Ben-Zhan Zhu

List of Publications by Year
in descending order

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92 papers	3,093 citations	147801 31 h-index	168389 53 g-index
98 all docs	98 docs citations	98 times ranked	3110 citing authors

#	Article	IF	Citations
1	Potential Antiatherogenic Mechanisms of Ascorbate (Vitamin C) and Î±-Tocopherol (Vitamin E). Circulation Research, 2000, 87, 349-354.	4.5	275
2	Molecular mechanism for metal-independent production of hydroxyl radicals by hydrogen peroxide and halogenated quinones. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 17575-17578.	7.1	145
3	Metal-independent production of hydroxyl radicals by halogenated quinones and hydrogen peroxide: an ESR spin trapping study. Free Radical Biology and Medicine, 2002, 32, 465-473.	2.9	143
4	Reactive Nitrogen Species Are Also Involved in the Transformation of Micropollutants by the UV/Monochloramine Process. Environmental Science & Technology, 2019, 53, 11142-11152.	10.0	127
5	First Direct and Unequivocal Electron Spin Resonance Spin-Trapping Evidence for pH-Dependent Production of Hydroxyl Radicals from Sulfate Radicals. Environmental Science & Technology, 2020, 54, 14046-14056.	10.0	110
6	Redox-active quinones induces genome-wide DNA methylation changes by an iron-mediated and Tet-dependent mechanism. Nucleic Acids Research, 2014, 42, 1593-1605.	14.5	106
7	Low Concentrations of Bisphenol A Induce Mouse Spermatogonial Cell Proliferation by G Proteinâ€“Coupled Receptor 30 and Estrogen Receptor-Î±. Environmental Health Perspectives, 2011, 119, 1775-1780.	6.0	103
8	Potential Mechanism for Pentachlorophenol-Induced Carcinogenicity: A Novel Mechanism for Metal-Independent Production of Hydroxyl Radicals. Chemical Research in Toxicology, 2009, 22, 969-977.	3.3	96
9	Inhibition of Low-Density Lipoprotein Oxidation by Carnosine and Histidine. Journal of Agricultural and Food Chemistry, 2001, 49, 511-516.	5.2	94
10	Ergothioneine Prevents Copper-Induced Oxidative Damage to DNA and Protein by Forming a Redox-Inactive Ergothioneineâ^'Copper Complex. Chemical Research in Toxicology, 2011, 24, 30-34.	3.3	92
11	Unprecedented hydroxyl radical-dependent two-step chemiluminescence production by polyhalogenated quinoid carcinogens and H ₂ O ₂. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 16046-16051.	7.1	89
12	Evidence for Production of Hydroxyl Radicals by Pentachlorophenol Metabolites and Hydrogen Peroxide: A Metal-Independent Organic Fenton Reaction. Biochemical and Biophysical Research Communications, 2000, 270, 942-946.	2.1	86
13	Metal-independent decomposition of hydroperoxides by halogenated quinones: Detection and identification of a quinone ketoxy radical. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 11466-11471.	7.1	80
14	Low concentrations of bisphenol a suppress thyroid hormone receptor transcription through a nongenomic mechanism. Toxicology and Applied Pharmacology, 2012, 259, 133-142.	2.8	79
15	Mechanism of metal-independent decomposition of organic hydroperoxides and formation of alkoxyl radicals by halogenated quinones. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 3698-3702.	7.1	71
16	Ascorbate does not act as a pro-oxidant towards lipids and proteins in human plasma exposed to redox-active transition metal ions and hydrogen peroxide. Free Radical Biology and Medicine, 2003, 34, 1306-1314.	2.9	65
17	Dihydrolipoic acid lowers the redox activity of transition metal ions but does not remove them from the active site of enzymes. Redox Report, 2004, 9, 57-61.	4.5	54
18	New Modes of Action of Desferrioxamine. Free Radical Biology and Medicine, 1998, 24, 360-369.	2.9	53

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19	Delivering the cell-impermeable DNA â€˜light-switchingâ€™ Ru(<scp>ii</scp>) complexes preferentially into live-cell nucleus via an unprecedented ion-pairing method. Chemical Science, 2016, 7, 4016-4023.	7.4	50
