

# Junchao Duan

## List of Publications by Citations

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112  
papers

2,891  
citations

29  
h-index

48  
g-index

119  
ext. papers

3,704  
ext. citations

7.3  
avg, IF

5.38  
L-index

#	Paper	IF	Citations
112	Silica nanoparticles induce oxidative stress, inflammation, and endothelial dysfunction in vitro via activation of the MAPK/Nrf2 pathway and nuclear factor-B signaling. <i>International Journal of Nanomedicine</i> , <b>2015</b> , 10, 1463-77	7.3	156
111	Cardiovascular toxicity evaluation of silica nanoparticles in endothelial cells and zebrafish model. <i>Biomaterials</i> , <b>2013</b> , 34, 5853-62	15.6	154
110	Toxic effect of silica nanoparticles on endothelial cells through DNA damage response via Chk1-dependent G2/M checkpoint. <i>PLoS ONE</i> , <b>2013</b> , 8, e62087	3.7	146
109	Amorphous silica nanoparticles trigger vascular endothelial cell injury through apoptosis and autophagy via reactive oxygen species-mediated MAPK/Bcl-2 and PI3K/Akt/mTOR signaling. <i>International Journal of Nanomedicine</i> , <b>2016</b> , 11, 5257-5276	7.3	135
108	Toxic effects of silica nanoparticles on zebrafish embryos and larvae. <i>PLoS ONE</i> , <b>2013</b> , 8, e74606	3.7	132
107	Silica nanoparticles induce autophagy and endothelial dysfunction via the PI3K/Akt/mTOR signaling pathway. <i>International Journal of Nanomedicine</i> , <b>2014</b> , 9, 5131-41	7.3	123
106	Silica nanoparticles induce autophagy and autophagic cell death in HepG2 cells triggered by reactive oxygen species. <i>Journal of Hazardous Materials</i> , <b>2014</b> , 270, 176-86	12.8	114
105	Mitochondrial dysfunction, perturbations of mitochondrial dynamics and biogenesis involved in endothelial injury induced by silica nanoparticles. <i>Environmental Pollution</i> , <b>2018</b> , 236, 926-936	9.3	81
104	Low-dose exposure of silica nanoparticles induces cardiac dysfunction via neutrophil-mediated inflammation and cardiac contraction in zebrafish embryos. <i>Nanotoxicology</i> , <b>2016</b> , 10, 575-85	5.3	77
103	H NMR-based metabolomics study on repeat dose toxicity of fine particulate matter in rats after intratracheal instillation. <i>Science of the Total Environment</i> , <b>2017</b> , 589, 212-221	10.2	75
102	Cytotoxicity induced by fine particulate matter (PM) via mitochondria-mediated apoptosis pathway in human cardiomyocytes. <i>Ecotoxicology and Environmental Safety</i> , <b>2018</b> , 161, 198-207	7	54
101	PM induces male reproductive toxicity via mitochondrial dysfunction, DNA damage and RIPK1 mediated apoptotic signaling pathway. <i>Science of the Total Environment</i> , <b>2018</b> , 634, 1435-1444	10.2	53
100	Combined toxicity of amorphous silica nanoparticles and methylmercury to human lung epithelial cells. <i>Ecotoxicology and Environmental Safety</i> , <b>2015</b> , 112, 144-52	7	52
99	PM-induced alteration of DNA methylation and RNA-transcription are associated with inflammatory response and lung injury. <i>Science of the Total Environment</i> , <b>2019</b> , 650, 908-921	10.2	44
98	Silica nanoparticles promote oxLDL-induced macrophage lipid accumulation and apoptosis via endoplasmic reticulum stress signaling. <i>Science of the Total Environment</i> , <b>2018</b> , 631-632, 570-579	10.2	43
97	Silica nanoparticles induce autophagosome accumulation via activation of the EIF2AK3 and ATF6 UPR pathways in hepatocytes. <i>Autophagy</i> , <b>2018</b> , 14, 1185-1200	10.2	43
96	Silica nanoparticles induce liver fibrosis via TGF- $\beta$ /Smad3 pathway in ICR mice. <i>International Journal of Nanomedicine</i> , <b>2017</b> , 12, 6045-6057	7.3	42

