Ludmil T Benov

List of Publications by Year
in descending order

95 papers	4,185 citations	109137 35 h-index	118652 62 g-index
106 all docs	106 docs citations	106 times ranked	4359 citing authors

#	Article	IF	Citations
1	Ascorbate-dependent and ascorbate-independent Mn porphyrin cytotoxicity: anticancer activity of Mn porphyrin-based SOD mimics through ascorbate-dependent and -independent routes. Redox Report, 2021, 26, 85-93.	1.4	1
2	Improved Formazan Dissolution for Bacterial MTT Assay. Microbiology Spectrum, 2021, 9, e0163721.	1.2	12
3	Antibacterial Activity of Synthetic Cationic Iron Porphyrins. Antioxidants, 2020, 9, 972.	2.2	10
4	Methylene blue induces the soxRS regulon of Escherichia coli. Chemico-Biological Interactions, 2020, 329, 109222.	1.7	5
5	Effect of growth media on the MTT colorimetric assay in bacteria. PLoS ONE, 2019, 14, e0219713.	1.1	51
6	Radiation-Mediated Tumor Growth Inhibition Is Significantly Enhanced with Redox-Active Compounds That Cycle with Ascorbate. Antioxidants and Redox Signaling, 2018, 29, 1196-1214.	2.5	30
7	The Contribution of Superoxide Radical to Cadmium Toxicity in E. coli. Biological Trace Element Research, 2018, 181, 361-368.	1.9	8
8	Sublethal Photodynamic Treatment Does Not Lead to Development of Resistance. Frontiers in Microbiology, 2018, 9, 1699.	1.5	42
9	Cationic amphiphilic Zn-porphyrin with high antifungal photodynamic potency. Photochemical and Photobiological Sciences, 2017, 16, 1709-1716.	1.6	31
10	Possible role of antioxidative capacity of (âˆ')-epigallocatechin-3-gallate treatment in morphological and neurobehavioral recovery after sciatic nerve crush injury. Journal of Neurosurgery: Spine, 2017, 27, 593-613.	0.9	34
11	Optimizing Zn porphyrin-based photosensitizers for efficient antibacterial photodynamic therapy. Photodiagnosis and Photodynamic Therapy, 2017, 17, 154-159.	1.3	38
12	Post-illumination cellular effects of photodynamic treatment. PLoS ONE, 2017, 12, e0188535.	1.1	8
13	Important cellular targets for antimicrobial photodynamic therapy. Applied Microbiology and Biotechnology, 2016, 100, 7679-7688.	1.7	44
14	Is there a role for neurotrophic factors and their receptors in augmenting the neuroprotective effect of (âˆ')-epigallocatechin-3-gallate treatment of sciatic nerve crush injury?. Neuropharmacology, 2016, 102, 1-20.	2.0	18
15	Amphiphilic cationic Zn-porphyrins with high photodynamic antimicrobial activity. Future Microbiology, 2015, 10, 709-724.	1.0	33
16	Photodynamic Therapy: Current Status and Future Directions. Medical Principles and Practice, 2015, 24, 14-28.	1.1	312
17	Anticancer therapeutic potential of Mn porphyrin/ascorbate system. Free Radical Biology and Medicine, 2015, 89, 1231-1247.	1.3	56
18	A comprehensive evaluation of catalase-like activity of different classes of redox-active therapeutics. Free Radical Biology and Medicine, 2015, 86, 308-321.	1.3	71

