

# Kazunori Anzai

## List of Publications by Year in descending order

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93  
papers

2,892  
citations

136950

32  
h-index

189892

50  
g-index

96  
all docs

96  
docs citations

96  
times ranked

2989  
citing authors

#	ARTICLE	IF	CITATIONS
1	AFMK, a melatonin metabolite, attenuates X-ray-induced oxidative damage to DNA, proteins and lipids in mice. <i>Journal of Pineal Research</i> , 2007, 42, 386-393.	7.4	206
2	Speciation of arsenic in biological samples. <i>Toxicology and Applied Pharmacology</i> , 2004, 198, 307-318.	2.8	156
3	Membrane Permeabilization Mechanisms of a Cyclic Antimicrobial Peptide, Tachyplesin I, and Its Linear Analog. <i>Biochemistry</i> , 1997, 36, 9799-9806.	2.5	130
4	Dimethylthioarsenicals as Arsenic Metabolites and Their Chemical Preparations. <i>Chemical Research in Toxicology</i> , 2004, 17, 914-921.	3.3	101
5	Memory impairment, oxidative damage and apoptosis induced by space radiation: Ameliorative potential of $\pm$ -lipoic acid. <i>Behavioural Brain Research</i> , 2008, 187, 387-395.	2.2	98
6	Space radiation-induced inhibition of neurogenesis in the hippocampal dentate gyrus and memory impairment in mice: ameliorative potential of the melatonin metabolite, AFMK. <i>Journal of Pineal Research</i> , 2008, 45, 430-438.	7.4	92
7	Hydroxyl and superoxide anion radical scavenging activities of natural source antioxidants using the computerized JES-FR30 ESR spectrometer system. <i>IUBMB Life</i> , 1997, 42, 35-44.	3.4	85
8	Cranial irradiation-induced inhibition of neurogenesis in hippocampal dentate gyrus of adult mice: attenuation by melatonin pretreatment. <i>Journal of Pineal Research</i> , 2009, 46, 71-78.	7.4	82
9	Radiation-induced cognitive dysfunction and cerebellar oxidative stress in mice: Protective effect of $\pm$ -lipoic acid. <i>Behavioural Brain Research</i> , 2007, 177, 7-14.	2.2	80
10	Effects of Hydroxyl Radical and Sulfhydryl Reagents on the Open Probability of the Purified Cardiac Ryanodine Receptor Channel Incorporated into Planar Lipid Bilayers. <i>Biochemical and Biophysical Research Communications</i> , 1998, 249, 938-942.	2.1	74
11	Kinetic study on ESR signal decay of nitroxyl radicals, potent redox probes for in vivo ESR spectroscopy, caused by reactive oxygen species. <i>Biochimica Et Biophysica Acta - General Subjects</i> , 2002, 1573, 156-164.	2.4	74
12	ESR measurement of rapid penetration of DMPO and DEPMPO spin traps through lipid bilayer membranes. <i>Archives of Biochemistry and Biophysics</i> , 2003, 415, 251-256.	3.0	65
13	Nitroxyl Radicals for Labeling of Conventional Therapeutics and Noninvasive Magnetic Resonance Imaging of Their Permeability for Blood-Brain Barrier: Relationship between Structure, Blood Clearance, and MRI Signal Dynamic in the Brain. <i>Molecular Pharmaceutics</i> , 2009, 6, 504-512.	4.6	62
14	In vivo monitoring of hydroxyl radical generation caused by x-ray irradiation of rats using the spin trapping/epr technique. <i>Free Radical Biology and Medicine</i> , 2004, 36, 1134-1143.	2.9	60
15	Assessment of Oxidative Stress in the Spontaneously Hypertensive Rat Brain Using Electron Spin Resonance (ESR) Imaging and in Vivo L-Band ESR. <i>Hypertension Research</i> , 2004, 27, 485-492.	2.7	59
16	Oxidative Modification of Ion Channel Activity of Ryanodine Receptor. <i>Antioxidants and Redox Signaling</i> , 2000, 2, 35-40.	5.4	56
17	In Vivo Electron Paramagnetic Resonance Studies on Oxidative Stress Caused by X-Irradiation in Whole Mice. <i>Free Radical Biology and Medicine</i> , 1997, 23, 533-540.	2.9	54
18	Formation of ion channels in planar lipid bilayer membranes by synthetic basic peptides. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 1991, 1064, 256-266.	2.6	52

