Carmen Villagrasa

List of Publications by Year
in descending order

38 papers	2,394 citations	331259 21 h-index	329751 37 g-index
39 all docs	39 docs citations	39 times ranked	1075 citing authors

#	Article	IF	Citations
1	Intercomparison of micro- and nanodosimetry Monte Carlo simulations: An approach to assess the influence of different cross-sections for low-energy electrons on the dispersion of results. Radiation Measurements, 2022, 150, 106675.	0.7	5
2	Nanodosimetric Calculations of Radiation-Induced DNA Damage in a New Nucleus Geometrical Model Based on the Isochore Theory. International Journal of Molecular Sciences, 2022, 23, 3770.	1.8	7
3	Review of the Geant4-DNA Simulation Toolkit for Radiobiological Applications at the Cellular and DNA Level. Cancers, 2022, 14, 35.	1.7	43
4	Lessons learnt from the recent EURADOS intercomparisons in computational dosimetry. Radiation Measurements, 2022, 156, 106822.	0.7	2
5	Assessment of DNA damage with an adapted independent reaction time approach implemented in Geant4â€DNA for the simulation of diffusionâ€controlled reactions between radioâ€induced reactive species and a chromatin fiber. Medical Physics, 2021, 48, 890-901.	1.6	10
6	Quality assurance for the use of computational methods in dosimetry: activities of EURADOS Working Group 6 â€˜Computational Dosimetryâ€™. Journal of Radiological Protection, 2021, 41, 46-58.	0.6	8
7	Intercomparison of Monte Carlo calculated dose enhancement ratios for gold nanoparticles irradiated by X-rays: Assessing the uncertainty and correct methodology for extended beams. Physica Medica, 2021, 84, 241-253.	0.4	20
8	TOPAS-nBio validation for simulating water radiolysis and DNA damage under low-LET irradiation. Physics in Medicine and Biology, 2021, 66, 175026.	1.6	16
9	Consistency checks of results from a Monte Carlo code intercomparison for emitted electron spectra and energy deposition around a single gold nanoparticle irradiated by X-rays. Radiation Measurements, 2021, 147, 106637.	0.7	7
10	Modeling early radiation DNA damage occurring during [¹⁷⁷Lu]Lu-DOTA-[Tyr³]octreotate radionuclide therapy. Journal of Nuclear Medicine, 2021, , jnumed.121.262610.	2.8	2
11	A Geant4-DNA Evaluation of Radiation-Induced DNA Damage on a Human Fibroblast. Cancers, 2021, 13, 4940.	1.7	13
12	Independent reaction times method in Geant4â€DNA: Implementation and performance. Medical Physics, 2020, 47, 5919-5930.	1.6	27
13	Intercomparison of dose enhancement ratio and secondary electron spectra for gold nanoparticles irradiated by X-rays calculated using multiple Monte Carlo simulation codes. Physica Medica, 2020, 69, 147-163.	0.4	42
14	Determining dose enhancement factors of high-Z nanoparticles from simulations where lateral secondary particle disequilibrium exists. Physics in Medicine and Biology, 2019, 64, 155016.	1.6	25
15	Evaluation of early radiation DNA damage in a fractal cell nucleus model using Geant4-DNA. Physica Medica, 2019, 62, 152-157.	0.4	54
16	Influence of chromatin compaction on simulated early radiationâ€induced <scp>DNA</scp> damage using Geant4â€<scp>DNA</scp>. Medical Physics, 2019, 46, 1501-1511.	1.6	38
17	Assessment of Radio-Induced Damage in Endothelial Cells Irradiated with 40 kVp, 220 kVp, and 4 MV X-rays by Means of Micro and Nanodosimetric Calculations. International Journal of Molecular Sciences, 2019, 20, 6204.	1.8	23
18	ASSESSING THE CONTRIBUTION OF CROSS-SECTIONS TO THE UNCERTAINTY OF MONTE CARLO CALCULATIONS IN MICRO- AND NANODOSIMETRY. Radiation Protection Dosimetry, 2019, 183, 11-16.	0.4	23

