

Ryuichi Okayasu

List of Publications by Year in descending order

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108
papers

3,303
citations

126708

33
h-index

174990

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108
all docs

108
docs citations

108
times ranked

3325
citing authors

#	ARTICLE	IF	CITATIONS
1	Repair of DNA Damage Induced by Accelerated Heavy Ions in Mammalian Cells Proficient and Deficient in the Non-homologous End-Joining Pathway. <i>Radiation Research</i> , 2006, 165, 59-67.	0.7	137
2	Contributions of Direct and Indirect Actions in Cell Killing by High-LET Radiations. <i>Radiation Research</i> , 2009, 171, 212-218.	0.7	133
3	Recent Advances in the Biology of Heavy-Ion Cancer Therapy. <i>Journal of Radiation Research</i> , 2010, 51, 365-383.	0.8	122
4	Inhibition of homologous recombination repair in irradiated tumor cells pretreated with Hsp90 inhibitor 17-allylamino-17-demethoxygeldanamycin. <i>Biochemical and Biophysical Research Communications</i> , 2006, 351, 658-663.	1.0	113
5	Effects of Carbon Ion Beam on Putative Colon Cancer Stem Cells and Its Comparison with X-rays. <i>Cancer Research</i> , 2011, 71, 3676-3687.	0.4	113
6	Repair of DNA damage induced by accelerated heavy ions—A mini review. <i>International Journal of Cancer</i> , 2012, 130, 991-1000.	2.3	105
7	Silencing expression of the catalytic subunit of DNA-dependent protein kinase by small interfering RNA sensitizes human cells for radiation-induced chromosome damage, cell killing, and mutation. <i>Cancer Research</i> , 2002, 62, 6400-4.	0.4	103
8	Linear DNA Elution Dose Response Curves Obtained in CHO Cells with Non-unwinding Filter Elution after Appropriate Selection of the Lysis Conditions. <i>International Journal of Radiation Biology</i> , 1989, 55, 569-581.	1.0	87
9	Roles of the Major, Small, Acid-Soluble Spore Proteins and Spore-Specific and Universal DNA Repair Mechanisms in Resistance of <i>Bacillus subtilis</i> Spores to Ionizing Radiation from X Rays and High-Energy Charged-Particle Bombardment. <i>Journal of Bacteriology</i> , 2008, 190, 1134-1140.	1.0	81
10	The complexity of DNA double strand breaks is a critical factor enhancing end-resection. <i>DNA Repair</i> , 2013, 12, 936-946.	1.3	71
11	Visualisation of γ H2AX Foci Caused by Heavy Ion Particle Traversal; Distinction between Core Track versus Non-Track Damage. <i>PLoS ONE</i> , 2013, 8, e70107.	1.1	68
12	Resistance of <i>Bacillus subtilis</i> Spore DNA to Lethal Ionizing Radiation Damage Relies Primarily on Spore Core Components and DNA Repair, with Minor Effects of Oxygen Radical Detoxification. <i>Applied and Environmental Microbiology</i> , 2014, 80, 104-109.	1.4	67
13	Variation through the Cell Cycle in the Dose-response of DNA Neutral Filter Elution in X-irradiated Synchronous CHO-cells. <i>International Journal of Radiation Biology</i> , 1988, 53, 729-747.	1.0	66
14	Wortmannin Inhibits Repair of DNA Double-Strand Breaks in Irradiated Normal Human Cells. <i>Radiation Research</i> , 1998, 149, 440.	0.7	63
15	Radiosensitivity Throughout the Cell Cycle and Repair of Potentially Lethal Damage and DNA Double-strand Breaks in an X-ray-sensitive CHO Mutant. <i>International Journal of Radiation Biology</i> , 1990, 57, 1195-1211.	1.0	61
16	Extremely Low Dose Ionizing Radiation Up-regulates CXC Chemokines in Normal Human Fibroblasts. <i>Cancer Research</i> , 2005, 65, 10159-10163.	0.4	57
17	Radiosensitive Xrs-5 and Parental CHO Cells Show Identical DNA Neutral Filter Elution Dose-response: Implications for a Relationship between Cell Radiosensitivity and Induction of DNA Double-strand Breaks. <i>International Journal of Radiation Biology</i> , 1988, 54, 55-62.	1.0	55
18	Mechanism of Radiosensitization by Halogenated Pyrimidines: Effect of BrdU on Radiation Induction of DNA and Chromosome Damage and Its Correlation with Cell Killing. <i>Radiation Research</i> , 1989, 119, 286.	0.7	55

