Xiao-dong Zhang

List of Publications by Citations

116 papers	7,274 citations	36 h-index	84 g-index
119 ext. papers	8,795 ext. citations	8.8 avg, IF	5.89 L-index

#	Paper	IF	Citations
116	A small-molecule dye for NIR-II imaging. *Nature Materials*, **2016**, 15, 235-42	27	939
115	Ultrafast fluorescence imaging in vivo with conjugated polymer fluorophores in the second near-infrared window. *Nature Communications*, **2014**, 5, 4206	17.4	394
114	Size-dependent radiosensitization of PEG-coated gold nanoparticles for cancer radiation therapy. *Biomaterials*, **2012**, 33, 6408-19	15.6	357
113	Ultrasmall Au(10-12)(SG)(10-12) nanomolecules for high tumor specificity and cancer radiotherapy. *Advanced Materials*, **2014**, 26, 4565-8	24	340
112	In□vivo renal clearance, biodistribution, toxicity of gold nanoclusters. *Biomaterials*, **2012**, 33, 4628-38	15.6	315
111	Size-dependent in vivo toxicity of PEG-coated gold nanoparticles. *International Journal of Nanomedicine*, **2011**, 6, 2071-81	7.3	298
110	Toxicologic effects of gold nanoparticles in vivo by different administration routes. *International Journal of Nanomedicine*, **2010**, 5, 771-81	7.3	289
109	Enhanced tumor accumulation of sub-2 nm gold nanoclusters for cancer radiation therapy. *Advanced Healthcare Materials*, **2014**, 3, 133-41	10.1	266
108	3D Graphitic Foams Derived from Chloroaluminate Anion Intercalation for Ultrafast Aluminum-Ion Battery. *Advanced Materials*, **2016**, 28, 9218-9222	24	256
107	Rational Design of Molecular Fluorophores for Biological Imaging in the NIR-II Window. *Advanced Materials*, **2017**, 29, 1605497	24	251
106	A bright organic NIR-II nanofluorophore for three-dimensional imaging into biological tissues. *Nature Communications*, **2018**, 9, 1171	17.4	242
105	Traumatic Brain Injury Imaging in the Second Near-Infrared Window with a Molecular Fluorophore. *Advanced Materials*, **2016**, 28, 6872-9	24	240
104	Cancer Radiosensitizers. *Trends in Pharmacological Sciences*, **2018**, 39, 24-48	13.2	228
103	Metabolizable Bi2Se3 Nanoplates: Biodistribution, Toxicity, and Uses for Cancer Radiation Therapy and Imaging. *Advanced Functional Materials*, **2014**, 24, 1718-1729	15.6	200
102	Ultrasmall glutathione-protected gold nanoclusters as next generation radiotherapy sensitizers with high tumor uptake and high renal clearance. *Scientific Reports*, **2015**, 5, 8669	4.9	183
101	Atomic-Precision Gold Clusters for NIR-II Imaging. *Advanced Materials*, **2019**, 31, e1901015	24	149
100	Renal-clearable Molecular Semiconductor for Second Near-Infrared Fluorescence Imaging of Kidney Dysfunction. *Angewandte Chemie - International Edition*, **2019**, 58, 15120-15127	16.4	136

