Marco Durante

List of Publications by Year
in descending order

471 papers	16,574 citations	20817 60 h-index	27406 106 g-index
477 all docs	477 docs citations	477 times ranked	9653 citing authors

#	Article	IF	Citations
1	Charged particles in radiation oncology. Nature Reviews Clinical Oncology, 2010, 7, 37-43.	27.6	576
2	Cancer risk from exposure to galactic cosmic rays: implications for space exploration by human beings. Lancet Oncology, The, 2006, 7, 431-435.	10.7	564
3	Heavy ion carcinogenesis and human space exploration. Nature Reviews Cancer, 2008, 8, 465-472.	28.4	482
4	Carbon ion radiotherapy in Japan: an assessment of 20 years of clinical experience. Lancet Oncology, The, 2015, 16, e93-e100.	10.7	423
5	Charged particle therapyâ€"optimization, challenges and future directions. Nature Reviews Clinical Oncology, 2013, 10, 411-424.	27.6	346
6	Physical basis of radiation protection in space travel. Reviews of Modern Physics, 2011, 83, 1245-1281.	45.6	336
7	Assessing the risk of second malignancies after modern radiotherapy. Nature Reviews Cancer, 2011, 11, 438-448.	28.4	325
8	Charged-particle therapy in cancer: clinical uses and future perspectives. Nature Reviews Clinical Oncology, 2017, 14, 483-495.	27.6	317
9	Motion in radiotherapy: particle therapy. Physics in Medicine and Biology, 2011, 56, R113-R144.	3.0	295
10	DNA double-strand breaks in heterochromatin elicit fast repair protein recruitment, histone H2AX phosphorylation and relocation to euchromatin. Nucleic Acids Research, 2011, 39, 6489-6499.	14.5	278
11	Quantification of the Relative Biological Effectiveness for Ion Beam Radiotherapy: Direct Experimental Comparison of Proton and Carbon Ion Beams and a Novel Approach for Treatment Planning. International Journal of Radiation Oncology Biology Physics, 2010, 78, 1177-1183.	0.8	270
12	Nuclear physics in particle therapy: a review. Reports on Progress in Physics, 2016, 79, 096702.	20.1	217
13	Systematic analysis of RBE and related quantities using a database of cell survival experiments with ion beam irradiation. Journal of Radiation Research, 2013, 54, 494-514.	1.6	208
14	Proton Radiobiology. Cancers, 2015, 7, 353-381.	3.7	198
15	Live cell microscopy analysis of radiation-induced DNA double-strand break motion. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 3172-3177.	7.1	172
16	Calculation of the biological effects of ion beams based on the microscopic spatial damage distribution pattern. International Journal of Radiation Biology, 2012, 88, 103-107.	1.8	163
17	Heart in space: effect of the extraterrestrial environment on the cardiovascular system. Nature Reviews Cardiology, 2018, 15, 167-180.	13.7	161
18	Technical Report A simple method for simultaneous interphase-metaphase chromosome analysis in biodosimetry. International Journal of Radiation Biology, 1998, 74, 457-462.	1.8	156

#	Article	IF	Citations
19	Space radiation protection: Destination Mars. Life Sciences in Space Research, 2014, 1, 2-9.	2.3	144
20	Identification of the elementary structural units of the DNA damage response. Nature Communications, 2017, 8, 15760.	12.8	141
21	Faster and safer? FLASH ultra-high dose rate in radiotherapy. British Journal of Radiology, 2018, 91, 20170628.	2.2	132
22	Effects of sparsely and densely ionizing radiation on plants. Radiation and Environmental Biophysics, 2011, 50, 1-19.	1.4	126
23	Kill-painting of hypoxic tumours in charged particle therapy. Scientific Reports, 2015, 5, 17016.	3.3	124
