David W Britt

List of Publications by Year
in descending order

88 papers	4,524 citations	126708 33 h-index	102304 66 g-index
88 all docs	88 docs citations	88 times ranked	4771 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.	0.8	514
2	From 3D to 2D: A Review of the Molecular Imprinting of Proteins. Biotechnology Progress, 2006, 22, 1474-1489.	1.3	330
3	Silver Nanoparticles Disrupt Wheat (<i>Triticum aestivum</i> L.) Growth in a Sand Matrix. Environmental Science & Technology, 2013, 47, 1082-1090.	4.6	299
4	Antimicrobial activities of commercial nanoparticles against an environmental soil microbe, Pseudomonas putida KT2440. Journal of Biological Engineering, 2009, 3, 9.	2.0	252
5	Fate of CuO and ZnO Nano- and Microparticles in the Plant Environment. Environmental Science & Technology, 2013, 47, 4734-4742.	4.6	246
6	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.	1.8	192
7	Islet Encapsulation: Strategies to Enhance Islet Cell Functions. Tissue Engineering, 2007, 13, 589-599.	4.9	173
8	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.	3.7	144
9	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.	1.1	144
10	The phytotoxicity of ZnO nanoparticles on wheat varies with soil properties. BioMetals, 2015, 28, 101-112.	1.8	134
11	Interaction of silver nanoparticles with an environmentally beneficial bacterium, Pseudomonas chlororaphis. Journal of Hazardous Materials, 2011, 188, 428-435.	6.5	100
12	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.	1.4	98
13	Cu from dissolution of CuO nanoparticles signals changes in root morphology. Plant Physiology and Biochemistry, 2017, 110, 108-117.	2.8	94
14	From 3D to 2D: a review of the molecular imprinting of proteins. Biotechnology Progress, 2006, 22, 1474-89.	1.3	94
15	An AFM Study of the Effects of Silanization Temperature, Hydration, and Annealing on the Nucleation and Aggregation of Condensed OTS Domains on Mica. Journal of Colloid and Interface Science, 1996, 178, 775-784.	5.0	88
16	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.	3.9	86
17	Pesticidal activity of metal oxide nanoparticles on plant pathogenic isolates of Pythium. Ecotoxicology, 2015, 24, 1305-1314.	1.1	75
18	Bioactivity and Biomodification of Ag, ZnO, and CuO Nanoparticles with Relevance to Plant Performance in Agriculture. Industrial Biotechnology, 2012, 8, 344-357.	0.5	74

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19	ZnO nanoparticles and root colonization by a beneficial pseudomonad influence essential metal responses in bean (<i>Phaseolus vulgaris</i>). Nanotoxicology, 2015, 9, 271-278.	1.6	74
20	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.	1.6	69
21	Remodeling of root morphology by CuO and ZnO nanoparticles: effects on drought tolerance for plants colonized by a beneficial pseudomonad. Botany, 2018, 96, 175-186.	0.5	63
22	A Review of Metal and Metal-Oxide Nanoparticle Coating Technologies to Inhibit Agglomeration and Increase Bioactivity for Agricultural Applications. Agronomy, 2020, 10, 1018.	1.3	62
23	CuO and ZnO Nanoparticles Modify Interkingdom Cell Signaling Processes Relevant to Crop Production. Journal of Agricultural and Food Chemistry, 2018, 66, 6513-6524.	2.4	60
24	Rhizosphere interactions between copper oxide nanoparticles and wheat root exudates in a sand matrix: Influences on copper bioavailability and uptake. Environmental Toxicology and Chemistry, 2018, 37, 2619-2632.	2.2	54
25	Nanospecific Inhibition of Pyoverdine Siderophore Production in <i>Pseudomonas chlororaphis</i> O6 by CuO Nanoparticles. Chemical Research in Toxicology, 2012, 25, 1066-1074.	1.7	50
26	Influence of Substrate Properties on the Topochemical Polymerization of Diacetylene Monolayers. Langmuir, 2001, 17, 3757-3765.	1.6	47
27	Formation of protein molecular imprints within Langmuir monolayers: A quartz crystal microbalance study. Journal of Colloid and Interface Science, 2007, 308, 71-80.	5.0	47
28	Human Growth Hormone Adsorption Kinetics and Conformation on Self-Assembled Monolayers. Langmuir, 1998, 14, 335-341.	1.6	46
29	Recognition of Conformational Changes in Î²-Lactoglobulin by Molecularly Imprinted Thin Films. Biomacromolecules, 2007, 8, 2781-2787.	2.6	40
30	Initial Development of Corn Seedlings after Seed Priming with Nanoscale Synthetic Zinc Oxide. Agronomy, 2020, 10, 307.	1.3	40
31	Humic acid effect on pyrene degradation: finding an optimal range for pyrene solubility and mineralization enhancement. Applied Microbiology and Biotechnology, 2007, 74, 1368-1375.	1.7	38
32	Langmuir monolayer approaches to protein recognition through molecular imprinting. Biosensors and Bioelectronics, 2005, 20, 2053-2060.	5.3	37
33	Components from wheat roots modify the bioactivity of ZnO and CuO nanoparticles in a soil bacterium. Environmental Pollution, 2014, 187, 65-72.	3.7	36
34	Salts affect the interaction of ZnO or CuO nanoparticles with wheat. Environmental Toxicology and Chemistry, 2015, 34, 2116-2125.	2.2	33
35	Soil chemistry influences the phytotoxicity of metal oxide nanoparticles. International Journal of Nanotechnology, 2017, 14, 15.	0.1	31
36	In Vitro Assessment of Dialysis Membrane as an Endotoxin Transfer Barrier: Geometry, Morphology, and Permeability. Artificial Organs, 2008, 32, 701-710.	1.0	28

