Xiang Wang

List of Publications by Citations

89 papers	9,910 citations	45 h-index	91 g-index
91 ext. papers	10,954 ext. citations	12.5 avg, IF	5.75 L-index

#	Paper	IF	Citations
89	Cytotoxicity of carbon nanomaterials: single-wall nanotube, multi-wall nanotube, and fullerene. *Environmental Science & Technology*, **2005**, 39, 1378-83	10.3	1191
88	Use of metal oxide nanoparticle band gap to develop a predictive paradigm for oxidative stress and acute pulmonary inflammation. *ACS Nano*, **2012**, 6, 4349-68	16.7	631
87	Codelivery of an optimal drug/siRNA combination using mesoporous silica nanoparticles to overcome drug resistance in breast cancer in vitro and in vivo. *ACS Nano*, **2013**, 7, 994-1005	16.7	456
86	Nanomaterial toxicity testing in the 21st century: use of a predictive toxicological approach and high-throughput screening. *Accounts of Chemical Research*, **2013**, 46, 607-21	24.3	448
85	Long-term accumulation and low toxicity of single-walled carbon nanotubes in intravenously exposed mice. *Toxicology Letters*, **2008**, 181, 182-9	4.4	361
84	Processing pathway dependence of amorphous silica nanoparticle toxicity: colloidal vs pyrolytic. *Journal of the American Chemical Society*, **2012**, 134, 15790-804	16.4	315
83	Decreased dissolution of ZnO by iron doping yields nanoparticles with reduced toxicity in the rodent lung and zebrafish embryos. *ACS Nano*, **2011**, 5, 1223-35	16.7	298
82	Aspect ratio determines the quantity of mesoporous silica nanoparticle uptake by a small GTPase-dependent macropinocytosis mechanism. *ACS Nano*, **2011**, 5, 4434-47	16.7	287
81	Use of a high-throughput screening approach coupled with in vivo zebrafish embryo screening to develop hazard ranking for engineered nanomaterials. *ACS Nano*, **2011**, 5, 1805-17	16.7	280
80	Surface defects on plate-shaped silver nanoparticles contribute to its hazard potential in a fish gill cell line and zebrafish embryos. *ACS Nano*, **2012**, 6, 3745-59	16.7	279
79	Designed synthesis of CeO2 nanorods and nanowires for studying toxicological effects of high aspect ratio nanomaterials. *ACS Nano*, **2012**, 6, 5366-80	16.7	275
78	Crucial Role of Lateral Size for Graphene Oxide in Activating Macrophages and Stimulating Pro-inflammatory Responses in Cells and Animals. *ACS Nano*, **2015**, 9, 10498-515	16.7	267
77	Dispersion and stability optimization of TiO2 nanoparticles in cell culture media. *Environmental Science & Technology*, **2010**, 44, 7309-14	10.3	261
76	Nano-enabled pancreas cancer immunotherapy using immunogenic cell death and reversing immunosuppression. *Nature Communications*, **2017**, 8, 1811	17.4	259
75	Surface charge and cellular processing of covalently functionalized multiwall carbon nanotubes determine pulmonary toxicity. *ACS Nano*, **2013**, 7, 2352-68	16.7	232
74	Use of coated silver nanoparticles to understand the relationship of particle dissolution and bioavailability to cell and lung toxicological potential. *Small*, **2014**, 10, 385-98	11	207
73	Surface interactions with compartmentalized cellular phosphates explain rare earth oxide nanoparticle hazard and provide opportunities for safer design. *ACS Nano*, **2014**, 8, 1771-83	16.7	177

