JesÃºs GarcÃ-a-Rubiano

List of Publications by Year
in descending order

49 papers	686 citations	567281 15 h-index	610901 24 g-index
49 all docs	49 docs citations	49 times ranked	468 citing authors

#	Article	IF	Citations
1	Review of the 4th NLTE Code Comparison Workshop. High Energy Density Physics, 2007, 3, 225-232.	1.5	98
2	Modeling of population kinetics of plasmas that are not in local thermodynamic equilibrium, using a versatile collisional-radiative model based on analytical rates. Physical Review E, 2009, 80, 056402.	2.1	56
3	RAPCAL code: A flexible package to compute radiative properties for optically thin and thick low and high-Z plasmas in a wide range of density and temperature. Laser and Particle Beams, 2008, 26, 433-448.	1.0	45
4	Mapping natural radioactivity of soils in the eastern Canary Islands. Journal of Environmental Radioactivity, 2017, 166, 242-258.	1.7	40
5	Assessment of radon risk areas in the Eastern Canary Islands using soil radon gas concentration and gas permeability of soils. Science of the Total Environment, 2019, 664, 449-460.	8.0	37
6	Radon in Groundwater of the Northeastern Gran Canaria Aquifer. Water (Switzerland), 2015, 7, 2575-2590.	2.7	29
7	An effective analytical potential including plasma effects. Journal of Quantitative Spectroscopy and Radiative Transfer, 2002, 75, 539-557.	2.3	26
8	Collisional-radiative Calculations of Optically Thin and Thick Plasmas Using the Computational Package ABAKO/RAPCAL. Communications in Computational Physics, 2010, 8, 185-210.	1.7	24
9	A simple methodology for characterization of germanium coaxial detectors by using Monte Carlo simulation and evolutionary algorithms. Journal of Environmental Radioactivity, 2015, 149, 8-18.	1.7	21
10	Determination and analysis of plasma parameters for simulations of radiative blast waves launched in clusters of xenon and krypton. Plasma Physics and Controlled Fusion, 2012, 54, 045012.	2.1	18
11	Natural radioactivity measurements of beach sands in Gran Canaria, Canary Islands (Spain). Radiation Protection Dosimetry, 2013, 156, 75-86.	0.8	17
12	Computational characterization of HPGe detectors usable for a wide variety of source geometries by using Monte Carlo simulation and a multi-objective evolutionary algorithm. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2017, 858, 113-122.	1.6	17
13	A screened hydrogenic model using analytical potentials. Journal of Quantitative Spectroscopy and Radiative Transfer, 2002, 72, 575-588.	2.3	16
14	Calculation of the radiative opacity of laser-produced plasmas using a relativistic-screened hydrogenic model. Journal of Quantitative Spectroscopy and Radiative Transfer, 2004, 83, 159-182.	2.3	16
15	Determination of corona, LTE, and NLTE regimes of optically thin carbon plasmas. Laser and Particle Beams, 2008, 26, 21-32.	1.0	16
16	A new set of relativistic screening constants for the screened hydrogenic model. High Energy Density Physics, 2011, 7, 169-179.	1.5	16
17	ANALYTICAL EXPRESSIONS FOR THE n-ORDER MOMENTA OF CHARGE DISTRIBUTION FOR IONS. Journal of Quantitative Spectroscopy and Radiative Transfer, 1998, 60, 623-633.	2.3	15
18	Opacity calculation for target physics using the ABAKO/RAPCAL code. High Energy Density Physics, 2010, 6, 57-65.	1.5	13

