Philip Demokritou

List of Publications by Year
in descending order

80 papers	4,028 citations	101384 36 h-index	123241 61 g-index
80 all docs	80 docs citations	80 times ranked	4224 citing authors

#	Article	IF	Citations
1	Estimating the effective density of engineered nanomaterials for in vitro dosimetry. Nature Communications, 2014, 5, 3514.	5.8	247
2	Preparation, characterization, and in vitro dosimetry of dispersed, engineered nanomaterials. Nature Protocols, 2017, 12, 355-371.	5.5	224
3	Nanotechnology for sustainable food production: promising opportunities and scientific challenges. Environmental Science: Nano, 2017, 4, 767-781.	2.2	202
4	An integrated approach for the in vitro dosimetry of engineered nanomaterials. Particle and Fibre Toxicology, 2014, 11, 20.	2.8	184
5	High-Throughput Screening Platform for Engineered Nanoparticle-Mediated Genotoxicity Using CometChip Technology. ACS Nano, 2014, 8, 2118-2133.	7.3	140
6	Advanced computational modeling for in vitro nanomaterial dosimetry. Particle and Fibre Toxicology, 2015, 12, 32.	2.8	131
7	Nanotechnology to the rescue: using nano-enabled approaches in microbiological food safety and quality. Current Opinion in Biotechnology, 2017, 44, 87-93.	3.3	130
8	Ingested engineered nanomaterials: state of science in nanotoxicity testing and future research needs. Particle and Fibre Toxicology, 2018, 15, 29.	2.8	128
9	Protein corona: implications for nanoparticle interactions with pulmonary cells. Particle and Fibre Toxicology, 2017, 14, 42.	2.8	99
10	Toxicological effects of ingested nanocellulose in in vitro intestinal epithelium and in vivo rat models. Environmental Science: Nano, 2019, 6, 2105-2115.	2.2	93
11	In vivoepigenetic effects induced by engineered nanomaterials: A case study of copper oxide and laser printer-emitted engineered nanoparticles. Nanotoxicology, 2016, 10, 629-639.	1.6	83
12	Short-term exposure to engineered nanomaterials affects cellular epigenome. Nanotoxicology, 2016, 10, 1-11.	1.6	82
13	Dissolution Behavior and Biodurability of Ingested Engineered Nanomaterials in the Gastrointestinal Environment. ACS Nano, 2018, 12, 8115-8128.	7.3	81
14	Physicochemical and morphological characterisation of nanoparticles from photocopiers: implications for environmental health. Nanotoxicology, 2013, 7, 989-1003.	1.6	80
15	Consumer exposures to laser printer-emitted engineered nanoparticles: A case study of life-cycle implications from nano-enabled products. Nanotoxicology, 2015, 9, 760-768.	1.6	70
16	Inactivation of Foodborne Microorganisms Using Engineered Water Nanostructures (EWNS). Environmental Science & Technology, 2015, 49, 3737-3745.	4.6	70
17	Banning carbon nanotubes would be scientifically unjustified and damaging to innovation. Nature Nanotechnology, 2020, 15, 164-166.	15.6	69
18	Evaluation of cytotoxic, genotoxic and inflammatory responses of nanoparticles from photocopiers in three human cell lines. Particle and Fibre Toxicology, 2013, 10, 42.	2.8	67