20	Thiourea protects against copper-induced oxidative damage by formation of a redox-inactive thiourea-copper complex. Free Radical Biology and Medicine, 2002, 32, 1333-1338.	2.9	47
21	Detoxifying carcinogenic polyhalogenated quinones by hydroxamic acids via an unusual double Lossen rearrangement mechanism. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 20686-20690.	7.1	47
22	Potent DNA damage by polyhalogenated quinones and H2O2 via a metal-independent and Intercalation-enhanced oxidation mechanism. Scientific Reports, 2013, 3, 1269.	3.3	47
23	Bisphenol A at a low concentration boosts mouse spermatogonial cell proliferation by inducing the G protein-coupled receptor 30 expression. Toxicology and Applied Pharmacology, 2013, 267, 88-94.	2.8	45
24	Molecular Mechanism of Metal-Independent Decomposition of Organic Hydroperoxides by Halogenated Quinoid Carcinogens and the Potential Biological Implications. Chemical Research in Toxicology, 2015, 28, 831-837.	3.3	44
25	An electrochemical biosensor for the detection of tyrosine oxidation induced by Fenton reaction. Biosensors and Bioelectronics, 2011, 26, 2292-2296.	10.1	43
26	Potent methyl oxidation of 5-methyl-2â€²-deoxycytidine by halogenated quinoid carcinogens and hydrogen peroxide via a metal-independent mechanism. Free Radical Biology and Medicine, 2013, 60, 177-182.	2.9	40
27	Mechanism of synergistic DNA damage induced by the hydroquinone metabolite of brominated phenolic environmental pollutants and Cu(II): Formation of DNA-Cu complex and site-specific production of hydroxyl radicals. Free Radical Biology and Medicine, 2017, 104, 54-63.	2.9	40
28	Detection and mechanistic investigation of halogenated benzoquinone induced DNA damage by photoelectrochemical DNA sensor. Analytical and Bioanalytical Chemistry, 2010, 397, 2395-2400.	3.7	37
29	Protection by tropolones against H2O2-induced DNA damage and apoptosis in cultured Jurkat cells. Free Radical Research, 2005, 39, 125-135.	3.3	36
30	Protection by desferrioxamine and other hydroxamic acids against tetrachlorohydroquinone-induced cyto- and genotoxicity in human fibroblasts. Free Radical Biology and Medicine, 2000, 28, 693-700.	2.9	35
31	Pyrrolidine dithiocarbamate is a potent antioxidant against hypochlorous acidâ€induced protein damage. FEBS Letters, 2002, 532, 80-84.	2.8	35
32	Copper-Mediated Toxicity of 2,4,5-Trichlorophenol: Biphasic Effect of the Copper(I)-Specific Chelator Neocuproine. Archives of Biochemistry and Biophysics, 2000, 380, 267-273.	3.0	29
33	The first purification and unequivocal characterization of the radical form of the carbon-centered quinone ketoxy radical adduct. Chemical Communications, 2013, 49, 6436.	4.1	29
34	Intrinsic Chemiluminescence Generation during Advanced Oxidation of Persistent Halogenated Aromatic Carcinogens. Environmental Science & Technology, 2015, 49, 7940-7947.	10.0	29
35	Mechanism of Intrinsic Chemiluminescence Production from the Degradation of Persistent Chlorinated Phenols by the Fenton System: A Structureâ€“Activity Relationship Study and the Critical Role of Quinoid and Semiquinone Radical Intermediates. Environmental Science & Technology, 2017, 51, 2934-2943.	10.0	27
36	Diethyldithiocarbamate-copper nanocomplex reinforces disulfiram chemotherapeutic efficacy through light-triggered nuclear targeting. Theranostics, 2020, 10, 6384-6398.	10.0	27

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37	Mechanism of the synergistic cytotoxicity between pentachlorophenol and copper-1,10-phenanthroline complex: the formation of a lipophilic ternary complex. Chemico-Biological Interactions, 2000, 129, 249-261.	4.0	25