95	PM aggravates the lipid accumulation, mitochondrial damage and apoptosis in macrophage foam cells. <i>Environmental Pollution</i> , <b>2019</b> , 249, 482-490	9.3	38
94	Short-term PM exposure induces sustained pulmonary fibrosis development during post-exposure period in rats. <i>Journal of Hazardous Materials</i> , <b>2020</b> , 385, 121566	12.8	38
93	PM-induced ADRB2 hypermethylation contributed to cardiac dysfunction through cardiomyocytes apoptosis via PI3K/Akt pathway. <i>Environment International</i> , <b>2019</b> , 127, 601-614	12.9	35
92	Comprehensive understanding of PM on gene and microRNA expression patterns in zebrafish ( <i>Danio rerio</i> ) model. <i>Science of the Total Environment</i> , <b>2017</b> , 586, 666-674	10.2	33
91	Multi-organ toxicity induced by fine particulate matter PM in zebrafish ( <i>Danio rerio</i> ) model. <i>Chemosphere</i> , <b>2017</b> , 180, 24-32	8.4	33
90	Inflammatory response and blood hypercoagulable state induced by low level co-exposure with silica nanoparticles and benzo[a]pyrene in zebrafish ( <i>Danio rerio</i> ) embryos. <i>Chemosphere</i> , <b>2016</b> , 151, 152-62	8.4	33
89	Fine particle matter disrupts the blood-testis barrier by activating TGF- $\beta$ /p38 MAPK pathway and decreasing testosterone secretion in rat. <i>Environmental Toxicology</i> , <b>2018</b> , 33, 711-719	4.2	32
88	Silica nanoparticles trigger the vascular endothelial dysfunction and prethrombotic state via miR-451 directly regulating the IL6R signaling pathway. <i>Particle and Fibre Toxicology</i> , <b>2019</b> , 16, 16	8.4	31
87	Fine particulate matter induces vascular endothelial activation IL-6 dependent JAK1/STAT3 signaling pathway. <i>Toxicology Research</i> , <b>2016</b> , 5, 946-953	2.6	31
86	Metabolic impact induced by total, water soluble and insoluble components of PM acute exposure in mice. <i>Chemosphere</i> , <b>2018</b> , 207, 337-346	8.4	31
85	DNA Hypermethylation of CREB3L1 and Bcl-2 Associated with the Mitochondrial-Mediated Apoptosis via PI3K/Akt Pathway in Human BEAS-2B Cells Exposure to Silica Nanoparticles. <i>PLoS ONE</i> , <b>2016</b> , 11, e0158475	3.7	30
84	Silica nanoparticle exposure inducing granulosa cell apoptosis and follicular atresia in female Balb/c mice. <i>Environmental Science and Pollution Research</i> , <b>2018</b> , 25, 3423-3434	5.1	29
83	Silica nanoparticles trigger hepatic lipid-metabolism disorder in vivo and in vitro. <i>International Journal of Nanomedicine</i> , <b>2018</b> , 13, 7303-7318	7.3	28
82	Oxidative Damage and Energy Metabolism Disorder Contribute to the Hemolytic Effect of Amorphous Silica Nanoparticles. <i>Nanoscale Research Letters</i> , <b>2016</b> , 11, 57	5	27
81	Combined Effect of Silica Nanoparticles and Benzo[a]pyrene on Cell Cycle Arrest Induction and Apoptosis in Human Umbilical Vein Endothelial Cells. <i>International Journal of Environmental Research and Public Health</i> , <b>2017</b> , 14,	4.6	27
80	Combined toxicity of silica nanoparticles and methylmercury on cardiovascular system in zebrafish ( <i>Danio rerio</i> ) embryos. <i>Environmental Toxicology and Pharmacology</i> , <b>2016</b> , 44, 120-7	5.8	27
79	Transcriptomic analyses of human bronchial epithelial cells BEAS-2B exposed to atmospheric fine particulate matter PM. <i>Toxicology in Vitro</i> , <b>2017</b> , 42, 171-181	3.6	25
78	Fine particulate matters induce apoptosis via the ATM/P53/CDK2 and mitochondria apoptosis pathway triggered by oxidative stress in rat and GC-2spd cell. <i>Ecotoxicology and Environmental Safety</i> , <b>2019</b> , 180, 280-287	7	25

