Xiyun Yan

List of Publications by Citations

112 papers	11,411 citations	45 h-index	106 g-index
117 ext. papers	15,115 ext. citations	12.1 avg, IF	6.87 L-index

#	Paper	IF	Citations
112	Intrinsic peroxidase-like activity of ferromagnetic nanoparticles. *Nature Nanotechnology*, **2007**, 2, 577-83	28.7	3616
111	Nanozyme: new horizons for responsive biomedical applications. *Chemical Society Reviews*, **2019**, 48, 3683-3704	58.5	568
110	Magnetoferritin nanoparticles for targeting and visualizing tumour tissues. *Nature Nanotechnology*, **2012**, 7, 459-64	28.7	502
109	In vivo guiding nitrogen-doped carbon nanozyme for tumor catalytic therapy. *Nature Communications*, **2018**, 9, 1440	17.4	480
108	Nanozymes: From New Concepts, Mechanisms, and Standards to Applications. *Accounts of Chemical Research*, **2019**, 52, 2190-2200	24.3	449
107	Standardized assays for determining the catalytic activity and kinetics of peroxidase-like nanozymes. *Nature Protocols*, **2018**, 13, 1506-1520	18.8	336
106	A Single-Atom Nanozyme for Wound Disinfection Applications. *Angewandte Chemie - International Edition*, **2019**, 58, 4911-4916	16.4	335
105	Iron Oxide Nanozyme: A Multifunctional Enzyme Mimetic for Biomedical Applications. *Theranostics*, **2017**, 7, 3207-3227	12.1	309
104	H-ferritin-nanocaged doxorubicin nanoparticles specifically target and kill tumors with a single-dose injection. *Proceedings of the National Academy of Sciences of the United States of America*, **2014**, 111, 14900-5	11.5	292
103	Fe3O4 magnetic nanoparticle peroxidase mimetic-based colorimetric assay for the rapid detection of organophosphorus pesticide and nerve agent. *Analytical Chemistry*, **2013**, 85, 308-12	7.8	291
102	Nanozyme-strip for rapid local diagnosis of Ebola. *Biosensors and Bioelectronics*, **2015**, 74, 134-41	11.8	237
101	Optimization of FeO nanozyme activity via single amino acid modification mimicking an enzyme active site. *Chemical Communications*, **2016**, 53, 424-427	5.8	225
100	Decomposing phenol by the hidden talent of ferromagnetic nanoparticles. *Chemosphere*, **2008**, 73, 1524-8	4	182
99	A magnetic protein biocompass. *Nature Materials*, **2016**, 15, 217-26	27	179
98	A novel anti-CD146 monoclonal antibody, AA98, inhibits angiogenesis and tumor growth. *Blood*, **2003**, 102, 184-91	2.2	161
97	Nanozymes: an emerging field bridging nanotechnology and biology. *Science China Life Sciences*, **2016**, 59, 400-2	8.5	158
96	Ferritin Nanocarrier Traverses the Blood Brain Barrier and Kills Glioma. *ACS Nano*, **2018**, 12, 4105-4115	16.7	144