38	Lethal synergism between organic and inorganic wood preservatives via formation of an unusual lipophilic ternary complex. Toxicology and Applied Pharmacology, 2013, 266, 335-344.	2.8	25
39	A Combined Experimental and Computational Investigation on the Unusual Molecular Mechanism of the Lossen Rearrangement Reaction Activated by Carcinogenic Halogenated Quinones. Journal of Organic Chemistry, 2015, 80, 180-189.	3.2	24
40	Molecular mechanism of metal-independent decomposition of lipid hydroperoxide 13-HPODE by halogenated quinoid carcinogens. Free Radical Biology and Medicine, 2013, 63, 459-466.	2.9	20
41	Ofloxacin induces apoptosis via Î²1 integrin-EGFR-Rac1-Nox2 pathway in microencapsulated chondrocytes. Toxicology and Applied Pharmacology, 2013, 267, 74-87.	2.8	20
42	Synergistic cytotoxicity between pentachlorophenol and copper in a bacterial model. Chemosphere, 2001, 45, 463-470.	8.2	18
43	Targeted live-cell nuclear delivery of the DNA â€˜light-switchingâ€™ Ru(II) complex via ion-pairing with chlorophenolate counter-anions: the critical role of binding stability and lipophilicity of the ion-pairing complexes. Nucleic Acids Research, 2019, 47, 10520-10528.	14.5	18
44	Key factors in the ligand effects on the photo redox cycling of aqueous iron species. Geochimica Et Cosmochimica Acta, 2020, 281, 1-11.	3.9	18
45	SYNERGISM BETWEEN THE TOXICITY OF CHLOROPHENOLS AND IRON COMPLEXES. Environmental Toxicology and Chemistry, 2007, 26, 218.	4.3	16
46	Different modes of synergistic toxicities between metam/copper (II) and metam/zinc (II) in HepG2 cells: apoptosis vs. necrosis. Environmental Toxicology, 2016, 31, 1964-1973.	4.0	16
47	Why Does 2,3,5,6-Tetrachlorophenol Generate the Strongest Intrinsic Chemiluminescence among All Nineteen Chlorophenolic Persistent Organic Pollutants during Environmentally-friendly Advanced Oxidation Process?. Scientific Reports, 2016, 6, 33159.	3.3	15
48	The Pentachlorophenol Metabolite Tetrachlorohydroquinone Induces Massive ROS and Prolonged p-ERK Expression in Splenocytes, Leading to Inhibition of Apoptosis and Necrotic Cell Death. PLoS ONE, 2014, 9, e89483.	2.5	15
49	An unexpected antioxidant and redox activity for the classic copper-chelating drug penicillamine. Free Radical Biology and Medicine, 2020, 147, 150-158.	2.9	14
50	Bcl-2 overexpression inhibits tetrachlorohydroquinone-induced apoptosis in NIH3T3 cells: A possible mechanism for tumor promotion. Molecular Carcinogenesis, 2004, 40, 24-33.	2.7	13
51	Sulfur-centered hemi-bond radicals as active intermediates in S-DNA phosphorothioate oxidation. Nucleic Acids Research, 2019, 47, 11514-11526.	14.5	12
52	An unusual double radical homolysis mechanism for the unexpected activation of the aldoxime nerve-agent antidotes by polyhalogenated quinoid carcinogens under normal physiological conditions. Free Radical Biology and Medicine, 2019, 130, 1-7.	2.9	12
53	Chiral Os(II) Polypyridyl Complexes as Enantioselective Nuclear DNA Imaging Agents Especially Suitable for Correlative High-Resolution Light and Electron Microscopy Studies. ACS Applied Materials & Interfaces, 2020, 12, 3465-3473.	8.0	12
54	Potent Oxidation of DNA by Haloquinoid Disinfection Byproducts to the More Mutagenic Imidazolone dIz via an Unprecedented Haloquinone-Enoxy Radical-Mediated Mechanism. Environmental Science & Technology, 2020, 54, 6244-6253.	10.0	12

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55	On the role of iron and copper ions in hydrogen peroxide-induced cellular DNA damage. Free Radical Biology and Medicine, 2002, 32, 198-199.	2.9	11
56	Metal-Independent Pathways of Chlorinated Phenol/Quinone Toxicity. Advances in Molecular Toxicology, 2011, 5, 1-43.	0.4	11
57	An Exceptionally Facile Two-Step Structural Isomerization and Detoxication via a Water-Assisted Double Lossen Rearrangement. Scientific Reports, 2016, 6, 39207.	3.3	11