77	PM-induced inflammation and lipidome alteration associated with the development of atherosclerosis based on a targeted lipidomic analysis. <i>Environment International</i> , <b>2020</b> , 136, 105444	12.9	25
76	Inflammation-coagulation response and thrombotic effects induced by silica nanoparticles in zebrafish embryos. <i>Nanotoxicology</i> , <b>2018</b> , 12, 470-484	5.3	25
75	DNA methylation: A critical epigenetic mechanism underlying the detrimental effects of airborne particulate matter. <i>Ecotoxicology and Environmental Safety</i> , <b>2018</b> , 161, 173-183	7	25
74	Repeat dose exposure of PM triggers the disseminated intravascular coagulation (DIC) in SD rats. <i>Science of the Total Environment</i> , <b>2019</b> , 663, 245-253	10.2	23
73	Fine particle matters induce DNA damage and G2/M cell cycle arrest in human bronchial epithelial BEAS-2B cells. <i>Environmental Science and Pollution Research</i> , <b>2017</b> , 24, 25071-25081	5.1	23
72	Cytotoxicity and autophagy dysfunction induced by different sizes of silica particles in human bronchial epithelial BEAS-2B cells. <i>Toxicology Research</i> , <b>2016</b> , 5, 1216-1228	2.6	22
71	Silica nanoparticles inhibit macrophage activity and angiogenesis via VEGFR2-mediated MAPK signaling pathway in zebrafish embryos. <i>Chemosphere</i> , <b>2017</b> , 183, 483-490	8.4	21
70	Co-exposure to amorphous silica nanoparticles and benzo[a]pyrene at low level in human bronchial epithelial BEAS-2B cells. <i>Environmental Science and Pollution Research</i> , <b>2016</b> , 23, 23134-23144	5.1	21
69	Co-exposure subacute toxicity of silica nanoparticles and lead acetate on cardiovascular system. <i>International Journal of Nanomedicine</i> , <b>2018</b> , 13, 7819-7834	7.3	21
68	Genome-wide transcriptional analysis of cardiovascular-related genes and pathways induced by PM in human myocardial cells. <i>Environmental Science and Pollution Research</i> , <b>2017</b> , 24, 11683-11693	5.1	20
67	Urine metabolites associated with cardiovascular effects from exposure of size-fractioned particulate matter in a subway environment: A randomized crossover study. <i>Environment International</i> , <b>2019</b> , 130, 104920	12.9	20
66	Genome-wide transcriptional analysis of silica nanoparticle-induced toxicity in zebrafish embryos. <i>Toxicology Research</i> , <b>2016</b> , 5, 609-620	2.6	20
65	Low-Dose Exposure of Silica Nanoparticles Induces Neurotoxicity via Neuroactive Ligand-Receptor Interaction Signaling Pathway in Zebrafish Embryos. <i>International Journal of Nanomedicine</i> , <b>2020</b> , 15, 4407-4415	7.3	19
64	Co-exposure of silica nanoparticles and methylmercury induced cardiac toxicity in vitro and in vivo. <i>Science of the Total Environment</i> , <b>2018</b> , 631-632, 811-821	10.2	19
63	The Size-dependent Cytotoxicity of Amorphous Silica Nanoparticles: A Systematic Review of in vitro Studies. <i>International Journal of Nanomedicine</i> , <b>2020</b> , 15, 9089-9113	7.3	19
62	Cellular pathways involved in silica nanoparticles induced apoptosis: A systematic review of in vitro studies. <i>Environmental Toxicology and Pharmacology</i> , <b>2017</b> , 56, 191-197	5.8	18
61	The critical role of endothelial function in fine particulate matter-induced atherosclerosis. <i>Particle and Fibre Toxicology</i> , <b>2020</b> , 17, 61	8.4	18
60	Silica nanoparticles exacerbates reproductive toxicity development in high-fat diet-treated Wistar rats. <i>Journal of Hazardous Materials</i> , <b>2020</b> , 384, 121361	12.8	17

