Christian O Dimkpa

List of Publications by Year
in descending order

57 papers	7,296 citations	76326 40 h-index	138484 58 g-index
59 all docs	59 docs citations	59 times ranked	6179 citing authors

#	Article	IF	Citations
1	CuO and ZnO nanoparticles: phytotoxicity, metal speciation, and induction of oxidative stress in sand-grown wheat. Journal of Nanoparticle Research, 2012, 14, 1.	1.9	514
2	A review of the use of engineered nanomaterials to suppress plant disease and enhance crop yield. Journal of Nanoparticle Research, 2015, 17, 1.	1.9	501
3	Nanofertilizer for Precision and Sustainable Agriculture: Current State and Future Perspectives. Journal of Agricultural and Food Chemistry, 2018, 66, 6487-6503.	5.2	416
4	Recent advances in nano-enabled fertilizers and pesticides: a critical review of mechanisms of action. Environmental Science: Nano, 2019, 6, 2002-2030.	4.3	314
5	Fortification of micronutrients for efficient agronomic production: a review. Agronomy for Sustainable Development, 2016, 36, 1.	5.3	306
6	Silver Nanoparticles Disrupt Wheat (<i>Triticum aestivum</i> L.) Growth in a Sand Matrix. Environmental Science & Technology, 2013, 47, 1082-1090.	10.0	299
7	Revisiting fertilisers and fertilisation strategies for improved nutrient uptake by plants. Biology and Fertility of Soils, 2015, 51, 897-911.	4.3	297
8	Nanofertilizers: New Products for the Industry?. Journal of Agricultural and Food Chemistry, 2018, 66, 6462-6473.	5.2	297
9	Exploring phosphorus fertilizers and fertilization strategies for improved human and environmental health. Biology and Fertility of Soils, 2020, 56, 299-317.	4.3	251
10	Fate of CuO and ZnO Nano- and Microparticles in the Plant Environment. Environmental Science & Technology, 2013, 47, 4734-4742.	10.0	246
11	Metal-induced oxidative stress impacting plant growth in contaminated soil is alleviated by microbial siderophores. Soil Biology and Biochemistry, 2009, 41, 154-162.	8.8	238
12	Involvement of siderophores in the reduction of metal-induced inhibition of auxin synthesis in Streptomyces spp.. Chemosphere, 2008, 74, 19-25.	8.2	209
13	Zinc oxide nanoparticles alleviate drought-induced alterations in sorghum performance, nutrient acquisition, and grain fortification. Science of the Total Environment, 2019, 688, 926-934.	8.0	196
14	Antifungal activity of ZnO nanoparticles and their interactive effect with a biocontrol bacterium on growth antagonism of the plant pathogen Fusarium graminearum. BioMetals, 2013, 26, 913-924.	4.1	192
15	Development of fertilizers for enhanced nitrogen use efficiency â€" Trends and perspectives. Science of the Total Environment, 2020, 731, 139113.	8.0	191
16	Nanoparticle and Ionic Zn Promote Nutrient Loading of Sorghum Grain under Low NPK Fertilization. Journal of Agricultural and Food Chemistry, 2017, 65, 8552-8559.	5.2	169
17	Prospects and Challenges for Solar Fertilizers. Joule, 2019, 3, 1578-1605.	24.0	153
18	Composite micronutrient nanoparticles and salts decrease drought stress in soybean. Agronomy for Sustainable Development, 2017, 37, 1.	5.3	152

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19	Responses of a soil bacterium, Pseudomonas chlororaphis O6 to commercial metal oxide nanoparticles compared with responses to metal ions. Environmental Pollution, 2011, 159, 1749-1756.	7.5	144
20	Nano-CuO and interaction with nano-ZnO or soil bacterium provide evidence for the interference of nanoparticles in metal nutrition of plants. Ecotoxicology, 2015, 24, 119-129.	2.4	144
21	Effect of Metalloid and Metal Oxide Nanoparticles on Fusarium Wilt of Watermelon. Plant Disease, 2018, 102, 1394-1401.	1.4	135
22	The phytotoxicity of ZnO nanoparticles on wheat varies with soil properties. BioMetals, 2015, 28, 101-112.	4.1	134
23	Facile Coating of Urea With Low-Dose ZnO Nanoparticles Promotes Wheat Performance and Enhances Zn Uptake Under Drought Stress. Frontiers in Plant Science, 2020, 11, 168.	3.6	120
24	Can nanotechnology deliver the promised benefits without negatively impacting soil microbial life?. Journal of Basic Microbiology, 2014, 54, 889-904.	3.3	110
25	Interactive effects of drought, organic fertilizer, and zinc oxide nanoscale and bulk particles on wheat performance and grain nutrient accumulation. Science of the Total Environment, 2020, 722, 137808.	8.0	104
26	Interaction of silver nanoparticles with an environmentally beneficial bacterium, Pseudomonas chlororaphis. Journal of Hazardous Materials, 2011, 188, 428-435.	12.4	100
27	Production of Indole-3-Acetic Acid via the Indole-3-Acetamide Pathway in the Plant-Beneficial Bacterium Pseudomonas chlororaphis O6 Is Inhibited by ZnO Nanoparticles but Enhanced by CuO Nanoparticles. Applied and Environmental Microbiology, 2012, 78, 1404-1410.	3.1	98
28	Role of Cerium Compounds in Fusarium Wilt Suppression and Growth Enhancement in Tomato (<i>Solanum lycopersicum</i>). Journal of Agricultural and Food Chemistry, 2018, 66, 5959-5970.	5.2	91
29	Effects of Manganese Nanoparticle Exposure on Nutrient Acquisition in Wheat (Triticum aestivum L.). Agronomy, 2018, 8, 158.	3.0	91
30	Soil components mitigate the antimicrobial effects of silver nanoparticles towards a beneficial soil bacterium, Pseudomonas chlororaphis O6. Science of the Total Environment, 2012, 429, 215-222.	8.0	86
31	Pesticidal activity of metal oxide nanoparticles on plant pathogenic isolates of Pythium. Ecotoxicology, 2015, 24, 1305-1314.	2.4	75
32	Bioactivity and Biomodification of Ag, ZnO, and CuO Nanoparticles with Relevance to Plant Performance in Agriculture. Industrial Biotechnology, 2012, 8, 344-357.	0.8	74
33	ZnO nanoparticles and root colonization by a beneficial pseudomonad influence essential metal responses in bean (<i>Phaseolus vulgaris</i>). Nanotoxicology, 2015, 9, 271-278.	3.0	74
34	CuO and ZnO nanoparticles differently affect the secretion of fluorescent siderophores in the beneficial root colonizer,<i>Pseudomonas chlororaphis</i>O6. Nanotoxicology, 2012, 6, 635-642.	3.0	69
35	Addition-omission of zinc, copper, and boron nano and bulk oxide particles demonstrate element and size -specific response of soybean to micronutrients exposure. Science of the Total Environment, 2019, 665, 606-616.	8.0	62
36	Defining the surface adsorption and internalization of copper and cadmium in a soil bacterium, Pseudomonas putida. Chemosphere, 2010, 81, 904-910.	8.2	60