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19	Assessment of ESR-CT imaging by comparison with autoradiography for the distribution of a blood-brain-barrier permeable spin probe, MC-PROXYL, to rodent brain. <i>Magnetic Resonance Imaging</i> , 2003, 21, 765-772.	1.8	51
20	In Vivo Radioprotection of Mice by 3-Methyl-1-phenyl-2-pyrazolin-5-one (Edaravone; Radicut <sup>®</sup> ), a Clinical Drug. <i>Journal of Radiation Research</i> , 2004, 45, 319-323.	1.6	50
21	Melatonin mitigates oxidative damage and apoptosis in mouse cerebellum induced by high-LET <sup>56</sup> Fe particle irradiation. <i>Journal of Pineal Research</i> , 2008, 44, 189-196.	7.4	45
22	Temperature-Induced Change in the Ca <sup>2+</sup> -Dependent ATPase Activity and in the State of the ATPase Protein of Sarcoplasmic Reticulum Membrane. <i>Journal of Biochemistry</i> , 1978, 84, 815-821.	1.7	44
23	ESR Spin Trapping of Hydroxyl Radicals in Aqueous Solution Irradiated with High-LET Carbon-Ion Beams. <i>Radiation Research</i> , 2003, 159, 670-675.	1.5	42
24	Change in intravesicular volume of liposomes by freeze-thaw treatment as studied by the ESR stopped-flow technique. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 1990, 1021, 21-26.	2.6	41
25	Nitroxyl radicals: electrochemical redox behaviour and structure-activity relationships. <i>Organic and Biomolecular Chemistry</i> , 2007, 5, 3951.	2.8	41
26	Spin-Trapping Reactions of a Novel Gauchetype Radical Trapper G-CYPMPO. <i>Analytical Chemistry</i> , 2011, 83, 9600-9604.	6.5	41
27	Effect of salts on conformational change of basic amphipathic peptides from $\beta$ -structure to $\alpha$ -helix in the presence of phospholipid liposomes and their channel-forming ability. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 1993, 1151, 76-82.	2.6	40
28	Fukushima Daiichi Nuclear Power Plant accident: facts, environmental contamination, possible biological effects, and countermeasures. <i>Journal of Clinical Biochemistry and Nutrition</i> , 2011, 50, 2-8.	1.4	39
29	A novel lipophilic spin probe for the measurement of radiation damage in mouse brain using in vivo electron spin resonance (ESR). <i>FEBS Letters</i> , 1997, 419, 99-102.	2.8	37
30	Impact of arsenic in foodstuffs on the people living in the arsenic-affected areas of West Bengal, India. <i>Journal of Environmental Science and Health - Part A Toxic/Hazardous Substances and Environmental Engineering</i> , 2007, 42, 1741-1752.	1.7	36
31	Transmembrane electron transfer as catalyzed by poly(ethylenimine)-linked manganese porphyrins. <i>Journal of the American Chemical Society</i> , 1986, 108, 5865-5871.	13.7	33
32	A SEC-HPLC-ICP MS hyphenated technique for identification of sulfur-containing arsenic metabolites in biological samples. <i>Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences</i> , 2008, 874, 64-76.	2.3	32
33	Involvement of Electron Transfer in the Radical-scavenging Reaction of Resveratrol. <i>Chemistry Letters</i> , 2007, 36, 1276-1277.	1.3	31
34	Oxidation-Dependent Changes in the Stability and Permeability of Lipid Bilayers. <i>Antioxidants and Redox Signaling</i> , 1999, 1, 339-347.	5.4	29
35	Density of Hydroxyl Radicals Generated in an Aqueous Solution by Irradiating Carbon-Ion Beam. <i>Chemical and Pharmaceutical Bulletin</i> , 2015, 63, 195-199.	1.3	28
36	Edaravone containing isoindoline nitroxides for the potential treatment of cardiovascular ischaemia. <i>MedChemComm</i> , 2011, 2, 436.	3.4	27

