

Oliver Jkel

List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

247
papers

7,899
citations

48
h-index

77
g-index

292
ext. papers

9,007
ext. citations

3
avg, IF

5.82
L-index

#	Paper	IF	Citations
247	Treatment planning for heavy-ion radiotherapy: physical beam model and dose optimization. <i>Physics in Medicine and Biology</i> , 2000 , 45, 3299-317	3.8	421
246	Carbon ion radiotherapy in Japan: an assessment of 20 years of clinical experience. <i>Lancet Oncology</i> , 2015 , 16, e93-e100	21.7	322
245	Results of carbon ion radiotherapy in 152 patients. <i>International Journal of Radiation Oncology Biology Physics</i> , 2004 , 58, 631-40	4	243
244	Effectiveness of carbon ion radiotherapy in the treatment of skull-base chordomas. <i>International Journal of Radiation Oncology Biology Physics</i> , 2007 , 68, 449-57	4	240
243	Monte Carlo simulations to support start-up and treatment planning of scanned proton and carbon ion therapy at a synchrotron-based facility. <i>Physics in Medicine and Biology</i> , 2012 , 57, 3759-84	3.8	155
242	Carbon ion radiotherapy of skull base chondrosarcomas. <i>International Journal of Radiation Oncology Biology Physics</i> , 2007 , 67, 171-7	4	153
241	The Heidelberg Ion Therapy Center. <i>Radiotherapy and Oncology</i> , 2004 , 73 Suppl 2, S186-90	5.3	148
240	Therapy strategies for locally advanced adenoid cystic carcinomas using modern radiation therapy techniques. <i>Cancer</i> , 2005 , 104, 338-44	6.4	131
239	Radiation therapy with charged particles. <i>Seminars in Radiation Oncology</i> , 2006 , 16, 249-59	5.5	127
238	Dosimetry for ion beam radiotherapy. <i>Physics in Medicine and Biology</i> , 2010 , 55, R193-234	3.8	125
237	Experimental verification of ion stopping power prediction from dual energy CT data in tissue surrogates. <i>Physics in Medicine and Biology</i> , 2014 , 59, 83-96	3.8	120
236	Treatment planning for heavy ion radiotherapy: clinical implementation and application. <i>Physics in Medicine and Biology</i> , 2001 , 46, 1101-16	3.8	117
235	Analysis of uncertainties in Gafchromic EBT film dosimetry of photon beams. <i>Physics in Medicine and Biology</i> , 2008 , 53, 7013-27	3.8	111
234	Homogeneity of Gafchromic EBT2 film. <i>Medical Physics</i> , 2010 , 37, 1753-6	4.4	109
233	Highly effective treatment of skull base chordoma with carbon ion irradiation using a raster scan technique in 155 patients: first long-term results. <i>Cancer</i> , 2014 , 120, 3410-7	6.4	97
232	Dose- and LET-painting with particle therapy. <i>Acta Oncologica</i> , 2010 , 49, 1170-6	3.2	96
231	Radiotherapy for chordomas and low-grade chondrosarcomas of the skull base with carbon ions. <i>International Journal of Radiation Oncology Biology Physics</i> , 2002 , 53, 36-42	4	96