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37	Exposure to Weathered and Fresh Nanoparticle and Ionic Zn in Soil Promotes Grain Yield and Modulates Nutrient Acquisition in Wheat (<i>Triticum aestivum</i> L.). Journal of Agricultural and Food Chemistry, 2018, 66, 9645-9656.	5.2	56
38	Soil properties influence the response of terrestrial plants to metallic nanoparticles exposure. Current Opinion in Environmental Science and Health, 2018, 6, 1-8.	4.1	55
39	Nutritional Status of Tomato (<i>Solanum lycopersicum</i>) Fruit Grown in <i>Fusarium</i>-Infested Soil: Impact of Cerium Oxide Nanoparticles. Journal of Agricultural and Food Chemistry, 2020, 68, 1986-1997.	5.2	51
40	Nanospecific Inhibition of Pyoverdine Siderophore Production in <i>Pseudomonas chlororaphis</i> O6 by CuO Nanoparticles. Chemical Research in Toxicology, 2012, 25, 1066-1074.	3.3	50
41	Components from wheat roots modify the bioactivity of ZnO and CuO nanoparticles in a soil bacterium. Environmental Pollution, 2014, 187, 65-72.	7.5	36
42	Salts affect the interaction of ZnO or CuO nanoparticles with wheat. Environmental Toxicology and Chemistry, 2015, 34, 2116-2125.	4.3	33
43	Safeguarding human and planetary health demands a fertilizer sector transformation. Plants People Planet, 2020, 2, 302-309.	3.3	31
44	Unlocking the multiple public good services from balanced fertilizers. Food Security, 2018, 10, 273-285.	5.3	30
45	Chitosan nanomaterials: A prelim of next-generation fertilizers; existing and future prospects. Carbohydrate Polymers, 2022, 288, 119356.	10.2	29
46	Therapeutic Delivery of Nanoscale Sulfur to Suppress Disease in Tomatoes: In Vitro Imaging and Orthogonal Mechanistic Investigation. ACS Nano, 2022, 16, 11204-11217.	14.6	28
47	Effect of complexing ligands on the surface adsorption, internalization, and bioresponse of copper and cadmium in a soil bacterium, Pseudomonas putida. Chemosphere, 2013, 91, 374-382.	8.2	24
48	Methods for Rapid Testing of Plant and Soil Nutrients. Sustainable Agriculture Reviews, 2017, , 1-43.	1.1	23
49	Soil and foliar exposure of soybean (Glycine max) to Cu: Nanoparticle coating-dependent plant responses. NanoImpact, 2022, 26, 100406.	4.5	22
50	Does doping with aluminum alter the effects of ZnO nanoparticles on the metabolism of soil pseudomonads?. Microbiological Research, 2013, 168, 91-98.	5.3	21
51	Impact of engineered nanomaterials on rice (Oryza sativa L.): A critical review of current knowledge. Environmental Pollution, 2022, 297, 118738.	7.5	18
52	The RpoS Sigma Factor Negatively Regulates Production of IAA and Siderophore in a Biocontrol Rhizobacterium, Pseudomonas chlororaphis O6. Plant Pathology Journal, 2013, 29, 323-329.	1.7	16
53	Influence of Single and Combined Mixtures of Metal Oxide Nanoparticles on Eggplant Growth, Yield, and Verticillium Wilt Severity. Plant Disease, 2021, 105, 1153-1161.	1.4	15
54	Synthesis and characterization of novel dual-capped Znâ€"urea nanofertilizers and application in nutrient delivery in wheat. Environmental Science Advances, 2022, 1, 47-58.	2.7	13

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55	Biodegradable Polymer Nanocomposites Provide Effective Delivery and Reduce Phosphorus Loss during Plant Growth. ACS Agricultural Science and Technology, 2021, 1, 529-539.	2.3	12
56	Micro-nutrients in East African lowlands: Are they needed to intensify rice production?. Field Crops Research, 2021, 270, 108219.	5.1	11
57	Rice yield and economic response to micronutrient application in Tanzania. Field Crops Research, 2021, 270, 108201.	5.1	8