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19	Evaluation of the monoamine oxidases inhibitory activity of a small series of 5-(azole)methyl oxazolidinones. European Journal of Pharmaceutical Sciences, 2015, 71, 56-61.	1.9	11
20	Synthesis and biological evaluation of novel 5-(hydroxamic acid)methyl oxazolidinone derivatives. European Journal of Medicinal Chemistry, 2015, 106, 120-131.	2.6	20
21	Targeting Mitochondria by Zn(II)N-Alkylpyridylporphyrins: The Impact of Compound Sub-Mitochondrial Partition on Cell Respiration and Overall Photodynamic Efficacy. PLoS ONE, 2014, 9, e108238.	1.1	33
22	Rational Design of Superoxide Dismutase (SOD) Mimics: The Evaluation of the Therapeutic Potential of New Cationic Mn Porphyrins with Linear and Cyclic Substituents. Inorganic Chemistry, 2014, 53, 11467-11483.	1.9	43
23	Simple Biological Systems for Assessing the Activity of Superoxide Dismutase Mimics. Antioxidants and Redox Signaling, 2014, 20, 2416-2436.	2.5	48
24	Differential Coordination Demands in Fe versus Mn Water-Soluble Cationic Metalloporphyrins Translate into Remarkably Different Aqueous Redox Chemistry and Biology. Inorganic Chemistry, 2013, 52, 5677-5691.	1.9	60
25	Effect of Molecular Characteristics on Cellular Uptake, Subcellular Localization, and Phototoxicity of Zn(II) N-Alkylpyridylporphyrins. Journal of Biological Chemistry, 2013, 288, 36579-36588.	1.6	77
26	Late administration of Mn porphyrin-based SOD mimic enhances diabetic complications. Redox Biology, 2013, 1, 457-466.	3.9	20
27	A new SOD mimic, Mn(III) ortho N-butoxyethylpyridylporphyrin, combines superb potency and lipophilicity with low toxicity. Free Radical Biology and Medicine, 2012, 52, 1828-1834.	1.3	70
28	Protein damage by photo-activated Zn(II) N-alkylpyridylporphyrins. Amino Acids, 2012, 42, 117-128.	1.2	20
29	Effects of alkyl chain length of Zn Nâ€alkylpyridylporphyrins on photoâ€mediated protein crosslinking. FASEB Journal, 2012, 26, 755.2.	0.2	0
30	52 Chemistry, Biology and Medical Effects of Water-Soluble Metalloporphyrins. Handbook of Porphyrin Science, 2011, , 291-393.	0.3	28
31	Methoxy-derivatization of alkyl chains increases the in vivo efficacy of cationic Mn porphyrins. Synthesis, characterization, SOD-like activity, and SOD-deficient E. coli study of meta Mn(iii) N-methoxyalkylpyridylporphyrins. Dalton Transactions, 2011, 40, 4111.	1.6	33
32	Diverse functions of cationic Mn(III) N-substituted pyridylporphyrins, recognized as SOD mimics. Free Radical Biology and Medicine, 2011, 51, 1035-1053.	1.3	122
33	Timely Administration of Mn porphyrin, MnTM-2PyP5+ is Critical to Afford Protection in Diabetes: a Rat Study. Free Radical Biology and Medicine, 2011, 51, S90.	1.3	1
34	Fe porphyrins Revisited: Synthesis, Characterization and the Effects of Ortho and Meta Fe(III) N-Alkylpyridylporphyrins Upon the Growth of E. Coli in the Presence and Absence of Ascorbate. Free Radical Biology and Medicine, 2011, 51, S99.	1.3	2
35	The Potential of Zn(II) N-Alkylpyridylporphyrins for Anticancer Therapy. Anti-Cancer Agents in Medicinal Chemistry, 2011, 11, 233-241.	0.9	20
36	Bioavailability of metalloporphyrin-based SOD mimics is greatly influenced by a single charge residing on a Mn site. Free Radical Research, 2011, 45, 188-200.	1.5	30

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37	A Combination of Two Antioxidants (An SOD Mimic and Ascorbate) Produces a Pro-Oxidative Effect Forcing Escherichia coli to Adapt Via Induction of oxyR Regulon. Anti-Cancer Agents in Medicinal Chemistry, 2011, 11, 329-340.	0.9	37
38	Comments on â€˜The Effect of Training Type on Oxidative DNA Damage and Antioxidant Capacity during Three-Dimensional Space Exerciseâ€™. Medical Principles and Practice, 2011, 20, 493-494.	1.1	0
39	Effect of potent redox-modulating manganese porphyrin, MnTM-2-PyP, on the Na+/H+exchangers NHE-1 and NHE-3 in the diabetic rat. Redox Report, 2009, 14, 236-242.	1.4	18
40	Pure MnTBAP selectively scavenges peroxynitrite over superoxide: Comparison of pure and commercial MnTBAP samples to MnTE-2-PyP in two models of oxidative stress injury, an SOD-specific Escherichia coli model and carrageenan-induced pleurisy. Free Radical Biology and Medicine, 2009, 46, 192-201.	1.3	119
41	High Lipophilicity of meta Mn(III)N-Alkylpyridylporphyrin-Based Superoxide Dismutase Mimics Compensates for Their Lower Antioxidant Potency and Makes Them as Effective as Ortho Analogues in Protecting Superoxide Dismutase-DeficientEscherichia coli. Journal of Medicinal Chemistry, 2009, 52, 7868-7872.	2.9	59
42	Impact of electrostatics in redox modulation of oxidative stress by Mn porphyrins: Protection of SOD-deficient Escherichia coli via alternative mechanism where Mn porphyrin acts as a Mn carrier. Free Radical Biology and Medicine, 2008, 45, 201-210.	1.3	55
43	SOD-like activity of Mn(II) Î²-octabromo-meso-tetrakis(N-methylpyridinium-3-yl)porphyrin equals that of the enzyme itself. Archives of Biochemistry and Biophysics, 2008, 477, 105-112.	1.4	46
44	Redox modulation of oxidative stress by Mn porphyrin-based therapeutics: The effect of charge distribution. Dalton Transactions, 2008, , 1233.	1.6	44
45	An SOD mimic protects NADP⁺-dependent isocitrate dehydrogenase against oxidative inactivation. Free Radical Research, 2008, 42, 618-624.	1.5	22
46	Induction of oxidative cell damage by photo-treatment with zincmetaN-methylpyridylporphyrin. Free Radical Research, 2007, 41, 89-96.	1.5	20
47	Inactivation of metabolic enzymes by photo-treatment with zinc meta N-methylpyridylporphyrin. Biochimica Et Biophysica Acta - General Subjects, 2007, 1770, 1520-1527.	1.1	10
48	Photosensitizing action of isomeric zincN-methylpyridylporphyrins in human carcinoma cells. Free Radical Research, 2006, 40, 477-483.	1.5	17
49	Glycolaldehyde induces growth inhibition and oxidative stress in human breast cancer cells*. Free Radical Biology and Medicine, 2006, 40, 1144-1151.	1.3	19
50	A Manganese porphyrin suppresses oxidative stress and extends the life span of streptozotocin-diabetic rats. Free Radical Research, 2005, 39, 81-88.	1.5	37
51	Role of rpoS in the regulation of glyoxalase III in Escherichia coli.. Acta Biochimica Polonica, 2004, 51, 857-860.	0.3	12
52	Superoxide-dependence of the short chain sugars-induced mutagenesis. Free Radical Biology and Medicine, 2003, 34, 429-433.	1.3	25
53	Glycolaldehyde induces apoptosis in a human breast cancer cell line. Archives of Biochemistry and Biophysics, 2003, 417, 123-127.	1.4	19
54	Triosephosphates are toxic to superoxide dismutase-deficient Escherichia coli. Biochimica Et Biophysica Acta - General Subjects, 2003, 1622, 128-132.	1.1	8