24	Chromosome Aberrations in the Blood Lymphocytes of Astronauts after Space Flight. Radiation Research, 2001, 156, 731-738.	1.5	113
25	Galactic cosmic ray simulation at the NASA Space Radiation Laboratory. Life Sciences in Space Research, 2016, 8, 38-51.	2.3	112
26	Immunofluorescence Detection of Clustered Î³-H2AX Foci Induced by HZE-Particle Radiation. Radiation Research, 2005, 164, 518-522.	1.5	111
27	New challenges in high-energy particle radiobiology. British Journal of Radiology, 2014, 87, 20130626.	2.2	108
28	Carbon Ion Radiobiology. Cancers, 2020, 12, 3022.	3.7	104
29	Inactivation of human normal and tumour cells irradiated with low energy protons. International Journal of Radiation Biology, 2000, 76, 831-839.	1.8	99
30	Karyotypes of Human Lymphocytes Exposed to High-Energy Iron Ions. Radiation Research, 2002, 158, 581-590.	1.5	98
31	Biological Effectiveness of Accelerated Particles for the Induction of Chromosome Damage Measured in Metaphase and Interphase Human Lymphocytes. Radiation Research, 2003, 160, 425-435.	1.5	96
32	Organotypic slice cultures of human glioblastoma reveal different susceptibilities to treatments. Neuro-Oncology, 2013, 15, 670-681.	1.2	96
33	Radiation-Induced Chromosomal Aberrations and Immunotherapy: Micronuclei, Cytosolic DNA, and Interferon-Production Pathway. Frontiers in Oncology, 2018, 8, 192.	2.8	96
34	Simulations of dose enhancement for heavy atom nanoparticles irradiated by protons. Physics in Medicine and Biology, 2014, 59, 1441-1458.	3.0	95
35	Feasibility Study on Cardiac Arrhythmia Ablation Using High-Energy Heavy Ion Beams. Scientific Reports, 2016, 6, 38895.	3.3	92
36	Biological Effects of Space Radiation on Human Cells: History, Advances and Outcomes. Journal of Radiation Research, 2011, 52, 126-146.	1.6	91

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37	Immunologically augmented cancer treatment using modern radiotherapy. Trends in Molecular Medicine, 2013, 19, 565-582.	6.7	91
38	New Ions for Therapy. International Journal of Particle Therapy, 2015, 2, 428-438.	1.8	91
39	Rejoining and Misrejoining of Radiation-Induced Chromatin Breaks. IV. Charged Particles. Radiation Research, 1998, 149, 446.	1.5	90
40	Clustered DNA damage induces pan-nuclear H2AX phosphorylation mediated by ATM and DNAâ€“PK. Nucleic Acids Research, 2013, 41, 6109-6118.	14.5	90
41	Impact of enhancements in the local effect model (LEM) on the predicted RBE-weighted target dose distribution in carbon ion therapy. Physics in Medicine and Biology, 2012, 57, 7261-7274.	3.0	88
42	Helium ions for radiotherapy? Physical and biological verifications of a novel treatment modality. Medical Physics, 2016, 43, 1995-2004.	3.0	87
43	Biodosimetry Results from Space Flight Mir-18. Radiation Research, 1997, 148, S17.	1.5	83
44	Modeling Cell Survival after Photon Irradiation Based on Double-Strand Break Clustering in Megabase Pair Chromatin Loops. Radiation Research, 2012, 178, 385-394.	1.5	81
45	From DNA damage to chromosome aberrations: Joining the break. Mutation Research - Genetic Toxicology and Environmental Mutagenesis, 2013, 756, 5-13.	1.7	81
46	All the fun of the FAIR: fundamental physics at the facility for antiproton and ion research. Physica Scripta, 2019, 94, 033001.	2.5	79
47	Out-of-field dose measurements in a water phantom using different radiotherapy modalities. Physics in Medicine and Biology, 2012, 57, 5059-5074.	3.0	75
48	Ion beam transport calculations and treatment plans in particle therapy. European Physical Journal D, 2010, 60, 195-202.	1.3	73