95	Matching the kinetics of natural enzymes with a single-atom iron nanozyme. *Nature Catalysis*, **2021**, 4, 407-417	36.5	134
94	Structure and activity of nanozymes: Inspirations for de novo design of nanozymes. *Materials Today* , **2020**, 41, 81-119	21.8	127
93	Biodegradation-Mediated Enzymatic Activity-Tunable Molybdenum Oxide Nanourchins for Tumor-Specific Cascade Catalytic Therapy. *Journal of the American Chemical Society*, **2020**, 142, 1636-1644	16.4	108
92	Nanozymes: A clear definition with fuzzy edges. *Nano Today*, **2021**, 40, 101269	17.9	97
91	CD146 coordinates brain endothelial cell-pericyte communication for blood-brain barrier development. *Proceedings of the National Academy of Sciences of the United States of America*, **2017**, 114, E7622-E7631	11.5	95
90	Exosome-like Nanozyme Vesicles for HO-Responsive Catalytic Photoacoustic Imaging of Xenograft Nasopharyngeal Carcinoma. *Nano Letters*, **2019**, 19, 203-209	11.5	92
89	Nanozyme chemiluminescence paper test for rapid and sensitive detection of SARS-CoV-2 antigen. *Biosensors and Bioelectronics*, **2020**, 173, 112817	11.8	88
88	Converting organosulfur compounds to inorganic polysulfides against resistant bacterial infections. *Nature Communications*, **2018**, 9, 3713	17.4	85
87	CD146 acts as a novel receptor for netrin-1 in promoting angiogenesis and vascular development. *Cell Research*, **2015**, 25, 275-87	24.7	80
86	Porous Pt/Ag nanoparticles with excellent multifunctional enzyme mimic activities and antibacterial effects. *Nano Research*, **2017**, 10, 2056-2069	10	78
85	High-Performance Self-Cascade Pyrite Nanozymes for Apoptosis-Ferroptosis Synergistic Tumor Therapy. *ACS Nano*, **2021**, 15, 5735-5751	16.7	78
84	Nanozyme for tumor therapy: Surface modification matters. *Exploration*, **2021**, 1, 75-89		72
83	Macrophagic CD146 promotes foam cell formation and retention during atherosclerosis. *Cell Research*, **2017**, 27, 352-372	24.7	71
82	Dual-targeting nanoparticle vaccine elicits a therapeutic antibody response against chronic hepatitis B. *Nature Nanotechnology*, **2020**, 15, 406-416	28.7	71
81	Nanozymes Inspired by Natural Enzymes. *Accounts of Materials Research*, **2021**, 2, 534-547	7.5	68
80	Bioengineered Magnetoferritin Nanoprobes for Single-Dose Nuclear-Magnetic Resonance Tumor Imaging. *ACS Nano*, **2016**, 10, 4184-91	16.7	64
79	A metal-free nanozyme-activated prodrug strategy for targeted tumor catalytic therapy. *Nano Today*, **2020**, 35, 100935	17.9	60
78	Ferritin drug carrier (FDC) for tumor targeting therapy. *Journal of Controlled Release*, **2019**, 311-312, 288-300	11.7	59

77	Nanozymes: created by learning from nature. *Science China Life Sciences*, **2020**, 63, 1183-1200	8.5	58
76	Platinum-carbon-integrated nanozymes for enhanced tumor photodynamic and photothermal therapy. *Nanoscale*, **2020**, 12, 13548-13557	7.7	54
75	A Single-Atom Nanozyme for Wound Disinfection Applications. *Angewandte Chemie*, **2019**, 131, 4965-4970	56	53
74	Wnt5a uses CD146 as a receptor to regulate cell motility and convergent extension. *Nature Communications*, **2013**, 4, 2803	17.4	52
73	Ferritins as natural and artificial nanozymes for theranostics. *Theranostics*, **2020**, 10, 687-706	12.1	51
72	Nanozyme-based catalytic theranostics.. *RSC Advances*, **2019**, 10, 10-20	3.7	48
71	Human ferritin for tumor detection and therapy. *Wiley Interdisciplinary Reviews: Nanomedicine and Nanobiotechnology*, **2013**, 5, 287-98	9.2	47
70	Ex vivo detection of iron oxide magnetic nanoparticles in mice using their intrinsic peroxidase-mimicking activity. *Molecular Pharmaceutics*, **2012**, 9, 1983-9	5.6	46
69	GRP78-targeted ferritin nanocaged ultra-high dose of doxorubicin for hepatocellular carcinoma therapy. *Theranostics*, **2019**, 9, 2167-2182	12.1	45
68	Biomineralization Synthesis of the Cobalt Nanozyme in SP94-Ferritin Nanocages for Prognostic Diagnosis of Hepatocellular Carcinoma. *ACS Applied Materials & Interfaces*, **2019**, 11, 9747-9755	9.5	45
67	Carbon-based nanozymes for biomedical applications. *Nano Research*, **2021**, 14, 570-583	10	40
66	Fenozyme Protects the Integrity of the Blood-Brain Barrier against Experimental Cerebral Malaria. *Nano Letters*, **2019**, 19, 8887-8895	11.5	38
65	Biomimetic Design of Mitochondria-Targeted Hybrid Nanozymes as Superoxide Scavengers. *Advanced Materials*, **2021**, 33, e2006570	24	38
64	Fenobody: A Ferritin-Displayed Nanobody with High Apparent Affinity and Half-Life Extension. *Analytical Chemistry*, **2018**, 90, 5671-5677	7.8	35
63	CD146-HIF-1□hypoxic reprogramming drives vascular remodeling and pulmonary arterial hypertension. *Nature Communications*, **2019**, 10, 3551	17.4	35
62	A Nanozyme-Based Artificial Peroxisome Ameliorates Hyperuricemia and Ischemic Stroke. *Advanced Functional Materials*, **2021**, 31, 2007130	15.6	33
61	Nanozymes: A New Disease Imaging Strategy. *Frontiers in Bioengineering and Biotechnology*, **2020**, 8, 15	5.8	31
60	CD146, from a melanoma cell adhesion molecule to a signaling receptor. *Signal Transduction and Targeted Therapy*, **2020**, 5, 148	21	31