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37	Synthesis and Kinetic Investigation of the Atropisomerization of meso-Tetra(2-cyanophenyl)porphine. <i>Bulletin of the Chemical Society of Japan</i> , 1981, 54, 3518-3521.	3.2	26
38	Biting reduces acute stress-induced oxidative stress in the rat hypothalamus. <i>Redox Report</i> , 2005, 10, 19-24.	4.5	26
39	Measurement of Oxidative Stress in the Rodent Brain Using Computerized Electron Spin Resonance Tomography. <i>Magnetic Resonance in Medical Sciences</i> , 2003, 2, 79-84.	2.0	22
40	Brain Redox Imaging. <i>Methods in Molecular Biology</i> , 2011, 711, 397-419.	0.9	21
41	Quantitative Measurements of Oxidative Stress in Mouse Skin Induced by X-Ray Irradiation. <i>Chemical and Pharmaceutical Bulletin</i> , 2005, 53, 1411-1415.	1.3	19
42	Thermotropic Transition in the States of Proteins in Sarcoplasmic Reticulum Vesicles. <i>Journal of Biochemistry</i> , 1977, 82, 1181-1184.	1.7	17
43	Novel Approach to In Vivo Screening for Radioprotective Activity in Whole Mice: In Vivo Electron Spin Resonance Study Probing the Redox Reaction of Nitroxyl. <i>Journal of Radiation Research</i> , 2000, 41, 103-111.	1.6	17
44	Modification of nitroxyl contrast agents with multiple spins and their proton T1 relaxivity. <i>Magnetic Resonance Imaging</i> , 2008, 26, 117-121.	1.8	17
45	Modification of Mortality and Tumorigenesis by Tocopherol-mono-glucoside (TMG) Administered after X Irradiation in Mice and Rats. <i>Radiation Research</i> , 2009, 172, 519-524.	1.5	17
46	Formation of reactive oxygen species by irradiation of cold atmospheric pressure plasma jet to water depends on the irradiation distance. <i>Journal of Clinical Biochemistry and Nutrition</i> , 2019, 64, 187-193.	1.4	16
47	A Kinetic Study of Thermal Rotational Isomerization of 5,10,15,20-Tetrakis(o-aminophenyl)porphyrin and 5,10,15,20-Tetrakis(o-pivaloylaminophenyl)porphyrin. <i>Bulletin of the Chemical Society of Japan</i> , 1985, 58, 3653-3654.	3.2	15
48	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. <i>Free Radical Biology and Medicine</i> , 2006, 40, 1170-1178.	2.9	15
49	Visualization of free radical reactions in an aqueous sample irradiated by 290 MeV carbon beam. <i>Magnetic Resonance in Medicine</i> , 2009, 61, 1033-1039.	3.0	15
50	Lineal energy-based evaluation of oxidative DNA damage induced by proton beams and X-rays. <i>International Journal of Radiation Biology</i> , 2013, 89, 36-43.	1.8	15
51	Melatonin attenuates radiation-induced learning deficit and brain oxidative stress in mice. <i>Acta Neurobiologiae Experimentalis</i> , 2007, 67, 63-70.	0.7	15
52	In Vivo Nitric Oxide Production and iNOS Expression in X-Ray Irradiated Mouse Skin. <i>Biological and Pharmaceutical Bulletin</i> , 2006, 29, 348-353.	1.4	14
53	Detection of Free Radical Reactions in an Aqueous Sample Induced by Low Linear-Energy-Transfer Irradiation. <i>Biological and Pharmaceutical Bulletin</i> , 2009, 32, 542-547.	1.4	14
54	Effect of amifostine, a radiation-protecting drug, on oxygen concentration in tissue measured by EPR oximetry and imaging. <i>Journal of Clinical Biochemistry and Nutrition</i> , 2017, 60, 151-155.	1.4	14