49	Including oxygen enhancement ratio in ion beam treatment planning: model implementation and experimental verification. Physics in Medicine and Biology, 2013, 58, 3871-3895.	3.0	73
50	DNA end resection is needed for the repair of complex lesions in G1-phase human cells. Cell Cycle, 2014, 13, 2509-2516.	2.6	72
51	Chromosome aberration dosimetry in cosmonauts after single or multiple space flights. Cytogenetic and Genome Research, 2003, 103, 40-46.	1.1	71
52	Chromosome condensation outside of mitosis: Mechanisms and new tools. Journal of Cellular Physiology, 2006, 209, 297-304.	4.1	71
53	Shielding from cosmic radiation for interplanetary missions: Active and passive methods. Radiation Measurements, 2007, 42, 14-23.	1.4	71
54	Heavy-ion induced chromosomal aberrations: A review. Mutation Research - Genetic Toxicology and Environmental Mutagenesis, 2010, 701, 38-46.	1.7	70

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55	Motion mitigation in intensity modulated particle therapy by internal target volumes covering range changes. Medical Physics, 2012, 39, 6004-6013.	3.0	70
56	Speed and accuracy of a beam tracking system for treatment of moving targets with scanned ion beams. Physics in Medicine and Biology, 2009, 54, 4849-4862.	3.0	69
57	Association between G 2 -Phase Block and Repair of Radiation-Induced Chromosome Fragments in Human Lymphocytes. Radiation Research, 1999, 151, 670.	1.5	68
58	Assessment of potential advantages of relevant ions for particle therapy: A model based study. Medical Physics, 2015, 42, 1037-1047.	3.0	68
59	X-rays vs. carbon-ion tumor therapy: cytogenetic damage in lymphocytes. International Journal of Radiation Oncology Biology Physics, 2000, 47, 793-798.	0.8	64
60	Heavy Ions in Cancer Therapy. JAMA Oncology, 2016, 2, 1539.	7.1	62
61	May oxygen depletion explain the FLASH effect? A chemical track structure analysis. Radiotherapy and Oncology, 2021, 162, 68-75.	0.6	62
62	The quality of DNA double-strand breaks: A Monte Carlo simulation of the end-structure of strand breaks produced by protons and alpha particles. Radiation and Environmental Biophysics, 1995, 34, 239-244.	1.4	61
63	Measurement of charged particle yields from PMMA irradiated by a 220 MeV/u¹²<i>C</i>beam. Physics in Medicine and Biology, 2014, 59, 1857-1872.	3.0	60
64	Does Heavy Ion Therapy Work Through the Immune System?. International Journal of Radiation Oncology Biology Physics, 2016, 96, 934-936.	0.8	60
65	Mapping of RBE-Weighted Doses Between HIMACâ€“ and LEMâ€“Based Treatment Planning Systems for Carbon IonÂTherapy. International Journal of Radiation Oncology Biology Physics, 2012, 84, 854-860.	0.8	59
66	Oxygen beams for therapy: advanced biological treatment planning and experimental verification. Physics in Medicine and Biology, 2017, 62, 7798-7813.	3.0	59
67	Chromatid break rejoining and exchange aberration formation following gamma-ray exposure: analysis in G2 human fibroblasts by chemically induced premature chromosome condensation. International Journal of Radiation Biology, 1999, 75, 1129-1135.	1.8	58
68	Biomarkers of Space Radiation Risk. Radiation Research, 2005, 164, 467-473.	1.5	58
69	Upgrade and benchmarking of a 4D treatment planning system for scanned ion beam therapy. Medical Physics, 2013, 40, 051722.	3.0	58
70	Cytogenetic Effects of High-Energy Iron Ions: Dependence on Shielding Thickness and Material. Radiation Research, 2005, 164, 571-576.	1.5	57