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37	A Root-Colonizing Pseudomonad Lessens Stress Responses in Wheat Imposed by CuO Nanoparticles. PLoS ONE, 2016, 11, e0164635.	1.1	27
38	Ferritin adsorption to multicomponent monolayers: Influence of lipid charge density, miscibility and fluidity. Physical Chemistry Chemical Physics, 2000, 2, 4594-4599.	1.3	26
39	Tobacco mosaic virus adsorption on self-assembled and Langmuirâ€“Blodgett monolayers studied by TIRF and SFM. Thin Solid Films, 1998, 327-329, 824-828.	0.8	25
40	Human low density lipoprotein and human serum albumin adsorption onto model surfaces studied by total internal reflection fluorescence and scanning force microscopy. , 1996, 9, 444-455.		24
41	Protonation, Hydrolysis, and Condensation of Mono- and Trifunctional Silanes at the Air/Water Interface. Langmuir, 1999, 15, 1770-1776.	1.6	23
42	Sum-Frequency Spectroscopy Analysis of Two-Component Langmuir Monolayers and the Associated Interfacial Water Structure. Journal of Physical Chemistry B, 2006, 110, 15506-15513.	1.2	23
43	Does doping with aluminum alter the effects of ZnO nanoparticles on the metabolism of soil pseudomonads?. Microbiological Research, 2013, 168, 91-98.	2.5	21
44	Interactions Between a Plant Probiotic and Nanoparticles on Plant Responses Related to Drought Tolerance. Industrial Biotechnology, 2018, 14, 148-156.	0.5	20
45	Protein Insertion and Patterning of PEG Bearing Langmuir Monolayers. Biotechnology Progress, 2006, 22, 150-155.	1.3	19
46	Selfâ€Assembly of a Triangleâ€Shaped, Hexaplatinumâ€Incorporated, Supramolecular Amphiphile in Solution and at Interfaces. Chemistry - A European Journal, 2009, 15, 8566-8577.	1.7	18
47	Copper oxide nanoparticle dissolution at alkaline pH is controlled by dissolved organic matter: influence of soil-derived organic matter, wheat, bacteria, and nanoparticle coating. Environmental Science: Nano, 2020, 7, 2618-2631.	2.2	18
48	Separating Octadecyltrimethoxysilane Hydrolysis and Condensation at the Air/Water Interface through Addition of Methyl Stearate. Journal of Physical Chemistry B, 1999, 103, 2749-2754.	1.2	17
49	Pluronics' influence on pseudomonad biofilm and phenazine production. FEMS Microbiology Letters, 2009, 293, 148-153.	0.7	17
50	Effect of sterilization techniques on the physicochemical properties of polysulfone hollow fibers. Journal of Applied Polymer Science, 2011, 119, 3429-3436.	1.3	16
51	Soil-derived fulvic acid and root exudates, modified by soil bacteria, alter CuO nanoparticle-induced root stunting of wheat <i>via</i> Cu complexation. Environmental Science: Nano, 2019, 6, 3638-3652.	2.2	14
52	Biofilms Benefiting Plants Exposed to ZnO and CuO Nanoparticles Studied with a Root-Mimetic Hollow Fiber Membrane. Journal of Agricultural and Food Chemistry, 2018, 66, 6619-6627.	2.4	13
53	A Problemâ€Based Learning Approach to Integrating Foreign Language Into Engineering. Foreign Language Annals, 2007, 40, 226-246.	0.6	12
54	Sublethal doses of ZnO nanoparticles remodel production of cell signaling metabolites in the root colonizer Pseudomonas chlororaphis O6. Environmental Science: Nano, 2016, 3, 1103-1113.	2.2	12

