Peter Wick

List of Publications by Year
in descending order

115 papers	10,462 citations	50170 46 h-index	31759 101 g-index
121 all docs	121 docs citations	121 times ranked	14408 citing authors

#	Article	IF	Citations
1	In Vitro Cytotoxicity of Oxide Nanoparticles:Â Comparison to Asbestos, Silica, and the Effect of Particle Solubilityâ€. Environmental Science & Technology, 2006, 40, 4374-4381.	4.6	1,207
2	Exposure of Engineered Nanoparticles to Human Lung Epithelial Cells:Â Influence of Chemical Composition and Catalytic Activity on Oxidative Stress. Environmental Science & Technology, 2007, 41, 4158-4163.	4.6	785
3	The degree and kind of agglomeration affect carbon nanotube cytotoxicity. Toxicology Letters, 2007, 168, 121-131.	0.4	732
4	Nanotoxicology: An Interdisciplinary Challenge. Angewandte Chemie - International Edition, 2011, 50, 1260-1278.	7.2	466
5	Barrier Capacity of Human Placenta for Nanosized Materials. Environmental Health Perspectives, 2010, 118, 432-436.	2.8	465
6	Safety Assessment of Graphene-Based Materials: Focus on Human Health and the Environment. ACS Nano, 2018, 12, 10582-10620.	7.3	438
7	Classification Framework for Grapheneâ€Based Materials. Angewandte Chemie - International Edition, 2014, 53, 7714-7718.	7.2	369
8	Reviewing the Environmental and Human Health Knowledge Base of Carbon Nanotubes. Environmental Health Perspectives, 2007, 115, 1125-1131.	2.8	364
9	Placing nanoplastics in the context of global plastic pollution. Nature Nanotechnology, 2021, 16, 491-500.	15.6	252
10	Environmental and health effects of nanomaterials in nanotextiles and faÃ§ade coatings. Environment International, 2011, 37, 1131-1142.	4.8	209
11	Investigating the Interaction of Cellulose Nanofibers Derived from Cotton with a Sophisticated 3D Human Lung Cell Coculture. Biomacromolecules, 2011, 12, 3666-3673.	2.6	183
12	Characterisation of particles in solution â€“ a perspective on light scattering and comparative technologies. Science and Technology of Advanced Materials, 2018, 19, 732-745.	2.8	180
13	The reliability and limits of the MTT reduction assay for carbon nanotubesâ€“cell interaction. Carbon, 2007, 45, 2643-2648.	5.4	175
14	Multi-endpoint toxicological assessment of polystyrene nano- and microparticles in different biological models in vitro. Toxicology in Vitro, 2019, 61, 104610.	1.1	172
15	Effects of carbon nanotubes on primary neurons and glial cells. NeuroToxicology, 2009, 30, 702-711.	1.4	166
16	Interlaboratory comparison of size measurements on nanoparticles using nanoparticle tracking analysis (NTA). Journal of Nanoparticle Research, 2013, 15, 2101.	0.8	163
17	On the issue of transparency and reproducibility in nanomedicine. Nature Nanotechnology, 2019, 14, 629-635.	15.6	149
18	A comparison of acute and long-term effects of industrial multiwalled carbon nanotubes on human lung and immune cells in vitro. Toxicology Letters, 2011, 200, 176-186.	0.4	143