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19	Effects of Laser Printerâ€“Emitted Engineered Nanoparticles on Cytotoxicity, Chemokine Expression, Reactive Oxygen Species, DNA Methylation, and DNA Damage: A Comprehensive in Vitro Analysis in Human Small Airway Epithelial Cells, Macrophages, and Lymphoblasts. Environmental Health Perspectives, 2016, 124, 210-219.	2.8	64
20	Implications ofin vitrodosimetry on toxicological ranking of low aspect ratio engineered nanomaterials. Nanotoxicology, 2015, 9, 871-885.	1.6	63
21	Occupational exposure to nanoparticles at commercial photocopy centers. Journal of Hazardous Materials, 2015, 298, 351-360.	6.5	63
22	Development of Biodegradable and Antimicrobial Electrospun Zein Fibers for Food Packaging. ACS Sustainable Chemistry and Engineering, 2020, 8, 15354-15365.	3.2	63
23	Prediction of protein corona on nanomaterials by machine learning using novel descriptors. NanoImpact, 2020, 17, 100207.	2.4	62
24	Optimization of a nanotechnology based antimicrobial platform for food safety applications using Engineered Water Nanostructures (EWNS). Scientific Reports, 2016, 6, 21073.	1.6	60
25	Enhancing Agrichemical Delivery and Seedling Development with Biodegradable, Tunable, Biopolymer-Based Nanofiber Seed Coatings. ACS Sustainable Chemistry and Engineering, 2020, 8, 9537-9548.	3.2	59
26	Development and characterization of an exposure platform suitable for physico-chemical, morphological and toxicological characterization of printer-emitted particles (PEPs). Inhalation Toxicology, 2014, 26, 400-408.	0.8	57
27	Nanoparticle exposures from nano-enabled toner-based printing equipment and human health: state of science and future research needs. Critical Reviews in Toxicology, 2017, 47, 683-709.	1.9	56
28	Development and characterization of a Versatile Engineered Nanomaterial Generation System (VENGES) suitable for toxicological studies. Inhalation Toxicology, 2010, 22, 107-116.	0.8	55
29	NanoEHS â€“ defining fundamental science needs: no easy feat when the simple itself is complex. Environmental Science: Nano, 2016, 3, 15-27.	2.2	53
30	A chemical free, nanotechnology-based method for airborne bacterial inactivation using engineered water nanostructures. Environmental Science: Nano, 2014, 1, 15-26.	2.2	49
31	Safer-by-design flame-sprayed silicon dioxide nanoparticles: the role of silanol content on ROS generation, surface activity and cytotoxicity. Particle and Fibre Toxicology, 2019, 16, 40.	2.8	48
32	Effective delivery of sonication energy to fast settling and agglomerating nanomaterial suspensions for cellular studies: Implications for stability, particle kinetics, dosimetry and toxicity. NanoImpact, 2018, 10, 81-86.	2.4	47
33	Development of high throughput, high precision synthesis platforms and characterization methodologies for toxicological studies of nanocellulose. Cellulose, 2018, 25, 2303-2319.	2.4	45
34	Effects of ingested nanocellulose on intestinal microbiota and homeostasis in Wistar Han rats. NanoImpact, 2020, 18, 100216.	2.4	44
35	Inactivation of common hospital acquired pathogens on surfaces and in air utilizing engineered water nanostructures (EWNS) based nano-sanitizers. Nanomedicine: Nanotechnology, Biology, and Medicine, 2019, 18, 234-242.	1.7	42
36	Effects of intratracheally instilled laser printer-emitted engineered nanoparticles in a mouse model: A case study of toxicological implications from nanomaterials released during consumer use. NanoImpact, 2016, 1, 1-8.	2.4	41