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19	Radiosensitization effect of poly(ADP-ribose) polymerase inhibition in cells exposed to low and high linear energy transfer radiation. <i>Cancer Science</i> , 2012, 103, 1045-1050.	1.7	54
20	Metabolism and the Paradoxical Effects of Arsenic: Carcinogenesis and Anticancer. <i>Current Medicinal Chemistry</i> , 2008, 15, 2293-2304.	1.2	53
21	STARLIFE—An International Campaign to Study the Role of Galactic Cosmic Radiation in Astrobiological Model Systems. <i>Astrobiology</i> , 2017, 17, 101-109.	1.5	53
22	Effects of hyperthermia on the repair of radiation-induced DNA single- and double-strand breaks in DNA double-strand break repair-deficient and repair-proficient cell lines. <i>International Journal of Hyperthermia</i> , 1990, 6, 813-833.	1.1	45
23	Arsenic accumulation, elimination, and interaction with copper, zinc and manganese in liver and kidney of rats. <i>Food and Chemical Toxicology</i> , 2008, 46, 3646-3650.	1.8	45
24	ASPM influences DNA double-strand break repair and represents a potential target for radiotherapy. <i>International Journal of Radiation Biology</i> , 2011, 87, 1189-1195.	1.0	42
25	Comparison of the induction and disappearance of DNA double strand breaks and γ -H2AX foci after irradiation of chromosomes in G1-phase or in condensed metaphase cells. <i>Mutation Research - Fundamental and Molecular Mechanisms of Mutagenesis</i> , 2008, 639, 108-112.	0.4	40
26	Inhibition of DNA-double strand break repair by antimony compounds. <i>Toxicology</i> , 2002, 180, 249-256.	2.0	39
27	ATM-Dependent Hyper-Radiosensitivity in Mammalian Cells Irradiated by Heavy Ions. <i>International Journal of Radiation Oncology Biology Physics</i> , 2009, 75, 235-243.	0.4	38
28	Radiosensitization by PARP inhibition to proton beam irradiation in cancer cells. <i>Biochemical and Biophysical Research Communications</i> , 2016, 478, 234-240.	1.0	38
29	Regulation of ATM in DNA double strand break repair accounts for the radiosensitivity in human cells exposed to high linear energy transfer ionizing radiation. <i>Mutation Research - Fundamental and Molecular Mechanisms of Mutagenesis</i> , 2009, 670, 15-23.	0.4	36
30	Astrobiological Aspects of the Mutagenesis of Cosmic Radiation on Bacterial Spores. <i>Astrobiology</i> , 2010, 10, 509-521.	1.5	35
31	In vitro characterization of cells derived from chordoma cell line U-CH1 following treatment with X-rays, heavy ions and chemotherapeutic drugs. <i>Radiation Oncology</i> , 2011, 6, 116.	1.2	35
32	The Level of Induced DNA Double-strand Breaks Does Not Correlate with Cell Killing in X-irradiated Mitotic and G1-phase CHO Cells. <i>International Journal of Radiation Biology</i> , 1988, 53, 395-404.	1.0	34
33	The Difference in LET and Ion Species Dependence for Induction of Initially Measured and Non-rejoined Chromatin Breaks in Normal Human Fibroblasts. <i>Radiation Research</i> , 2008, 170, 163-171.	0.7	33
34	OH Radicals from the Indirect Actions of X-Rays Induce Cell Lethality and Mediate the Majority of the Oxygen Enhancement Effect. <i>Radiation Research</i> , 2013, 180, 514-523.	0.7	33
35	VE-821, an ATR inhibitor, causes radiosensitization in human tumor cells irradiated with high LET radiation. <i>Radiation Oncology</i> , 2015, 10, 175.	1.2	33
36	DNA double-strand break induction in Ku80-deficient CHO cells following Boron Neutron Capture Reaction. <i>Radiation Oncology</i> , 2011, 6, 106.	1.2	30

