Ikuo Nakanishi

List of Publications by Year
in descending order

107 papers	2,398 citations	218677 26 h-index	243625 44 g-index
120 all docs	120 docs citations	120 times ranked	2597 citing authors

#	Article	IF	Citations
1	Nitroxyl Radical as a Theranostic Contrast Agent in Magnetic Resonance Redox Imaging. Antioxidants and Redox Signaling, 2022, 36, 95-121.	5.4	11
2	Electrochemical redox behavior of 2,2-diphenyl-1-picrylhydrazyl radical solubilized by Î²-cyclodextrin in water. Electrochemistry Communications, 2022, 134, 107190.	4.7	0
3	Estimation of the Local Concentration of the Markedly Dense Hydroxyl Radical Generation Induced by X-rays in Water. Molecules, 2022, 27, 592.	3.8	5
4	Simplifying quantitative measurement of free radical species using an X-band EPR spectrometer. Journal of Clinical Biochemistry and Nutrition, 2022, 70, 213-221.	1.4	0
5	Effect of Magnesium Ion on the Radical-Scavenging Rate of Pterostilbene in an Aprotic Medium: Mechanistic Insight into the Antioxidative Reaction of Pterostilbene. Antioxidants, 2022, 11, 340.	5.1	4
6	Inhomogeneous generation of hydroxyl radicals in hydrogen peroxide solution induced by ultraviolet irradiation and in a Fenton reaction system. Free Radical Research, 2021, 55, 481-489.	3.3	6
7	Effects of reaction environments on radical-scavenging mechanisms of ascorbic acid. Journal of Clinical Biochemistry and Nutrition, 2021, 68, 116-122.	1.4	6
8	Preparation of an experimental mouse model lacking selenium-dependent glutathione peroxidase activities by feeding a selenium-deficient diet. Journal of Clinical Biochemistry and Nutrition, 2021, 68, 123-130.	1.4	2
9	Heavy-ion beam-induced reactive oxygen species and redox reactions. Free Radical Research, 2021, 55, 450-460.	3.3	8
10	Lipid-soluble polyphenols from sweet potato exert antitumor activity and enhance chemosensitivity in breast cancer. Journal of Clinical Biochemistry and Nutrition, 2021, 68, 193-200.	1.4	5
11	Protective Effects of Amino Acids on Plasmid DNA Damage Induced by Therapeutic Carbon Ions. Radiation Research, 2021, 196, 197-203.	1.5	1
12	Effects of LET on oxygen-dependent and-independent generation of hydrogen peroxide in water irradiated by carbon-ion beams. Free Radical Research, 2021, 55, 714-719.	3.3	4
13	Effects of loading a magnetic field longitudinal to the linear particle-beam track on yields of reactive oxygen species in water. Free Radical Research, 2021, , 1-9.	3.3	2
14	Tunneling in the Hydrogen-Transfer Reaction from a Vitamin E Analog to an Inclusion Complex of 2,2-Diphenyl-1-picrylhydrazyl Radical with Î²-Cyclodextrin in an Aqueous Buffer Solution at Ambient Temperature. Antioxidants, 2021, 10, 1966.	5.1	2
15	Relationship between the radical-scavenging activity of selected flavonols and thermodynamic parameters calculated by density functional theory. Free Radical Research, 2020, 54, 535-539.	3.3	5
16	A large kinetic isotope effect in the reaction of ascorbic acid with 2-phenyl-4,4,5,5-tetramethylimidazoline-1-oxyl 3-oxide (PTIOË™) in aqueous buffer solutions. Chemical Communications, 2020, 56, 11505-11507.	4.1	13
17	Generation of localized highly concentrated hydrogen peroxide clusters in water by X-rays. Free Radical Research, 2020, 54, 360-372.	3.3	5
18	Potential Mechanisms for Protective Effect of D-Methionine on Plasmid DNA Damage Induced by Therapeutic Carbon Ions. Radiation Research, 2020, 193, 513.	1.5	4

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19	Effects of low-dose X-ray irradiation on melanin-derived radicals in mouse hair and skin. Journal of Clinical Biochemistry and Nutrition, 2020, 67, 174-178.	1.4	6
20	A quantitative analysis of carbon-ion beam-induced reactive oxygen species and redox reactions. Journal of Clinical Biochemistry and Nutrition, 2019, 65, 1-7.	1.4	20
21	Radiation-induced redox alteration in the mouse brain. Free Radical Biology and Medicine, 2019, 143, 412-421.	2.9	14