71	Hibernation for space travel: Impact on radioprotection. Life Sciences in Space Research, 2016, 11, 1-9.	2.3	57
72	Ground-based research with heavy ions for space radiation protection. Advances in Space Research, 2005, 35, 180-184.	2.6	56

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73	Induction of Chromosome Aberrations in Human Cells by Charged Particles. Radiation Research, 1997, 148, S102.	1.5	55
74	Risk Estimation Based on Chromosomal Aberrations Induced by Radiation. Radiation Research, 2001, 156, 662-667.	1.5	55
75	Effectiveness of Monoenergetic and Spread-Out Bragg Peak Carbon-Ions for Inactivation of Various Normal and Tumour Human Cell Lines. Journal of Radiation Research, 2008, 49, 597-607.	1.6	55
76	Clinical Indications for Carbon Ion Radiotherapy. Clinical Oncology, 2018, 30, 317-329.	1.4	55
77	Chromosome Intrachanges and Interchanges Detected by Multicolor Banding in Lymphocytes: Searching for Clastogen Signatures in the Human Genome. Radiation Research, 2004, 161, 540-548.	1.5	54
78	Spatiotemporal analysis of DNA repair using charged particle radiation. Mutation Research - Reviews in Mutation Research, 2010, 704, 54-60.	5.5	54
79	Harnessing radiation to improve immunotherapy: better with particles?. British Journal of Radiology, 2020, 93, 20190224.	2.2	53
80	The Immunoregulatory Potential of Particle Radiation in Cancer Therapy. Frontiers in Immunology, 2017, 8, 99.	4.8	52
81	Physical and biological factors determining the effective proton range. Medical Physics, 2013, 40, 111716.	3.0	51
82	Measurement of the fragmentation of Carbon nuclei used in hadron-therapy. Nuclear Physics A, 2011, 853, 124-134.	1.5	50
83	Particle therapy for noncancer diseases. Medical Physics, 2012, 39, 1716-1727.	3.0	50
84	Particle therapy in Europe. Molecular Oncology, 2020, 14, 1492-1499.	4.6	50
85	Chromosome Damage in Human Cells by Î³ Rays, Î± Particles and Heavy Ions: Track Interactions in Basic Dose-Response Relationships. Radiation Research, 2012, 179, 9.	1.5	49
86	Influence of acute hypoxia and radiation quality on cell survival. Journal of Radiation Research, 2013, 54, i23-i30.	1.6	49
87	Proton beam characterization in the experimental room of the Trento Proton Therapy facility. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2017, 869, 15-20.	1.6	49
88	Heavy Charged Particles: Does Improved Precision and Higher Biological Effectiveness Translate to Better Outcome in Patients?. Seminars in Radiation Oncology, 2018, 28, 160-167.	2.2	49
89	A New Standard DNA Damage (SDD) Data Format. Radiation Research, 2018, 191, 76.	1.5	49
90	Observations on the Influence of Tool-Sheet Contact Conditions on an Incremental Forming Process. Journal of Materials Engineering and Performance, 2011, 20, 941-946.	2.5	48

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91	Reduction of Lung Metastases in a Mouse Osteosarcoma Model Treated With Carbon Ions and Immune Checkpoint Inhibitors. International Journal of Radiation Oncology Biology Physics, 2021, 109, 594-602.	0.8	48
92	A breathing thorax phantom with independently programmable 6D tumour motion for dosimetric measurements in radiation therapy. Physics in Medicine and Biology, 2012, 57, 2235-2250.	3.0	47
93	Research plans in Europe for radiation health hazard assessment in exploratory space missions. Life Sciences in Space Research, 2019, 21, 73-82.	2.3	47
94	Physics and biomedical challenges of cancer therapy with accelerated heavy ions. Nature Reviews Physics, 2021, 3, 777-790.	26.6	47
