior to organic pollutants of macroporous hydrophobic polyvinyl alcohol-formaldehyde sponges. <i>RSC Advances</i> , 2014, 4, 35620-35628.	1.7	19
42	Preparation of hydrophilic luffa sponges and their water absorption performance. <i>Carbohydrate Polymers</i> , 2016, 147, 178-187.	5.1	18
43	Revealing the morphological architecture of a shape memory polyurethane by simulation. <i>Scientific Reports</i> , 2016, 6, 29180.	1.6	18
44	Superfast and Reversible Thermoresponse of Poly(<i>N</i> -isopropylacrylamide) Hydrogels Grafted on Macroporous Poly(vinyl alcohol) Formaldehyde Sponges. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 32747-32759.	4.0	17
45	Site-directed spin labeling-electron paramagnetic resonance spectroscopy in biocatalysis: Enzyme orientation and dynamics in nanoscale confinement. <i>Chem Catalysis</i> , 2021, 1, 207-231.	2.9	17
46	Shape Memory Ankle-Foot Orthoses. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 32935-32941.	4.0	16
47	Engineering Protein-Gold Nanoparticle/Nanorod Complexation via Surface Modification for Protein Immobilization and Potential Therapeutic Applications. <i>ACS Applied Nano Materials</i> , 2018, 1, 4053-4063.	2.4	16
48	Silane Functionalized Polyvinyl-Alcohol Formaldehyde Sponges on Fast Oil Absorption. <i>ACS Applied Polymer Materials</i> , 2020, 2, 5309-5317.	2.0	16
49	Bioinspired Janus All-Natural Electrospinning Membranes with Directional Water Transport as Ecofriendly Dry Facial Masks. <i>ACS Sustainable Chemistry and Engineering</i> , 2022, 10, 7726-7738.	3.2	16
50	Modular Assembly of a Conserved Repetitive Sequence in the Spider Eggcase Silk: From Gene to Fiber. <i>ACS Biomaterials Science and Engineering</i> , 2018, 4, 2748-2757.	2.6	15
51	Protocol for resolving enzyme orientation and dynamics in advanced porous materials via SDSL-EPR. <i>STAR Protocols</i> , 2021, 2, 100676.	0.5	15
52	Design, synthesis and characterization of lysozyme-gentisic acid dual-functional conjugates with antibacterial/antioxidant activities. <i>Food Chemistry</i> , 2022, 370, 131032.	4.2	15
53	Spin-labeling of polymeric micelles and application in probing micelle swelling using EPR spectroscopy. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2017, 55, 1770-1782.	2.4	14
54	A "trampoline" nanocomposite: Tuning the interlayer spacing in graphene oxide/polyurethane to achieve coalesced mechanical and memory properties. <i>Composites Science and Technology</i> , 2019, 180, 14-22.	3.8	14

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55	Superhydrophilic polyvinyl alcohol-formaldehyde composite sponges with hierarchical pore structure for oil/water emulsion separation. <i>Reactive and Functional Polymers</i> , 2021, 165, 104975.	2.0	14
56	Inversion of Polymeric Micelles Probed by Spin Labeled Peptide Incorporation and Electron Paramagnetic Resonance. <i>Journal of Physical Chemistry C</i> , 2018, 122, 25692-25699.	1.5	13
57	A sulfonated mesoporous silica nanoparticle for enzyme protection against denaturants and controlled release under reducing conditions. <i>Journal of Colloid and Interface Science</i> , 2019, 556, 292-300.	5.0	12
58	Isocyanate Modified GO Shape-Memory Polyurethane Composite. <i>Polymers</i> , 2020, 12, 118.	2.0	12
59	Tea-polyphenol treated skin collagen owns coalesced adaptive-hydration, tensile strength and shape-memory property. <i>International Journal of Biological Macromolecules</i> , 2020, 158, 1-8.	3.6	12
60	Preparative Temperature Rising Elution Fractionation of One Poly(1-butene) Copolymer and Its Chain Microstructure Characterization. <i>Industrial & Engineering Chemistry Research</i> , 2019, 58, 16869-16876.	1.8	11
61	Preparation of macroporous polyvinyl alcohol formaldehyde based hydrogels and their dual thermo- and pH-responsive behavior. <i>Applied Surface Science</i> , 2020, 509, 144754.	3.1	11