59	CD146 mediates an E-cadherin-to-N-cadherin switch during TGF-β signaling-induced epithelial-mesenchymal transition. *Cancer Letters*, **2018**, 430, 201-214	9.9	30
58	Near-Atomic Resolution Structure Determination in Over-Focus with Volta Phase Plate by Cs-Corrected Cryo-EM. *Structure*, **2017**, 25, 1623-1630.e3	5.2	28
57	Ferritin variants: inspirations for rationally designing protein nanocarriers. *Nanoscale*, **2019**, 11, 12449-12459	7.7	27
56	Reduced CD146 expression promotes tumorigenesis and cancer stemness in colorectal cancer through activating Wnt/β-catenin signaling. *Oncotarget*, **2016**, 7, 40704-40718	3.3	27
55	Influenza virus detection with pentabody-activated nanoparticles. *Journal of Virological Methods*, **2010**, 169, 282-9	2.6	26
54	Interferon-β safeguards blood-brain barrier during experimental autoimmune encephalomyelitis. *American Journal of Pathology*, **2014**, 184, 3308-20	5.8	25
53	Bioengineered H-Ferritin Nanocages for Quantitative Imaging of Vulnerable Plaques in Atherosclerosis. *ACS Nano*, **2018**, 12, 9300-9308	16.7	25
52	Peroxidase-Like Nanozymes Induce a Novel Form of Cell Death and Inhibit Tumor Growth In Vivo. *Advanced Functional Materials*, **2020**, 30, 2000647	15.6	24
51	TfR1 binding with H-ferritin nanocarrier achieves prognostic diagnosis and enhances the therapeutic efficacy in clinical gastric cancer. *Cell Death and Disease*, **2020**, 11, 92	9.8	24
50	Superoxide dismutase nanozymes: an emerging star for anti-oxidation. *Journal of Materials Chemistry B*, **2021**, 9, 6939-6957	7.3	24
49	Targeting endothelial CD146 attenuates colitis and prevents colitis-associated carcinogenesis. *American Journal of Pathology*, **2014**, 184, 1604-16	5.8	23
48	Iron Oxide Nanozyme: A Multifunctional Enzyme Mimetics for Biomedical Application. *Nanostructure Science and Technology*, **2020**, 105-140	0.9	22
47	Quantitative proteomics reveals ER-β involvement in CD146-induced epithelial-mesenchymal transition in breast cancer cells. *Journal of Proteomics*, **2014**, 103, 153-69	3.9	21
46	Unveiling the active sites on ferrihydrite with apparent catalase-like activity for potentiating radiotherapy. *Nano Today*, **2021**, 41, 101317	17.9	21
45	Nanozymes: an emerging field bridging nanotechnology and enzymology. *Science China Life Sciences*, **2019**, 62, 1543-1546	8.5	19
44	Advances in chiral nanozymes: a review. *Mikrochimica Acta*, **2019**, 186, 782	5.8	19
43	A natural drug entry channel in the ferritin nanocage. *Nano Today*, **2020**, 35, 100948	17.9	17
42	CD146 is essential for PDGFRβ-induced pericyte recruitment. *Protein and Cell*, **2018**, 9, 743-747	7.2	15