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19	<i>In vitro</i>mechanistic study towards a better understanding of ZnO nanoparticle toxicity. Nanotoxicology, 2013, 7, 402-416.	1.6	138
20	Oxidative stress and inflammation response after nanoparticle exposure: differences between human lung cell monocultures and an advanced three-dimensional model of the human epithelial airways. Journal of the Royal Society Interface, 2010, 7, S27-40.	1.5	137
21	Engineered nanomaterial uptake and tissue distribution: from cell to organism. International Journal of Nanomedicine, 2013, 8, 3255.	3.3	136
22	Bidirectional Transfer Study of Polystyrene Nanoparticles across the Placental Barrier in an <i>ex Vivo</i> Human Placental Perfusion Model. Environmental Health Perspectives, 2015, 123, 1280-1286.	2.8	125
23	Effect of particle agglomeration in nanotoxicology. Archives of Toxicology, 2015, 89, 659-675.	1.9	121
24	Concern-driven integrated approaches to nanomaterial testing and assessment â€“ report of the NanoSafety Cluster Working Group 10. Nanotoxicology, 2014, 8, 334-348.	1.6	118
25	Nanoparticle transport across the placental barrier: pushing the field forward!. Nanomedicine, 2016, 11, 941-957.	1.7	101
26	Gene Expression Profiling of Immune-Competent Human Cells Exposed to Engineered Zinc Oxide or Titanium Dioxide Nanoparticles. PLoS ONE, 2013, 8, e68415.	1.1	94
27	The adsorption of biomolecules to multi-walled carbon nanotubes is influenced by both pulmonary surfactant lipids and surface chemistry. Journal of Nanobiotechnology, 2010, 8, 31.	4.2	90
28	Is nanotechnology revolutionizing the paint and lacquer industry? A critical opinion. Science of the Total Environment, 2013, 442, 282-289.	3.9	90
29	Detection of Endotoxin Contamination of Graphene Based Materials Using the TNF-Î± Expression Test and Guidelines for Endotoxin-Free Graphene Oxide Production. PLoS ONE, 2016, 11, e0166816.	1.1	84
30	Pulmonary surfactant coating of multi-walled carbon nanotubes (MWCNTs) influences their oxidative and pro-inflammatory potential in vitro. Particle and Fibre Toxicology, 2012, 9, 17.	2.8	76
31	Comparability of in Vitro Tests for Bioactive Nanoparticles: A Common Assay to Detect Reactive Oxygen Species as an Example. International Journal of Molecular Sciences, 2013, 14, 24320-24337.	1.8	76
32	Carbon Nanotubes Released from an Epoxy-Based Nanocomposite: Quantification and Particle Toxicity. Environmental Science & Technology, 2015, 49, 10616-10623.	4.6	70
33	Single walled carbon nanotubes (SWCNT) affect cell physiology and cell architecture. Journal of Materials Science: Materials in Medicine, 2008, 19, 1523-1527.	1.7	69
34	Micronized copper wood preservatives: An efficiency and potential health risk assessment for copper-based nanoparticles. Environmental Pollution, 2015, 200, 126-132.	3.7	69
35	An advanced human in vitro co-culture model for translocation studies across the placental barrier. Scientific Reports, 2018, 8, 5388.	1.6	68
36	A Comparative Study of Different In Vitro Lung Cell Culture Systems to Assess the Most Beneficial Tool for Screening the Potential Adverse Effects of Carbon Nanotubes. Toxicological Sciences, 2014, 137, 55-64.	1.4	65

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37	Use of Cause-and-Effect Analysis to Design a High-Quality Nanocytotoxicology Assay. Chemical Research in Toxicology, 2015, 28, 21-30.	1.7	65
38	Effects of combustion-derived ultrafine particles and manufactured nanoparticles on heart cells in vitro. Toxicology, 2008, 253, 70-78.	2.0	63
39	Hazard Assessment of Polymeric Nanobiomaterials for Drug Delivery: What Can We Learn From Literature So Far. Frontiers in Bioengineering and Biotechnology, 2019, 7, 261.	2.0	62
40	Nanomaterial cell interactions: are current <i>in vitro</i> tests reliable?. Nanomedicine, 2011, 6, 837-847.	1.7	61
41	A 3D co-culture microtissue model of the human placenta for nanotoxicity assessment. Nanoscale, 2016, 8, 17322-17332.	2.8	58
42	Toward the Development of Decision Supporting Tools That Can Be Used for Safe Production and Use of Nanomaterials. Accounts of Chemical Research, 2013, 46, 863-872.	7.6	54
43	Uptake of label-free graphene oxide by Caco-2 cells is dependent on the cell differentiation status. Journal of Nanobiotechnology, 2017, 15, 46.	4.2	53
44	Toward achieving harmonization in a nanocytotoxicity assay measurement through an interlaboratory comparison study. ALTEX: Alternatives To Animal Experimentation, 2017, 34, 201-218.	0.9	52
45	Human Health Risk of Ingested Nanoparticles That Are Added as Multifunctional Agents to Paints: an In Vitro Study. PLoS ONE, 2013, 8, e83215.	1.1	48
46	Addition of nanoscaledbioinspiredsurface features: A revolution for bone related implants and scaffolds?. Journal of Biomedical Materials Research - Part A, 2014, 102, 275-294.	2.1	48
47	Cytotoxic effects of nanosilver are highly dependent on the chloride concentration and the presence of organic compounds in the cell culture media. Journal of Nanobiotechnology, 2017, 15, 5.	4.2	48
48	Gold nanoparticle distribution in advanced in vitro and ex vivo human placental barrier models. Journal of Nanobiotechnology, 2018, 16, 79.	4.2	48
49	Transfer and Metabolism of the Xenoestrogen Zearalenone in Human Perfused Placenta. Environmental Health Perspectives, 2019, 127, 107004.	2.8	47
50	Few-Layer Graphene Shells and Nonmagnetic Encapsulates: A Versatile and Nontoxic Carbon Nanomaterial. ACS Nano, 2013, 7, 10552-10562.	7.3	46
51	Repeated exposure to carbon nanotube-based aerosols does not affect the functional properties of a 3D human epithelial airway model. Nanotoxicology, 2015, 9, 983-993.	1.6	46
52	Knocking at the door of the unborn child: engineered nanoparticles at the human placental barrier. Swiss Medical Weekly, 2012, 142, w13559.	0.8	45
53	Transient DNA damage following exposure to gold nanoparticles. Nanoscale, 2018, 10, 15723-15735.	2.8	44
54	An integrated pathway based on in vitro data for the human hazard assessment of nanomaterials. Environment International, 2020, 137, 105505.	4.8	43