230	Particle therapy at the Heidelberg Ion Therapy Center (HIT) - Integrated research-driven university-hospital-based radiation oncology service in Heidelberg, Germany. <i>Radiotherapy and Oncology</i> , 2010 , 95, 41-4	5.3	93
229	Development of the open-source dose calculation and optimization toolkit matRad. <i>Medical Physics</i> , 2017 , 44, 2556-2568	4.4	91
228	Three-dimensional accuracy and interfractional reproducibility of patient fixation and positioning using a stereotactic head mask system. <i>International Journal of Radiation Oncology Biology Physics</i> , 2001 , 49, 1493-504	4	90
227	Relation between carbon ion ranges and x-ray CT numbers. <i>Medical Physics</i> , 2001 , 28, 701-3	4.4	85
226	LET-painting increases tumour control probability in hypoxic tumours. <i>Acta Oncologica</i> , 2014 , 53, 25-32	3.2	84
225	Carbon ion radiotherapy for chordomas and low-grade chondrosarcomas of the skull base. Results in 67 patients. <i>Strahlentherapie Und Onkologie</i> , 2003 , 179, 598-605	4.3	84
224	A system for three-dimensional dosimetric verification of treatment plans in intensity-modulated radiotherapy with heavy ions. <i>Medical Physics</i> , 1999 , 26, 2125-32	4.4	83
223	Tissue decomposition from dual energy CT data for MC based dose calculation in particle therapy. <i>Medical Physics</i> , 2014 , 41, 061714	4.4	75
222	Dosimetric properties of Gafchromic EBT films in monoenergetic medical ion beams. <i>Physics in Medicine and Biology</i> , 2010 , 55, 3741-51	3.8	75
221	Heidelberg Ion Therapy Center (HIT): Initial clinical experience in the first 80 patients. <i>Acta Oncologica</i> , 2010 , 49, 1132-40	3.2	72
220	Positron emission tomography for quality assurance of cancer therapy with light ion beams. <i>Nuclear Physics A</i> , 1999 , 654, 1047c-1050c	1.3	72
219	The influence of metal artefacts on the range of ion beams. <i>Physics in Medicine and Biology</i> , 2007 , 52, 635-44	3.8	68
218	Evaluation of different fiducial markers for image-guided radiotherapy and particle therapy. <i>Journal of Radiation Research</i> , 2013 , 54 Suppl 1, i61-8	2.4	66
217	Randomized phase II study evaluating a carbon ion boost applied after combined radiochemotherapy with temozolomide versus a proton boost after radiochemotherapy with temozolomide in patients with primary glioblastoma: the CLEOPATRA trial. <i>BMC Cancer</i> , 2010 , 10, 478	4.8	66
216	Hypofractionated carbon ion therapy delivered with scanned ion beams for patients with hepatocellular carcinoma - feasibility and clinical response. <i>Radiation Oncology</i> , 2013 , 8, 59	4.2	63
215	Randomised phase I/II study to evaluate carbon ion radiotherapy versus fractionated stereotactic radiotherapy in patients with recurrent or progressive gliomas: the CINDERELLA trial. <i>BMC Cancer</i> , 2010 , 10, 533	4.8	61
214	Determination of water absorbed dose in a carbon ion beam using thimble ionization chambers. <i>Physics in Medicine and Biology</i> , 1999 , 44, 1193-206	3.8	61
213	Carbon ion radiation therapy for high-risk meningiomas. <i>Radiotherapy and Oncology</i> , 2010 , 95, 54-9	5.3	60

212	Prospective evaluation of early treatment outcome in patients with meningiomas treated with particle therapy based on target volume definition with MRI and 68Ga-DOTATOC-PET. <i>Acta Oncologica</i> , 2013 , 52, 514-20	3.2	59
211	Overcoming hypoxia-induced tumor radioresistance in non-small cell lung cancer by targeting DNA-dependent protein kinase in combination with carbon ion irradiation. <i>Radiation Oncology</i> , 2017 , 12, 208	4.2	58
210	Combined intensity-modulated radiotherapy plus raster-scanned carbon ion boost for advanced adenoid cystic carcinoma of the head and neck results in superior locoregional control and overall survival. <i>Cancer</i> , 2015 , 121, 3001-9	6.4	57
209	Calculation of stopping power ratios for carbon ion dosimetry. <i>Physics in Medicine and Biology</i> , 2006 , 51, 2279-92	3.8	57
208	COSMIC: A Regimen of Intensity Modulated Radiation Therapy Plus Dose-Escalated, Raster-Scanned Carbon Ion Boost for Malignant Salivary Gland Tumors: Results of the Prospective Phase 2 Trial. <i>International Journal of Radiation Oncology Biology Physics</i> , 2015 , 93, 37-46	4	55
207	Carbon ion radiotherapy performed as re-irradiation using active beam delivery in patients with tumors of the brain, skull base and sacral region. <i>Radiotherapy and Oncology</i> , 2011 , 98, 63-7	5.3	54
206	Feasibility and toxicity of combined photon and carbon ion radiotherapy for locally advanced adenoid cystic carcinomas. <i>International Journal of Radiation Oncology Biology Physics</i> , 2003 , 56, 391-8	4	54
205	High-LET radiotherapy for adenoid cystic carcinoma of the head and neck: 15 years experience with raster-scanned carbon ion therapy. <i>Radiotherapy and Oncology</i> , 2016 , 118, 272-80	5.3	52
204	MRI-based treatment plan simulation and adaptation for ion radiotherapy using a classification-based approach. <i>Radiation Oncology</i> , 2013 , 8, 51	4.2	52
203	Next generation multi-scale biophysical characterization of high precision cancer particle radiotherapy using clinical proton, helium-, carbon- and oxygen ion beams. <i>Oncotarget</i> , 2016 , 7, 56676-56689	3.3	51
202	Non-invasive monitoring of therapeutic carbon ion beams in a homogeneous phantom by tracking of secondary ions. <i>Physics in Medicine and Biology</i> , 2013 , 58, 3755-73	3.8	49
201	Upgrade and benchmarking of a 4D treatment planning system for scanned ion beam therapy. <i>Medical Physics</i> , 2013 , 40, 051722	4.4	48
200	Carbon ion beam treatment in patients with primary and recurrent sacrococcygeal chordoma. <i>Strahlentherapie Und Onkologie</i> , 2015 , 191, 597-603	4.3	47
199	Non-randomized therapy trial to determine the safety and efficacy of heavy ion radiotherapy in patients with non-resectable osteosarcoma. <i>BMC Cancer</i> , 2010 , 10, 96	4.8	47
198	MRI-based simulation of treatment plans for ion radiotherapy in the brain region. <i>Radiotherapy and Oncology</i> , 2013 , 109, 414-8	5.3	46
197	Quantitative carbon ion beam radiography and tomography with a flat-panel detector. <i>Physics in Medicine and Biology</i> , 2012 , 57, 7957-71	3.8	46
196	Biologically optimized helium ion plans: calculation approach and its in vitro validation. <i>Physics in Medicine and Biology</i> , 2016 , 61, 4283-99	3.8	46
195	Experimental characterization of a prototype detector system for carbon ion radiography and tomography. <i>Physics in Medicine and Biology</i> , 2013 , 58, 413-27	3.8	45