72	Breast Cancer Chemo-immunotherapy through Liposomal Delivery of an Immunogenic Cell Death Stimulus Plus Interference in the IDO-1 Pathway. *ACS Nano*, **2018**, 12, 11041-11061	16.7	162
71	Dispersal state of multiwalled carbon nanotubes elicits profibrogenic cellular responses that correlate with fibrogenesis biomarkers and fibrosis in the murine lung. *ACS Nano*, **2011**, 5, 9772-87	16.7	159
70	Surface Oxidation of Graphene Oxide Determines Membrane Damage, Lipid Peroxidation, and Cytotoxicity in Macrophages in a Pulmonary Toxicity Model. *ACS Nano*, **2018**, 12, 1390-1402	16.7	154
69	High content screening in zebrafish speeds up hazard ranking of transition metal oxide nanoparticles. *ACS Nano*, **2011**, 5, 7284-95	16.7	154
68	Engineering an effective immune adjuvant by designed control of shape and crystallinity of aluminum oxyhydroxide nanoparticles. *ACS Nano*, **2013**, 7, 10834-49	16.7	153
67	Interlaboratory evaluation of in vitro cytotoxicity and inflammatory responses to engineered nanomaterials: the NIEHS Nano GO Consortium. *Environmental Health Perspectives*, **2013**, 121, 683-90	8.4	151
66	Pluronic F108 coating decreases the lung fibrosis potential of multiwall carbon nanotubes by reducing lysosomal injury. *Nano Letters*, **2012**, 12, 3050-61	11.5	142
65	Quantitative techniques for assessing and controlling the dispersion and biological effects of multiwalled carbon nanotubes in mammalian tissue culture cells. *ACS Nano*, **2010**, 4, 7241-52	16.7	142
64	NLRP3 inflammasome activation induced by engineered nanomaterials. *Small*, **2013**, 9, 1595-607	11	140
63	Organ-Specific and Size-Dependent Ag Nanoparticle Toxicity in Gills and Intestines of Adult Zebrafish. *ACS Nano*, **2015**, 9, 9573-84	16.7	135
62	NADPH Oxidase-Dependent NLRP3 Inflammasome Activation and its Important Role in Lung Fibrosis by Multiwalled Carbon Nanotubes. *Small*, **2015**, 11, 2087-97	11	123
61	Interference in autophagosome fusion by rare earth nanoparticles disrupts autophagic flux and regulation of an interleukin-1 producing inflammasome. *ACS Nano*, **2014**, 8, 10280-92	16.7	123
60	PdO doping tunes band-gap energy levels as well as oxidative stress responses to a Co O p-type semiconductor in cells and the lung. *Journal of the American Chemical Society*, **2014**, 136, 6406-20	16.4	114
59	Enhancing the imaging and biosafety of upconversion nanoparticles through phosphonate coating. *ACS Nano*, **2015**, 9, 3293-306	16.7	113
58	Zebrafish high-throughput screening to study the impact of dissolvable metal oxide nanoparticles on the hatching enzyme, ZHE1. *Small*, **2013**, 9, 1776-85	11	97
57	Toxicological Profiling of Metal Oxide Nanoparticles in Liver Context Reveals Pyroptosis in Kupffer Cells and Macrophages versus Apoptosis in Hepatocytes. *ACS Nano*, **2018**, 12, 3836-3852	16.7	91
56	Use of a pro-fibrogenic mechanism-based predictive toxicological approach for tiered testing and decision analysis of carbonaceous nanomaterials. *ACS Nano*, **2015**, 9, 3032-43	16.7	90
55	Aspect ratio plays a role in the hazard potential of CeO2 nanoparticles in mouse lung and zebrafish gastrointestinal tract. *ACS Nano*, **2014**, 8, 4450-64	16.7	89

54	Reduction of Acute Inflammatory Effects of Fumed Silica Nanoparticles in the Lung by Adjusting Silanol Display through Calcination and Metal Doping. *ACS Nano*, **2015**, 9, 9357-72	16.7	86
53	Multi-walled carbon nanotubes induce apoptosis via mitochondrial pathway and scavenger receptor. *Toxicology in Vitro*, **2012**, 26, 799-806	3.6	81
52	Differences in the Toxicological Potential of 2D versus Aggregated Molybdenum Disulfide in the Lung. *Small*, **2015**, 11, 5079-87	11	76
51	Differential expression of syndecan-1 mediates cationic nanoparticle toxicity in undifferentiated versus differentiated normal human bronchial epithelial cells. *ACS Nano*, **2011**, 5, 2756-2769	16.7	76
50	Nanosilver incurs an adaptive shunt of energy metabolism mode to glycolysis in tumor and nontumor cells. *ACS Nano*, **2014**, 8, 5813-25	16.7	72
49	Assessing and Mitigating the Hazard Potential of Two-Dimensional Materials. *ACS Nano*, **2018**, 12, 6360-6377	16.7	56
48	Use of Polymeric Nanoparticle Platform Targeting the Liver To Induce Treg-Mediated Antigen-Specific Immune Tolerance in a Pulmonary Allergen Sensitization Model. *ACS Nano*, **2019**, 13, 4778-4794	16.7	51
47	Improved Efficacy and Reduced Toxicity Using a Custom-Designed Irinotecan-Delivering Silicasome for Orthotopic Colon Cancer. *ACS Nano*, **2019**, 13, 38-53	16.7	51
46	Reduction of pulmonary toxicity of metal oxide nanoparticles by phosphonate-based surface passivation. *Particle and Fibre Toxicology*, **2017**, 14, 13	8.4	46
45	Gold-Catalyzed Cyclization Leads to a Bridged Tetracyclic Indolenine that Represses β-Lactam Resistance. *Angewandte Chemie - International Edition*, **2015**, 54, 9546-9	16.4	45
44	Toxicological Profiling of Highly Purified Metallic and Semiconducting Single-Walled Carbon Nanotubes in the Rodent Lung and E. coli. *ACS Nano*, **2016**, 10, 6008-19	16.7	40
43	Repetitive Dosing of Fumed Silica Leads to Profibrogenic Effects through Unique Structure-Activity Relationships and Biopersistence in the Lung. *ACS Nano*, **2016**, 10, 8054-66	16.7	40
42	Enhanced Immune Adjuvant Activity of Aluminum Oxyhydroxide Nanorods through Cationic Surface Functionalization. *ACS Applied Materials & Interfaces*, **2017**, 9, 21697-21705	9.5	37
41	Liposomal Delivery of Mitoxantrone and a Cholesteryl Indoximod Prodrug Provides Effective Chemo-immunotherapy in Multiple Solid Tumors. *ACS Nano*, **2020**, 14, 13343-13366	16.7	37
40	Mammalian Cells Exhibit a Range of Sensitivities to Silver Nanoparticles that are Partially Explicable by Variations in Antioxidant Defense and Metallothionein Expression. *Small*, **2015**, 11, 3797-805	11	35
39	Enantioselective Tandem Cyclization of Alkyne-Tethered Indoles Using Cooperative Silver(I)/Chiral Phosphoric Acid Catalysis. *Angewandte Chemie - International Edition*, **2017**, 56, 12206-12209	16.4	35
38	Neutralizing antibody responses to enterovirus and adenovirus in healthy adults in China. *Emerging Microbes and Infections*, **2014**, 3, e30	18.9	34
37	Structure Activity Relationships of Engineered Nanomaterials in inducing NLRP3 Inflammasome Activation and Chronic Lung Fibrosis. *NanoImpact*, **2017**, 6, 99-108	5.6	33