59	Low-dose combined exposure of nanoparticles and heavy metal compared with PM in human myocardial AC16 cells. <i>Environmental Science and Pollution Research</i> , <b>2017</b> , 24, 27767-27777	5.1	16
58	Autophagy and autophagy dysfunction contribute to apoptosis in HepG2 cells exposed to nanosilica. <i>Toxicology Research</i> , <b>2016</b> , 5, 871-882	2.6	16
57	Developmental toxicity of CdTe QDs in zebrafish embryos and larvae. <i>Journal of Nanoparticle Research</i> , <b>2013</b> , 15, 1	2.3	16
56	The correlation between PM exposure and hypertensive disorders in pregnancy: A Meta-analysis. <i>Science of the Total Environment</i> , <b>2020</b> , 703, 134985	10.2	16
55	Melatonin ameliorates PM -induced cardiac perivascular fibrosis through regulating mitochondrial redox homeostasis. <i>Journal of Pineal Research</i> , <b>2021</b> , 70, e12686	10.4	16
54	Combined exposure of fine particulate matter and high-fat diet aggravate the cardiac fibrosis in C57BL/6J mice. <i>Journal of Hazardous Materials</i> , <b>2020</b> , 391, 122203	12.8	15
53	Silica nanoparticles induce JNK-mediated inflammation and myocardial contractile dysfunction. <i>Journal of Hazardous Materials</i> , <b>2020</b> , 391, 122206	12.8	15
52	Effect of particulate matter exposure on the prevalence of allergic rhinitis in children: A systematic review and meta-analysis. <i>Chemosphere</i> , <b>2021</b> , 268, 128841	8.4	15
51	Repeated intravenous administration of silica nanoparticles induces pulmonary inflammation and collagen accumulation via JAK2/STAT3 and TGF- $\beta$ /Smad3 pathways in vivo. <i>International Journal of Nanomedicine</i> , <b>2019</b> , 14, 7237-7247	7.3	14
50	Endosulfan activates the extrinsic coagulation pathway by inducing endothelial cell injury in rats. <i>Environmental Science and Pollution Research</i> , <b>2015</b> , 22, 15722-30	5.1	14
49	Silica nanoparticles induce abnormal mitosis and apoptosis via PKC- $\beta$ -mediated negative signaling pathway in GC-2 cells of mice. <i>Chemosphere</i> , <b>2018</b> , 208, 942-950	8.4	14
48	Gene expression profiles and bioinformatics analysis of human umbilical vein endothelial cells exposed to PM. <i>Chemosphere</i> , <b>2017</b> , 183, 589-598	8.4	13
47	Microarray-assisted size-effect study of amorphous silica nanoparticles on human bronchial epithelial cells. <i>Nanoscale</i> , <b>2019</b> , 11, 22907-22923	7.7	12
46	Integrative analysis of methylome and transcriptome variation of identified cardiac disease-specific genes in human cardiomyocytes after PM exposure. <i>Chemosphere</i> , <b>2018</b> , 212, 915-926	8.4	12
45	Oxidative stress- and mitochondrial dysfunction-mediated cytotoxicity by silica nanoparticle in lung epithelial cells from metabolomic perspective. <i>Chemosphere</i> , <b>2021</b> , 275, 129969	8.4	12
44	Silica nanoparticles induce spermatocyte cell apoptosis through microRNA-2861 targeting death receptor pathway. <i>Chemosphere</i> , <b>2019</b> , 228, 709-720	8.4	11
43	Comprehensive gene and microRNA expression profiling on cardiovascular system in zebrafish co-exposed of SiNPs and MeHg. <i>Science of the Total Environment</i> , <b>2017</b> , 607-608, 795-805	10.2	11
42	Metabolomic characteristics of hepatotoxicity in rats induced by silica nanoparticles. <i>Ecotoxicology and Environmental Safety</i> , <b>2021</b> , 208, 111496	7	11