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55	Live Imaging of Radiation-Induced Apoptosis by Yolk Injection of Acridine Orange in the Developing Optic Tectum of Medaka. <i>Journal of Radiation Research</i> , 2009, 50, 487-494.	1.6	13
56	Temperature-dependent free radical reaction in water. <i>Journal of Clinical Biochemistry and Nutrition</i> , 2011, 50, 40-46.	1.4	13
57	Gamma-tocopherol-N,N-dimethylglycine ester as a potent post-irradiation mitigator against whole body X-irradiation-induced bone marrow death in mice. <i>Journal of Radiation Research</i> , 2014, 55, 67-74.	1.6	13
58	Basic Investigations of Singlet Oxygen Detection Systems with ESR for the Measurement of Singlet Oxygen Quenching Activities. <i>Chemical and Pharmaceutical Bulletin</i> , 2020, 68, 150-154.	1.3	13
59	Cation Channels from Ciliary Membrane of Tetrahymena Reconstituted into Planar Lipid Bilayer. Comparison between the Channels from the Wild T. Thermophila and from Its Mutant Which Does Not Show Ciliary Reversal. <i>Journal of Biochemistry</i> , 1988, 104, 344-348.	1.7	12
60	Comparisons of EPR imaging and T1-weighted MRI for efficient imaging of nitroxyl contrast agents. <i>Journal of Magnetic Resonance</i> , 2007, 187, 155-162.	2.1	12
61	Heat-Treated Mineral-Yeast as a Potent Post-irradiation Radioprotector. <i>Journal of Radiation Research</i> , 2008, 49, 425-430.	1.6	12
62	Rapid determination of internal volumes of membrane vesicles with electron spin resonance-stopped flow technique. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 1988, 937, 73-80.	2.6	11
63	Frequent Fusion of Liposomes to a Positively Charged Planar Bilayer without Calcium Ions. <i>Journal of Biochemistry</i> , 1993, 114, 487-491.	1.7	11
64	Two mode ion channels induced by interaction of acidic amphipathic $\alpha$ -helical peptides with lipid bilayers. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 1994, 1191, 181-189.	2.6	11
65	Pharmacokinetic study of acyl-protected hydroxylamine probe, 1-acetoxy-3-carbamoyl-2,2,5,5-tetramethylpyrrolidine, for in vivo measurements of reactive oxygen species. <i>Free Radical Biology and Medicine</i> , 2004, 36, 517-525.	2.9	11
66	Physicochemical properties of the atropisomers of meso-tetra(o-pivalamidophenyl)porphyrin.. <i>Chemical and Pharmaceutical Bulletin</i> , 1984, 32, 1273-1278.	1.3	10
67	Sucrose radical-production cross-section regarding heavy-ion irradiation. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2008, 69, 1384-1387.	3.9	10
68	Enhanced radical-scavenging activity of naturally-oriented artemisinin C derivatives. <i>Chemical Communications</i> , 2008, , 626-628.	4.1	10
69	Enhanced Membrane-Perturbing Activities of Bundled Amphiphilic $\alpha$ -Helix Polypeptides on Interaction with Phospholipid Bilayer. <i>Bulletin of the Chemical Society of Japan</i> , 1995, 68, 2931-2939.	3.2	9
70	Scandium Ion-accelerated Scavenging Reaction of Cumylperoxyl Radical by a Cyclic Nitroxyl Radical via Electron Transfer. <i>Chemistry Letters</i> , 2007, 36, 378-379.	1.3	9
71	Intracellular and Extracellular Redox Environments Surrounding Redox-Sensitive Contrast Agents under Oxidative Atmosphere. <i>Biological and Pharmaceutical Bulletin</i> , 2009, 32, 535-541.	1.4	9
72	Distribution of Hydrogen Peroxide-dependent Reaction in a Gelatin Sample Irradiated by Carbon Ion Beam. <i>Magnetic Resonance in Medical Sciences</i> , 2010, 9, 131-140.	2.0	9