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37	Single extreme low dose/low dose rate irradiation causes alteration in lifespan and genome instability in primary human cells. <i>British Journal of Cancer</i> , 2007, 96, 1707-1710.	2.9	29
38	Evaluation of SCCVII tumor cell survival in clamped and non-clamped solid tumors exposed to carbon-ion beams in comparison to X-rays. <i>Mutation Research - Genetic Toxicology and Environmental Mutagenesis</i> , 2013, 756, 146-151.	0.9	29
39	Hypertonic Treatment during Premature Chromosome Condensation Allows Visualization of Interphase Chromosome Breaks Repaired with Fast Kinetics in Irradiated CHO Cells. <i>Radiation Research</i> , 1993, 135, 160.	0.7	28
40	Ionizing Radiation Induces Two Forms of Interphase Chromosome Breaks in Chinese Hamster Ovary Cells That Rejoin with Different Kinetics and Show Different Sensitivity to Treatment in Hypertonic Medium or $\bar{\text{I}}^2\text{-araA}$. <i>Radiation Research</i> , 1993, 136, 262.	0.7	28
41	Sulforaphane induces DNA double strand breaks predominantly repaired by homologous recombination pathway in human cancer cells. <i>Biochemical and Biophysical Research Communications</i> , 2008, 377, 341-345.	1.0	28
42	Parg deficiency confers radio-sensitization through enhanced cell death in mouse ES cells exposed to various forms of ionizing radiation. <i>Biochemical and Biophysical Research Communications</i> , 2013, 435, 100-106.	1.0	28
43	Nontoxic concentration of $\text{DNA} \rightarrow \text{PK}$ inhibitor NU7441 radio-sensitizes lung tumor cells with little effect on double strand break repair. <i>Cancer Science</i> , 2016, 107, 1250-1255.	1.7	28
44	Induction by H_2O_2 of DNA and Interphase Chromosome Damage in Plateau-Phase Chinese Hamster Ovary Cells. <i>Radiation Research</i> , 1992, 131, 192.	0.7	26
45	Biological effects of naturally occurring and man-made fibres: in vitro cytotoxicity and mutagenesis in mammalian cells. <i>British Journal of Cancer</i> , 1999, 79, 1319-1324.	2.9	26
46	High LET heavy ion radiation induces lower numbers of initial chromosome breaks with minimal repair than low LET radiation in normal human cells. <i>Mutation Research - Genetic Toxicology and Environmental Mutagenesis</i> , 2008, 652, 95-101.	0.9	26
47	Ionizing radiation downregulates ASPM, a gene responsible for microcephaly in humans. <i>Biochemical and Biophysical Research Communications</i> , 2008, 369, 953-957.	1.0	26
48	Novel function of HATs and HDACs in homologous recombination through acetylation of human RAD52 at double-strand break sites. <i>PLoS Genetics</i> , 2018, 14, e1007277.	1.5	25
49	Down regulation of BRCA2 causes radio-sensitization of human tumor cells <i>in vitro</i> and <i>in vivo</i> . <i>Cancer Science</i> , 2008, 99, 810-815.	1.7	24
50	Chemopreventive agent sulforaphane enhances radiosensitivity in human tumor cells. <i>International Journal of Cancer</i> , 2009, 125, 1205-1211.	2.3	24
51	Signatures of DNA double strand breaks produced in irradiated G1 and G2 cells persist into mitosis. <i>Journal of Cellular Physiology</i> , 2009, 219, 760-765.	2.0	24
52	The combination of Hsp90 inhibitor 17-AAG and heavy-ion irradiation provides effective tumor control in human lung cancer cells. <i>Cancer Medicine</i> , 2015, 4, 426-436.	1.3	24
53	¹²⁵ I-uridine-induced Chromosome Fragments, Assayed by Premature Chromosome Condensation, and DNA Double-strand Breaks Have Similar Repair Kinetics in G ₁ -phase CHO-cells. <i>International Journal of Radiation Biology and Related Studies in Physics, Chemistry, and Medicine</i> , 1987, 52, 705-722.	1.0	23
54	The complexity of DNA double strand break is a crucial factor for activating ATR signaling pathway for G2/M checkpoint regulation regardless of ATM function. <i>DNA Repair</i> , 2015, 25, 72-83.	1.3	23