95	Applied nuclear physics at the new high-energy particle accelerator facilities. Physics Reports, 2019, 800, 1-37.	25.6	46
96	High-LET radiation-induced aberrations in prematurely condensed G2 chromosomes of human fibroblasts. International Journal of Radiation Biology, 2000, 76, 929-937.	1.8	45
97	ACCELERATOR-BASED TESTS OF RADIATION SHIELDING PROPERTIES OF MATERIALS USED IN HUMAN SPACE INFRASTRUCTURES. Health Physics, 2008, 94, 242-247.	0.5	45
98	Impact of Target Oxygenation on the Chemical Track Evolution of Ion and Electron Radiation. International Journal of Molecular Sciences, 2020, 21, 424.	4.1	44
99	Chromosome aberrations induced by light ions: Monte Carlo simulations based on a mechanistic model. International Journal of Radiation Biology, 1999, 75, 35-46.	1.8	43
100	The Wear Behaviour of Composite Materials with Epoxy Matrix Filled with Hard Powder. Applied Composite Materials, 2001, 8, 179-189.	2.5	43
101	Biological dose estimation of UVA laser microirradiation utilizing charged particle-induced protein foci. Mutagenesis, 2010, 25, 289-297.	2.6	43
102	Four-Dimensional Patient Dose Reconstruction for Scanned Ion Beam Therapy of Moving Liver Tumors. International Journal of Radiation Oncology Biology Physics, 2014, 89, 175-181.	0.8	43
103	FLASH radiotherapy with carbon ion beams. Medical Physics, 2022, 49, 1974-1992.	3.0	43
104	Influence of chronic hypoxia and radiation quality on cell survival. Journal of Radiation Research, 2013, 54, i13-i22.	1.6	42
105	A DNA Double-Strand Break Kinetic Rejoining Model Based on the Local Effect Model. Radiation Research, 2013, 180, 524-538.	1.5	42
106	Rejoining and Misrejoining of Radiation-Induced Chromatin Breaks. I. Experiments with Human Lymphocytes. Radiation Research, 1996, 145, 274.	1.5	41
107	APPA at FAIR: From fundamental to applied research. Nuclear Instruments & Methods in Physics Research B, 2015, 365, 680-685.	1.4	41
108	Atrioventricular Node Ablation in Langendorff-Perfused Porcine Hearts Using Carbon Ion Particle Therapy. Circulation: Arrhythmia and Electrophysiology, 2015, 8, 429-438.	4.8	41

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109	Inactivation of individual mammalian cells by single alpha-particles. International Journal of Radiation Biology, 1997, 72, 397-407.	1.8	40
110	DNA Double Strand Breaks and Chromosomal Aberrations. Cytogenetic and Genome Research, 2010, 128, 8-16.	1.1	39
111	Ultra-High Dose Rate (FLASH) Carbon Ion Irradiation:ÂDosimetry and First Cell Experiments. International Journal of Radiation Oncology Biology Physics, 2022, 112, 1012-1022.	0.8	39
112	A 4D-optimization concept for scanned ion beam therapy. Radiotherapy and Oncology, 2013, 109, 419-424.	0.6	38
113	Characterization of the secondary neutron field produced during treatment of an anthropomorphic phantom with x-rays, protons and carbon ions. Physics in Medicine and Biology, 2014, 59, 2111-2125.	3.0	37
114	The link between cell-cycle dependent radiosensitivity and repair pathways: A model based on the local, sister-chromatid conformation dependent switch between NHEJ and HR. DNA Repair, 2015, 27, 28-39.	2.8	37
115	Relative biological effectiveness of carbon ions for tumor control, acute skin damage and late radiation-induced fibrosis in a mouse model. Acta OncolÃ³gica, 2015, 54, 1623-1630.	1.8	37
116	Model-based approach for quantitative estimates of skin, heart, and lung toxicity risk for left-side photon and proton irradiation after breast-conserving surgery. Acta OncolÃ³gica, 2017, 56, 730-736.	1.8	37