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55	Escherichia colіî"furmutant displays low HPII catalase activity in stationary phase. Redox Report, 2003, 8, 379-383.	1.4	7
56	Growth of Escherichia coli in Iron-enriched Medium Increases HPI Catalase Activity. BMB Reports, 2003, 36, 608-610.	1.1	6
57	Isomeric N-alkylpyridylporphyrins and their Zn(II) complexes: inactive as SOD mimics but powerful photosensitizers. Archives of Biochemistry and Biophysics, 2002, 402, 159-165.	1.4	40
58	Manganese supplementation relieves the phenotypic deficits seen in superoxide-dismutase-null Escherichia coli. Archives of Biochemistry and Biophysics, 2002, 402, 104-109.	1.4	55
59	Induction of the soxRS regulon of Escherichia coli by glycolaldehyde. Archives of Biochemistry and Biophysics, 2002, 407, 45-48.	1.4	16
60	Is reduction of the sulfonated tetrazolium 2,3-bis (2-methoxy-4-nitro-5-sulfophenyl)-2-tetrazolium 5-carboxanilide a reliable measure of intracellular superoxide production?. Analytical Biochemistry, 2002, 310, 186-190.	1.1	19
61	Disrupting Escherichia coli: A Comparison of Methods. BMB Reports, 2002, 35, 428-431.	1.1	30
62	How superoxide radical damages the cell. Protoplasma, 2001, 217, 33-36.	1.0	95
63	Polyphosphate accumulation and oxidative DNA damage in superoxide dismutase-deficient Escherichia coli. Free Radical Biology and Medicine, 2001, 31, 1352-1359.	1.3	13
64	Glycerol metabolism in superoxide dismutase-deficientEscherichia coli. Free Radical Research, 2001, 35, 867-872.	1.5	3
65	Induction of the soxRS Regulon of Escherichia coli by Superoxide. Journal of Biological Chemistry, 1999, 274, 9479-9481.	1.6	70
66	An Anionic Impurity in Preparations of Cytochrome c Interferes with Assays of Cationic Catalysts of the Dismutation of the Superoxide Anion Radical. Analytical Biochemistry, 1999, 275, 267.	1.1	8
67	Relationship among Redox Potentials, Proton Dissociation Constants of Pyrrolic Nitrogens, and in Vivo and in Vitro Superoxide Dismutating Activities of Manganese(III) and Iron(III) Water-Soluble Porphyrins. Inorganic Chemistry, 1999, 38, 4011-4022.	1.9	251
68	Why Superoxide Imposes an Aromatic Amino Acid Auxotrophy onEscherichia coli. Journal of Biological Chemistry, 1999, 274, 4202-4206.	1.6	69
69	Critical evaluation of the use of hydroethidine as a measure of superoxide anion radical. Free Radical Biology and Medicine, 1998, 25, 826-831.	1.3	450
70	The Ortho Effect Makes Manganese(III)Meso-Tetrakis(N-Methylpyridinium-2-yl)Porphyrin a Powerful and Potentially Useful Superoxide Dismutase Mimic. Journal of Biological Chemistry, 1998, 273, 24521-24528.	1.6	243
71	Growth in Iron-enriched Medium Partially Compensates Escherichia coli for the Lack of Manganese and Iron Superoxide Dismutase. Journal of Biological Chemistry, 1998, 273, 10313-10316.	1.6	45
72	Superoxide Dependence of the Toxicity of Short Chain Sugars. Journal of Biological Chemistry, 1998, 273, 25741-25744.	1.6	23