58	First unequivocal identification of the critical acyl radicals from the anti-tuberculosis drug isoniazid and its hydrazide analogs by complementary applications of ESR spin-trapping and HPLC/MS methods. Free Radical Biology and Medicine, 2020, 154, 1-8.	2.9	11
59	A Novel Mechanism for Metal-independent Hydroxyl Radical Production by Hydrogen Peroxide and Halogenated Quinones. Mini-Reviews in Organic Chemistry, 2011, 8, 434-437.	1.3	10
60	Molecular mechanism for the activation of the anti-tuberculosis drug isoniazid by Mn(III): First detection and unequivocal identification of the critical N-centered isoniazidyl radical and its exact location. Free Radical Biology and Medicine, 2019, 143, 232-239.	2.9	10
61	What Are the Major Physicochemical Factors in Determining the Preferential Nuclear Uptake of the DNA â€œLight-Switchingâ€•Ru(II)-Polypyridyl Complex in Live Cells via Ion-Pairing with Chlorophenolate Counter-Anions?. Journal of Physical Chemistry Letters, 2019, 10, 4123-4128.	4.6	10
62	Unexpected activation of N-alkyl hydroxamic acids to produce reactive N-centered free radicals and DNA damage by carcinogenic chlorinated quinones under normal physiological conditions. Free Radical Biology and Medicine, 2020, 146, 70-78.	2.9	10
63	Mechanism of synergistic DNA damage induced by caffeic acid phenethyl ester (CAPE) and Cu(II): Competitive binding between CAPE and DNA with Cu(II)/Cu(I). Free Radical Biology and Medicine, 2020, 159, 107-118.	2.9	10
64	Unprecedented strong intrinsic chemiluminescence generation from degradation of halogenated hydroxy-quinoid pollutants by Co(II)-mediated advanced oxidation processes: The critical role of site-specific production of hydroxyl radicals. Chemical Engineering Journal, 2020, 394, 125023.	12.7	10
65	Caffeic Acid Phenyl Ester (CAPE) Protects against Iron-Mediated Cellular DNA Damage through Its Strong Iron-Binding Ability and High Lipophilicity. Antioxidants, 2021, 10, 798.	5.1	10
66	Unusual Double Beckmann Fragmentation Reaction under Physiological Conditions. Journal of Organic Chemistry, 2017, 82, 13084-13092.	3.2	9
67	Ultrafast excited state dynamics and light-switching of [Ru(phen)2(dppz)]2+ in G-quadruplex DNA. Communications Chemistry, 2021, 4, .	4.5	9
68	The cell-impermeable Ru(II) polypyridyl complex as a potent intracellular photosensitizer under visible light irradiation via ion-pairing with suitable lipophilic counter-anions. Free Radical Biology and Medicine, 2021, 171, 69-79.	2.9	9
69	The Lethal Interaction and Formation of a Lipophilic Ternary Complex between 2,4,5-Trichlorophenol and the Cu(II)â^'Bis(1,10-phenanthroline) Complex. Chemical Research in Toxicology, 2001, 14, 222-227.	3.3	8
70	The Unexpected and Exceptionally Facile Chemical Modification of the Phenolic Hydroxyl Group of Tyrosine by Polyhalogenated Quinones under Physiological Conditions. Chemical Research in Toxicology, 2016, 29, 1699-1705.	3.3	8
71	Enantioselective and Differential Fluorescence Lifetime Imaging of Nucleus and Nucleolus by the Two Enantiomers of Chiral Os(II) Polypyridyl Complex. Journal of Physical Chemistry Letters, 2019, 10, 5909-5916.	4.6	8
72	An unexpected new pathway for nitroxide radical production via more reactve nitrogen-centered amidyl radical intermediate during detoxification of the carcinogenic halogenated quinones by N-alkyl hydroxamic acids. Free Radical Biology and Medicine, 2020, 146, 150-159.	2.9	8

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73	Characterization of TCHQ-induced genotoxicity and mutagenesis using the pSP189 shuttle vector in mammalian cells. Mutation Research - Fundamental and Molecular Mechanisms of Mutagenesis, 2012, 729, 16-23.	1.0	7