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55	Human Asthmatic Bronchial Cells Are More Susceptible to Subchronic Repeated Exposures of Aerosolized Carbon Nanotubes At Occupationally Relevant Doses Than Healthy Cells. ACS Nano, 2017, 11, 7615-7625.	7.3	42
56	The automated FADU-assay, a potential high-throughput in vitro method for early screening of DNA breakage. ALTEX: Alternatives To Animal Experimentation, 2011, 28, 295-303.	0.9	42
57	Micronized Copper Wood Preservatives: Efficacy of Ion, Nano, and Bulk Copper against the Brown Rot Fungus Rhodonia placenta. PLoS ONE, 2015, 10, e0142578.	1.1	41
58	Can the Ames test provide an insight into nano-object mutagenicity? Investigating the interaction between nano-objects and bacteria. Nanotoxicology, 2013, 7, 1373-1385.	1.6	40
59	Comprehensive evaluation ofin vitrotoxicity of three large-scale produced carbon nanotubes on human Jurkat T cells and a comparison to crocidolite asbestos. Nanotoxicology, 2009, 3, 319-338.	1.6	39
60	Prenatal exposure to TiO2 nanoparticles in mice causes behavioral deficits with relevance to autism spectrum disorder and beyond. Translational Psychiatry, 2018, 8, 193.	2.4	39
61	Reviewing the environmental and human health knowledge base of carbon nanotubes. Ciencia E Saude Coletiva, 2008, 13, 441-452.	0.1	39
62	A Brief Summary of Carbon Nanotubes Science and Technology: A Health and Safety Perspective. ChemSusChem, 2011, 4, 905-911.	3.6	37
63	Interaction of graphene-related materials with human intestinal cells: an in vitro approach. Nanoscale, 2016, 8, 8749-8760.	2.8	37
64	Transfer studies of polystyrene nanoparticles in the<i>ex vivo</i>human placenta perfusion model: key sources of artifacts. Science and Technology of Advanced Materials, 2015, 16, 044602.	2.8	36
65	MyD88-dependent pro-interleukin-1Î² induction in dendritic cells exposed to food-grade synthetic amorphous silica. Particle and Fibre Toxicology, 2017, 14, 21.	2.8	36
66	Computational Assessment of the Pharmacological Profiles of Degradation Products of Chitosan. Frontiers in Bioengineering and Biotechnology, 2019, 7, 214.	2.0	35
67	Determination of the Transport Rate of Xenobiotics and Nanomaterials Across the Placenta using the ex vivo Human Placental Perfusion Model. Journal of Visualized Experiments, 2013, , .	0.2	34
68	Impact of particle size and surface modification on gold nanoparticle penetration into human placental microtissues. Nanomedicine, 2017, 12, 1119-1133.	1.7	34
69	Weathering of a carbon nanotube/epoxy nanocomposite under UV light and in water bath: impact on abraded particles. Nanoscale, 2015, 7, 18524-18536.	2.8	32
70	Single exposure to aerosolized graphene oxide and graphene nanoplatelets did not initiate an acute biological response in a 3D human lung model. Carbon, 2018, 137, 125-135.	5.4	31
71	Investigating the accumulation and translocation of titanium dioxide nanoparticles with different surface modifications in static and dynamic human placental transfer models. European Journal of Pharmaceutics and Biopharmaceutics, 2019, 142, 488-497.	2.0	31
72	Factors influencing safety and efficacy of intravenous iron-carbohydrate nanomedicines: From production to clinical practice. Nanomedicine: Nanotechnology, Biology, and Medicine, 2020, 26, 102178.	1.7	31

