MÃ©lanie Auffan

List of Publications by Year
in descending order

90 papers	8,443 citations	81900 39 h-index	49909 87 g-index
91 all docs	91 docs citations	91 times ranked	11202 citing authors

#	Article	IF	Citations
1	Contrasted microbial community colonization of a bauxite residue deposit marked by a complex geochemical context. Journal of Hazardous Materials, 2022, 424, 127470.	12.4	18
2	Potential of Ligand-Promoted Dissolution at Mild pH for the Selective Recovery of Rare Earth Elements in Bauxite Residues. ACS Sustainable Chemistry and Engineering, 2022, 10, 6942-6951.	6.7	9
3	MESOCOSM: A mesocosm database management system for environmental nanosafety. NanoImpact, 2021, 21, 100288.	4.5	8
4	In Vitro Co-Exposure to CeO2 Nanomaterials from Diesel Engine Exhaust and Benzo(a)Pyrene Induces Additive DNA Damage in Sperm and Cumulus Cells but Not in Oocytes. Nanomaterials, 2021, 11, 478.	4.1	5
5	The SERENADE project; a step forward in the safe by design process of nanomaterials: The benefits of a diverse and interdisciplinary approach. Nano Today, 2021, 37, 101065.	11.9	7
6	Robustness of Indoor Aquatic Mesocosm Experimentations and Data Reusability to Assess the Environmental Risks of Nanomaterials. Frontiers in Environmental Science, 2021, 9, .	3.3	4
7	The SERENADE project â€" A step forward in the Safe by Design process of nanomaterials: Moving towards a product-oriented approach. Nano Today, 2021, 39, 101238.	11.9	1
8	Cytotoxicity and genotoxicity of lanthanides for Vicia faba L. are mediated by their chemical speciation in different exposure media. Science of the Total Environment, 2021, 790, 148223.	8.0	9
9	Aquatic Mesocosm Strategies for the Environmental Fate and Risk Assessment of Engineered Nanomaterials. Environmental Science & Technology, 2021, 55, 16270-16282.	10.0	10
10	The necessity of investigating a freshwater-marine continuum using a mesocosm approach in nanosafety: The case study of TiO2 MNM-based photocatalytic cement. NanoImpact, 2020, 20, 100254.	4.5	5
11	CeO2 Nanomaterials from Diesel Engine Exhaust Induce DNA Damage and Oxidative Stress in Human and Rat Sperm In Vitro. Nanomaterials, 2020, 10, 2327.	4.1	6
12	Ontology-based NLP information extraction to enrich nanomaterial environmental exposure database. Procedia Computer Science, 2020, 176, 360-369.	2.0	10
13	The shape and speciation of Ag nanoparticles drive their impacts on organisms in a lotic ecosystem. Environmental Science: Nano, 2020, 7, 3167-3177.	4.3	9
14	Anthropogenic Release and Distribution of Titanium Dioxide Particles in a River Downstream of a Nanomaterial Manufacturer Industrial Site. Frontiers in Environmental Science, 2020, 8, .	3.3	23
15	Multivariate analysis of the exposure and hazard of ceria nanomaterials in indoor aquatic mesocosms. Environmental Science: Nano, 2020, 7, 1661-1669.	4.3	4
16	Monitoring the Environmental Aging of Nanomaterials: An Opportunity for Mesocosm Testing?. Materials, 2019, 12, 2447.	2.9	10
17	Phytoavailability of silver at predicted environmental concentrations: does the initial ionic or nanoparticulate form matter?. Environmental Science: Nano, 2019, 6, 127-135.	4.3	5
18	Contribution of mesocosm testing to a single-step and exposure-driven environmental risk assessment of engineered nanomaterials. NanoImpact, 2019, 13, 66-69.	4.5	26