74	Potent oxidation of DNA by Ru(<scp>ii</scp>) tri(polypyridyl) complexes under visible light irradiation via a singlet oxygen-mediated mechanism. Inorganic Chemistry Frontiers, 2021, 8, 3421-3432.	6.0	7
75	Mechanism of unprecedented hydroxyl radical production and site-specific oxidative DNA damage by photoactivation of the classic arylhydroxamic acid carcinogens. Carcinogenesis, 2019, , .	2.8	6
76	Detoxifying Polyhalogenated Catechols through a Copperâ€Chelating Agent by Forming Stable and Redoxâ€Inactive Hydrogenâ€Bonded Complexes with an Unusual Perpendicular Structure. Chemistry - A European Journal, 2014, 20, 13028-13033.	3.3	5
77	The Critical Role of X Chromosome-Linked Inhibitor of Apoptosis (XIAP) in Differential Synergism Induced by Pentachlorophenol and Copper-1,10-Phenanthroline Complex in Normal and Cancer Liver Cells. Toxicological Sciences, 2019, 168, 339-348.	3.1	5
78	Unexpected reversible and controllable nuclear uptake and efflux of the DNA â€œlight-switchingâ€• Ru(ii)-polypyridyl complex in living cellsviaion-pairing with chlorophenolate counter-anions. Journal of Materials Chemistry B, 2020, 8, 10327-10336.	5.8	5
79	Mechanistic Study on Oxidative DNA Damage and Modifications by Haloquinoid Carcinogenic Intermediates and Disinfection Byproducts. Chemical Research in Toxicology, 2021, 34, 1701-1712.	3.3	5
80	Unusual Two-Step Claisen-type Rearrangement Reaction under Physiological Conditions. Journal of Organic Chemistry, 2020, 85, 14945-14953.	3.2	4
81	The critical role of superoxide anion radicals on delaying tetrachlorohydroquinone autooxidation by penicillamine. Free Radical Biology and Medicine, 2021, 163, 369-378.	2.9	4
82	Detecting and Quantifying Polyhaloaromatic Environmental Pollutants by Chemiluminescence-Based Analytical Method. Molecules, 2021, 26, 3365.	3.8	4
83	Molecular mechanisms and potential applications of the intrinsic chemiluminescence produced from the degradation of haloaromatic pollutants during environmentally-friendly advanced oxidation processes. Environmental Science: Water Research and Technology, 2020, 6, 2259-2274.	2.4	3
84	Mechanistic Investigation of H₂O₂â€dependent Chemiluminescence from Tetrabromoâ€1,4â€Benzoquinone. ChemPhysChem, 2022, 23, e202100885.	2.1	3
85	Free-Radical-Mediated Photoinduced Electron Transfer between 6-Thioguanine and Tryptophan Leading to DNAâ€“Protein-Like Cross-Link. Journal of Physical Chemistry B, 2022, 126, 14-22.	2.6	2
86	Chemical Toxicology in China: A Special Issue. Chemical Research in Toxicology, 2015, 28, 279-280.	3.3	0
87	Site-specific Production of Hydroxyl Radicals and Synergistic DNA Damage Induced by the Non-enzymatic Activation of the Anti-tuberculosis Drug Isoniazid by Cu(II). Free Radical Biology and Medicine, 2017, 112, 68.	2.9	0
88	Mechanism of the synergistic DNA damage and unusual hydroxyl radical production by the non-enzymatic activation of the anti-tuberculosis drug isoniazid by Mn(III). Free Radical Biology and Medicine, 2018, 120, S112-S113.	2.9	0
89	Mechanistic Study on Chemiluminescence of Chloranilic Acid by Co(II)-Mediated Fenton-like System. Journal of Organic Chemistry, 2021, 86, 4472-4482.	3.2	0
90	Structureâ€“Activity Relationship Investigation on Reaction Mechanism between Chlorinated Quinoid Carcinogens and Clinically-Used Aldoxime Nerve-Agent Antidote under Physiological Condition. Chemical Research in Toxicology, 2021, 34, 1091-1100.	3.3	0

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91	The critical role of unique azido-substituted chloro-O-semiquinone radical intermediates in the synergistic toxicity between sodium azide and chlorocatecholic carcinogens. Free Radical Biology and Medicine, 2021, 177, 260-269.	2.9	0
92	A new detoxification mechanism for aldoxime therapeutic antidotes for chemical warfare nerve-agents. Scientia Sinica Chimica, 2018, 48, 1247-1259.	0.4	0