22	Synthesis and radical-scavenging activity of C-methylated fisetin analogues. Bioorganic and Medicinal Chemistry, 2019, 27, 1720-1727.	3.0	7
23	Reduction of molecular oxygen by redox active thiols: comparison of glutathione, <i>N</i>-acetylcysteine, cysteine, and homocysteine. Journal of Clinical Biochemistry and Nutrition, 2019, 65, 185-192.	1.4	8
24	Reactivity of redox sensitive paramagnetic nitroxyl contrast agents with reactive oxygen species. Journal of Clinical Biochemistry and Nutrition, 2019, 64, 13-19.	1.4	3
25	A New Approach for Quantifying Radio-Biological Effects Using the Time Course of Mouse Leg Contracture. Biological and Pharmaceutical Bulletin, 2018, 41, 368-373.	1.4	2
26	Analysis of redox states of protic and aprotic solutions irradiated by low linear energy transfer carbon-ion beams using a 2,2-diphenyl-1-picrylhydrazyl radical. Organic and Biomolecular Chemistry, 2018, 16, 1272-1276.	2.8	7
27	Localized hydroxyl radical generation at mmol/L and mol/L levels in water by photon irradiation. Journal of Clinical Biochemistry and Nutrition, 2018, 63, 97-101.	1.4	10
28	Efficient protective activity of a planar catechin analogue against radiation-induced apoptosis in rat thymocytes. RSC Advances, 2018, 8, 10158-10162.	3.6	9
29	Synthesis and antioxidant activity of a procyanidin B3 analogue. Bioorganic and Medicinal Chemistry Letters, 2017, 27, 1041-1044.	2.2	17
30	Synthesis of methylated quercetin analogues for enhancement of radical-scavenging activity. RSC Advances, 2017, 7, 17968-17979.	3.6	15
31	Enhanced radical scavenging activity of a procyanidin B3 analogue comprised of a dimer of planar catechin. Bioorganic and Medicinal Chemistry Letters, 2017, 27, 5010-5013.	2.2	6
32	Effect of amifostine, a radiation-protecting drug, on oxygen concentration in tissue measured by EPR oximetry and imaging. Journal of Clinical Biochemistry and Nutrition, 2017, 60, 151-155.	1.4	14
33	Amplification of glutathione-mediated oxidative stress by catalase in an aqueous solution at hyperthermal temperatures. Journal of Clinical Biochemistry and Nutrition, 2017, 60, 93-99.	1.4	5
34	Feasibility of magnetic resonance redox imaging at low magnetic field: comparison at 1 T and 7 T. American Journal of Translational Research (discontinued), 2017, 9, 4481-4491.	0.0	1
35	Non-invasive measurement of melanin-derived radicals in living mouse tail using X-band EPR. Journal of Clinical Biochemistry and Nutrition, 2016, 59, 160-164.	1.4	5
36	Role of Mitochondrial Reactive Oxygen Species in the Activation of Cellular Signals, Molecules, and Function. Handbook of Experimental Pharmacology, 2016, 240, 439-456.	1.8	46

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37	Chasing great paths of Helmut Sies â€œOxidative Stressâ€ Archives of Biochemistry and Biophysics, 2016, 595, 54-60.	3.0	11
38	A facile and rapid access to resveratrol derivatives and their radioprotective activity. Bioorganic and Medicinal Chemistry Letters, 2016, 26, 3886-3891.	2.2	11
39	Aluminium ion-promoted radical-scavenging reaction of methylated hydroquinone derivatives. Organic and Biomolecular Chemistry, 2016, 14, 7956-7961.	2.8	8
40	Reactivity of 2,2-Diphenyl-1-picrylhydrazyl Solubilized in Water by<i>Î²</i>-Cyclodextrin and Its Methylated Derivative. ChemistrySelect, 2016, 1, 3367-3370.	1.5	7
41	Brain contrasting ability of bloodâ€brainâ€barrierâ€“permeable nitroxyl contrast agents for magnetic resonance redox imaging. Magnetic Resonance in Medicine, 2016, 76, 935-945.	3.0	8
42	Biological measures to minimize the risk of radiotherapy-associated second cancer: A research perspective. International Journal of Radiation Biology, 2016, 92, 289-301.	1.8	13
43	Density of Hydroxyl Radicals Generated in an Aqueous Solution by Irradiating Carbon-Ion Beam. Chemical and Pharmaceutical Bulletin, 2015, 63, 195-199.	1.3	28