194	The future of heavy ion radiotherapy. <i>Medical Physics</i> , 2008 , 35, 5653-63	4.4	45
193	Proton and carbon ion radiotherapy for primary brain tumors and tumors of the skull base. <i>Acta Oncologica</i> , 2013 , 52, 1504-9	3.2	44
192	Temporal lobe reactions after radiotherapy with carbon ions: incidence and estimation of the relative biological effectiveness by the local effect model. <i>International Journal of Radiation Oncology Biology Physics</i> , 2011 , 80, 815-23	4	43
191	The application of PET to quality assurance of heavy-ion tumor therapy. <i>Strahlentherapie Und Onkologie</i> , 1999 , 175 Suppl 2, 33-6	4.3	43
190	Ion range estimation by using dual energy computed tomography. <i>Zeitschrift Fur Medizinische Physik</i> , 2013 , 23, 300-13	7.6	41
189	Quality assurance for a treatment planning system in scanned ion beam therapy. <i>Medical Physics</i> , 2000 , 27, 1588-600	4.4	41
188	Randomized phase II trial of hypofractionated proton versus carbon ion radiation therapy in patients with sacrococcygeal chordoma-the ISAC trial protocol. <i>Radiation Oncology</i> , 2014 , 9, 100	4.2	40
187	Heavy ion therapy: status and perspectives. <i>Technology in Cancer Research and Treatment</i> , 2003 , 2, 377-87	7	39
186	A calibration procedure for beam monitors in a scanned beam of heavy charged particles. <i>Medical Physics</i> , 2004 , 31, 1009-13	4.4	39
185	Acute radiation-induced toxicity of heavy ion radiotherapy delivered with intensity modulated pencil beam scanning in patients with base of skull tumors. <i>Radiotherapy and Oncology</i> , 2002 , 64, 189-95	5.3	39
184	Treatment of pediatric patients and young adults with particle therapy at the Heidelberg Ion Therapy Center (HIT): establishment of workflow and initial clinical data. <i>Radiation Oncology</i> , 2012 , 7, 170	4.2	38
183	Four-dimensional patient dose reconstruction for scanned ion beam therapy of moving liver tumors. <i>International Journal of Radiation Oncology Biology Physics</i> , 2014 , 89, 175-81	4	37
182	Medical physics aspects of particle therapy. <i>Radiation Protection Dosimetry</i> , 2009 , 137, 156-66	0.9	36
181	Evaluation of therapeutic potential of heavy ion therapy for patients with locally advanced prostate cancer. <i>International Journal of Radiation Oncology Biology Physics</i> , 2004 , 58, 89-97	4	36
180	Treatment of patients with atypical meningiomas Simpson grade 4 and 5 with a carbon ion boost in combination with postoperative photon radiotherapy: the MARCIE trial. <i>BMC Cancer</i> , 2010 , 10, 615	4.8	35
179	MR-guided proton therapy: a review and a preview. <i>Radiation Oncology</i> , 2020 , 15, 129	4.2	34
178	Current status and new developments in ion therapy. <i>Strahlentherapie Und Onkologie</i> , 2007 , 183, 295-300	4.3	34
177	Atrioventricular node ablation in Langendorff-perfused porcine hearts using carbon ion particle therapy: methods and an in vivo feasibility investigation for catheter-free ablation of cardiac arrhythmias. <i>Circulation: Arrhythmia and Electrophysiology</i> , 2015 , 8, 429-38	6.4	33