41	CD146 is required for VEGF-C-induced lymphatic sprouting during lymphangiogenesis. *Scientific Reports*, **2017**, 7, 7442	4.9	15
40	Soluble CD146, a cerebrospinal fluid marker for neuroinflammation, promotes blood-brain barrier dysfunction. *Theranostics*, **2020**, 10, 231-246	12.1	15
39	TiO supported single Ag atoms nanozyme for elimination of SARS-CoV2. *Nano Today*, **2021**, 40, 101243	17.9	14
38	Questions about horse spleen ferritin crossing the blood brain barrier via mouse transferrin receptor 1. *Protein and Cell*, **2017**, 8, 788-790	7.2	13
37	Targeting CD146 in combination with vorinostat for the treatment of ovarian cancer cells. *Oncology Letters*, **2017**, 13, 1681-1687	2.6	12
36	Bioengineered magnetoferritin nanozymes for pathological identification of high-risk and ruptured atherosclerotic plaques in humans. *Nano Research*, **2019**, 12, 863-868	10	12
35	The signalling receptor MCAM coordinates apical-basal polarity and planar cell polarity during morphogenesis. *Nature Communications*, **2017**, 8, 15279	17.4	10
34	Ferritin nanocage: A promising and designable multi-module platform for constructing dynamic nanoassembly-based drug nanocarrier. *Advanced Drug Delivery Reviews*, **2021**, 176, 113892	18.5	10
33	Endoscopic molecular imaging of early gastric cancer using fluorescently labeled human H-ferritin nanoparticle. *Nanomedicine: Nanotechnology, Biology, and Medicine*, **2018**, 14, 2259-2270	6	8
32	Modular Assembly of Tumor-Penetrating and Oligomeric Nanozyme Based on Intrinsically Self-Assembling Protein Nanocages. *Advanced Materials*, **2021**, 33, e2103128	24	8
31	CD146: a potential therapeutic target for systemic sclerosis. *Protein and Cell*, **2018**, 9, 1050-1054	7.2	7
30	Targeting the CD146/Galectin-9 axis protects the integrity of the blood-brain barrier in experimental cerebral malaria. *Cellular and Molecular Immunology*, **2021**, 18, 2443-2454	15.4	7
29	Biochemistry of mammalian ferritins in the regulation of cellular iron homeostasis and oxidative responses. *Science China Life Sciences*, **2021**, 64, 352-362	8.5	7
28	Bioengineered Dual-Targeting Protein Nanocage for Stereoscopical Loading of Synergistic Hydrophilic/Hydrophobic Drugs to Enhance Anticancer Efficacy. *Advanced Functional Materials*, **2021**, 31, 2102004	15.6	6
27	Precise visual distinction of brain glioma from normal tissues via targeted photoacoustic and fluorescence navigation. *Nanomedicine: Nanotechnology, Biology, and Medicine*, **2020**, 27, 102204	6	6
26	Prediction and Design of Nanozymes Using Explainable Machine Learning.. *Advanced Materials*, **2022**, e2201736	24	6
25	Bioorthogonal catalytic nanozyme-mediated lysosomal membrane leakage for targeted drug delivery.. *Theranostics*, **2022**, 12, 1132-1147	12.1	5
24	Biomimetic Design of Artificial Hybrid Nanocells for Boosted Vascular Regeneration in Ischemic Tissues.. *Advanced Materials*, **2022**, e2110352	24	5