36	Predictive Metabolomic Signatures for Safety Assessment of Metal Oxide Nanoparticles. *ACS Nano*, **2019**, 13, 13065-13082	16.7	28
35	The Crystallinity and Aspect Ratio of Cellulose Nanomaterials Determine Their Pro-Inflammatory and Immune Adjuvant Effects In Vitro and In Vivo. *Small*, **2019**, 15, e1901642	11	26
34	Facilitating Translational Nanomedicine via Predictive Safety Assessment. *Molecular Therapy*, **2017**, 25, 1522-1530	11.7	25
33	Differential pulmonary effects of CoO and La2O3 metal oxide nanoparticle responses during aerosolized inhalation in mice. *Particle and Fibre Toxicology*, **2016**, 13, 42	8.4	22
32	Repeated Low-Dose Influenza Virus Infection Causes Severe Disease in Mice: a Model for Vaccine Evaluation. *Journal of Virology*, **2015**, 89, 7841-51	6.6	22
31	Mechanistic Differences in Cell Death Responses to Metal-Based Engineered Nanomaterials in Kupffer Cells and Hepatocytes. *Small*, **2020**, 16, e2000528	11	21
30	Lateral size of graphene oxide determines differential cellular uptake and cell death pathways in Kupffer cells, LSECs, and hepatocytes. *Nano Today*, **2021**, 37, 101061-101061	17.9	21
29	Development of self-assembled multi-arm polyrotaxanes nanocarriers for systemic plasmid delivery in vivo. *Biomaterials*, **2019**, 192, 416-428	15.6	21
28	Development of Facile and Versatile Platinum Drug Delivering Silicasome Nanocarriers for Efficient Pancreatic Cancer Chemo-Immunotherapy. *Small*, **2021**, 17, e2005993	11	18
27	Toxicological Profiling of Highly Purified Single-Walled Carbon Nanotubes with Different Lengths in the Rodent Lung and Escherichia Coli. *Small*, **2018**, 14, e1703915	11	18
26	Cancellous bone lamellae strongly affect microcrack propagation and apparent mechanical properties: separation of patients with osteoporotic fracture from normal controls using a 2D nonlinear finite element method (biomechanical stereology). *Bone*, **2008**, 42, 1184-92	4.7	16
25	Antigen- and Epitope-Delivering Nanoparticles Targeting Liver Induce Comparable Immunotolerance in Allergic Airway Disease and Anaphylaxis as Nanoparticle-Delivering Pharmaceuticals. *ACS Nano*, **2021**, 15, 1608-1626	16.7	16
24	Semiconductor Electronic Label-Free Assay for Predictive Toxicology. *Scientific Reports*, **2016**, 6, 24982	4.9	14
23	Combination Chemo-Immunotherapy for Pancreatic Cancer Using the Immunogenic Effects of an Irinotecan Silicasome Nanocarrier Plus Anti-PD-1. *Advanced Science*, **2021**, 8, 2002147	13.6	14
22	Pro-Inflammatory and Pro-Fibrogenic Effects of Ionic and Particulate Arsenide and Indium-Containing Semiconductor Materials in the Murine Lung. *ACS Nano*, **2017**, 11, 1869-1883	16.7	13
21	Implications of the Differential Toxicological Effects of III-V Ionic and Particulate Materials for Hazard Assessment of Semiconductor Slurries. *ACS Nano*, **2015**, 9, 12011-25	16.7	13
20	Tuning Charge Carrier and Spin Transport Properties via Structural Modification of Polymer Semiconductors. *ACS Applied Materials & Interfaces*, **2019**, 11, 30089-30097	9.5	13
19	Enantioselective Tandem Cyclization of Alkyne-Tethered Indoles Using Cooperative Silver(I)/Chiral Phosphoric Acid Catalysis. *Angewandte Chemie*, **2017**, 129, 12374-12377	3.6	12