44	Analysis of the antioxidative function of the radioprotective Japanese traditional (Kampo) medicine, hangeshashinto, in an aqueous phase. Journal of Radiation Research, 2015, 56, 669-677.	1.6	35
45	A mitochondrial superoxide theory for oxidative stress diseases and aging. Journal of Clinical Biochemistry and Nutrition, 2015, 56, 1-7.	1.4	253
46	Solubilisation of a 2,2-diphenyl-1-picrylhydrazyl radical in water by Î²-cyclodextrin to evaluate the radical-scavenging activity of antioxidants in aqueous media. Chemical Communications, 2015, 51, 8311-8314.	4.1	16
47	Effect of alkyl group on transnitrosation of N-nitrosothiazolidine thiocarboxamides. Bioorganic and Medicinal Chemistry, 2015, 23, 6733-6739.	3.0	3
48	Scavenging of reactive oxygen species induced by hyperthermia in biological fluid. Journal of Clinical Biochemistry and Nutrition, 2014, 54, 75-80.	1.4	4
49	Synthesis and radical-scavenging activity of a dimethyl catechin analogue. Bioorganic and Medicinal Chemistry Letters, 2014, 24, 2582-2584.	2.2	9
50	Disproportionation of a 2,2-diphenyl-1-picrylhydrazyl radical as a model of reactive oxygen species catalysed by Lewis and/or BrÃ¸nsted acids. Chemical Communications, 2014, 50, 814-816.	4.1	13
51	Evaluation of the sonosensitizing activities of 5-aminolevulinic acid and Sn(IV) chlorin e6 in tumor-bearing chick embryos. Anticancer Research, 2014, 34, 4583-7.	1.1	8
52	Effects of ionic radius of redox-inactive bio-related metal ions on the radical-scavenging activity of flavonoids evaluated using photometric titration. Chemical Communications, 2013, 49, 9842.	4.1	8
53	Comparison of in vivo and in vitro antioxidative parameters for eleven food factors. RSC Advances, 2013, 3, 4535.	3.6	5
54	High-Throughput Screening of Radioprotectors Using Rat Thymocytes. Analytical Chemistry, 2013, 85, 7650-7653.	6.5	9

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55	Method for assessing X-ray-induced hydroxyl radical-scavenging activity of biological compounds/materials. Journal of Clinical Biochemistry and Nutrition, 2013, 52, 95-100.	1.4	17
56	Kinetics and Mechanism for the Scavenging Reaction of the 2,2-Diphenyl-1-picrylhydrazyl Radical by Synthetic Artepillin C Analogues. Bulletin of the Chemical Society of Japan, 2012, 85, 877-883.	3.2	6
57	Key Role of Chemical Hardness to Compare 2,2-Diphenyl-1-picrylhydrazyl Radical Scavenging Power of Flavone and Flavonol O-Glycoside and C-Glycoside Derivatives. Chemical and Pharmaceutical Bulletin, 2012, 60, 37-44.	1.3	13
58	The high stability of intermediate radicals enhances the radical-scavenging activity of aminochromanols. RSC Advances, 2012, 2, 12714.	3.6	5
59	Chlorine atom substitution influences radical scavenging activity of 6-chromanol. Bioorganic and Medicinal Chemistry, 2012, 20, 4049-4055.	3.0	25
60	Roles of mitochondria-generated reactive oxygen species on X-ray-induced apoptosis in a human hepatocellular carcinoma cell line, HLE. Free Radical Research, 2012, 46, 1029-1043.	3.3	43
61	Temperature-dependent free radical reaction in water. Journal of Clinical Biochemistry and Nutrition, 2011, 50, 40-46.	1.4	13
62	Synthesis and Enhanced Radical Scavenging Activity of a Conformationally Constrained Epigallocatechin Analogue. Chemistry Letters, 2011, 40, 1417-1419.	1.3	7
63	Potent 2,2-Diphenyl-1-picrylhydrazyl Radical-Scavenging Activity of Novel Antioxidants, Double-Stranded Tyrosine Residues Conjugating Pyrocatechol. Chemical and Pharmaceutical Bulletin, 2010, 58, 1442-1446.	1.3	10
64	Synthesis of Conformationally Constrained Epigallocatechin Analogue as a Promising Antioxidant. Free Radical Biology and Medicine, 2010, 49, S185.	2.9	0
65	Distribution of Hydrogen Peroxide-dependent Reaction in a Gelatin Sample Irradiated by Carbon Ion Beam. Magnetic Resonance in Medical Sciences, 2010, 9, 131-140.	2.0	9
66	Novel ninhydrin adduct of catechin with potent antioxidative activity. Tetrahedron Letters, 2009, 50, 6989-6992.	1.4	10