99	Black Phosphorus Quantum Dot Induced Oxidative Stress and Toxicity in Living Cells and Mice. *ACS Applied Materials & Interfaces*, **2017**, 9, 20399-20409	9.5	101
98	H-bonded supramolecular polymer for the selective dispersion and subsequent release of large-diameter semiconducting single-walled carbon nanotubes. *Journal of the American Chemical Society*, **2015**, 137, 4328-31	16.4	94
97	Albumin-chaperoned cyanine dye yields superbright NIR-II fluorophore with enhanced pharmacokinetics. *Science Advances*, **2019**, 5, eaaw0672	14.3	93
96	Nanozyme-Based Bandage with Single-Atom Catalysis for Brain Trauma. *ACS Nano*, **2019**, 13, 11552-11560	16.7	85
95	Highly Catalytic Nanodots with Renal Clearance for Radiation Protection. *ACS Nano*, **2016**, 10, 4511-9	16.7	85
94	Illuminating Platinum Transportation while Maximizing Therapeutic Efficacy by Gold Nanoclusters Simultaneous Near-Infrared-I/II Imaging and Glutathione Scavenging. *ACS Nano*, **2020**, 14, 13536-13547	16.7	85
93	Carbogenic Nanozyme with Ultrahigh Reactive Nitrogen Species Selectivity for Traumatic Brain Injury. *Nano Letters*, **2019**, 19, 4527-4534	11.5	71
92	Irradiation stability and cytotoxicity of gold nanoparticles for radiotherapy. *International Journal of Nanomedicine*, **2009**, 4, 165-73	7.3	69
91	DIM (3,3Ŧdiindolylmethane) confers protection against ionizing radiation by a unique mechanism. *Proceedings of the National Academy of Sciences of the United States of America*, **2013**, 110, 18650-5	11.5	64
90	Redox Trimetallic Nanozyme with Neutral Environment Preference for Brain Injury. *ACS Nano*, **2019** , 13, 1870-1884	16.7	63
89	A theranostic agent for cancer therapy and imaging in the second near-infrared window. *Nano Research*, **2019**, 12, 273-279	10	60
88	Ultrasmall and photostable nanotheranostic agents based on carbon quantum dots passivated with polyamine-containing organosilane molecules. *Nanoscale*, **2017**, 9, 15441-15452	7.7	52
87	Ultrasmall WS Quantum Dots with Visible Fluorescence for Protection of Cells and Animal Models from Radiation-Induced Damages. *ACS Biomaterials Science and Engineering*, **2017**, 3, 460-470	5.5	48
86	Rapid microwave-assisted synthesis of ultra-bright fluorescent carbon dots for live cell staining, cell-specific targeting and in vivo imaging. *Journal of Materials Chemistry B*, **2015**, 3, 4786-4789	7.3	47
85	Storage of gold nanoclusters in muscle leads to their biphasic in vivo clearance. *Small*, **2015**, 11, 1683-90	11	45
84	Sex differences in the toxicity of polyethylene glycol-coated gold nanoparticles in mice. *International Journal of Nanomedicine*, **2013**, 8, 2409-19	7.3	41
83	Brain imaging with near-infrared fluorophores. *Coordination Chemistry Reviews*, **2019**, 380, 550-571	23.2	40
82	The Near-Infrared-II Fluorophores and Advanced Microscopy Technologies Development and Application in Bioimaging. *Bioconjugate Chemistry*, **2020**, 31, 260-275	6.3	39

81	Hollow PtPdRh Nanocubes with Enhanced Catalytic Activities for In Vivo Clearance of Radiation-Induced ROS via Surface-Mediated Bond Breaking. *Small*, **2018**, 14, e1703736	11	37
80	A two-component active targeting theranostic agent based on graphene quantum dots. *Journal of Materials Chemistry B*, **2015**, 3, 3583-3590	7.3	35
79	Enhanced hydrogen evolution reaction of WS2□oS2 heterostructure by synergistic effect. *International Journal of Hydrogen Energy*, **2019**, 44, 809-818	6.7	35
78	High-Density Super-Resolution Localization Imaging with Blinking Carbon Dots. *Analytical Chemistry* , **2017**, 89, 11831-11838	7.8	34
77	Catalytically potent and selective clusterzymes for modulation of neuroinflammation through single-atom substitutions. *Nature Communications*, **2021**, 12, 114	17.4	34
76	Visible and Near-Infrared Dual-Emission Carbogenic Small Molecular Complex with High RNA Selectivity and Renal Clearance for Nucleolus and Tumor Imaging. *ACS Applied Materials & Interfaces*, **2016**, 8, 28529-28537	9.5	33
75	Catalytic topological insulator BiSe nanoparticles for invivo protection against ionizing radiation. *Nanomedicine: Nanotechnology, Biology, and Medicine*, **2017**, 13, 1597-1605	6	30
74	Passing through the renal clearance barrier: toward ultrasmall sizes with stable ligands for potential clinical applications. *International Journal of Nanomedicine*, **2014**, 9, 2069-72	7.3	29
73	Active tumor-targeting luminescent gold clusters with efficient urinary excretion. *Chemical Communications*, **2016**, 52, 9232-5	5.8	26
72	Visible to Near-Infrared Fluorescence Enhanced Cellular Imaging on Plasmonic Gold Chips. *Small*, **2016**, 12, 457-65	11	26
71	Gold Nanostructure: Fabrication, Surface Modification, Targeting Imaging, and Enhanced Radiotherapy. *Current Nanoscience*, **2011**, 7, 110-118	1.4	25
70	Renal-clearable Molecular Semiconductor for Second Near-Infrared Fluorescence Imaging of Kidney Dysfunction. *Angewandte Chemie*, **2019**, 131, 15264-15271	3.6	24
69	Two dimensional TiO2 nanosheets: in vivo toxicity investigation. *RSC Advances*, **2014**, 4, 42598-42603	3.7	24
68	First-principles investigation of Ag-doped gold nanoclusters. *International Journal of Molecular Sciences*, **2011**, 12, 2972-81	6.3	24
67	Digital pH Test Strips for In-Field pH Monitoring Using Iridium Oxide-Reduced Graphene Oxide Hybrid Thin Films. *ACS Sensors*, **2016**, 1, 1235-1243	9.2	24
66	Highly efficient catalytic scavenging of oxygen free radicals with graphene-encapsulated metal nanoshields. *Nano Research*, **2018**, 11, 2821-2835	10	24
65	A Near-Infrared-II Polymer with Tandem Fluorophores Demonstrates Superior Biodegradability for Simultaneous Drug Tracking and Treatment Efficacy Feedback. *ACS Nano*, **2021**, 15, 5428-5438	16.7	23
64	Renal Clearable Luminescent WSe2 for Radioprotection of Nontargeted Tissues during Radiotherapy. *Particle and Particle Systems Characterization*, **2017**, 34, 1700035	3.1	20