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73	Superoxide Imposes Leakage of Sulfite fromEscherichia coli. Archives of Biochemistry and Biophysics, 1997, 347, 271-274.	1.4	18
74	The Copper- and Zinc-Containing Superoxide Dismutase fromEscherichia coli:Molecular Weight and Stability. Archives of Biochemistry and Biophysics, 1997, 340, 305-310.	1.4	23
75	Functional Significance of the Cu,ZnSOD inEscherichia coli. Archives of Biochemistry and Biophysics, 1996, 327, 249-253.	1.4	29
76	Escherichia coli exhibits negative chemotaxis in gradients of hydrogen peroxide, hypochlorite, and N-chlorotaurine: products of the respiratory burst of phagocytic cells.. Proceedings of the National Academy of Sciences of the United States of America, 1996, 93, 4999-5002.	3.3	37
77	Purification and characterization of the Cu,Zn SOD from Escherichia coli. Free Radical Biology and Medicine, 1996, 21, 117-121.	1.3	26
78	The rate of adaptive mutagenesis in Escherichia coli is enhanced by oxygen (superoxide). Mutation Research - Fundamental and Molecular Mechanisms of Mutagenesis, 1996, 357, 231-236.	0.4	25
79	The Mechanism of the Auxotrophy for Sulfur-containing Amino Acids Imposed upon Escherichia coli by Superoxide. Journal of Biological Chemistry, 1996, 271, 21037-21040.	1.6	51
80	Superoxide dismutase protects against aerobic heat shock in Escherichia coli. Journal of Bacteriology, 1995, 177, 3344-3346.	1.0	71
81	Copper, Zinc Superoxide Dismutase in Escherichia coli: Periplasmic Localization. Archives of Biochemistry and Biophysics, 1995, 319, 508-511.	1.4	60
82	A Superoxide-Dismutase Mimic Protects SodA SodB Escherichia coli against Aerobic Heating and Stationary-Phase Death. Archives of Biochemistry and Biophysics, 1995, 322, 291-294.	1.4	58
83	The antioxidant activity of Flavonoids Isolated fromCorylus colurna. Phytotherapy Research, 1994, 8, 92-94.	2.8	10
84	A chemiluminescent investigation of the interaction of red cell membranes with thiol compounds. Bioelectrochemistry, 1992, 27, 53-56.	1.0	0
85	Thiol antidotes effect on lipid peroxidation in mercury-poisoned rats. Chemico-Biological Interactions, 1990, 76, 321-332.	1.7	51
86	A chemiluminescence method for determination of lipid hydroperoxides.. Journal of Clinical Biochemistry and Nutrition, 1990, 8, 165-173.	0.6	4
87	Initiation of lipid peroxidation in lysosomal membranes by activated blood polymorphonuclear leukocytes. Bulletin of Experimental Biology and Medicine, 1988, 105, 799-802.	0.3	2
88	ON THE HEAVY METAL COMPOUNDS HEMOLYTIC ACTION. Acta Pharmacologica Et Toxicologica, 1986, 59, 478-481.	0.0	0
89	SOME INVESTIGATIONS ON THE Zn(II)â€RED BLOOD CELL INTERACTION. Acta Pharmacologica Et Toxicologica, 1986, 59, 482-485.	0.0	0
90	HgCl2 increases the methemoglobin prooxidant activity. Possible mechanism of Hg2+-induced lipid peroxidation in erythrocytes. Chemico-Biological Interactions, 1984, 50, 111-119.	1.7	8

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91	Hemoglobin-catalyzed lipid peroxidation in the presence of mercuric chloride. Chemico-Biological Interactions, 1983, 45, 105-112.	1.7	14
92	Possible contribution of oxyhemoglobin to the iron-induced hemolysis simultaneous effect of iron and hemoglobin on lipid peroxidation. Blut, 1983, 46, 217-225.	1.2	9
93	Hemolysis and peroxidation in heavy metal-treated erythrocytes; GSH content and activities of some protecting enzymes. Experientia, 1982, 38, 1354-1355.	1.2	24
94	Relationship between the hemolytic action of heavy metals and lipid peroxidation. Biochimica Et Biophysica Acta - Biomembranes, 1981, 640, 721-726.	1.4	130
95	The effect of lead on hemoglobin-catalyzed lipid peroxidation. Lipids and Lipid Metabolism, 1981, 664, 453-459.	2.6	55