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55	The phosphatidylinositol 3-kinase inhibitor wortmannin sensitizes quiescent but not proliferating MG-63 human osteosarcoma cells to radiation. <i>Cancer Letters</i> , 1998, 133, 161-167.	3.2	22
56	The purine scaffold Hsp90 inhibitor PU-H71 sensitizes cancer cells to heavy ion radiation by inhibiting DNA repair by homologous recombination and non-homologous end joining. <i>Radiotherapy and Oncology</i> , 2016, 121, 162-168.	0.3	22
57	TAS-116, a Novel Hsp90 Inhibitor, Selectively Enhances Radiosensitivity of Human Cancer Cells to X-rays and Carbon Ion Radiation. <i>Molecular Cancer Therapeutics</i> , 2017, 16, 16-24.	1.9	22
58	Radiosensitization of human lung cancer cells by the novel purine-scaffold Hsp90 inhibitor, PU-H71. <i>International Journal of Molecular Medicine</i> , 2014, 33, 559-564.	1.8	21
59	Relative biological effects of neutron mixed-beam irradiation for boron neutron capture therapy on cell survival and DNA double-strand breaks in cultured mammalian cells. <i>Journal of Radiation Research</i> , 2013, 54, 70-75.	0.8	20
60	Inhibition of Repair of Radiation-Induced DNA Double-Strand Breaks by Nickel and Arsenite. <i>Radiation Research</i> , 2000, 154, 686-691.	0.7	19
61	Induction of DNA double strand breaks by arsenite: comparative studies with DNA breaks induced by X-rays. <i>DNA Repair</i> , 2003, 2, 309-314.	1.3	19
62	Selective Enhancing Effect of Early Mitotic Inhibitor 1 (Emi1) Depletion on the Sensitivity of Doxorubicin or X-ray Treatment in Human Cancer Cells. <i>Journal of Biological Chemistry</i> , 2013, 288, 17238-17252.	1.6	18
63	Carbon ion beam is more effective to induce cell death in sphere-type A172 human glioblastoma cells compared with X-rays. <i>International Journal of Radiation Biology</i> , 2014, 90, 1125-1132.	1.0	17
64	DNA Damage Response Proteins and Oxygen Modulate Prostaglandin E2 Growth Factor Release in Response to Low and High LET Ionizing Radiation. <i>Frontiers in Oncology</i> , 2015, 5, 260.	1.3	17
65	Comparative studies on repair inhibition by AraA, AraC and aphidicolin of radiation induced dna and chromosome damage in rodent cells: Comparison with fixation of PLD. <i>International Journal of Radiation Oncology Biology Physics</i> , 1989, 16, 1261-1265.	0.4	16
66	Radiosensitization of Normal Human Cells by LY294002: Cell Killing and the Rejoining of DNA and Interphase Chromosome Breaks. <i>Journal of Radiation Research</i> , 2003, 44, 329-333.	0.8	16
67	Comparison of the bromodeoxyuridine-mediated sensitization effects between low-LET and high-LET ionizing radiation on DNA double-strand breaks. <i>Oncology Reports</i> , 2013, 29, 2133-2139.	1.2	16
68	Hypertonic Treatment Does Not Affect the Radiation Yield of Interphase Chromosome Breaks in DNA Double-Strand Break Repair-Deficient xrs-5 Cells. <i>Radiation Research</i> , 1993, 135, 171.	0.7	15
69	Increased frequency of formation of interphase ring-chromosomes in radiosensitive irs-1 cells exposed to X-rays. <i>Mutation Research DNA Repair</i> , 1993, 294, 199-206.	3.8	15
70	Evidence That the Product of the xrs Gene Is Predominantly Involved in the Repair of a Subset of Radiation-Induced Interphase Chromosome Breaks Rejoining with Fast Kinetics. <i>Radiation Research</i> , 1994, 138, 34.	0.7	15
71	Induction of DNA DSB and its rejoining in clamped and non-clamped tumours after exposure to carbon ion beams in comparison to X rays. <i>Radiation Protection Dosimetry</i> , 2011, 143, 508-512.	0.4	15
72	Role of the Nfo and ExoA Apurinic/Apyrimidinic Endonucleases in Radiation Resistance and Radiation-Induced Mutagenesis of <i>Bacillus subtilis</i> Spores. <i>Journal of Bacteriology</i> , 2011, 193, 2875-2879.	1.0	15