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73	SARS-CoV-2 IgG and IgA antibody response is gender dependent; and IgG antibodies rapidly decline early on. Journal of Infection, 2021, 82, e11-e14.	1.7	29
74	Cause-and-Effect Analysis as a Tool To Improve the Reproducibility of Nanobioassays: Four Case Studies. Chemical Research in Toxicology, 2020, 33, 1039-1054.	1.7	27
75	Macrophage Polarization by Titanium Dioxide (TiO₂) Particles: Size Matters. ACS Biomaterials Science and Engineering, 2016, 2, 908-919.	2.6	26
76	Nanotoxikologie - eine interdisziplinÃre Herausforderung. Angewandte Chemie, 2011, 123, 1294-1314.	1.6	25
77	Release of copper-amended particles from micronized copper-pressure-treated wood during mechanical abrasion. Journal of Nanobiotechnology, 2016, 14, 77.	4.2	23
78	Interference of engineered nanomaterials in flow cytometry: A case study. Colloids and Surfaces B: Biointerfaces, 2018, 172, 635-645.	2.5	23
79	In vitro-ex vivo model systems for nanosafety assessment. European Journal of Nanomedicine, 2015, 7, .	0.6	22
80	Supramolecular Insights into Domino Effects of Ag@ZnO-Induced Oxidative Stress in Melanoma Cancer Cells. ACS Applied Materials & Interfaces, 2019, 11, 46408-46418.	4.0	22
81	Release of graphene-related materials from epoxy-based composites: characterization, quantification and hazard assessment <i>in vitro</i>. Nanoscale, 2020, 12, 10703-10722.	2.8	22
82	Developmental Toxicity of Nanomaterials: Need for a Better Understanding of Indirect Effects. Chemical Research in Toxicology, 2018, 31, 641-642.	1.7	20
83	New approach for time-resolved and dynamic investigations on nanoparticles agglomeration. Nano Research, 2020, 13, 2847-2856.	5.8	20
84	Understanding Nanomaterial Biotransformation: An Unmet Challenge to Achieving Predictive Nanotoxicology. Small, 2020, 16, e1907650.	5.2	20
85	Nanomaterial cell interactions: how do carbon nanotubes affect cell physiology?. Nanomedicine, 2009, 4, 57-63.	1.7	19
86	Penetration and Effectiveness of Micronized Copper in Refractory Wood Species. PLoS ONE, 2016, 11, e0163124.	1.1	17
87	Exploring Flow Cytometry-Based Micronucleus Scoring for Reliable Nanomaterial Genotoxicity Assessment. Chemical Research in Toxicology, 2020, 33, 2538-2549.	1.7	16
88	Hazard assessment of abraded thermoplastic composites reinforced with reduced graphene oxide. Journal of Hazardous Materials, 2022, 435, 129053.	6.5	16
89	Advanced human<i>in vitro</i>models to assess metal oxide nanoparticle-cell interactions. MRS Bulletin, 2014, 39, 984-989.	1.7	15
90	Acute effects of multi-walled carbon nanotubes on primary bronchial epithelial cells from COPD patients. Nanotoxicology, 2018, 12, 699-711.	1.6	15