#	Article	IF	Citations
19	Influence of atomic kinetics in the simulation of plasma microscopic properties and thermal instabilities for radiative bow shock experiments. Physical Review E, 2017, 95, 033201.	2.1	13
20	Analytical opacity formulas for ICF elements. Fusion Engineering and Design, 2002, 60, 17-25.	1.9	12
21	Development of an analytical potential to include excited configurations. Journal of Quantitative Spectroscopy and Radiative Transfer, 2002, 75, 723-739.	2.3	10
22	Parametrization of Mean Radiative Properties of Optically Thin Steady-State Plasmas and Applications. Communications in Computational Physics, 2014, 16, 612-631.	1.7	10
23	Low Z opacities at high densities. Journal of Quantitative Spectroscopy and Radiative Transfer, 2003, 81, 441-450.	2.3	9
24	Collisionalâ€“radiative simulations of a supersonic and radiatively cooled aluminum plasma jet. High Energy Density Physics, 2015, 17, 74-84.	1.5	8
25	Developments and comparison of two denim opacity models. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1998, 415, 539-542.	1.6	7
26	Scaling law of radiative opacities for ICF elements. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2001, 464, 218-224.	1.6	7
27	Relativistic quantum mechanic calculation of photoionization cross-section of hydrogenic and non-hydrogenic states using analytical potentials. Journal of Quantitative Spectroscopy and Radiative Transfer, 2005, 91, 393-413.	2.3	6
28	Determination of the average ionization and thermodynamic regimes of xenon plasmas with an application to the characterization of blast waves launched in xenon clusters. High Energy Density Physics, 2011, 7, 71-76.	1.5	6
29	Relativistic screened hydrogenic radial integrals. Journal of Quantitative Spectroscopy and Radiative Transfer, 2013, 117, 123-132.	2.3	6
30	Analysis of the influence of the plasma thermodynamic regime in the spectrally resolved and mean radiative opacity calculations of carbon plasmas in a wide range of density and temperature. Journal of Quantitative Spectroscopy and Radiative Transfer, 2013, 114, 136-150.	2.3	6
31	Calculation of radiative opacity of plasma mixtures using a relativistic screened hydrogenic model. Journal of Quantitative Spectroscopy and Radiative Transfer, 2014, 140, 81-98.	2.3	6
32	Microscopic properties of xenon plasmas for density and temperature regimes of laboratory astrophysics experiments on radiative shocks. Physical Review E, 2015, 91, 053106.	2.1	6
33	A comparison of two atomic models for the radiative properties of dense hot low Z plasmas. Journal of Quantitative Spectroscopy and Radiative Transfer, 2003, 81, 301-309.	2.3	5
34	Determination and Analysis of the Thermodynamic Regimes of Xenon Plasmas. Contributions To Plasma Physics, 2011, 51, 863-876.	1.1	5
35	Parametrization of the average ionization and radiative cooling rates of carbon plasmas in a wide range of density and temperature. Journal of Quantitative Spectroscopy and Radiative Transfer, 2013, 125, 123-138.	2.3	5
36	Analysis of microscopic magnitudes of radiative blast waves launched in xenon clusters with collisional-radiative steady-state simulations. Journal of Quantitative Spectroscopy and Radiative Transfer, 2013, 125, 69-83.	2.3	5

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37	Collisional radiative average atom code based on a relativistic Screened Hydrogenic Model. High Energy Density Physics, 2015, 14, 18-29.	1.5	5
38	Modeling of a HPGe well detector using PENELOPE for the calculation of full energy peak efficiencies for environmental samples. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2018, 908, 206-214.	1.6	5
39	Calculation of the ionization state for LTE plasmas using a new relativistic-screened hydrogenic model based on analytical potentials. Laser and Particle Beams, 2002, 20, 145-151.	1.0	4
40	Automatic modeling using PENELOPE of two HPGe detectors used for measurement of environmental samples byÎ³-spectrometry from a few sets of experimental efficiencies. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2018, 880, 67-74.	1.6	4
41	Natural radioactivity in algae arrivals on the Canary coast and dosimetry assessment. Science of the Total Environment, 2019, 658, 122-131.	8.0	4
42	Opacities and line transfer in high density plasma. Laser and Particle Beams, 2005, 23, 199-203.	1.0	3
43	Influence of the atomic description and configuration interaction effects on collisional-radiative calculations of low ionized carbon plasmas. Journal of Quantitative Spectroscopy and Radiative Transfer, 2009, 110, 2191-2207.	2.3	3
44	Calculation of the ionization state for LTE plasmas using analytical potentials. Laser and Particle Beams, 1999, 17, 635-647.	1.0	2
45	Modelling of spectral properties and population kinetics studies of inertial fusion and laboratory-astrophysical plasmas. Plasma Physics and Controlled Fusion, 2012, 54, 124004.	2.1	2
46	Inertial fusion activities in Spain. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1998, 415, 35-43.	1.6	1
47	Fast calculation of plasma prominent atomic magnitudes by using a new analytical potential for excited configurations. Laser and Particle Beams, 2002, 20, 139-144.	1.0	1
48	A method to obtain approximate solutions to the SchrÃ¶dinger equation. Journal of Quantitative Spectroscopy and Radiative Transfer, 2004, 83, 641-654.	2.3	0
49	Time-dependent and radiation field effects on collisional-radiative simulations of radiative properties of blast waves launched in clusters of xenon. High Energy Density Physics, 2015, 17, 119-128.	1.5	0