117	Radiogenomics. Medical Physics, 2018, 45, e1111-e1122.	3.0	37
118	Spatial Dose Patterns Associated With Radiation Pneumonitis in a Randomized Trial Comparing Intensity-Modulated Photon Therapy With Passive Scattering Proton Therapy for Locally Advanced Non-Small Cell Lung Cancer. International Journal of Radiation Oncology Biology Physics, 2019, 104, 1124-1132.	0.8	37
119	Kill painting of hypoxic tumors with multiple ion beams. Physics in Medicine and Biology, 2019, 64, 045008.	3.0	37
120	ATM Alters the Otherwise Robust Chromatin Mobility at Sites of DNA Double-Strand Breaks (DSBs) in Human Cells. PLoS ONE, 2014, 9, e92640.	2.5	37
121	Biological dosimetry in Russian and Italian astronauts. Advances in Space Research, 2003, 31, 1495-1503.	2.6	36
122	Dosimetric precision of an ion beam tracking system. Radiation Oncology, 2010, 5, 61.	2.7	36
123	Chromosomal aberrations in peripheral blood lymphocytes of prostate cancer patients treated with IMRT and carbon ions. Radiotherapy and Oncology, 2010, 95, 73-78.	0.6	36
124	TRAX-CHEM: A pre-chemical and chemical stage extension of the particle track structure code TRAX in water targets. Chemical Physics Letters, 2018, 698, 11-18.	2.6	36
125	FLASH with carbon ions: Tumor control, normal tissue sparing, and distal metastasis in a mouse osteosarcoma model. Radiotherapy and Oncology, 2022, 175, 185-190.	0.6	36
126	Doseâ€“response of initial G2-chromatid breaks induced in normal human fibroblasts by heavy ions. International Journal of Radiation Biology, 2001, 77, 165-174.	1.8	35

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127	Chromosomes Lacking Telomeres are Present in the Progeny of Human Lymphocytes Exposed to Heavy Ions. Radiation Research, 2006, 165, 51-58.	1.5	35
128	Spatiotemporal Dynamics of Early DNA Damage Response Proteins on Complex DNA Lesions. PLoS ONE, 2013, 8, e57953.	2.5	35
129	Truly Incomplete and Complex Exchanges in Prematurely Condensed Chromosomes of Human Fibroblasts ExposedIn Vitroto Energetic Heavy Ions. Radiation Research, 2003, 160, 418-424.	1.5	34
130	Out-of-field dose studies with an anthropomorphic phantom: Comparison of X-rays and particle therapy treatments. Radiotherapy and Oncology, 2012, 105, 133-138.	0.6	34
131	Proton beam therapy in Europe: more centres need more research. British Journal of Cancer, 2019, 120, 777-778.	6.4	34
132	Radiation-induced chromosomal instability in human mammary epithelial cells. Advances in Space Research, 1996, 18, 99-108.	2.6	33
133	Microdosimetry measurements characterizing the radiation fields of 300 MeV/u¹²C and 185 MeV/u⁷Li pencil beams stopping in water. Physics in Medicine and Biology, 2010, 55, 3441-3449.	3.0	32
134	Experimental verification of a real-time compensation functionality for dose changes due to target motion in scanned particle therapy. Medical Physics, 2011, 38, 5448-5458.	3.0	31
135	Residual motion mitigation in scanned carbon ion beam therapy of liver tumors using enlarged pencil beam overlap. Radiotherapy and Oncology, 2014, 113, 290-295.	0.6	31
136	Radioactive Beams in Particle Therapy: Past, Present, and Future. Frontiers in Physics, 2020, 8, 00326.	2.1	31
137	Chromosome Damage Induced by High-LET Î±-particles in Plateau-phase C3H 10T1/2 Cells. International Journal of Radiation Biology, 1992, 62, 571-580.	1.8	30
138	Measurements of the equivalent whole-body dose during radiation therapy by cytogenetic methods. Physics in Medicine and Biology, 1999, 44, 1289-1298.	3.0	30