41	Endosulfan induces cell dysfunction through cycle arrest resulting from DNA damage and DNA damage response signaling pathways. <i>Science of the Total Environment</i> , <b>2017</b> , 589, 97-106	10.2	10
40	Endosulfan inhibits proliferation through the Notch signaling pathway in human umbilical vein endothelial cells. <i>Environmental Pollution</i> , <b>2017</b> , 221, 26-36	9.3	10
39	Silica nanoparticles induced the pre-thrombotic state in rats via activation of coagulation factor XII and the JNK-NF- $\kappa$ B/AP-1 pathway. <i>Toxicology Research</i> , <b>2015</b> , 4, 1453-1464	2.6	10
38	Cytoskeleton and Chromosome Damage Leading to Abnormal Mitosis Were Involved in Multinucleated Cells Induced by Silicon Nanoparticles. <i>Particle and Particle Systems Characterization</i> , <b>2015</b> , 32, 636-645	3.1	10
37	Mitochondrial dysfunction drives persistent vascular fibrosis in rats after short-term exposure of PM. <i>Science of the Total Environment</i> , <b>2020</b> , 733, 139135	10.2	10
36	miR-205/IRAK2 signaling pathway is associated with urban airborne PM-induced myocardial toxicity. <i>Nanotoxicology</i> , <b>2020</b> , 14, 1198-1212	5.3	10
35	The chronic effect of amorphous silica nanoparticles and benzo[a]pyrene co-exposure at low dose in human bronchial epithelial BEAS-2B cells. <i>Toxicology Research</i> , <b>2019</b> , 8, 731-740	2.6	9
34	The Internalization, Distribution, and Ultrastructure Damage of Silica Nanoparticles in Human Hepatic L-02 Cells. <i>Particle and Particle Systems Characterization</i> , <b>2016</b> , 33, 664-674	3.1	8
33	The mitochondria-targeted antioxidant MitoQ attenuated PM-induced vascular fibrosis via regulating mitophagy. <i>Redox Biology</i> , <b>2021</b> , 46, 102113	11.3	8
32	Short-term PM exposure and circulating von Willebrand factor level: a meta-analysis. <i>Science of the Total Environment</i> , <b>2020</b> , 737, 140180	10.2	7
31	RhB-encapsulating silica nanoparticles modified with PEG impact the vascular endothelial function in endothelial cells and zebrafish model. <i>Science of the Total Environment</i> , <b>2020</b> , 711, 134493	10.2	7
30	Cardiovascular toxicity assessment of polyethylene nanoplastics on developing zebrafish embryos. <i>Chemosphere</i> , <b>2021</b> , 282, 131124	8.4	7
29	Gene profiles to characterize the combined toxicity induced by low level co-exposure of silica nanoparticles and benzo[a]pyrene using whole genome microarrays in zebrafish embryos. <i>Ecotoxicology and Environmental Safety</i> , <b>2018</b> , 163, 47-55	7	6
28	Microarray-based bioinformatics analysis of the combined effects of SiNPs and PbAc on cardiovascular system in zebrafish. <i>Chemosphere</i> , <b>2017</b> , 184, 1298-1309	8.4	6
27	Sodium-glucose cotransporter 2 inhibitors and fracture risk in patients with type 2 diabetes mellitus: a meta-analysis of randomized controlled trials. <i>Therapeutic Advances in Chronic Disease</i> , <b>2020</b> , 11, 2040622320961599	4.9	6
26	The relationship between exposure to PM and heart rate variability in older adults: A systematic review and meta-analysis. <i>Chemosphere</i> , <b>2020</b> , 261, 127635	8.4	6
25	The relationship between long-term exposure to PM and hypertension in women: A meta-analysis. <i>Ecotoxicology and Environmental Safety</i> , <b>2021</b> , 208, 111492	7	6
24	Subacute exposure of PM induces airway inflammation through inflammatory cell infiltration and cytokine expression in rats. <i>Chemosphere</i> , <b>2020</b> , 251, 126423	8.4	5