63	A novel gene, RSD-3/HSD-3.1, encodes a meiotic-related protein expressed in rat and human testis. *Journal of Molecular Medicine*, **2003**, 81, 380-7	5.5	20
62	Real-Time Pharmaceutical Evaluations of Near-Infrared II Fluorescent Nanomedicine Bound Polyethylene Glycol Ligands for Tumor Photothermal Ablation. *ACS Nano*, **2020**, 14, 13681-13690	16.7	19
61	Enzyme-Like Properties of Gold Clusters for Biomedical Application. *Frontiers in Chemistry*, **2020**, 8, 219	5	18
60	Synthesis, thermal evolution and optical properties of CuZn alloy nanoparticles in SiO2 sequentially implanted with dual ions. *Journal of Alloys and Compounds*, **2013**, 549, 231-237	5.7	18
59	Interferon regulatory factor 3 protects against adverse neo-intima formation. *Cardiovascular Research*, **2014**, 102, 469-79	9.9	18
58	Micro- and nanotechnology for neural electrode-tissue interfaces. *Biosensors and Bioelectronics*, **2020**, 170, 112645	11.8	17
57	Enhanced Radiation Therapy of Gold Nanoparticles in Liver Cancer. *Applied Sciences (Switzerland)*, **2017**, 7, 232	2.6	16
56	Dual pH-triggered catalytic selective Mn clusters for cancer radiosensitization and radioprotection. *Nanoscale*, **2020**, 12, 548-557	7.7	16
55	Effect of radiation on the expression of osteoclast marker genes in RAW264.7 cells. *Molecular Medicine Reports*, **2012**, 5, 955-8	2.9	15
54	Single-atom nanozymes for biological applications. *Biomaterials Science*, **2020**, 8, 6428-6441	7.4	15
53	Catalytic nanozymes for central nervous system disease. *Coordination Chemistry Reviews*, **2021**, 432, 213751	19.1	15
52	Mesoporous CoP Nanowire Arrays for Hydrogen Evolution. *ACS Applied Nano Materials*, **2019**, 2, 5922-5930	5.6	14
51	Enhanced catalysis of ultrasmall Au-MoS2 clusters against reactive oxygen species for radiation protection. *Science Bulletin*, **2018**, 63, 925-934	10.6	13
50	Effect of radiation on the Notch signaling pathway in osteoblasts. *International Journal of Molecular Medicine*, **2013**, 31, 698-706	4.4	13
49	Reactive Oxygen Species-Induced Aggregation of Nanozymes for Neuron Injury. *ACS Applied Materials & Interfaces*, **2020**, 12, 209-216	9.5	13
48	Catalytic patch with redox Cr/CeO nanozyme of noninvasive intervention for brain trauma. *Theranostics*, **2021**, 11, 2806-2821	12.1	13
47	Photodetectors based on two dimensional materials for biomedical application. *Biosensors and Bioelectronics*, **2019**, 143, 111617	11.8	12
46	Use of epidermal growth factor receptor antibody-gold cluster conjugates with good renal excretion in targeted cancer radiation treatment. *Journal of Materials Chemistry B*, **2015**, 3, 4735-4741	7.3	12