139	The FIRST experiment at GSI. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2012, 678, 130-138.	1.6	30
140	Sensitivity analysis of the relative biological effectiveness predicted by the local effect model. Physics in Medicine and Biology, 2013, 58, 6827-6849.	3.0	30
141	Ion beam tracking using ultrasound motion detection. Medical Physics, 2014, 41, 041708.	3.0	30
142	Negative and positive incremental forming: Comparison by geometrical, experimental, and FEM considerations. Materials and Manufacturing Processes, 2017, 32, 530-536.	4.7	30
143	Induction and Processing of the Radiation-Induced Gamma-H2AX Signal and Its Link to the Underlying Pattern of DSB: A Combined Experimental and Modelling Study. PLoS ONE, 2015, 10, e0129416.	2.5	30
144	Biological Dosimetry by Interphase Chromosome Painting. Radiation Research, 1996, 145, 53.	1.5	29

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145	Influence of Nuclear Geometry on the Formation of Genetic Rearrangements in Human Cells. Radiation Research, 2010, 174, 20-26.	1.5	29
146	Overview of recent advances in treatment planning for ion beam radiotherapy. European Physical Journal D, 2014, 68, 1.	1.3	29
147	Fragmentation of 120 and 200 MeV u^{âˆ’1}⁴He ions in water and PMMA targets. Physics in Medicine and Biology, 2017, 62, 1310-1326.	3.0	29
148	Inactivation of C3H 10TÂ½ Cells by Monoenergetic High LET Alpha-particles. International Journal of Radiation Biology, 1992, 61, 813-820.	1.8	28
149	Space radiation does not induce a significant increase of intrachromosomal exchanges in astronautsâ€™ lymphocytes. Radiation and Environmental Biophysics, 2005, 44, 219-224.	1.4	28
150	4D inâ€beam positron emission tomography for verification of motionâ€compensated ion beam therapy. Medical Physics, 2009, 36, 4230-4243.	3.0	28
151	Complex exchanges are responsible for the increased effectiveness of C-ions compared to X-rays at the first post-irradiation mitosis. Mutation Research - Genetic Toxicology and Environmental Mutagenesis, 2010, 701, 52-59.	1.7	28
152	Differential Repair Protein Recruitment at Sites of Clustered and Isolated DNA Double-Strand Breaks Produced by High-Energy Heavy Ions. Scientific Reports, 2020, 10, 1443.	3.3	28
153	Complex chromosomal rearrangements induced in vivo by heavy ions. Cytogenetic and Genome Research, 2004, 104, 240-244.	1.1	27
154	G2 chromatid damage and repair kinetics in normal human fibroblast cells exposed to low- or high-LET radiation. Cytogenetic and Genome Research, 2004, 104, 211-215.	1.1	27
155	Charged particle beams to cure cancer: Strengths and challenges. Seminars in Oncology, 2019, 46, 219-225.	2.2	27
156	Biodosimetry of Ionizing Radiation by Selective Painting of Prematurely Condensed Chromosomes in Human Lymphocytes. Radiation Research, 1997, 148, S45.	1.5	26
157	Simultaneous exposure of mammalian cells to heavy ions and X-rays. Advances in Space Research, 2002, 30, 877-884.	2.6	26
158	In vivo and in vitro measurements of complex-type chromosomal exchanges induced by heavy ions. Advances in Space Research, 2003, 31, 1525-1535.	2.6	26
159	Response of human hematopoietic stem and progenitor cells to energetic carbon ions. International Journal of Radiation Biology, 2009, 85, 1051-1059.	1.8	26
160	Space radiation research in Europe: flight experiments and ground-based studies. Radiation and Environmental Biophysics, 2010, 49, 295-302.	1.4	26
161	Hibernation and Radioprotection: Gene Expression in the Liver and Testicle of Rats Irradiated under Synthetic Torpor. International Journal of Molecular Sciences, 2019, 20, 352.	4.1	26
