William Thomas Self

List of Publications by Year
in descending order

69 papers	9,929 citations	76326 40 h-index	102487 66 g-index
74 all docs	74 docs citations	74 times ranked	10499 citing authors

#	Article	IF	Citations
1	<scp>d</scp> -Proline Reductase Underlies Proline-Dependent Growth of Clostridioides difficile. Journal of Bacteriology, 2022, 204, .	2.2	6
2	Exploring the selenium-over-sulfur substrate specificity and kinetics of a bacterial selenocysteine lyase. Biochimie, 2021, 182, 166-176.	2.6	3
3	The Rv2633c protein of Mycobacterium tuberculosis is a non-heme di-iron catalase with a possible role in defenses against oxidative stress. Journal of Biological Chemistry, 2018, 293, 1590-1595.	3.4	19
4	Cerium Oxide Nanoparticles: A Brief Review of Their Synthesis Methods and Biomedical Applications. Antioxidants, 2018, 7, 97.	5.1	289
5	Antioxidant Inorganic Nanoparticles and Their Potential Applications in Biomedicine. , 2018, , 159-169.		15
6	Characterizing the phosphatase mimetic activity of cerium oxide nanoparticles and distinguishing its active site from that for catalase mimetic activity using anionic inhibitors. Environmental Science: Nano, 2017, 4, 1742-1749.	4.3	41
7	Using CRISPR-Cas9-mediated genome editing to generate C. difficile mutants defective in selenoproteins synthesis. Scientific Reports, 2017, 7, 14672.	3.3	79
8	Redox-Sensitive Cerium Oxide Nanoparticles Protect Human Keratinocytes from Oxidative Stress Induced by Glutathione Depletion. Langmuir, 2016, 32, 12202-12211.	3.5	81
9	Hypochlorite scavenging activity of cerium oxide nanoparticles. RSC Advances, 2016, 6, 62911-62915.	3.6	6
10	Catalytic properties and biomedical applications of cerium oxide nanoparticles. Environmental Science: Nano, 2015, 2, 33-53.	4.3	341
11	Therapeutic potential of nanoceria in regenerative medicine. MRS Bulletin, 2014, 39, 976-983.	3.5	42
12	Behavior of nanoceria in biologically-relevant environments. Environmental Science: Nano, 2014, 1, 516-532.	4.3	94
13	Cerium oxide nanoparticles protect against AÎ²-induced mitochondrial fragmentation and neuronal cell death. Cell Death and Differentiation, 2014, 21, 1622-1632.	11.2	166
14	Bioâ€distribution and <i>in vivo</i> antioxidant effects of cerium oxide nanoparticles in mice. Environmental Toxicology, 2013, 28, 107-118.	4.0	249
15	Cerium oxide nanoparticles accelerate the decay of peroxynitrite (ONOOâˆ’). Drug Delivery and Translational Research, 2013, 3, 375-379.	5.8	85
16	Cerium oxide nanoparticles: applications and prospects in nanomedicine. Nanomedicine, 2013, 8, 1483-1508.	3.3	424
17	Oxygenated Functional Group Density on Graphene Oxide: Its Effect on Cell Toxicity. Particle and Particle Systems Characterization, 2013, 30, 148-157.	2.3	173
18	Cellular Interaction and Toxicity Depend on Physicochemical Properties and Surface Modification of Redox-Active Nanomaterials. ACS Nano, 2013, 7, 4855-4868.	14.6	179