176	Fluorescent nuclear track detectors as a tool for ion-beam therapy research. <i>Radiation Measurements</i> , 2013 , 56, 267-272	1.5	33
175	Assessment of early toxicity and response in patients treated with proton and carbon ion therapy at the Heidelberg ion therapy center using the raster scanning technique. <i>International Journal of Radiation Oncology Biology Physics</i> , 2011 , 81, e793-801	4	33
174	High control rates of proton- and carbon-ion-beam treatment with intensity-modulated active raster scanning in 101 patients with skull base chondrosarcoma at the Heidelberg Ion Beam Therapy Center. <i>Cancer</i> , 2018 , 124, 2036-2044	6.4	32
173	Phase I/II trial evaluating carbon ion radiotherapy for the treatment of recurrent rectal cancer: the PANDORA-01 trial. <i>BMC Cancer</i> , 2012 , 12, 137	4.8	32
172	Radiation tolerance of the rat spinal cord after single and split doses of photons and carbon ions. <i>Radiation Research</i> , 2003 , 160, 536-42	3.1	32
171	Technical Note: Radiological properties of tissue surrogates used in a multimodality deformable pelvic phantom for MR-guided radiotherapy. <i>Medical Physics</i> , 2016 , 43, 908-16	4.4	32
170	Reirradiation Using Carbon Ions in Patients with Locally Recurrent Rectal Cancer at HIT: First Results. <i>Annals of Surgical Oncology</i> , 2015 , 22, 2068-74	3.1	31
169	Clinical implementation and range evaluation of in vivo PET dosimetry for particle irradiation in patients with primary glioma. <i>Radiotherapy and Oncology</i> , 2015 , 115, 179-85	5.3	30
168	On the cost-effectiveness of Carbon ion radiation therapy for skull base chordoma. <i>Radiotherapy and Oncology</i> , 2007 , 83, 133-8	5.3	30
167	A phenomenological relative biological effectiveness approach for proton therapy based on an improved description of the mixed radiation field. <i>Physics in Medicine and Biology</i> , 2017 , 62, 1378-1395	3.8	29
166	Phase i study evaluating the treatment of patients with hepatocellular carcinoma (HCC) with carbon ion radiotherapy: the PROMETHEUS-01 trial. <i>BMC Cancer</i> , 2011 , 11, 67	4.8	29
165	Amorphous track models: A numerical comparison study. <i>Radiation Measurements</i> , 2010 , 45, 1406-1409	1.5	28
164	Influence of iodine contrast agent on the range of ion beams for radiotherapy. <i>Medical Physics</i> , 2004 , 31, 767-73	4.4	28
163	Treatment planning for scanned ion beams. <i>Radiotherapy and Oncology</i> , 2004 , 73 Suppl 2, S80-5	5.3	28
162	Quality management of medical physics issues at the German heavy ion therapy project. <i>Medical Physics</i> , 2000 , 27, 725-36	4.4	28
161	Generation of synthetic CT data using patient specific daily MR image data and image registration. <i>Physics in Medicine and Biology</i> , 2017 , 62, 1358-1377	3.8	27
160	Experimental investigations on carbon ion scanning radiography using a range telescope. <i>Physics in Medicine and Biology</i> , 2014 , 59, 3041-57	3.8	26
159	Residual motion mitigation in scanned carbon ion beam therapy of liver tumors using enlarged pencil beam overlap. <i>Radiotherapy and Oncology</i> , 2014 , 113, 290-5	5.3	26