67	Intramolecular base-accelerated radical-scavenging reaction of a planar catechin derivative bearing a lysine moiety. Chemical Communications, 2009, , 6180.	4.1	15
68	Intracellular and Extracellular Redox Environments Surrounding Redox-Sensitive Contrast Agents under Oxidative Atmosphere. Biological and Pharmaceutical Bulletin, 2009, 32, 535-541.	1.4	9
69	Detection of Free Radical Reactions in an Aqueous Sample Induced by Low Linear-Energy-Transfer Irradiation. Biological and Pharmaceutical Bulletin, 2009, 32, 542-547.	1.4	14
70	Enhanced radical-scavenging activity of naturally-oriented artepillin C derivatives. Chemical Communications, 2008, , 626-628.	4.1	10
71	Effect of Methyl Substitution on the Antioxidative Property and Genotoxicity of Resveratrol. Chemical Research in Toxicology, 2008, 21, 282-287.	3.3	43
72	A Long-lived o-Semiquinone Radical Anion is Formed from N-Â-alanyl-5-S-glutathionyl-3,4-dihydroxyphenylalanine (5-S-GAD), an Insect-derived Antibacterial Substance. Journal of Biochemistry, 2007, 142, 41-48.	1.7	7

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73	Involvement of Electron Transfer in the Radical-scavenging Reaction of Resveratrol. Chemistry Letters, 2007, 36, 1276-1277.	1.3	31
74	Scandium Ion-accelerated Scavenging Reaction of Cumylperoxyl Radical by a Cyclic Nitroxyl Radical via Electron Transfer. Chemistry Letters, 2007, 36, 378-379.	1.3	9
75	Effect of Solvent Polarity on the One-electron Oxidation of Cyclic Nitroxyl Radicals. Chemistry Letters, 2007, 36, 914-915.	1.3	8
76	Nitroxyl radicals: electrochemical redox behaviour and structureâ€"activity relationships. Organic and Biomolecular Chemistry, 2007, 5, 3951.	2.8	41
77	Planar Catechin Analogues with Alkyl Side Chains:Â A Potent Antioxidant and an Î±-Glucosidase Inhibitor. Journal of the American Chemical Society, 2006, 128, 6524-6525.	13.7	73
78	Reaction ofpara-hydroxybenzoic acid esters with singlet oxygen in the presence of glutathione produces glutathione conjugates of hydroquinone, potent inducers of oxidative stress. Free Radical Research, 2006, 40, 233-240.	3.3	46
79	Structural basis for DNA-cleaving activity of resveratrol in the presence of Cu(II). Bioorganic and Medicinal Chemistry, 2006, 14, 1437-1443.	3.0	76
80	Drastic effect of several caffeic acid derivatives on the induction of heme oxygenaseâ€1 expression revealed by quantitative realâ€time RTâ€PCR. BioFactors, 2006, 28, 151-158.	5.4	18
81	Comparison of stable nitroxide, 3-substituted 2,2,5,5-tetramethylpyrrolidine-N-oxyls, with respect to protection from radiation, prevention of DNA damage, and distribution in mice. Free Radical Biology and Medicine, 2006, 40, 1170-1178.	2.9	15
82	Hydroxyl radical generation via photoreduction of a simple pyridine N-oxide by an NADH analogue. Organic and Biomolecular Chemistry, 2005, 3, 3263.	2.8	10
83	Electron-transfer mechanism in radical-scavenging reactions by a vitamin E model in a protic medium. Organic and Biomolecular Chemistry, 2005, 3, 626.	2.8	104
84	A Planar Catechin Analogue Having a More Negative Oxidation Potential than (+)-Catechin as an Electron Transfer Antioxidant against a Peroxyl Radical. Chemical Research in Toxicology, 2004, 17, 26-31.	3.3	32
85	EPR Study on Stable Magnesium Complexes of the Phenoxyl Radicals Derived from a Vitamin E Model and Its Deuterated Derivatives. Bulletin of the Chemical Society of Japan, 2004, 77, 1741-1744.	3.2	6
86	A Planar Catechin Analogue as a Promising Antioxidant with Reduced Prooxidant Activity. Chemical Research in Toxicology, 2003, 16, 81-86.	3.3	25
87	Kinetic study of the electron-transfer oxidation of the phenolate anion of a vitamin E model by molecular oxygen generating superoxide anion in an aprotic mediumElectronic supplementary information (ESI) available: the cyclic voltammogram of 1? and the experimental EPR spectrum of 1? with the computer simulation spectrum. See http://www.rsc.org/suppdata/ob/b3/b306758k/. Organic and Biomolecular Chemistry, 2003, 1, 4085.	2.8	23