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55	Sustaining biogenic methane release from Illinois coal in a fermentor for one year. Fuel, 2018, 227, 27-34.	3.4	12
56	Giant Micelles of Organoplatinum(II) Gemini Amphiphiles. Langmuir, 2008, 24, 5400-5410.	1.6	11
57	Abiotic stressors impact outer membrane vesicle composition in a beneficial rhizobacterium: Raman spectroscopy characterization. Scientific Reports, 2020, 10, 21289.	1.6	11
58	Oriented Confined Water Induced by Cationic Lipids. Langmuir, 2012, 28, 4712-4722.	1.6	10
59	Ag nanoparticles generated using bio-reduction and -coating cause microbial killing without cell lysis. BioMetals, 2016, 29, 211-223.	1.8	10
60	Silica Nanoparticles Synthesized from 3,3,3-Propyl(trifluoro)trimethoxysilane or <i>n</i>-Propyltrimethoxysilane for Creating Superhydrophobic Surfaces. ACS Applied Nano Materials, 2021, 4, 4092-4102.	2.4	10
61	Antimicrobial Light-Activated Polypropylene Modified with Chitosan: Characterization and Reusability. Journal of Agricultural and Food Chemistry, 2020, 68, 13076-13082.	2.4	9
62	Absence of Nanoparticle-Induced Drought Tolerance in Nutrient Sufficient Wheat Seedlings. Environmental Science & Technology, 2021, 55, 13541-13550.	4.6	9
63	Electrostatic Force Microscopy Analysis of Lipid Miscibility in Two-Component Monolayers. Langmuir, 2004, 20, 3684-3689.	1.6	8
64	Monitoring Silane Sol-Gel Kinetics with In-Situ Optical Turbidity Scanning and Dynamic Light Scattering. Molecules, 2019, 24, 2931.	1.7	8
65	Zein-modified antimicrobial polypropylene: Characterization and reusability upon UV-A light exposure. LWT - Food Science and Technology, 2020, 121, 108983.	2.5	8
66	Trifluorosilane induced structural transitions in beta-lactoglobulin in sol and gel. Colloids and Surfaces B: Biointerfaces, 2014, 119, 6-13.	2.5	7
67	Hemodialysis membrane surface chemistry as a barrier to lipopolysaccharide transfer. Journal of Applied Polymer Science, 2015, 132, .	1.3	6
68	Microwave Assisted Sol-Gel Synthesis of Silica-Spider Silk Composites. Molecules, 2019, 24, 2521.	1.7	6
69	The Influence of Lipid Dipole Moment and Interfacial Water Structure on Protein Adsorption to Mixed Lipid Monolayers. Materialwissenschaft Und Werkstofftechnik, 2003, 34, 1133-1137.	0.5	5
70	Role of Lactose in Modifying Gel Transition Temperature and Morphology of Self-assembled Hydrogels. Chemistry of Materials, 2005, 17, 6239-6245.	3.2	5
71	Excess fibrinogen adsorption to monolayers of mixed lipids. Colloids and Surfaces B: Biointerfaces, 2010, 81, 607-613.	2.5	5
72	Development of bioactive solid support for immobilized Lactobacillus casei biofilms and the production of lactic acid. Bioprocess and Biosystems Engineering, 2022, 45, 217-226.	1.7	5

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73	Poloxamer 188 â€“ quercetin formulations amplify in vitro ganciclovir antiviral activity against cytomegalovirus. Antiviral Research, 2022, 204, 105362.	1.9	5
74	Antimicrobial Activity of Commercial Nanoparticles. , 2009, , .		4
75	In-Plane Ordering of a Genetically Engineered Viral Protein Cage. Journal of Adhesion, 2009, 85, 69-77.	1.8	4
76	Early development of corn seedlings primed with synthetic tenorite nanofertilizer. Journal of Seed Science, 0, 42, .	0.7	4
77	Protein Interactions with Monolayers at the Air â€“Water Interface. Surfactant Science, 2003, , .	0.0	4
78	Development of Bioactive Solid Support for Immobilized Lactococcus lactis Biofilms in Bioreactors for the Production of Nisin. Food and Bioprocess Technology, 2022, 15, 132-143.	2.6	4
79	Deposition of Carbon Nanotube Films on Polyamide and Polypropylene Substrates: A Computer Simulation Approach. Materials Research, 2016, 19, 895-900.	0.6	3
80	Assessments in early growth of corn seedlings after hausmanite (Mn₃O₄) nanoscale seed priming. Journal of Plant Nutrition, 0, , 1-10.	0.9	3
81	Large area microcorrals and cavity formation on cantilevers using a focused ion beam. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2011, 29, 051603.	0.6	2
82	Crossâ€linked hydrogel and polyester resorbable ventilation tubes in a chinchilla model. Laryngoscope, 2013, 123, 1043-1048.	1.1	2
83	One-Step Hydrophobic Silica Nanoparticle Synthesis at the Air/Water Interface. ACS Sustainable Chemistry and Engineering, 2019, 7, 6204-6212.	3.2	2
84	Early growth of corn seedlings after seed priming with magnetite nanoparticles synthetised in easy way. Acta Agriculturae Scandinavica - Section B Soil and Plant Science, 2021, 71, 91-97.	0.3	2
85	Plug-and-play bioinspired seed coatings. Nature Food, 2021, 2, 456-457.	6.2	2
86	Pluronic F68-capped SiO2 nanoparticles are compatible as delivery vehicles to roots and shoots. MRS Advances, 2022, 7, 327.	0.5	1
87	Annexin A5 Binding and Rebinding to Mixed Phospholipid Monolayers Studied by SPR and AFM. ACS Symposium Series, 2012, , 419-432.	0.5	0
88	Versatile activity and morphological effects of zinc oxide submicron particles as anticancer agents. Nanomedicine, 2022, , .	1.7	0