158	Experimental study of the water-to-air stopping power ratio of monoenergetic carbon ion beams for particle therapy. <i>Physics in Medicine and Biology</i> , 2012 , 57, 3629-41	3.8	26
157	Clinical outcome after particle therapy for meningiomas of the skull base: toxicity and local control in patients treated with active rasterscanning. <i>Radiation Oncology</i> , 2018 , 13, 54	4.2	25
156	The impact of modeling nuclear fragmentation on delivered dose and radiobiology in ion therapy. <i>Physics in Medicine and Biology</i> , 2012 , 57, 5169-85	3.8	25
155	Effective point of measurement of cylindrical ionization chambers for heavy charged particles. <i>Physics in Medicine and Biology</i> , 2000 , 45, 599-607	3.8	25
154	Time-resolved optically stimulated luminescence of Al ₂ O ₃ :C for ion beam therapy dosimetry. <i>Physics in Medicine and Biology</i> , 2015 , 60, 6613-38	3.8	24
153	Dosimetry in clinical static magnetic fields using plastic scintillation detectors. <i>Radiation Measurements</i> , 2013 , 56, 357-360	1.5	24
152	Antiproton radiotherapy. <i>Radiotherapy and Oncology</i> , 2008 , 86, 14-9	5.3	24
151	The relative biological effectiveness of proton and ion beams. <i>Zeitschrift Fur Medizinische Physik</i> , 2008 , 18, 276-85	7.6	24
150	matRad - a multi-modality open source 3D treatment planning toolkit. <i>IFMBE Proceedings</i> , 2015 , 1608-1611		23
149	An anthropomorphic multimodality (CT/MRI) head phantom prototype for end-to-end tests in ion radiotherapy. <i>Zeitschrift Fur Medizinische Physik</i> , 2015 , 25, 391-399	7.6	23
148	Evaluation of particle radiotherapy for the re-irradiation of recurrent intracranial meningioma. <i>Radiation Oncology</i> , 2018 , 13, 86	4.2	23
147	Comparison of intensity modulated radiotherapy (IMRT) with intensity modulated particle therapy (IMPT) using fixed beams or an ion gantry for the treatment of patients with skull base meningiomas. <i>Radiation Oncology</i> , 2012 , 7, 44	4.2	23
146	Dose response of alanine detectors irradiated with carbon ion beams. <i>Medical Physics</i> , 2011 , 38, 1859-66	4.4	23
145	Study of Gafchromic EBT film response over a large dose range. <i>Physics in Medicine and Biology</i> , 2010 , 55, N281-90	3.8	23
144	Use of Gafchromic EBT films in heavy ion therapy. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2008 , 591, 171-173 ^{1.2}		23
143	High-accuracy fluence determination in ion beams using fluorescent nuclear track detectors. <i>Radiation Measurements</i> , 2013 , 56, 294-298	1.5	22
142	Dosimetric properties of Gafchromic(R) EBT films in medical carbon ion beams. <i>Physics in Medicine and Biology</i> , 2010 , 55, 5557-67	3.8	22
141	Monte Carlo simulations on the water-to-air stopping power ratio for carbon ion dosimetry. <i>Medical Physics</i> , 2009 , 36, 1230-5	4.4	22