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19	Xanthine Dehydrogenase (Se-Dependent). , 2013, , 2335-2336.		0
20	Proline-Dependent Regulation of Clostridium difficile Stickland Metabolism. Journal of Bacteriology, 2013, 195, 844-854.	2.2	185
21	Immunomodulation and T Helper TH1/TH2 Response Polarization by CeO2 and TiO2 Nanoparticles. PLoS ONE, 2013, 8, e62816.	2.5	80
22	Exposure to Silver Nanoparticles Inhibits Selenoprotein Synthesis and the Activity of Thioredoxin Reductase. Environmental Health Perspectives, 2012, 120, 56-61.	6.0	73
23	Cerium oxide nanoparticles scavenge nitric oxide radical (Ë™NO). Chemical Communications, 2012, 48, 4896.	4.1	222
24	A facile synthesis of PLGA encapsulated cerium oxide nanoparticles: release kinetics and biological activity. Nanoscale, 2012, 4, 2597.	5.6	48
25	The induction of angiogenesis by cerium oxide nanoparticles through the modulation of oxygen in intracellular environments. Biomaterials, 2012, 33, 7746-7755.	11.4	247
26	Up conversion luminescence of Yb3+â€"Er3+ codoped CeO2 nanocrystals with imaging applications. Journal of Luminescence, 2012, 132, 743-749.	3.1	59
27	A phosphate-dependent shift in redox state of cerium oxide nanoparticles and its effects on catalytic properties. Biomaterials, 2011, 32, 6745-6753.	11.4	285
28	A Selenium-Dependent Xanthine Dehydrogenase Triggers Biofilm Proliferation in<i>Enterococcus faecalis</i>through Oxidant Production. Journal of Bacteriology, 2011, 193, 1643-1652.	2.2	42
29	Multicolored redox active upconverter cerium oxide nanoparticle for bio-imaging and therapeutics. Chemical Communications, 2010, 46, 6915.	4.1	118
30	Comparison of the anaerobic microbiota of deep-water <i>Geodia</i> spp. and sandy sediments in the Straits of Florida. ISME Journal, 2010, 4, 686-699.	9.8	35
31	Tuning Hydrated Nanoceria Surfaces: Experimental/Theoretical Investigations of Ion Exchange and Implications in Organic and Inorganic Interactions. Langmuir, 2010, 26, 7188-7198.	3.5	35
32	Redox-active radical scavenging nanomaterials. Chemical Society Reviews, 2010, 39, 4422.	38.1	458
33	Specific and Nonspecific Incorporation of Selenium into Macromolecules. , 2010, , 121-148.		3
34	Unveiling the mechanism of uptake and sub-cellular distribution of cerium oxide nanoparticles. Molecular BioSystems, 2010, 6, 1813.	2.9	144
35	Nanoceria exhibit redox state-dependent catalase mimetic activity. Chemical Communications, 2010, 46, 2736.	4.1	912
36	Targeting selenium metabolism and selenoproteins: Novel avenues for drug discovery. Metallomics, 2010, 2, 112-116.	2.4	42

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37	Inhibition of Selenium Metabolism in the Oral Pathogen <i>Treponema denticola</i>. Journal of Bacteriology, 2009, 191, 4035-4040.	2.2	39
38	Exposure to monomethylarsonous acid (MMAIII) leads to altered selenoprotein synthesis in a primary human lung cell model. Toxicology and Applied Pharmacology, 2009, 239, 130-136.	2.8	20
39	Auranofin disrupts selenium metabolism in Clostridium difficile by forming a stable Auâ€“Se adduct. Journal of Biological Inorganic Chemistry, 2009, 14, 507-519.	2.6	75
40	Protonated Nanoparticle Surface Governing Ligand Tethering and Cellular Targeting. ACS Nano, 2009, 3, 1203-1211.	14.6	82
41	PEGylated Nanoceria as Radical Scavenger with Tunable Redox Chemistry. Journal of the American Chemical Society, 2009, 131, 14144-14145.	13.7	302
42	Exposure to Titanium Dioxide Nanomaterials Provokes Inflammation of an <i>in Vitro</i> Human Immune Construct. ACS Nano, 2009, 3, 2523-2532.	14.6	152
43	The role of cerium redox state in the SOD mimetic activity of nanoceria. Biomaterials, 2008, 29, 2705-2709.	11.4	813
44	Arsenic trioxide and auranofin inhibit selenoprotein synthesis: implications for chemotherapy for acute promyelocytic leukaemia. British Journal of Pharmacology, 2008, 154, 940-948.	5.4	55
45	High affinity selenium uptake in a keratinocyte model. FEBS Letters, 2008, 582, 299-304.	2.8	33
46	Fenton-Like Reaction Catalyzed by the Rare Earth Inner Transition Metal Cerium. Environmental Science & Technology, 2008, 42, 5014-5019.	10.0	306
47	Orphan SelD proteins and selenium-dependent molybdenum hydroxylases. Biology Direct, 2008, 3, 4.	4.6	40
48	Selenotrisulfide Derivatives of Alpha-Lipoic Acid. Oxidative Stress and Disease, 2008, , .	0.3	0
49	Superoxide dismutase mimetic properties exhibited by vacancy engineered ceria nanoparticles. Chemical Communications, 2007, , 1056.	4.1	1,009
50	Impact of Trivalent Arsenicals on Selenoprotein Synthesis. Environmental Health Perspectives, 2007, 115, 346-353.	6.0	50
51	Protein adsorption and cellular uptake of cerium oxide nanoparticles as a function of zeta potential. Biomaterials, 2007, 28, 4600-4607.	11.4	876
52	Inhibition of hydrogen uptake in Escherichia coli by expressing the hydrogenase from the cyanobacterium Synechocystis sp. PCC 6803. BMC Biotechnology, 2007, 7, 25.	3.3	56
53	Bioavailability of selenium from the selenotrisulphide derivative of lipoic acid. Photodermatology Photoimmunology and Photomedicine, 2006, 22, 315-323.	1.5	7
54	Analysis of Proline Reduction in the Nosocomial Pathogen Clostridium difficile. Journal of Bacteriology, 2006, 188, 8487-8495.	2.2	145