45	High brightness NIR-II nanofluorophores based on fused-ring acceptor molecules. *Nano Research*, **2020**, 13, 2570-2575	10	12
44	Cutaneous infections caused by rapidly growing mycobacteria: case reports and review of clinical and laboratory aspects. *Acta Dermato-Venereologica*, **2015**, 95, 985-9	2.2	12
43	Ultrasmall Pt Clusters Reducing Radiation-Induced Injuries via Scavenging Free Radicals. *Journal of Biomedical Nanotechnology*, **2017**, 13, 1512-1521	4	12
42	Atomic Engineering of Clusterzyme for Relieving Acute Neuroinflammation through Lattice Expansion. *Nano Letters*, **2021**, 21, 2562-2571	11.5	12
41	Catalytic PtPd bimetal nanocrystals with high-index facets for radiation injury repair. *Chinese Chemical Letters*, **2020**, 31, 269-274	8.1	11
40	Carbon dot targeting to nitrogen signaling molecules for inhibiting neuronal death. *Journal of Materials Chemistry B*, **2020**, 8, 2321-2330	7.3	10
39	Fabrication and evolution of Cu nanoparticles in Al2O3 crystal by ion implantation and annealing at different atmospheres. *Applied Surface Science*, **2010**, 256, 3767-3771	6.7	10
38	Naturally-Derived PHA-L Protein Nanoparticle as a Radioprotector Through Activation of Toll-Like Receptor 5. *Journal of Biomedical Nanotechnology*, **2019**, 15, 62-76	4	9
37	Tailoring the Size Distribution of Ag Nanoparticles Embedded in SiO$_{2}$ by Xe Ion Postirradiation. *Applied Physics Express*, **2012**, 5, 105002	2.4	9
36	Catalytic Nanozyme for Radiation Protection. *Bioconjugate Chemistry*, **2021**, 32, 411-429	6.3	9
35	Radiosensitizers: Enhanced Tumor Accumulation of Sub-2 nm Gold Nanoclusters for Cancer Radiation Therapy (Adv. Healthcare Mater. 1/2014). *Advanced Healthcare Materials*, **2014**, 3, 152-152	10.1	7
34	Electronic structure and enhanced visible-light absorption of N,B-codoped TiO2. *Physica Status Solidi - Rapid Research Letters*, **2012**, 6, 172-174	2.5	7
33	Atmosphere effects on the formation and evolution of Zn and ZnO nanoparticles in Zn ion implanted SiO2. *Optical Materials*, **2010**, 32, 961-965	3.3	7
32	Redox-active nanoparticles for inflammatory bowel disease. *Nano Research*, **2021**, 14, 2535-2557	10	7
31	Dislocation Engineered PtPdMo Alloy With Enhanced Antioxidant Activity for Intestinal Injury. *Frontiers in Chemistry*, **2019**, 7, 784	5	7
30	Activatable NIR-II organic fluorescent probes for bioimaging.. *Theranostics*, **2022**, 12, 3345-3371	12.1	7
29	Optical Spectra Properties of Neutral Zn-Doped Au20 Nanoclusters by First-Principles Calculations. *Journal of Inorganic and Organometallic Polymers and Materials*, **2011**, 21, 758-765	3.2	6
28	Biocatalysts at atom level: From coordination structure to medical applications. *Applied Materials Today*, **2021**, 23, 101029	6.6	6