162	Influence of the Shielding on the Induction of Chromosomal Aberrations in Human Lymphocytes Exposed to High-energy Iron Ions. Journal of Radiation Research, 2002, 43, S107-S111.	1.6	25

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163	Treatment Planning Studies in Patient Data With Scanned Carbon Ion Beams for Catheterâ€Free Ablation of Atrial Fibrillation. Journal of Cardiovascular Electrophysiology, 2016, 27, 335-344.	1.7	25
164	High-energy proton imaging for biomedical applications. Scientific Reports, 2016, 6, 27651.	3.3	25
165	Comparative Risk Predictions of Second Cancers After Carbon-Ion Therapy Versus Proton Therapy. International Journal of Radiation Oncology Biology Physics, 2016, 95, 279-286.	0.8	25
166	Characterizing the Potency and Impact of Carbon Ion Therapy in a Primary Mouse Model of Soft Tissue Sarcoma. Molecular Cancer Therapeutics, 2018, 17, 858-868.	4.1	25
167	A new facility for proton radiobiology at the Trento proton therapy centre: Design and implementation. Physica Medica, 2019, 58, 99-106.	0.7	25
168	ESTIMATES OF RADIOLOGICAL RISK FROM DEPLETED URANIUM WEAPONS IN WAR SCENARIOS. Health Physics, 2002, 82, 14-20.	0.5	24
169	Depleted uranium residual radiological risk assessment for Kosovo sites. Journal of Environmental Radioactivity, 2003, 64, 237-245.	1.7	24
170	Chromosome aberrations of clonal origin are present in astronautsâ€™ blood lymphocytes. Cytogenetic and Genome Research, 2004, 104, 245-251.	1.1	24
171	Fragmentation studies of relativistic iron ions using plastic nuclear track detectors. Advances in Space Research, 2005, 35, 230-235.	2.6	24
172	Overcoming resistance of cancer stem cells. Lancet Oncology, The, 2012, 13, e187-e188.	10.7	24
173	RBE of ion beams in hypofractionated radiotherapy (SBRT). Physica Medica, 2014, 30, 588-591.	0.7	24
174	Accelerator-Based Tests of Shielding Effectiveness of Different Materials and Multilayers using High-Energy Light and Heavy Ions. Radiation Research, 2018, 190, 526.	1.5	24
175	Biological Cardiac Tissue Effects of High-Energy Heavy Ions â€“ Investigation for Myocardial Ablation. Scientific Reports, 2019, 9, 5000.	3.3	24
176	Roadmap: helium ion therapy. Physics in Medicine and Biology, 2022, 67, 15TR02.	3.0	24
177	Effects of ?-particles on survial and chromosomal aberrations in human mammary epithelial cells. Radiation and Environmental Biophysics, 1995, 34, 195-204.	1.4	23
178	The effect of track structure on the induction of chromosomal aberrations in murine cells. International Journal of Radiation Biology, 1998, 73, 253-262.	1.8	23
179	Modeling Combined Chemotherapy and Particle Therapy for Locally Advanced Pancreatic Cancer. Frontiers in Oncology, 2015, 5, 145.	2.8	23
180	Modelling the risk of radiation induced alopecia in brain tumor patients treated with scanned proton beams. Radiotherapy and Oncology, 2020, 144, 127-134.	0.6	23

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181	Radiation-induced Chromosomal Aberrations in Mouse 10T1/2 Cells: Dependence on the Cell-cycle Stage at the Time of Irradiation. International Journal of Radiation Biology, 1994, 65, 437-447.	1.8	22
182	Light Flashes in Cancer Patients Treated with Heavy Ions. Brain Stimulation, 2013, 6, 416-417.	1.6	22
183	NTCP Models for Severe Radiation Induced Dermatitis After IMRT or Proton Therapy for Thoracic Cancer Patients. Frontiers in Oncology, 2020, 10, 344.	2.8	22
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