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91	The impact of synthetic amorphous silica (E 551) on differentiated Caco-2 cells, a model for the human intestinal epithelium. Toxicology in Vitro, 2020, 67, 104903.	1.1	15
92	Relative potency factor approach enables the use of <i>inÂvitro</i> information for estimation of human effect factors for nanoparticle toxicity in life-cycle impact assessment. Nanotoxicology, 2020, 14, 275-286.	1.6	13
93	Impact of graphene oxide on human placental trophoblast viability, functionality and barrier integrity. 2D Materials, 2018, 5, 035014.	2.0	12
94	Interactions with the Human Body. , 2012, , 3-24.		9
95	Assessing Genotoxicity of Ten Different Engineered Nanomaterials by the Novel Semi-Automated FADU Assay and the Alkaline Comet Assay. Nanomaterials, 2022, 12, 220.	1.9	9
96	Nano-analytical characterization of endogenous minerals in healthy placental tissue: mineral distribution, composition and ultrastructure. Analyst, The, 2019, 144, 6850-6857.	1.7	8
97	Inâ€situ Investigations on Gold Nanoparticles Stabilization Mechanisms in Biological Environments Containing HSA. Advanced Functional Materials, 2022, 32, 2110253.	7.8	8
98	Influence of ceftriaxone on human bone cell viability and in vitro mineralization potential is concentration- and time-dependent. Bone and Joint Research, 2021, 10, 218-225.	1.3	6
99	A novel approach to increase robustness, precision and high-throughput capacity of single cell gel electrophoresis. ALTEX: Alternatives To Animal Experimentation, 2020, 1, 95-109.	0.9	6
100	Combined in vitro-in vivo dosimetry enables the extrapolation of in vitro doses to human exposure levels: A proof of concept based on a meta-analysis of in vitro and in vivo titanium dioxide toxicity data. NanoImpact, 2022, 25, 100376.	2.4	6
101	Tracking immune-related cell responses to drug delivery microparticles in 3D dense collagen matrix. European Journal of Pharmaceutics and Biopharmaceutics, 2016, 107, 180-190.	2.0	5
102	Editorial: Polymeric Nano-Biomaterials for Medical Applications: Advancements in Developing and Implementation Considering Safety-by-Design Concepts. Frontiers in Bioengineering and Biotechnology, 2020, 8, 599950.	2.0	5
103	<i>In vitro</i>-based human toxicity effect factors: challenges and opportunities for nanomaterial impact assessment. Environmental Science: Nano, 2022, 9, 1913-1925.	2.2	5
104	Assessing the impact of the physical properties of industrially produced carbon nanotubes on their interaction with human primary macrophages in vitro. BioNanoMaterials, 2013, 14, .	1.4	4
105	The Role of the Protein Corona in Fiber Structure-Activity Relationships. Fibers, 2014, 2, 187-210.	1.8	4
106	Scientific Basis for Regulatory Decision-Making of Nanomaterials Report on the Workshop, 20â€"21 January 2014, Center of Applied Ecotoxicology, DÃ¼bendorf. Chimia, 2015, 69, 52.	0.3	4
107	Investigating the effects of differently produced synthetic amorphous silica (EÂ551) on the integrity and functionality of the human intestinal barrier using an advanced inÂvitro co-culture model. Archives of Toxicology, 2021, 95, 837-852.	1.9	4
108	Evaluation of fiber and debris release from protective COVID-19 mask textiles and in vitro acute cytotoxicity effects. Environment International, 2022, 167, 107364.	4.8	4

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109	Innovative Techniques and Strategies for a Reliable High-Throughput Genotoxicity Assessment. Chemical Research in Toxicology, 2020, 33, 283-285.	1.7	3
110	Divergent humoral responses in mild to moderate SARS-CoV-2 infection over time â€“ indication of persistence of the virus?. Journal of Infection, 2022, 84, 418-467.	1.7	3
111	Micronized copper-treated wood: copper remobilization into spores from the copper-tolerant wood-destroying fungus Rhodonia placenta. Environmental Science: Nano, 2019, 6, 425-431.	2.2	2
112	A novel inactivated virus system (InViS) for a fast and inexpensive assessment of viral disintegration. Scientific Reports, 2022, 12, .	1.6	2
113	Editorial by the guest editors. BioNanoMaterials, 2013, 14, 3.	1.4	1
114	Multifunctional Nanocomposite Plasma Coatings: Enabling New Biomaterials Applications. Materials Research Society Symposia Proceedings, 2007, 1056, 1.	0.1	0
115	Approach toward <i>In Vitro</i>-Based Human Toxicity Effect Factors for the Life Cycle Impact Assessment of Inhaled Low-Solubility Particles. Environmental Science & Technology, 0, , .	4.6	0