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73	Heterochromatin Domain Number Correlates with X-Ray and Carbon-Ion Radiation Resistance in Cancer Cells. <i>Radiation Research</i> , 2014, 182, 408.	0.7	15
74	Induction of DNA Double-Strand Breaks by Restriction Enzymes in X-Ray-Sensitive Mutant Chinese Hamster Ovary Cells Measured by Pulsed-Field Gel Electrophoresis. <i>Radiation Research</i> , 1995, 141, 153.	0.7	14
75	Radioprotection by DMSO in nitrogen-saturated mammalian cells exposed to helium ion beams. <i>Radiation Physics and Chemistry</i> , 2009, 78, 1175-1178.	1.4	14
76	Ascorbic acid gives different protective effects in human cells exposed to X-rays and heavy ions. <i>Mutation Research - Genetic Toxicology and Environmental Mutagenesis</i> , 2010, 699, 58-61.	0.9	14
77	Comparison of Yields and Repair Kinetics of Interphase Chromosome Breaks Visualized by Sendai-virus or PEG-mediated Cell Fusion in Irradiated CHO Cells. <i>International Journal of Radiation Biology</i> , 1993, 64, 689-694.	1.0	13
78	Benzyl isothiocyanate sensitizes human pancreatic cancer cells to radiation by inducing apoptosis. <i>International Journal of Molecular Medicine</i> , 2011, 28, 1043-7.	1.8	13
79	Pre-Exposure to Ionizing Radiation Stimulates DNA Double Strand Break End Resection, Promoting the Use of Homologous Recombination Repair. <i>PLoS ONE</i> , 2015, 10, e0122582.	1.1	13
80	The Shape of DNA Elution Dose-response Curves Under Non-denaturing Conditions: The Contribution of the Degree of Chromatin Condensation. <i>International Journal of Radiation Biology</i> , 1992, 61, 455-463.	1.0	12
81	Cytotoxicity of cigarette smoke condensate is not due to DNA double strand breaks: Comparative studies using radiosensitive mutant and wild-type CHO cells. <i>International Journal of Radiation Biology</i> , 2007, 83, 583-591.	1.0	10
82	A comprehensive analysis of radiosensitization targets; functional inhibition of DNA methyltransferase 3B radiosensitizes by disrupting DNA damage regulation. <i>Scientific Reports</i> , 2016, 5, 18231.	1.6	10
83	Rejoining kinetics of G1-PCC breaks induced by different heavy-ion beams with a similar LET value. <i>Mutation Research - Genetic Toxicology and Environmental Mutagenesis</i> , 2010, 701, 47-51.	0.9	9
84	Effectiveness of combined treatment using X-rays and a phosphoinositide 3-kinase inhibitor, ZSTK474, on proliferation of HeLa cells <i>in vitro</i> and <i>in vivo</i> . <i>Cancer Science</i> , 2011, 102, 1176-1180.	1.7	9
85	p53 independent radio-sensitization of human lymphoblastoid cell lines by Hsp90 inhibitor 17-allylamino-17-demethoxygeldanamycin. <i>Oncology Reports</i> , 2010, 23, 199-203.	1.2	9
86	Facilitated detection of chromosome break and repair at low levels of ionizing radiation by addition of wortmannin to G1-type PCC fusion incubation. <i>Mutation Research - Genetic Toxicology and Environmental Mutagenesis</i> , 2004, 562, 11-17.	0.9	8
87	DNA topoisomerase inhibitor, etoposide, enhances GC-box-dependent promoter activity via Sp1 phosphorylation. <i>Cancer Science</i> , 2007, 98, 858-863.	1.7	8
88	Low- and High-LET Ionizing Radiation Induces Delayed Homologous Recombination that Persists for Two Weeks before Resolving. <i>Radiation Research</i> , 2017, 188, 82.	0.7	8
89	Oxygen Enhancement Ratio in Radiation-Induced Initial DSBs by an Optimized Flow Cytometry-based Gamma-H2AX Analysis in A549 Human Cancer Cells. <i>Radiation Research</i> , 2017, 188, 671-674.	0.7	8
90	Chromosome aberrations in normal human fibroblasts analyzed in G0/G1 and G2/M phases after exposure in G0 to radiation with different linear energy transfer (LET). <i>Mutation Research - Genetic Toxicology and Environmental Mutagenesis</i> , 2013, 756, 101-107.	0.9	7