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73	Neurocytotoxic effects of iron-ions on the developing brain measured in vivo using medaka ( <i>Oryzias latipes</i> ), a vertebrate model. International Journal of Radiation Biology, 2011, 87, 915-922.	1.8	9
74	Effect of Solvent Polarity on the One-electron Oxidation of Cyclic Nitroxyl Radicals. Chemistry Letters, 2007, 36, 914-915.	1.3	8
75	A voltage-dependent chloride channel from Tetrahymena ciliary membrane incorporated into planar lipid bilayers. Biochimica Et Biophysica Acta - Biomembranes, 1996, 1280, 207-216.	2.6	7
76	Pathophysiological significance of in vivo ESR signal decay in brain damage caused by X-irradiation. Biochimica Et Biophysica Acta - General Subjects, 2001, 1525, 167-172.	2.4	7
77	Quantitative comparison of two types of planar lipid bilayersâ€”folded and paintedâ€”with respect to fusion with vesicles. Journal of Proteomics, 2001, 48, 283-291.	2.4	7
78	Stratum Corneum Lipid Structure Investigated by EPR Spin-Probe Method: Application of Terpenes. Lipids, 2010, 45, 1081-1087.	1.7	7
79	Synthesis and Enhanced Radical Scavenging Activity of a Conformationally Constrained Epigallocatechin Analogue. Chemistry Letters, 2011, 40, 1417-1419.	1.3	7
80	Method to Improve Azo-Compound (AAPH)-Induced Hemolysis of Erythrocytes for Assessing Antioxidant Activity of Lipophilic Compounds. Chemical and Pharmaceutical Bulletin, 2021, 69, 67-71.	1.3	7
81	A Freeze-Fracture Study of the Aggregation State of Ca <sup>2+</sup> , Mg <sup>2+</sup> -ATPase of Sarcoplasmic Reticulum in Reconstituted Vesicles at Low and High Temperature. Journal of Biochemistry, 1981, 89, 1403-1409.	1.7	6
82	EPR Investigation of Radical-Production Cross Sections for Sucrose and L-alanine Irradiated with X-rays and Heavy-ions. Applied Magnetic Resonance, 2010, 39, 285-293.	1.2	6
83	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
84	Vitamin E-Deficiency Did Not Exacerbate Partial Skin Reactions in Mice Locally Irradiated with X-rays. Journal of Radiation Research, 2011, 52, 32-38.	1.6	5
85	Stratum Corneum Lipid of Hairless Mouse Investigated by EPR. Applied Magnetic Resonance, 2011, 40, 557-565.	1.2	5
86	Scavenging of reactive oxygen species induced by hyperthermia in biological fluid. Journal of Clinical Biochemistry and Nutrition, 2014, 54, 75-80.	1.4	4
87	Sonolysis of aqueous solutions under CO <sub>2</sub> -Ar: ESR study of variation in the number of OH radicals with CO <sub>2</sub> concentration. Japanese Journal of Applied Physics, 2019, 58, SGGD05.	1.5	4
88	Phosphatidylserine-Specific Transbilayer Lipid Translocation in Synaptosomal Plasma Membranes from <i>Narke japonica</i> . Journal of Biochemistry, 1995, 117, 1232-1237.	1.7	3
89	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
90	Vascular Homeostasis Regulators, Edn1 and Agpt2, are Upregulated as a Protective Effect of Heat-treated Zinc Yeast in Irradiated Murine Bone Marrow. Journal of Radiation Research, 2010, 51, 519-525.	1.6	2

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91	In vivo ESR imaging of redox status in mice after X-ray irradiation, measured by acyl-protected hydroxylamine probe, ACP. Free Radical Biology and Medicine, 2020, 160, 596-603.	2.9	2
92	EFFECTS OF TEMPERATURE, NUCLEOTIDES AND METAL CATIONS ON THE STATE OF Ca <sup>2+</sup> , Mg <sup>2+</sup> -DEPENDENT ATPASE OF SARCOPLASMIC RETICULUM MEMBRANES AS STUDIED BY HYDROGEN-DEUTERIUM EXCHANGE REACTION KINETICS AND SATURATION TRANSFER ELECTRON SPIN RESONANCE. , 1979, , 105-117.		1
93	Non-invasive assessment of oxidative stress in the brain of small animal models by using in vivo electron spin resonance (ESR) imaging system. , 2002, , 562-566.		0