140	The antiproton depth-dose curve in water. <i>Physics in Medicine and Biology</i> , 2008 , 53, 793-805	3.8	22
139	Phase I study evaluating the treatment of patients with locally advanced pancreatic cancer with carbon ion radiotherapy: the PHOENIX-01 trial. <i>BMC Cancer</i> , 2013 , 13, 419	4.8	21
138	An advanced image processing method to improve the spatial resolution of ion radiographies. <i>Physics in Medicine and Biology</i> , 2015 , 60, 8525-47	3.8	21
137	Analytical expressions for water-to-air stopping-power ratios relevant for accurate dosimetry in particle therapy. <i>Physics in Medicine and Biology</i> , 2011 , 56, 2515-33	3.8	21
136	Chiral symmetry and the near threshold pion-induced 2π production on the nucleon. <i>Nuclear Physics A</i> , 1990 , 511, 733-746	1.3	21
135	Subcellular spatial correlation of particle traversal and biological response in clinical ion beams. <i>International Journal of Radiation Oncology Biology Physics</i> , 2013 , 87, 1141-7	4	20
134	The ratio of stopping powers of water and air for dosimetry applications in tumor therapy. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2007 , 256, 561-564	1.2	20
133	Dosimetry auditing procedure with alanine dosimeters for light ion beam therapy. <i>Radiotherapy and Oncology</i> , 2013 , 108, 99-106	5.3	19
132	Treatment planning for carbon ion radiotherapy in Germany: review of clinical trials and treatment planning studies. <i>Radiotherapy and Oncology</i> , 2004 , 73 Suppl 2, S86-91	5.3	19
131	Optimization of radiation therapy for locally advanced adenoid cystic carcinomas with infiltration of the skull base using photon intensity-modulated radiation therapy (IMRT) and a carbon ion boost. <i>Strahlentherapie Und Onkologie</i> , 2003 , 179, 345-51	4.3	19
130	Engineering cell-fluorescent ion track hybrid detectors. <i>Radiation Oncology</i> , 2013 , 8, 141	4.2	18
129	Data-driven RBE parameterization for helium ion beams. <i>Physics in Medicine and Biology</i> , 2016 , 61, 888-905	5.5	18
128	Optimization of Monte Carlo particle transport parameters and validation of a novel high throughput experimental setup to measure the biological effects of particle beams. <i>Medical Physics</i> , 2017 , 44, 6061-6073	4.4	17
127	Selection of beam angles for radiotherapy of skull base tumours using charged particles. <i>Physics in Medicine and Biology</i> , 2000 , 45, 1229-41	3.8	17
126	Ion recombination correction factor in scanned light-ion beams for absolute dose measurement using plane-parallel ionisation chambers. <i>Physics in Medicine and Biology</i> , 2017 , 62, 5365-5382	3.8	16
125	Influence of Ga-DOTATOC on sparing of normal tissue for radiation therapy of skull base meningioma: differential impact of photon and proton radiotherapy. <i>Radiation Oncology</i> , 2018 , 13, 58	4.2	16
124	Treatment planning intercomparison for spinal chordomas using intensity-modulated photon radiation therapy (IMRT) and carbon ions. <i>Physics in Medicine and Biology</i> , 2003 , 48, 2617-31	3.8	16
123	Chiral symmetry and the near-threshold pion-induced 2π production on the nucleon. <i>Nuclear Physics A</i> , 1992 , 541, 675-686	1.3	16

122	Proof of principle of helium-beam radiography using silicon pixel detectors for energy deposition measurement, identification, and tracking of single ions. <i>Medical Physics</i> , 2018 , 45, 817-829	4.4	15
121	The Influence of Stopping Powers upon Dosimetry for Radiation Therapy with Energetic Ions. <i>Advances in Quantum Chemistry</i> , 2007 , 289-306	1.4	15
120	Prospective feasibility analysis of a novel off-line approach for MR-guided radiotherapy. <i>Strahlentherapie Und Onkologie</i> , 2018 , 194, 425-434	4.3	14
119	Planning strategies for inter-fractional robustness in pancreatic patients treated with scanned carbon therapy. <i>Radiation Oncology</i> , 2017 , 12, 94	4.2	14
118	Spatial correlation between traversal and cellular response in ion radiotherapy ¶Towards single track spectroscopy. <i>Radiation Measurements</i> , 2013 , 56, 285-289	1.5	14
117	Ion track reconstruction in 3D using alumina-based fluorescent nuclear track detectors. <i>Physics in Medicine and Biology</i> , 2013 , 58, N251-66	3.8	14
116	Acute toxicity of combined photon IMRT and carbon ion boost for intermediate-risk prostate cancer - acute toxicity of 12C for PC. <i>Acta Oncologica</i> , 2011 , 50, 784-90	3.2	14
115	COTS Silicon diodes as radiation detectors in proton and heavy charged particle radiotherapy 1. <i>Radiation and Environmental Biophysics</i> , 2010 , 49, 365-71	2	14
114	Specifying carbon ion doses for radiotherapy: the heidelberg approach. <i>Journal of Radiation Research</i> , 2007 , 48 Suppl A, A87-95	2.4	14
113	A method for determining the alignment accuracy of the treatment table axis at an isocentric irradiation facility. <i>Physics in Medicine and Biology</i> , 2001 , 46, N19-26	3.8	14
112	Significance of intra-fractional motion for pancreatic patients treated with charged particles. <i>Radiation Oncology</i> , 2018 , 13, 120	4.2	13
111	Preclinical investigations towards the first spacer gel application in prostate cancer treatment during particle therapy at HIT. <i>Radiation Oncology</i> , 2013 , 8, 134	4.2	13
110	Imaging dose assessment for IGRT in particle beam therapy. <i>Radiotherapy and Oncology</i> , 2013 , 109, 409-13	3.3	13
109	Optimization of carbon ion and proton treatment plans using the raster-scanning technique for patients with unresectable pancreatic cancer. <i>Radiation Oncology</i> , 2015 , 10, 237	4.2	13
108	A comparison of different experimental methods for general recombination correction for liquid ionization chambers. <i>Physics in Medicine and Biology</i> , 2012 , 57, 7161-75	3.8	13
107	$\pi^+\pi^-$ angular correlations for $\pi^+\pi^-\rightarrow\pi^+\pi^-$ in the region of the Delta dominance. <i>Physical Review C</i> , 1993 , 48, 981-1002	2.7	13
106	Fluence-based dosimetry of proton and heavier ion beams using single track detectors. <i>Physics in Medicine and Biology</i> , 2016 , 61, 1021-40	3.8	13
105	A 3D feature point tracking method for ion radiation. <i>Physics in Medicine and Biology</i> , 2016 , 61, 4088-1043	3.8	13