88	Efficient radical scavenging ability of artepillin C, a major component of Brazilian propolis, and the mechanism. Organic and Biomolecular Chemistry, 2003, 1, 1452-1454.	2.8	52
89	Effects of Metal Ions Distinguishing between One-Step Hydrogen- and Electron-Transfer Mechanisms for the Radical-Scavenging Reaction of (+)-Catechin. Journal of Physical Chemistry A, 2002, 106, 11123-11126.	2.5	67
90	DNA Cleavage via Superoxide Anion Formed in Photoinduced Electron Transfer from NADH to Î³-Cyclodextrin-Bicapped C60 in an Oxygen-Saturated Aqueous Solution. Journal of Physical Chemistry B, 2002, 106, 2372-2380.	2.6	82

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91	Enhanced Radical-Scavenging Activity of a Planar Catechin Analogue. Journal of the American Chemical Society, 2002, 124, 5952-5953.	13.7	84
92	Direct detection of superoxide anion generated in C60-photosensitized oxidation of NADH and an analogue by molecular oxygen. Perkin Transactions II RSC, 2002, , 1829-1833.	1.1	17
93	Effects of magnesium ion on kinetic stability and spin distribution of phenoxyl radical derived from a vitamin E analogue: mechanistic insight into antioxidative hydrogen-transfer reaction of vitamin EElectronic supplementary information available: calculated spin density distributions and dependence of kHT on [Mg2+] for hydrogen transfer. See http://www.rsc.org/suppdata/p2/b2/b205380b/. Perkin Transactions II RSC, 2002, , 1520-1524.	1.1	35
94	Superoxide Anion Generation via Electron-Transfer Oxidation of Catechin Dianion by Molecular Oxygen in an Aprotic Medium. Chemistry Letters, 2001, 30, 1152-1153.	1.3	14
95	Hydroxylation of Nitrated Naphthalenes with KO2/Crown Ether.. Chemical and Pharmaceutical Bulletin, 2000, 48, 1532-1535.	1.3	4
96	Base Control of Electron-Transfer Reactions of Manganese(III) Porphyrins. European Journal of Inorganic Chemistry, 2000, 2000, 1557-1562.	2.0	8
97	Electron-Transfer Properties of Active Aldehydes of Thiamin Coenzyme Models, and Mechanism of Formation of the Reactive Intermediates. Chemistry - A European Journal, 1999, 5, 2810-2818.	3.3	59
98	Decreased Electron Transfer Rates of Manganese Porphyrins with Conformational Distortion of the Macrocycle. Angewandte Chemie - International Edition, 1999, 38, 964-966.	13.8	25
99	Electron-Transfer Kinetics for Generation of Organoiron(IV) Porphyrins and the Iron(IV) Porphyrin Ï€ Radical Cations. Journal of the American Chemical Society, 1999, 121, 785-790.	13.7	63
100	Multielectron Oxidation of Anthracenes with a One-Electron Oxidant via Water-Accelerated Electron-Transfer Disproportionation of the Radical Cations as the Rate-Determining Step. Journal of Physical Chemistry A, 1999, 103, 11212-11220.	2.5	40
101	Synthesis and Electrochemical Studies of a Series of Fluorinated Dodecaphenylporphyrins. Inorganic Chemistry, 1999, 38, 2188-2198.	4.0	59
102	Migration Reactivities of Ïƒ-Bonded Ligands of Organoiron and Organocobalt Porphyrins Depending on Different High Oxidation States. Inorganic Chemistry, 1999, 38, 5000-5006.	4.0	11
103	Electron-Transfer Properties of C60 and tert-Butyl-C60 Radical. Journal of the American Chemical Society, 1999, 121, 3468-3474.	13.7	78
104	Direct Observation of Radical Intermediates While Investigating the Redox Behavior of Thiamin Coenzyme Models. Angewandte Chemie - International Edition, 1998, 37, 992-994.	13.8	48
105	Formation of Radical Anions in the Reaction ofp-Benzoquinone and C60with Alkoxide Ions. Journal of the American Chemical Society, 1998, 120, 6673-6680.	13.7	53
106	Redox Behavior of Active Aldehydes Derived from Thiamin Coenzyme Analogs. Chemistry Letters, 1997, 26, 707-708.	1.3	21
107	Electron transfer properties of active aldehydes derived from thiamin coenzyme analogues. Chemical Communications, 1997, , 1927.	4.1	45