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26	Proteasome beta-4 subunit contributes to the development of melanoma and is regulated by miR-148b. *Tumor Biology*, **2017**, 39, 1010428317705767	2.9	5
25	An oligomeric semiconducting nanozyme with ultrafast electron transfers alleviates acute brain injury. *Science Advances*, **2021**, 7, eabk1210	14.3	5
24	Fluorescence enhancement of gold nanoclusters Zn doping for biomedical applications.. *RSC Advances*, **2018**, 8, 7396-7402	3.7	4
23	Creation of nanoparticles and luminescence in Al2O3 crystal by Zn ion implantation. *Journal of Luminescence*, **2011**, 131, 2725-2729	3.8	4
22	In Vivo Neuroelectrophysiological Monitoring of Atomically Precise Au Clusters at an Ultrahigh Injected Dose. *ACS Omega*, **2020**, 5, 24537-24545	3.9	4
21	Sendai virus-based immunoadjuvant in hydrogel vaccine intensity-modulated dendritic cells activation for suppressing tumorigenesis. *Bioactive Materials*, **2021**, 6, 3879-3891	16.7	4
20	Ultrabright bimetallic AuAg complex: From luminescence mechanism to biological application. *Journal of Innovative Optical Health Sciences*, **2020**, 13, 2041001	1.2	3
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18	Study on incompatibility of traditional chinese medicine: evidence from formula network, chemical space, and metabolism room. *Evidence-based Complementary and Alternative Medicine*, **2013**, 2013, 352145	2.3	3
17	Surface exfoliation and defect structures in Si induced by 160 keV He and 110 keV H ion implantation. *Nuclear Instruments & Methods in Physics Research B*, **2008**, 266, 250-255	1.2	3
16	Structure, luminescence, and bioimaging of bimetallic CuAu nanoclusters. *Optical Materials*, **2018**, 86, 291-297	3.3	3
15	Iridium Oxide-reduced Graphene Oxide Nanohybrid Thin Film Modified Screen-printed Electrodes as Disposable Electrochemical Paper Microfluidic pH Sensors. *Journal of Visualized Experiments*, **2016**,	1.6	2
14	QSAR modeling of iNOS inhibitors based on a novel regression method: Multi-stage adaptive regression. *Chemometrics and Intelligent Laboratory Systems*, **2013**, 128, 83-88	3.8	2
13	Bandgap Engineering and Near-Infrared-II Optical Properties of Monolayer MoS: A First-Principle Study. *Frontiers in Chemistry*, **2021**, 9, 700250	5	2
12	NIR-triggered engineered photosynthetic micronanodevice for reversing the hypoxic tumor immunosuppressive microenvironment. *Materials Chemistry Frontiers*, **2021**, 5, 2234-2246	7.8	2
11	Thermally and optically tunable lasing properties from dye-doped holographic polymer dispersed liquid crystal in capillaries. *Journal of Applied Physics*, **2018**, 123, 103105	2.5	1
10	Ab initio calculations of electronic and optical properties in O-doped LiF crystal. *Open Physics*, **2008**, 6,	1.3	1

9	Ligand-Modulated Catalytic Selectivity of Ag Clusterzyme for Relieving Multiorgan Injury via Inhabiting Acute Oxidative Stress. *Bioconjugate Chemistry*, **2021**, 32, 2342-2352	6.3	1
8	Catalytically active gold clusters with atomic precision for noninvasive early intervention of neurotrauma. *Journal of Nanobiotechnology*, **2021**, 19, 319	9.4	1
7	Fluorescence enhancement of water-soluble silver nanoclusters via Au doping. *AIP Advances*, **2020**, 10, 125103	1.5	1
6	The Advance of CRISPR-Cas9-Based and NIR/CRISPR-Cas9-Based Imaging System.. *Frontiers in Chemistry*, **2021**, 9, 786354	5	1
5	Atomically precise silver clusterzymes protect mice from radiation damages. *Journal of Nanobiotechnology*, **2021**, 19, 377	9.4	0
4	Graphene and graphene-related materials as brain electrodes. *Journal of Materials Chemistry B*, **2021**, 9, 9485-9496	7.3	0
3	Electronic and Near-Infrared-II Optical Properties of I-Doped Monolayer MoTe: A First-Principles Study.. *ACS Omega*, **2022**, 7, 11956-11963	3.9	0
2	Prediction of enhancement effect of nitroimidazoles on irradiation by gene expression programming. *Chemical Research in Chinese Universities*, **2013**, 29, 519-525	2.2	
1	Research on EPR measurement methods of sucrose used in radiation accident dose reconstruction. *Radiation Protection Dosimetry*, **2010**, 138, 393-6	0.9	