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19	Very low concentration of cerium dioxide nanoparticles induce DNA damage, but no loss of vitality, in human spermatozoa. Toxicology in Vitro, 2018, 50, 236-241.	2.4	32
20	Effect of field site hydrogeochemical conditions on the corrosion of milled zerovalent iron particles and their dechlorination efficiency. Science of the Total Environment, 2018, 618, 1619-1627.	8.0	20
21	Environmental exposure of a simulated pond ecosystem to a CuO nanoparticle-based wood stain throughout its life cycle. Environmental Science: Nano, 2018, 5, 2579-2589.	4.3	19
22	Non-linear release dynamics for a CeO2 nanomaterial embedded in a protective wood stain, due to matrix photo-degradation. Environmental Pollution, 2018, 241, 182-193.	7.5	19
23	Enhanced transportability of zero valent iron nanoparticles in aquifer sediments: surface modifications, reactivity, and particle traveling distances. Environmental Science and Pollution Research, 2017, 24, 9269-9277.	5.3	22
24	Highâ€Energy Resolution Fluorescence Detected Xâ€Ray Absorption Spectroscopy: A Powerful New Structural Tool in Environmental Biogeochemistry Sciences. Journal of Environmental Quality, 2017, 46, 1146-1157.	2.0	72
25	Structural and physicalâ€“chemical behavior of a CeO₂ nanoparticle based diesel additive during combustion and environmental release. Environmental Science: Nano, 2017, 4, 1974-1980.	4.3	16
26	Evidence that Soil Properties and Organic Coating Drive the Phytoavailability of Cerium Oxide Nanoparticles. Environmental Science & Technology, 2017, 51, 9756-9764.	10.0	49
27	Stealth Biocompatible Si-Based Nanoparticles for Biomedical Applications. Nanomaterials, 2017, 7, 288.	4.1	7
28	Biological Fate of Fe3O4 Core-Shell Mesoporous Silica Nanoparticles Depending on Particle Surface Chemistry. Nanomaterials, 2017, 7, 162.	4.1	23
29	Toxicity of CeO₂nanoparticles on a freshwater experimental trophic chain: A study in environmentally relevant conditions through the use of mesocosms. Nanotoxicology, 2016, 10, 1-11.	3.0	32
30	Silver toxicity across salinity gradients: the role of dissolved silver chloride species (AgCl x) in Atlantic killifish (Fundulus heteroclitus) and medaka (Oryzias latipes) early life-stage toxicity. Ecotoxicology, 2016, 25, 1105-1118.	2.4	8
31	The influence of salinity on the fate and behavior of silver standardized nanomaterial and toxicity effects in the estuarine bivalve <i>Scrobicularia plana</i>. Environmental Toxicology and Chemistry, 2016, 35, 2550-2561.	4.3	35
32	Remote Biodegradation of Geâ€“Imogolite Nanotubes Controlled by the Iron Homeostasis of <i>Pseudomonas brassicacearum</i>. Environmental Science & Technology, 2016, 50, 7791-7798.	10.0	8
33	Influence of structural defects of Ge-imogolite nanotubes on their toxicity towards Pseudomonas brassicacearum. Environmental Science: Nano, 2016, 3, 839-846.	4.3	7
34	Integrated assessment of ceria nanoparticle impacts on the freshwater bivalve<i>Dreissena polymorpha</i>. Nanotoxicology, 2016, 10, 935-944.	3.0	37
35	Physicochemical Properties of Nanoparticles in Relation with Toxicity. , 2016, , 3183-3195.		0
36	Cerium dioxide nanoparticles affectin vitrofertilization in mice. Nanotoxicology, 2015, 10, 1-7.	3.0	48