23	Silica nanoparticles induce pyroptosis and cardiac hypertrophy via ROS/NLRP3/Caspase-1 pathway.. <i>Free Radical Biology and Medicine</i> , <b>2022</b> , 182, 171-181	7.8	5
22	The critical role of epigenetic mechanism in PM-induced cardiovascular diseases. <i>Genes and Environment</i> , <b>2021</b> , 43, 47	2.8	4
21	Comprehensive Analysis of SiNPs on the Genome-Wide Transcriptional Changes in. <i>International Journal of Nanomedicine</i> , <b>2020</b> , 15, 5227-5237	7.3	4
20	Silica nanoparticles induce multinucleation through activation of PI3K/Akt/GSK-3 $\beta$ pathway and downregulation of chromosomal passenger proteins in L-02 cells. <i>Journal of Nanoparticle Research</i> , <b>2016</b> , 18, 1	2.3	4
19	Nanosilica induced dose-dependent cytotoxicity and cell type-dependent multinucleation in HepG2 and L-02 cells. <i>Journal of Nanoparticle Research</i> , <b>2016</b> , 18, 1	2.3	3
18	Particulate matter exposure and biomarkers associated with blood coagulation: A meta-analysis. <i>Ecotoxicology and Environmental Safety</i> , <b>2020</b> , 206, 111417	7	3
17	The relationship between exposure to PM and atrial fibrillation in older adults: A systematic review and meta-analysis. <i>Science of the Total Environment</i> , <b>2021</b> , 784, 147106	10.2	3
16	Evaluation of fine particulate matter on vascular endothelial function in vivo and in vitro. <i>Ecotoxicology and Environmental Safety</i> , <b>2021</b> , 222, 112485	7	3
15	Endosulfan induces apoptosis by activating the negative regulation pathway of cell cycle and death receptor pathway in spermatogenic cells. <i>Toxicology Research</i> , <b>2017</b> , 6, 223-231	2.6	2
14	Identification and validation of metformin protects against PM-induced macrophages cytotoxicity by targeting toll like receptor pathway. <i>Chemosphere</i> , <b>2020</b> , 251, 126526	8.4	2
13	Global association between atmospheric particulate matter and obesity: A systematic review and meta-analysis.. <i>Environmental Research</i> , <b>2022</b> , 209, 112785	7.9	2
12	Melatonin alleviates PM-triggered macrophage M1 polarization and atherosclerosis via regulating NOX2-mediated oxidative stress homeostasis.. <i>Free Radical Biology and Medicine</i> , <b>2022</b> , 181, 166-179	7.8	2
11	Dynamic recovery after acute single fine particulate matter exposure in male mice: Effect on lipid deregulation and cardiovascular alterations. <i>Journal of Hazardous Materials</i> , <b>2021</b> , 414, 125504	12.8	2
10	PM exposure exaggerates the risk of adverse birth outcomes in pregnant women with pre-existing hyperlipidemia: Modulation role of adipokines and lipidome. <i>Science of the Total Environment</i> , <b>2021</b> , 787, 147604	10.2	2
9	Adverse outcome pathway of fine particulate matter leading to increased cardiovascular morbidity and mortality: An integrated perspective from toxicology and epidemiology.. <i>Journal of Hazardous Materials</i> , <b>2022</b> , 430, 128368	12.8	1
8	Silica nanoparticles induce pulmonary autophagy dysfunction and epithelial-to-mesenchymal transition via p62/NF-B signaling pathway.. <i>Ecotoxicology and Environmental Safety</i> , <b>2022</b> , 232, 113303	7	1
7	MiR-939-5p suppresses PM-induced endothelial injury targeting HIF-1 $\alpha$ in HAECs. <i>Nanotoxicology</i> , <b>2021</b> , 15, 706-720	5.3	1
6	Exposure to polydopamine nanoparticles induces neurotoxicity in the developing zebrafish.. <i>NanoImpact</i> , <b>2021</b> , 24, 100353	5.6	1

5	Acute exposure to PM triggers lung inflammatory response and apoptosis in rat. <i>Ecotoxicology and Environmental Safety</i> , <b>2021</b> , 222, 112526	7	1
4	Effects of ambient air pollution on glycosylated hemoglobin: a systematic review and meta-analysis. <i>Environmental Science and Pollution Research</i> ,	5.1	0
3	PM2.5 induce the defective efferocytosis and promote atherosclerosis via HIF-1 $\alpha$ activation in macrophage. <i>Nanotoxicology</i> ,1-20	5.3	0
2	The critical role of epigenetic mechanisms involved in nanotoxicology.. <i>Wiley Interdisciplinary Reviews: Nanomedicine and Nanobiotechnology</i> , <b>2022</b> , e1789	9.2	
1	Accumulated oxidative stress risk in HUVECs by chronic exposure to non-observable acute effect levels of PM.. <i>Toxicology in Vitro</i> , <b>2022</b> , 105376	3.6	