23	Black phosphorus quantum dots as multifunctional nanozymes for tumor photothermal/catalytic synergistic therapy. *Nano Research*, **2022**, 15, 1554	10	5
22	Re-engineering the inner surface of ferritin nanocage enables dual drug payloads for synergistic tumor therapy.. *Theranostics*, **2022**, 12, 1800-1815	12.1	4
21	Nanozymology: An Overview. *Nanostructure Science and Technology*, **2020**, 3-16	0.9	4
20	Dynamic O-GlcNAcylation coordinates ferritinophagy and mitophagy to activate ferroptosis.. *Cell Discovery*, **2022**, 8, 40	22.3	4
19	A Human Neutralizing Antibody against a Conformational Epitope Shared by Oligomeric Sars S1 Protein. *Antiviral Therapy*, **2006**, 11, 117-123	1.6	4
18	Nanozymes: Biomedical Applications of Enzymatic FeO Nanoparticles from In Vitro to In Vivo. *Advances in Experimental Medicine and Biology*, **2019**, 1174, 291-312	3.6	3
17	Nanozyme-Based Tumor Theranostics. *Nanostructure Science and Technology*, **2020**, 425-457	0.9	3
16	The prototypes of nanozyme-based nanorobots. *Biophysics Reports*, **2020**, 6, 223-244	3.5	3
15	Nanocage-Based Capture-Detection System for the Clinical Diagnosis of Autoimmune Disease. *Small*, **2021**, 17, e2101655	11	2
14	Structure basis for AA98 inhibition on the activation of endothelial cells mediated by CD146. *IScience*, **2021**, 24, 102417	6.1	2
13	Ferritin nanocages for early theranostics of tumors via inflammation-enhanced active targeting. *Science China Life Sciences*, **2021**, 1	8.5	2
12	Momordica charantia L. induces non-apoptotic cell death in human MDA-MB-436 breast and A549 lung cancer cells by disrupting energy metabolism and exacerbating reactive oxygen species' generation. *Journal of Ethnopharmacology*, **2021**, 277, 114036	5	2
11	Nanozyme: A promising tool from clinical diagnosis and environmental monitoring to wastewater treatment. *Particuology*, **2022**, 71, 90-107	2.8	2
10	CD146 as a promising therapeutic target for retinal and choroidal neovascularization diseases. *Science China Life Sciences*, **2021**, 1	8.5	1
9	Nanozyme-Powered Giant Unilamellar Vesicles for Mimicry and Modulation of Intracellular Oxidative Stress. *ACS Applied Materials & Interfaces*, **2021**, 13, 21087-21096	9.5	1
8	A natural nanozyme in life is found: the iron core within ferritin shows superoxide dismutase catalytic activity. *Science China Life Sciences*, **2021**, 64, 1375-1378	8.5	1
7	Diagnosis of Autoimmune Diseases: Nanocage-Based Capture-Detection System for the Clinical Diagnosis of Autoimmune Disease (Small 25/2021). *Small*, **2021**, 17, 2170126	11	0
6	Catalytic defense against fungal pathogens using nanozymes. *Nanotechnology Reviews*, **2021**, 10, 1277-1292	6.2	0

5	Expression and function of a new angiogenic factor AA98 target molecule at the maternal-embryonic boundary of rhesus monkey. *Science Bulletin*, **2003**, 48, 881-886	10.6
4	Treatment with Momordica charantia Fractions Disrupts Energy Metabolism and Elevated Reactive Oxygen Species Generation in Human Lung and Breast Cancer Cell Lines. *FASEB Journal*, **2020**, 34, 1-1	0.9
3	Induction of a Non-Apoptotic Cell Death in Momordica Charantia -Treated Human Cancer Cell Lines. *FASEB Journal*, **2019**, 33, 646.8	0.9
2	Synergistic Chemotherapy: Bioengineered Dual-Targeting Protein Nanocage for Stereoscopical Loading of Synergistic Hydrophilic/Hydrophobic Drugs to Enhance Anticancer Efficacy (Adv. Funct. Mater. 29/2021). *Advanced Functional Materials*, **2021**, 31, 2170207	15.6
1	CD146 Associates with Gp130 to Control a Macrophage Pro-inflammatory Program That Regulates the Metabolic Response to Obesity.. *Advanced Science*, **2022**, e2103719	13.6