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37	Nanotoxicology in the environment. Environmental Science: Nano, 2015, 2, 561-563.	4.3	12
38	A new approach for the oocyte genotoxicity assay: adaptation of comet assay on mouse cumulusâ€"oocyte complexes. Laboratory Animals, 2015, 49, 251-254.	1.0	8
39	Monte Carlo simulations of the transformation and removal of Ag, TiO2, and ZnO nanoparticles in wastewater treatment and land application of biosolids. Science of the Total Environment, 2015, 511, 535-543.	8.0	36
40	Nanotechnology, global development in the frame of environmental risk forecasting. A necessity of interdisciplinary researches. Comptes Rendus - Geoscience, 2015, 347, 35-42.	1.2	21
41	Heteroaggregation, transformation and fate of CeO2 nanoparticles inÂwastewater treatment. Environmental Pollution, 2015, 203, 122-129.	7.5	48
42	Chronic dosing of a simulated pond ecosystem in indoor aquatic mesocosms: fate and transport of CeO₂ nanoparticles. Environmental Science: Nano, 2015, 2, 653-663.	4.3	42
43	Redox Reactivity of Cerium Oxide Nanoparticles Induces the Formation of Disulfide Bridges in Thiol-Containing Biomolecules. Chemical Research in Toxicology, 2015, 28, 2304-2312.	3.3	24
44	DNA damage and oxidative stress induced by CeO₂nanoparticles in human dermal fibroblasts: Evidence of a clastogenic effect as a mechanism of genotoxicity. Nanotoxicology, 2015, 9, 696-705.	3.0	59
45	Twoâ€Photon Excitation of Porphyrinâ€Functionalized Porous Silicon Nanoparticles for Photodynamic Therapy. Advanced Materials, 2014, 26, 7643-7648.	21.0	131
46	Molecular Insights of Oxidation Process of Iron Nanoparticles: Spectroscopic, Magnetic, and Microscopic Evidence. Environmental Science & Technology, 2014, 48, 13888-13894.	10.0	97
47	Long-term aging of a CeO2 based nanocomposite used for wood protection. Environmental Pollution, 2014, 188, 1-7.	7.5	59
48	Theory and Methodology for Determining Nanoparticle Affinity for Heteroaggregation in Environmental Matrices Using Batch Measurements. Environmental Engineering Science, 2014, 31, 421-427.	1.6	74
49	Environmental release, fate and ecotoxicological effects of manufactured ceria nanomaterials. Environmental Science: Nano, 2014, 1, 533-548.	4.3	110
50	Aged TiO₂-Based Nanocomposite Used in Sunscreens Produces Singlet Oxygen under Long-Wave UV and Sensitizes <i>Escherichia coli</i> to Cadmium. Environmental Science & Technology, 2014, 48, 5245-5253.	10.0	40
51	Transformation of Pristine and Citrate-Functionalized CeO₂ Nanoparticles in a Laboratory-Scale Activated Sludge Reactor. Environmental Science & Technology, 2014, 48, 7289-7296.	10.0	61
52	Salinity-dependent silver nanoparticle uptake and transformation by Atlantic killifish (<i>Fundulus) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	3.0	26
53	Toxicity evaluation of manufactured CeO2 nanoparticles before and after alteration: combined physicochemical and whole-genome expression analysis in Caco-2 cells. BMC Genomics, 2014, 15, 700.	2.8	37
54	An adaptable mesocosm platform for performing integrated assessments of nanomaterial risk in complex environmental systems. Scientific Reports, 2014, 4, 5608.	3.3	45

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55	Role of molting on the biodistribution of CeO2 nanoparticles within Daphnia pulex. Water Research, 2013, 47, 3921-3930.	11.3	36
56	Protein corona formation for nanomaterials and proteins of a similar size: hard or soft corona?. Nanoscale, 2013, 5, 1658.	5.6	134
57	Ultrastructural Interactions and Genotoxicity Assay of Cerium Dioxide Nanoparticles on Mouse Oocytes. International Journal of Molecular Sciences, 2013, 14, 21613-21628.	4.1	56
58	Exposure to Cerium Dioxide Nanoparticles Differently Affect Swimming Performance and Survival in Two Daphnid Species. PLoS ONE, 2013, 8, e71260.	2.5	67
59	Effects of metallic and metal oxide nanoparticles in aquatic and terrestrial food chains. Biomarkers responses in invertebrates and bacteria. International Journal of Nanotechnology, 2012, 9, 181.	0.2	10
60	Antimicrobial effects of commercial silver nanoparticles are attenuated in natural streamwater and sediment. Ecotoxicology, 2012, 21, 1867-1877.	2.4	64
61	Influence of the Length of Imogolite-Like Nanotubes on Their Cytotoxicity and Genotoxicity toward Human Dermal Cells. Chemical Research in Toxicology, 2012, 25, 2513-2522.	3.3	22
62	Early-stage precipitation kinetics of zinc sulfide nanoclusters forming in the presence of cysteine. Chemical Geology, 2012, 329, 10-17.	3.3	20
63	Physico-chemical Control over the Single- or Double-Wall Structure of Aluminogermanate Imogolite-like Nanotubes. Journal of the American Chemical Society, 2012, 134, 3780-3786.	13.7	69
64	Is There a Trojan-Horse Effect during Magnetic Nanoparticles and Metalloid Cocontamination of Human Dermal Fibroblasts?. Environmental Science & Technology, 2012, 46, 10789-10796.	10.0	13
65	Uptake of silver nanoparticles and toxicity to early life stages of Japanese medaka (Oryzias latipes): Effect of coating materials. Aquatic Toxicology, 2012, 120-121, 59-66.	4.0	105
66	Intestinal toxicity evaluation of TiO2 degraded surface-treated nanoparticles: a combined physico-chemical and toxicogenomics approach in caco-2 cells. Particle and Fibre Toxicology, 2012, 9, 18.	6.2	67
67	Mechanism of Silver Nanoparticle Toxicity Is Dependent on Dissolved Silver and Surface Coating in <i>Caenorhabditis elegans</i>. Environmental Science & Technology, 2012, 46, 1119-1127.	10.0	535
68	Reply to comment on Fisichella et al. (2012), â€œIntestinal toxicity evaluation of TiO2 degraded surface-treated nanoparticles: a combined physico-chemical and toxicogenomics approach in Caco-2 cellsâ€•by Faust et al.. Particle and Fibre Toxicology, 2012, 9, 39.	6.2	6
69	Ecotoxicity of Inorganic Nanoparticles: From Unicellular Organisms to Invertebrates. , 2012, , 623-636.		2
70	More than the Ions: The Effects of Silver Nanoparticles on <i>Lolium multiflorum</i>. Environmental Science & Technology, 2011, 45, 2360-2367.	10.0	494
71	Ecotoxicology: Nanoparticle Reactivity and Living Organisms. , 2011, , 325-357.		9
72	Reactivity at (nano)particle-water interfaces, redox processes, and arsenic transport in the environment. Comptes Rendus - Geoscience, 2011, 343, 123-139.	1.2	58