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37	High-throughput coating with biodegradable antimicrobial pullulan fibres extends shelf life and reduces weight loss in an avocado model. Nature Food, 2022, 3, 428-436.	6.2	38
38	A nano-carrier platform for the targeted delivery of nature-inspired antimicrobials using Engineered Water Nanostructures for food safety applications. Food Control, 2019, 96, 365-374.	2.8	37
39	Occupational Inhalation Exposures to Nanoparticles at Six Singapore Printing Centers. Environmental Science & Technology, 2020, 54, 2389-2400.	4.6	36
40	Development of reference metal and metal oxide engineered nanomaterials for nanotoxicology research using high throughput and precision flame spray synthesis approaches. NanoImpact, 2018, 10, 26-37.	2.4	35
41	Enhancing Agrichemical Delivery and Plant Development with Biopolymer-Based Stimuli Responsive Coreâ€“Shell Nanostructures. ACS Nano, 2022, 16, 6034-6048.	7.3	35
42	An integrated electrolysis â€“ electrospray â€“ ionization antimicrobial platform using Engineered Water Nanostructures (EWNS) for food safety applications. Food Control, 2018, 85, 151-160.	2.8	34
43	Enzyme- and Relative Humidity-Responsive Antimicrobial Fibers for Active Food Packaging. ACS Applied Materials & Interfaces, 2021, 13, 50298-50308.	4.0	33
44	End-of-life thermal decomposition of nano-enabled polymers: effect of nanofiller loading and polymer matrix on by-products. Environmental Science: Nano, 2016, 3, 1293-1305.	2.2	31
45	Safeguarding human and planetary health demands a fertilizer sector transformation. Plants People Planet, 2020, 2, 302-309.	1.6	31
46	Toxicity, uptake, and nuclear translocation of ingested micro-nanoplastics in an in vitro model of the small intestinal epithelium. Food and Chemical Toxicology, 2021, 158, 112609.	1.8	31
47	Mycobacteria inactivation using Engineered Water Nanostructures (EWNS). Nanomedicine: Nanotechnology, Biology, and Medicine, 2014, 10, 1175-1183.	1.7	30
48	Co-exposure to the food additives SiO₂ (E551) or TiO₂ (E171) and the pesticide boscalid increases cytotoxicity and bioavailability of the pesticide in a tri-culture small intestinal epithelium model: potential health implications. Environmental Science: Nano, 2019, 6, 2786-2800.	2.2	29
49	Aerosol transmission of SARSâ€CoVâ€2 by children and adults during the COVIDâ€19 pandemic. Pediatric Pulmonology, 2021, 56, 1389-1394.	1.0	27
50	Chronic upper airway inflammation and systemic oxidative stress from nanoparticles in photocopier operators: Mechanistic insights. NanoImpact, 2017, 5, 133-145.	2.4	26
51	Nanofiller Presence Enhances Polycyclic Aromatic Hydrocarbon (PAH) Profile on Nanoparticles Released during Thermal Decomposition of Nano-enabled Thermoplastics: Potential Environmental Health Implications. Environmental Science & Technology, 2017, 51, 5222-5232.	4.6	26
52	Synergistic effects of engineered nanoparticles and organics released from laser printers using nano-enabled toners: potential health implications from exposures to the emitted organic aerosol. Environmental Science: Nano, 2017, 4, 2144-2156.	2.2	26
53	Comprehensive Assessment of Short-Lived ROS and H₂O₂ in Laser Printer Emissions: Assessing the Relative Contribution of Metal Oxides and Organic Constituents. Environmental Science & Technology, 2019, 53, 7574-7583.	4.6	25
54	Effects of ingested food-grade titanium dioxide, silicon dioxide, iron (III) oxide and zinc oxide nanoparticles on an in vitro model of intestinal epithelium: Comparison between monoculture vs. a mucus-secreting coculture model. NanoImpact, 2020, 17, 100209.	2.4	24