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55	Cloning and Heterologous Expression of a Methanococcus vannielii Gene Encoding a Selenium-Binding Protein. IUBMB Life, 2004, 56, 501-507.	3.4	12
56	Expression and Regulation of a Silent Operon, hyf , Coding for Hydrogenase 4 Isoenzyme in Escherichia coli. Journal of Bacteriology, 2004, 186, 580-587.	2.2	89
57	Cofactor Determination and Spectroscopic Characterization of the Selenium-Dependent Purine Hydroxylase fromClostridium purinolyticum. Biochemistry, 2003, 42, 11382-11390.	2.5	28
58	Regulation of Purine Hydroxylase and Xanthine Dehydrogenase from Clostridium purinolyticum in Response to Purines, Selenium, and Molybdenum. Journal of Bacteriology, 2002, 184, 2039-2044.	2.2	28
59	Molybdate transport. Research in Microbiology, 2001, 152, 311-321.	2.1	129
60	Transcriptional regulation of the moe (molybdate metabolism) operon of Escherichia coli. Archives of Microbiology, 2001, 175, 178-188.	2.2	21
61	N-terminal truncations in the FhlA protein result in formate- and MoeA-independent expression of the hyc (formate hydrogenlyase) operon of Escherichia coli. Microbiology (United Kingdom), 2001, 147, 3093-3104.	1.8	31
62	Isolation and characterization of mutated FhlA proteins which activate transcription of thehycoperon (formate hydrogenlyase) ofEscherichia coliin the absence of molybdate. FEMS Microbiology Letters, 2000, 184, 47-52.	1.8	26
63	Selenium-dependent metabolism of purines: A selenium-dependent purine hydroxylase and xanthine dehydrogenase were purified from Clostridium purinolyticum and characterized. Proceedings of the National Academy of Sciences of the United States of America, 2000, 97, 7208-7213.	7.1	50
64	Synthesis and characterization of selenotrisulfide-derivatives of lipoic acid and lipoamide. Proceedings of the National Academy of Sciences of the United States of America, 2000, 97, 12481-12486.	7.1	37
65	Isolation and characterization of mutated FhlA proteins which activate transcription of the hyc operon (formate hydrogenlyase) of Escherichia coli in the absence of molybdate. FEMS Microbiology Letters, 2000, 184, 47-52.	1.8	3
66	An Analysis of the Binding of Repressor Protein ModE to modABCD (Molybdate Transport) Operator/Promoter DNA of Escherichia coli. Journal of Biological Chemistry, 1999, 274, 24308-24315.	3.4	38
67	Transcriptional regulation of molybdoenzyme synthesis in Escherichia coli in response to molybdenum: ModE-molybdate, a repressor of the modABCD (molybdate transport) operon is a secondary transcriptional activator for the hyc and nar operons. Microbiology (United Kingdom), 1999, 145, 41-55.	1.8	61
68	Molybdate-dependent transcription ofhycandnaroperons ofEscherichia colirequires MoeA protein and ModE-molybdate. FEMS Microbiology Letters, 1998, 169, 111-116.	1.8	26
69	Molybdate-dependent transcription of hyc and nar operons of Escherichia coli requires MoeA protein and ModE-molybdate. FEMS Microbiology Letters, 1998, 169, 111-116.	1.8	6