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73	Manufactured metal and metal-oxide nanoparticles: Properties and perturbing mechanisms of their biological activity in ecosystems. Comptes Rendus - Geoscience, 2011, 343, 168-176.	1.2	43
74	TiO2-based nanoparticles released in water from commercialized sunscreens in a life-cycle perspective: Structures and quantities. Environmental Pollution, 2011, 159, 1543-1550.	7.5	166
75	Filter-Feeding Bivalves Store and Biodeposit Colloidally Stable Gold Nanoparticles. Environmental Science & Technology, 2011, 45, 6592-6599.	10.0	65
76	Surface Reactivity of Manufactured Nanoparticles. , 2011, , 269-290.		5
77	Aging of TiO2 nanocomposites used in sunscreen. Dispersion and fate of the degradation products in aqueous environment. Environmental Pollution, 2010, 158, 3482-3489.	7.5	203
78	Inorganic manufactured nanoparticles: how their physicochemical properties influence their biological effects in aqueous environments. Nanomedicine, 2010, 5, 999-1007.	3.3	69
79	Structural Degradation at the Surface of a TiO₂-Based Nanomaterial Used in Cosmetics. Environmental Science & Technology, 2010, 44, 2689-2694.	10.0	193
80	Environmental Sciences at the ESRF. Synchrotron Radiation News, 2010, 23, 28-35.	0.8	1
81	Intracellular uptake and associated toxicity of silver nanoparticles in Caenorhabditis elegans. Aquatic Toxicology, 2010, 100, 140-150.	4.0	327
82	Towards a definition of inorganic nanoparticles from an environmental, health and safety perspective. Nature Nanotechnology, 2009, 4, 634-641.	31.5	1,586
83	Chemical stability of metallic nanoparticles: A parameter controlling their potential cellular toxicity in vitro. Environmental Pollution, 2009, 157, 1127-1133.	7.5	473
84	Direct and indirect CeO₂nanoparticles toxicity for<i>Escherichia coli</i>and<i>Synechocystis</i>. Nanotoxicology, 2009, 3, 284-295.	3.0	146
85	CeO₂nanoparticles induce DNA damage towards human dermal fibroblasts<i>in vitro</i>. Nanotoxicology, 2009, 3, 161-171.	3.0	179
86	Comparative Toxicity of C₆₀ Aggregates toward Mammalian Cells: Role of Tetrahydrofuran (THF) Decomposition. Environmental Science & Technology, 2009, 43, 6378-6384.	10.0	61
87	Enhanced Adsorption of Arsenic onto Maghemites Nanoparticles:â€‰ As(III) as a Probe of the Surface Structure and Heterogeneity. Langmuir, 2008, 24, 3215-3222.	3.5	185
88	Relation between the Redox State of Iron-Based Nanoparticles and Their Cytotoxicity toward <i>Escherichia coli</i>. Environmental Science & Technology, 2008, 42, 6730-6735.	10.0	487
89	In Vitro Interactions between DMSA-Coated Maghemite Nanoparticles and Human Fibroblasts:Â A Physicochemical and Cyto-Genotoxical Studyâ€. Environmental Science & Technology, 2006, 40, 4367-4373.	10.0	195
90	Cytotoxicity of CeO2Nanoparticles forEscherichia coli.Physico-Chemical Insight of the Cytotoxicity Mechanism. Environmental Science & Technology, 2006, 40, 6151-6156.	10.0	723