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55	Small-Intestine-Specific Delivery of Antidiabetic Extracts from Withania coagulans Using Polysaccharide-Based Enteric-Coated Nanoparticles. ACS Omega, 2019, 4, 12049-12057.	1.6	21
56	Thermal decomposition/incineration of nano-enabled coatings and effects of nanofiller/matrix properties and operational conditions on byproduct release dynamics: Potential environmental health implications. NanoImpact, 2019, 13, 44-55.	2.4	19
57	Physicochemical and Morphological Transformations of Chitosan Nanoparticles across the Gastrointestinal Tract and Cellular Toxicity in an In Vitro Model of the Small Intestinal Epithelium. Journal of Agricultural and Food Chemistry, 2020, 68, 358-368.	2.4	19
58	Inhalation of printer-emitted particles impairs cardiac conduction, hemodynamics, and autonomic regulation and induces arrhythmia and electrical remodeling in rats. Particle and Fibre Toxicology, 2020, 17, 7.	2.8	19
59	Scatter Enhanced Phase Contrast Microscopy for Discriminating Mechanisms of Active Nanoparticle Transport in Living Cells. Nano Letters, 2019, 19, 793-804.	4.5	17
60	Release of particulate matter from nano-enabled building materials (NEBMs) across their lifecycle: Potential occupational health and safety implications. Journal of Hazardous Materials, 2022, 422, 126771.	6.5	17
61	Inflammation Increases Susceptibility of Human Small Airway Epithelial Cells to Pneumonic Nanotoxicity. Small, 2020, 16, 2000963.	5.2	15
62	Indoor Air Quality in Photocopy Centers, Nanoparticle Exposures at Photocopy Workstations, and the Need for Exposure Controls. Annals of Occupational Hygiene, 2017, 61, 110-122.	1.9	14
63	Quantifying the effects of engineered nanomaterials on endothelial cell architecture and vascular barrier integrity using a cell pair model. Nanoscale, 2019, 11, 17878-17893.	2.8	14
64	Engineered metal oxide nanomaterials inhibit corneal epithelial wound healing in vitro and in vivo. NanoImpact, 2020, 17, 100198.	2.4	14
65	High-Throughput Screening Platform for Nanoparticle-Mediated Alterations of DNA Repair Capacity. ACS Nano, 2021, 15, 4728-4746.	7.3	14
66	Inactivation of Hand Hygiene-Related Pathogens Using Engineered Water Nanostructures. ACS Sustainable Chemistry and Engineering, 2019, 7, 19761-19769.	3.2	13
67	Development of high throughput, high precision synthesis platforms and characterization methodologies for toxicological studies of nanocellulose. Cellulose, 2018, 25, 2303-2319.	2.4	13
68	Co-exposure to boscalid and TiO2 (E171) or SiO2 (E551) downregulates cell junction gene expression in small intestinal epithelium cellular model and increases pesticide translocation. NanoImpact, 2021, 22, 100306.	2.4	12
69	E-cigarette vaping associated acute lung injury (EVALI): state of science and future research needs. Critical Reviews in Toxicology, 2022, 52, 188-220.	1.9	12
70	Mapping 2D- and 3D-distributions of metal/metal oxide nanoparticles within cleared human ex vivo skin tissues. NanoImpact, 2020, 17, 100208.	2.4	11
71	Engineering two-dimensional nanomaterials to enable structure-activity relationship studies in nanosafety research. NanoImpact, 2020, 18, 100226.	2.4	11
72	Biological Impacts of Reduced Graphene Oxide Affected by Protein Corona Formation. Chemical Research in Toxicology, 2022, 35, 1244-1256.	1.7	11

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73	A novel antimicrobial technology to enhance food safety and quality of leafy vegetables using engineered water nanostructures. Environmental Science: Nano, 2021, 8, 514-526.	2.2	10
74	Fate, cytotoxicity and cellular metabolomic impact of ingested nanoscale carbon dots using simulated digestion and a triculture small intestinal epithelial model. NanoImpact, 2021, 23, 100349.	2.4	10
75	Biotransformations and cytotoxicity of graphene and inorganic two-dimensional nanomaterials using simulated digestions coupled with a triculture in vitro model of the human gastrointestinal epithelium. Environmental Science: Nano, 2021, 8, 3233-3249.	2.2	10
76	Sustainable Nutrient Substrates for Enhanced Seedling Development in Hydroponics. ACS Sustainable Chemistry and Engineering, 2022, 10, 8506-8516.	3.2	9
77	Elevated Urinary Biomarkers of Oxidative Damage in Photocopier Operators following Acute and Chronic Exposures. Nanomaterials, 2022, 12, 715.	1.9	7
78	Printer center nanoparticles alter the DNA repair capacity of human bronchial airway epithelial cells. NanoImpact, 2022, 25, 100379.	2.4	6
79	Differential modulation of endothelial cytoplasmic protrusions after exposure to graphene-family nanomaterials. NanoImpact, 2022, 26, 100401.	2.4	3
80	Inactivating SARS-CoV-2 Surrogates on Surfaces Using Engineered Water Nanostructures Incorporated with Nature Derived Antimicrobials. Nanomaterials, 2022, 12, 1735.	1.9	2