Juan Miguel Gil de la Fe

List of Publications by Year
in descending order

62 papers	604 citations	567281 15 h-index	677142 22 g-index
62 all docs	62 docs citations	62 times ranked	379 citing authors

#	Article	IF	Citations
1	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
2	Mapping natural radioactivity of soils in the eastern Canary Islands. Journal of Environmental Radioactivity, 2017, 166, 242-258.	1.7	40
3	BOW SHOCK FRAGMENTATION DRIVEN BY A THERMAL INSTABILITY IN LABORATORY ASTROPHYSICS EXPERIMENTS. Astrophysical Journal, 2015, 815, 96.	4.5	32
4	A parametric potential for ions from helium to iron isoelectronic sequences. Journal of Quantitative Spectroscopy and Radiative Transfer, 1995, 54, 621-636.	2.3	28
5	An effective analytical potential including plasma effects. Journal of Quantitative Spectroscopy and Radiative Transfer, 2002, 75, 539-557.	2.3	26
6	Counterpropagating Radiative Shock Experiments on the Orion Laser. Physical Review Letters, 2017, 119, 055001.	7.8	24
7	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
8	Structure of a laser-driven radiative shock. High Energy Density Physics, 2015, 17, 106-113.	1.5	21
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	Argon K-shell and bound-free emission from OMEGA direct-drive implosion cores. High Energy Density Physics, 2010, 6, 70-75.	1.5	20
11	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
12	Natural radioactivity measurements of beach sands in Gran Canaria, Canary Islands (Spain). Radiation Protection Dosimetry, 2013, 156, 75-86.	0.8	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	A new set of relativistic screening constants for the screened hydrogenic model. High Energy Density Physics, 2011, 7, 169-179.	1.5	16
16	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
17	Opacity calculation for target physics using the ABAKO/RAPCAL code. High Energy Density Physics, 2010, 6, 57-65.	1.5	13
18	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

#	Article	IF	Citations
19	Analytical opacity formulas for ICF elements. Fusion Engineering and Design, 2002, 60, 17-25.	1.9	12
20	Experimental study of the interaction of two laser-driven radiative shocks at the PALS laser. High Energy Density Physics, 2017, 23, 20-30.	1.5	12
21	Counter-propagating radiative shock experiments on the Orion laser and the formation of radiative precursors. High Energy Density Physics, 2017, 23, 60-72.	1.5	12
22	Radiative properties for astrophysical plasma mixtures in nonlocal thermodynamic equilibrium. Physical Review E, 2018, 98, .	2.1	11
23	Development of an analytical potential to include excited configurations. Journal of Quantitative Spectroscopy and Radiative Transfer, 2002, 75, 723-739.	2.3	10
24	Parametrization of Mean Radiative Properties of Optically Thin Steady-State Plasmas and Applications. Communications in Computational Physics, 2014, 16, 612-631.	1.7	10
25	Low Z opacities at high densities. Journal of Quantitative Spectroscopy and Radiative Transfer, 2003, 81, 441-450.	2.3	9
26	Collisional–radiative simulations of a supersonic and radiatively cooled aluminum plasma jet. High Energy Density Physics, 2015, 17, 74-84.	1.5	8
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	ABAKO: A new code for population kinetics and radiative properties of plasmas under NLTE conditions. Journal of Physics: Conference Series, 2008, 112, 042008.	0.4	6
29	Studying radiative shocks using laser driven blast waves in clustered gases. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2011, 653, 186-188.	1.6	6
30	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
31	Relativistic screened hydrogenic radial integrals. Journal of Quantitative Spectroscopy and Radiative Transfer, 2013, 117, 123-132.	2.3	6
32	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
33	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
34	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
35	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
36	Determination and Analysis of the Thermodynamic Regimes of Xenon Plasmas. Contributions To Plasma Physics, 2011, 51, 863-876.	1.1	5

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37	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
38	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
39	Collisional radiative average atom code based on a relativistic Screened Hydrogenic Model. High Energy Density Physics, 2015, 14, 18-29.	1.5	5
40	Energy loss of Fe ions in He plasmas at different thermodynamic states. Physics of Plasmas, 2018, 25, 093113.	1.9	4
41	Opacities and line transfer in high density plasma. Laser and Particle Beams, 2005, 23, 199-203.	1.0	3
42	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
43	Bound electron stopping power model of partially stripped ions in partially ionized plasmas. X-Ray Spectrometry, 2020, 49, 234-238.	1.4	3
44	Opacity calculations of plasmas by using parametric potentials. Laser and Particle Beams, 1996, 14, 631-635.	1.0	2
45	Calculation of the ionization state for LTE plasmas using analytical potentials. Laser and Particle Beams, 1999, 17, 635-647.	1.0	2
46	Analytical opacity formulas for low Z plasmas. Journal of Physics: Conference Series, 2008, 112, 042006.	0.4	2
47	Detailed-level-accounting approach calculation of radiative properties of aluminium plasmas in a wide range of density and temperature. Journal of Physics: Conference Series, 2008, 112, 042002.	0.4	2
48	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
49	Stopping power of a helium plasma under LTE or NLTE conditions. Laser and Particle Beams, 2018, 36, 442-447.	1.0	2
50	Monochromatic and mean radiative properties of astrophysical plasma mixtures in nonlocal thermodynamic equilibrium regime. X-Ray Spectrometry, 2020, 49, 6-10.	1.4	2
51	Spectrally Resolved Intensities of Ultra-Dense Hot Aluminum Plasmas. , 2008, , .		1
52	Multifrequential and mean opacity calculation of carbon plasmas in a wide range of density and temperature. Journal of Physics: Conference Series, 2008, 112, 042007.	0.4	1
53	Analysis of radiative opacities for optically thin and thick astrophysical plasmas. Journal of Quantitative Spectroscopy and Radiative Transfer, 2019, 237, 106633.	2.3	1
54	Simulation of the ion beam–plasma interaction processes for point–like ions in doped DT plasmas. X-Ray Spectrometry, 2020, 49, 173-176.	1.4	1

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55	\<title\>Analytical potential for excited configurations\</title\>. , 2001, , .		0
56	\<title\>Analytical atomic hydrogenic model for calculation of plasma optical properties\</title\>. , 2001, , .		0
57	Recent theoretical and experimental results on inertial fusion energy physics. , 2003, , .		0
58	ABAKOâˆ•RAPCAL: A Flexible Computational Package to Perform Radiative Properties Calculations and Diagnostics in a Wide Range of Plasma Conditions. , 2008, , .		0
59	Analytical expressions for radiative opacities of low Z plasmas. Journal of Physics: Conference Series, 2010, 244, 042002.	0.4	0
60	Opacity calculations for ICF target physics using the ABAKO/RAPCAL code. Journal of Physics: Conference Series, 2010, 244, 042003.	0.4	0
61	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
62	Generation and Parametrization of Mean Plasma Radiative Properties Databases for Astrophysics and Nuclear Fusion Applications. International Journal of Computational Methods, 2020, 17, 1940003.	1.3	0