62	Nanoparticle Loading Induced Morphological Transitions and Size Fractionation of Coassemblies from PS-b-PAA with Quantum Dots. <i>Langmuir</i> , 2016, 32, 7596-7605.	1.6	10
63	Topographical Control of Preosteoblast Culture by Shape Memory Foams. <i>Advanced Engineering Materials</i> , 2017, 19, 1600343.	1.6	10
64	Tailor-made spider-eggcase-silk spheres for efficient lysosomal drug delivery. <i>RSC Advances</i> , 2018, 8, 9394-9401.	1.7	10
65	Protein Detection Using Quadratic Fit Analysis near the Dirac Point of Graphene Field-Effect Biosensors. <i>ACS Applied Electronic Materials</i> , 2020, 2, 913-919.	2.0	10
66	Preparation of cationic polyelectrolyte grafted polyvinyl alcohol-formaldehyde macroporous hydrogels and their antibacterial properties. <i>New Journal of Chemistry</i> , 2019, 43, 14961-14971.	1.4	9
67	Mono-/Bimetallic Neutral Iridium(III) Complexes Bearing Diketopyrrolopyrrole-Substituted N-Heterocyclic Carbene Ligands: Synthesis and Photophysics. <i>Inorganic Chemistry</i> , 2021, 60, 15278-15290.	1.9	9
68	Cascade/Parallel Biocatalysis via Multi-enzyme Encapsulation on Metal-Organic Materials for Rapid and Sustainable Biomass Degradation. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 43085-43093.	4.0	9
69	Spidroin-Based Biomaterials in Tissue Engineering: General Approaches and Potential Stem Cell Therapies. <i>Stem Cells International</i> , 2021, 2021, 1-16.	1.2	9
70	Insights on the Structure, Molecular Weight and Activity of an Antibacterial Protein-Polymer Hybrid. <i>ChemPhysChem</i> , 2018, 19, 651-658.	1.0	8
71	Emerging applications of site-directed spin labeling electron paramagnetic resonance (SDSL-EPR) to study food protein structure, dynamics, and interaction. <i>Trends in Food Science and Technology</i> , 2021, 109, 37-50.	7.8	8
72	Editable and bidirectional shape memory chitin hydrogels based on physical/chemical crosslinking. <i>Cellulose</i> , 2019, 26, 9085-9094.	2.4	7

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73	Three-dimensional superhydrophilic polyvinyl alcoholâ€‘formaldehyde composite sponges with suitable pore sizes for high efficiency emulsion separation. <i>New Journal of Chemistry</i> , 2021, 45, 17816-17826.	1.4	7
74	Woolen Respirators for Thermal Management. <i>Advanced Materials Technologies</i> , 2021, 6, 2100201.	3.0	7
75	Electrostatic Interaction Mediates the Formation of Vesicular Structures from Coassembly of PS- <i>b</i> -PAA with Quantum Dots. <i>Langmuir</i> , 2019, 35, 12501-12508.	1.6	6
76	Multi-Modal Contractive Forces of Wools as Actuator. <i>Polymers</i> , 2020, 12, 1464.	2.0	6
77	Preparation of polyvinyl alcohol formaldehyde-g-poly(2-(dimethylamino)ethyl methacrylate) macroporous hydrogels and their dual thermo/pH-responsive behavior and antibacterial performance. <i>Reactive and Functional Polymers</i> , 2021, 164, 104916.	2.0	6
78	Robust Effects of Graphene Oxide on Polyurethane/Tourmaline Nanocomposite Fiber. <i>Polymers</i> , 2021, 13, 16.	2.0	6
79	Spatial Distribution and Solvent Polarity-Triggered Release of a Polypeptide Incorporated into Invertible Micellar Assemblies. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 12075-12082.	4.0	4
80	Influence of isothermal crystallization temperature on the temperature rising elution fractionation for a poly(1-butene-co-ethylene) resin. <i>Polymer</i> , 2021, 221, 123584.	1.8	3
81	Maximizing the applicability of continuous wave (CW) Electron Paramagnetic Resonance (EPR): what more can we do after a century?. <i>Journal of Magnetic Resonance Open</i> , 2022, 10-11, 100060.	0.5	3
82	Covalentâ€‘Organic Frameworks: Singleâ€‘Pore versus Dualâ€‘Pore Bipyridineâ€‘Based Covalentâ€‘Organic Frameworks: An Insight into the Heterogeneous Catalytic Activity for Selective C ₁ H Functionalization (Small 22/2021). <i>Small</i> , 2021, 17, 2170109.	5.2	2