104	Ion therapy of prostate cancer: daily rectal dose reduction by application of spacer gel. <i>Radiation Oncology</i> , 2015 , 10, 56	4.2	12
103	Temporal lobe reactions after carbon ion radiation therapy: comparison of relative biological effectiveness-weighted tolerance doses predicted by local effect models I and IV. <i>International Journal of Radiation Oncology Biology Physics</i> , 2014 , 88, 1136-41	4	12
102	Measurement of secondary radiation during ion beam therapy with the pixel detector Timepix. <i>Journal of Instrumentation</i> , 2011 , 6, C11014-C11014	1	12
101	Influence of setup errors on spinal cord dose and treatment plan quality for cervical spine tumours: a phantom study for photon IMRT and heavy charged particle radiotherapy. <i>Physics in Medicine and Biology</i> , 2003 , 48, 3171-89	3.8	12
100	Accuracy of robotic patient positioners used in ion beam therapy. <i>Radiation Oncology</i> , 2013 , 8, 124	4.2	11
99	Test of the nuclear interaction model in SHIELD-HIT and comparison to energy distributions from GEANT4. <i>Physics in Medicine and Biology</i> , 2009 , 54, N509-17	3.8	11
98	Antiproton therapy. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2008 , 266, 530-534	1.2	11
97	Ranges of ions in metals for use in particle treatment planning. <i>Physics in Medicine and Biology</i> , 2006 , 51, N173-7	3.8	11
96	Investigation of mixed ion fields in the forward direction for 220.5 MeV/u helium ion beams: comparison between water and PMMA targets. <i>Physics in Medicine and Biology</i> , 2017 , 62, 8003-8024	3.8	10
95	Influence of the delta ray production threshold on water-to-air stopping power ratio calculations for carbon ion beam radiotherapy. <i>Physics in Medicine and Biology</i> , 2013 , 58, 145-58	3.8	10
94	Analysis of inter- and intrafraction accuracy of a commercial thermoplastic mask system used for image-guided particle radiation therapy. <i>Journal of Radiation Research</i> , 2013 , 54 Suppl 1, i69-76	2.4	10
93	The more important heavy charged particle radiotherapy of the future is more likely to be with heavy ions rather than protons. <i>Medical Physics</i> , 2013 , 40, 090601	4.4	10
92	Investigations of a flat-panel detector for quality assurance measurements in ion beam therapy. <i>Physics in Medicine and Biology</i> , 2012 , 57, 51-68	3.8	10
91	Biological dose optimization using ramp-like dose gradients in ion irradiation fields. <i>Physica Medica</i> , 2005 , 21, 107-11	2.7	10
90	Analysis of data on low energy $n \rightarrow n$ reaction I. Total cross sections. <i>Nuclear Physics A</i> , 1995 , 592, 413-442	1.3	10
89	Direct determination of k for Farmer-type ionization chambers in a clinical scanned carbon ion beam using water calorimetry. <i>Physics in Medicine and Biology</i> , 2017 , 62, 2033-2054	3.8	9
88	Application of fluorescent nuclear track detectors for cellular dosimetry. <i>Physics in Medicine and Biology</i> , 2017 , 62, 2719-2740	3.8	9
87	Dosimetric Impact of Interfractional Variations in Prostate Cancer Radiotherapy-Implications for Imaging Frequency and Treatment Adaptation. <i>Frontiers in Oncology</i> , 2019 , 9, 940	5.3	9

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