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91	Dose-rate effect was observed in T98G glioma cells following BNCT. Applied Radiation and Isotopes, 2014, 88, 81-85.	0.7	7
92	Caffeine Sensitizes Nondividing Human Fibroblasts to X Rays by Inducing a High Frequency of Misrepair. Radiation Research, 2005, 164, 509-513.	0.7	6
93	Strategies to Enhance Radiosensitivity to Heavy Ion Radiation Therapy. International Journal of Particle Therapy, 2018, 5, 114-121.	0.9	6
94	Radio-sensitivity of the Cells from Amyotrophic Lateral Sclerosis Model Mice Transfected with Human Mutant SOD1. Journal of Radiation Research, 2005, 46, 67-73.	0.8	5
95	Influence of track directions on the biological consequences in cells irradiated with high LET heavy ions. International Journal of Radiation Biology, 2013, 89, 401-410.	1.0	5
96	Enhanced radiation-induced cell killing by Herbimycin A pre-treatment. Radiation Physics and Chemistry, 2009, 78, 1184-1187.	1.4	4
97	Application of monochromatic keV X-ray source to X-ray drug delivery system. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2009, 608, S47-S50.	0.7	3
98	The PCC assay can be used to predict radiosensitivity in biopsy cultures irradiated with different types of radiation. Oncology Reports, 2006, 16, 1293.	1.2	2
99	Novel characteristics of CtIP at damage-induced foci following the initiation of DNA end resection. Mutation Research - Fundamental and Molecular Mechanisms of Mutagenesis, 2015, 771, 36-44.	0.4	2
100	G1 Premature Chromosome Condensation (PCC) Assay. Methods in Molecular Biology, 2019, 1984, 31-38.	0.4	2
101	Measurement of DNA Double Strand Breaks in Mammalian Cells: Comparison Between Pulsed Field Gel Electrophoresis and Non-Unwinding Filter Elution. , 1991, , 55-69.		2
102	Mitotic metaphase cells from different cell lines cause different levels of expression of the γ -H2AX form of interphase chromosome breaks irradiated CHO cells. Mutation Research - Fundamental and Molecular Mechanisms of Mutagenesis, 1994, 310, 65-71.	0.4	1
103	Hsp90 inhibitor is a good candidate for effective combination therapy with carbon ions. Journal of Radiation Research, 2014, 55, i59-i60.	0.8	1
104	Radiation-Induced Delayed Genome Instability and Hypermutation in Mammalian Cells. , 2013, , 183-198.		1
105	Inhibition of radiation-induced DNA-double strand break repair by various metal/metalloid compounds. International Congress Series, 2002, 1236, 327-330.	0.2	0
106	Enhancement of chromosomal aberrations in tumor cells with a non-labeled Cu ⁶⁴ PTSM and irradiation with Cu K-shell monochromatic X rays. Radiation Protection Dosimetry, 2006, 122, 188-194.	0.4	0
107	Introduction to NIRS International Open Laboratory (IOL). Journal of Radiation Research, 2014, 55, i68-i69.	0.8	0
108	Lethal DNA Lesions Caused by Direct and Indirect Actions of X rays are Repaired via Different DSB Repair Pathways under Aerobic and Anoxic Conditions. Radiation Research, 2021, 195, 441-451.	0.7	0