18	MYC predetermines the sensitivity of gastrointestinal cancer to antifolate drugs through regulating TYMS transcription. *EBioMedicine*, **2019**, 48, 289-300	8.8	10
17	Creative use of analytical techniques and high-throughput technology to facilitate safety assessment of engineered nanomaterials. *Analytical and Bioanalytical Chemistry*, **2018**, 410, 6097-6111	4.4	8
16	Magnetoresistance and Spinterface of Organic Spin Valves Based on Diketopyrrolopyrrole Polymers. *Advanced Electronic Materials*, **2019**, 5, 1900318	6.4	8
15	The Genetic Heterogeneity among Different Mouse Strains Impacts the Lung Injury Potential of Multiwalled Carbon Nanotubes. *Small*, **2017**, 13, 1700776	11	8
14	Predictive toxicological paradigm and high throughput approach for toxicity screening of engineered nanomaterials. *International Journal of Biomedical Nanoscience and Nanotechnology*, **2013**, 3, 4	0.2	8
13	Nanocellulose Length Determines the Differential Cytotoxic Effects and Inflammatory Responses in Macrophages and Hepatocytes. *Small*, **2021**, 17, e2102545	11	8
12	Potential nanoparticle applications for prevention, diagnosis, and treatment of COVID-19. *View*, **2020**, 1, 20200105	7.8	7
11	Electronic cigarette aerosols induce oxidative stress-dependent cell death and NF-B mediated acute lung inflammation in mice. *Archives of Toxicology*, **2021**, 95, 195-205	5.8	7
10	NLRP3 inflammasome activation determines the fibrogenic potential of PM air pollution particles in the lung.. *Journal of Environmental Sciences*, **2022**, 111, 429-441	6.4	6
9	Dissolution of 2D Molybdenum Disulfide Generates Differential Toxicity among Liver Cell Types Compared to Non-Toxic 2D Boron Nitride Effects. *Small*, **2021**, 17, e2101084	11	4
8	New insights into disruption of iron homeostasis by environmental pollutants. *Journal of Environmental Sciences*, **2015**, 34, 256-8	6.4	3
7	Negative Magnetoresistance Behavior in Polymer Spin Valves Based on DonorAcceptor Conjugated Molecules. *Advanced Materials Interfaces*, **2020**, 7, 2000868	4.6	3
6	Promoting Propane Dehydrogenation with CO2 over the PtFe Bimetallic Catalyst by Eliminating the Non-selective Fe(0) Phase. *ACS Catalysis*,6559-6569	13.1	3
5	One-pot synthesis of polycyclic isoindolines using isoindole umpolung. *Tetrahedron Letters*, **2020**, 61, 152128	2	1
4	Use of a liver-targeting nanoparticle platform to intervene in peanut-induced anaphylaxis through delivery of an Ara h2 T-cell epitope. *Nano Today*, **2022**, 42, 101370	17.9	1
3	Silicasome Nanocarriers: Development of Facile and Versatile Platinum Drug Delivering Silicasome Nanocarriers for Efficient Pancreatic Cancer Chemo-Immunotherapy (Small 14/2021). *Small*, **2021**, 17, 2170065	11	1
2	A Cell-Free Screen for Bacterial Membrane Disruptors Identifies Mefloquine as a Novel Antibiotic Adjuvant. *Antibiotics*, **2021**, 10,	4.9	1
1	Performance of digital data acquisition system in gamma-ray spectroscopy. *Nuclear Science and Techniques/Hewuli*, **2021**, 32, 1	2.1	1