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19	SIMULATION OF EARLY RADIATION-INDUCED DNA DAMAGE ON DIFFERENT TYPES OF CELL NUCLEI. Radiation Protection Dosimetry, 2019, 183, 26-31.	0.4	7
20	A New Standard DNA Damage (SDD) Data Format. Radiation Research, 2018, 191, 76.	0.7	49
21	Geant4â€DNA example applications for track structure simulations in liquid water: A report from the Geant4â€DNA Project. Medical Physics, 2018, 45, e722.	1.6	265
22	Simulation of early DNA damage after the irradiation of a fibroblast cell nucleus using Geant4-DNA. Scientific Reports, 2017, 7, 11923.	1.6	103
23	An electron-impact cross section data set (10 eVâ€“1 keV) of DNA constituents based on consistent experimental data: A requisite for Monte Carlo simulations. Radiation Physics and Chemistry, 2017, 130, 459-479.	1.4	54
24	Geant4-DNA simulations using complex DNA geometries generated by the DnaFabric tool. Computer Physics Communications, 2016, 204, 159-169.	3.0	38
25	Track structure modeling in liquid water: A review of the Geant4-DNA very low energy extension of the Geant4 Monte Carlo simulation toolkit. Physica Medica, 2015, 31, 861-874.	0.4	373
26	Influence of the geometrical detail in the description of DNA and the scoring method of ionization clustering on nanodosimetric parameters of track structure: a Monte Carlo study using Geant4-DNA. Physics in Medicine and Biology, 2015, 60, 8583-8599.	1.6	14
27	RBE-LET relationship for proton and alpha irradiations studied with a nanodosimetric approach. Radiation Protection Dosimetry, 2014, 161, 449-453.	0.4	5
28	Influence of chromatin condensation on the number of direct DSB damages induced by ions studied using a Monte Carlo code. Radiation Protection Dosimetry, 2014, 161, 469-473.	0.4	10
29	Influence of the chromatin density on the number of direct clustered damages calculated for proton and alpha irradiations using a Monte Carlo code. Progress in Nuclear Science and Technology, 2014, 4, 449-453.	0.3	10
30	Influence of the DNA density on the number of clustered damages created by protons of different energies. Nuclear Instruments & Methods in Physics Research B, 2013, 298, 47-54.	0.6	43
31	Physical models implemented in the GEANT4-DNA extension of the GEANT-4 toolkit for calculating initial radiation damage at the molecular level. Radiation Protection Dosimetry, 2011, 143, 214-218.	0.4	39
32	Stopping power and ranges of electrons, protons and alpha particles in liquid water using the Geant4-DNA package. Nuclear Instruments & Methods in Physics Research B, 2011, 269, 2307-2311.	0.6	88
33	Molecular scale track structure simulations in liquid water using the Geant4-DNA Monte-Carlo processes. Applied Radiation and Isotopes, 2011, 69, 220-226.	0.7	71
34	Effective dose measurement at workplaces within an instrumented anthropomorphic phantom. Radiation Protection Dosimetry, 2011, 144, 640-644.	0.4	0
35	Modeling Radiation Chemistry in the Geant4 Toolkit. Progress in Nuclear Science and Technology, 2011, 2, 503-508.	0.3	91
36	THE GEANT4-DNA PROJECT. International Journal of Modeling, Simulation, and Scientific Computing, 2010, 01, 157-178.	0.9	366

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37	Comparison of <scp>GEANT4</scp> very low energy cross section models with experimental data in water. Medical Physics, 2010, 37, 4692-4708.	1.6	392
38	Anthropomorphic phantom for effective dose measurements: Feasibility numerical study and presentation of the detector development. Radiation Measurements, 2008, 43, 590-593.	0.7	0