Eugene Surdutovich

List of Publications by Year
in descending order

28 papers	686 citations	623734 14 h-index	610901 24 g-index
29 all docs	29 docs citations	29 times ranked	349 citing authors

#	Article	IF	Citations
1	Physics of ion beam cancer therapy: A multiscale approach. Physical Review E, 2009, 79, 011909.	2.1	124
2	Multiscale approach to the physics of radiation damage with ions. European Physical Journal D, 2014, 68, 1.	1.3	90
3	Multiscale approach predictions for biological outcomes in ion-beam cancer therapy. Scientific Reports, 2016, 6, 27654.	3.3	58
4	Biodamage via shock waves initiated by irradiation with ions. Scientific Reports, 2013, 3, 1289.	3.3	51
5	Spectra of secondary electrons generated in water by energetic ions. Physical Review E, 2010, 81, 021903.	2.1	50
6	Shock wave initiated by an ion passing through liquid water. Physical Review E, 2010, 82, 051915.	2.1	50
7	Transport of secondary electrons and reactive species in ion tracks. European Physical Journal D, 2015, 69, 1.	1.3	28
8	Calculation of complex DNA damage induced by ions. Physical Review E, 2011, 84, 051918.	2.1	25
9	Thermomechanical damage of nucleosome by the shock wave initiated by ion passing through liquid water. Nuclear Instruments & Methods in Physics Research B, 2012, 279, 135-139.	1.4	25
10	Simulation of the ion-induced shock waves effects on the transport of chemically reactive species in ion tracks. European Physical Journal D, 2018, 72, 1.	1.3	21
11	Ion-beam cancer therapy: News about a multiscale approach to radiation damage. Mutation Research - Reviews in Mutation Research, 2010, 704, 206-212.	5.5	20
12	Transport of secondary electrons through coatings of ion-irradiated metallic nanoparticles. European Physical Journal D, 2018, 72, 1.	1.3	19
13	Atomic and Molecular Data Needs for Radiation Damage Modeling: Multiscale Approach. AIP Conference Proceedings, 2011, , .	0.4	17
14	Radial doses around energetic ion tracks and the onset of shock waves on the nanoscale. European Physical Journal D, 2017, 71, 1.	1.3	15
15	Multiscale modeling for cancer radiotherapies. Cancer Nanotechnology, 2019, 10, .	3.7	14
16	Phenomenon-based evaluation of relative biological effectiveness of ion beams by means of the multiscale approach. Cancer Nanotechnology, 2019, 10, .	3.7	13
17	Ion-impact-induced multifragmentation of liquid droplets. European Physical Journal D, 2017, 71, 1.	1.3	11
18	Cell survival probability in a spread-out Bragg peak for novel treatment planning. European Physical Journal D, 2017, 71, 1.	1.3	9

#	Article	IF	Citations
19	Comparative analysis of the secondary electron yield from carbon nanoparticles and pure water medium. European Physical Journal D, 2015, 69, 1.	1.3	8
20	Nano-scale processes behind ion-beam cancer therapy. European Physical Journal D, 2016, 70, 1.	1.3	8
21	Analytical model of ionization and energy deposition by proton beams in subcellular compartments. European Physical Journal D, 2014, 68, 1.	1.3	7
22	Exploration of multifragmentation of Ar clusters with incident protons. European Physical Journal D, 2019, 73, 1.	1.3	7
23	Calculation of survival probabilities for cells exposed to high ion fluences. European Physical Journal D, 2018, 72, 1.	1.3	6
24	Ion-beam therapy: from electron production in tissue like media to DNA damage estimations. , 2008, , .		5
25	Multiscale physics of ion-induced radiation damage. Applied Radiation and Isotopes, 2014, 83, 100-104.	1.5	5
26	Thermomechanical effects caused by heavy ions propagating in tissue. Radiation Protection Dosimetry, 2015, 166, 104-109.	0.8	0
27	Science vs. technology in radiation therapy from X-rays to ions. Cancer Nanotechnology, 2019, 10, .	3.7	0
28	Theoretical ground for precursor-based molecular spectroscopy. Physical Review A, 2021, 104, .	2.5	0