

Arnaud Bultel

List of Publications by Year in descending order

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623734

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43
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43
docs citations

43
times ranked

623
citing authors

#	ARTICLE	IF	CITATIONS
1	Fire II Flight Experiment Analysis by Means of a Collisional-Radiative Model. Journal of Thermophysics and Heat Transfer, 2009, 23, 236-248.	1.6	151
2	Influence of Ar ²⁺ in an argon collisional-radiative model. Physical Review E, 2002, 65, 046406.	2.1	127
3	Collisional-radiative model in air for earth re-entry problems. Physics of Plasmas, 2006, 13, 043502.	1.9	116
4	Electronic Excitation of Atoms and Molecules for the FIRE II Flight Experiment. Journal of Thermophysics and Heat Transfer, 2011, 25, 361-374.	1.6	91
5	The Critical Temperature of Aluminum. International Journal of Thermophysics, 2009, 30, 1853-1863.	2.1	64
6	Spectroscopic measurements of nonequilibrium CO ₂ plasma in RF torch. Chemical Physics, 2008, 354, 16-26.	1.9	51
7	Elaboration of collisional-radiative models for flows related to planetary entries into the Earth and Mars atmospheres. Plasma Sources Science and Technology, 2013, 22, 025008.	3.1	51
8	Global rate coefficients for ionization and recombination of carbon, nitrogen, oxygen, and argon. Physics of Plasmas, 2012, 19, .	1.9	44
9	Modeling of thermal and chemical non-equilibrium in a laser-induced aluminum plasma by means of a Collisional-Radiative model. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2010, 65, 830-841.	2.9	39
10	Vibrational and electronic collisional-radiative model in air for Earth entry problems. Physics of Plasmas, 2014, 21, 123512.	1.9	25
11	Collisional-Radiative Modeling Behind Shock Waves in Nitrogen. Journal of Thermophysics and Heat Transfer, 2014, 28, 608-622.	1.6	24
12	Measurement of the ground state and metastable atomic nitrogen number density in a low-pressure plasma jet. Plasma Sources Science and Technology, 1995, 4, 597-605.	3.1	20
13	Dynamics of a femtosecond/picosecond laser-induced aluminum plasma out of thermodynamic equilibrium in a nitrogen background gas. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2015, 103-104, 112-123.	2.9	19
14	Dissociative recombination and vibrational excitation of CO ⁺ : model calculations and comparison with experiment. Plasma Sources Science and Technology, 2015, 24, 035005.	3.1	14
15	Numerical Simulation of Stagnation Line Nonequilibrium Airflows for Reentry Applications. Journal of Thermophysics and Heat Transfer, 2008, 22, 168-177.	1.6	13
16	Picosecond LIBS diagnostics for Tokamak <i>in situ</i> plasma facing materials chemical analysis. Physica Scripta, 2016, T167, 014016.	2.5	13
17	Vibrational and electronic collisional-radiative model in CO ₂ -N ₂ -Ar mixtures for Mars entry problems. Physics of Plasmas, 2019, 26, .	1.9	13
18	Low-energy electron impact dissociative recombination and vibrational transitions of N ₂ ⁺ . Journal of Applied Physics, 2021, 129, .	2.5	13

#	ARTICLE	IF	CITATIONS
19	Experimental Study of a Double Arc Nitrogen Plasma: Static and Dynamic Behavior. IEEE Transactions on Plasma Science, 2007, 35, 498-508.	1.3	12
20	Plasma density determination by using hydrogen Balmer H β spectral line with improved accuracy. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2020, 166, 105821.	2.9	10
21	Theoretical study of the formation mechanism of laser-induced aluminum plasmas using Nd:YAG fundamental, second or third harmonics. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2014, 94-95, 63-70.	2.9	9
22	Reduction of State-to-State to Macroscopic Models for Hypersonics. The Open Plasma Physics Journal, 2014, 7, 60-75.	0.7	9
23	Towards ps-LIBS tritium measurements in W/Al materials. Fusion Engineering and Design, 2019, 146, 1971-1974.	1.9	8
24	Tungsten coatings repair: An approach to increase the lifetime of plasma facing components. Fusion Engineering and Design, 2019, 146, 800-804.	1.9	8
25	Analysis of the FIRE II Flight Experiment by Means of a Collisional Radiative Model. , 2008, , .		7
26	Detailed kinetic of CO ₂ dissociation and C ionization: application to atmospheric Martian entries. Journal of Physics: Conference Series, 2014, 511, 012053.	0.4	6
27	Non-uniqueness of the multi-temperature law of mass action. Application to 2T plasma composition calculation by means of a collisional-radiative model. European Physical Journal D, 2017, 71, 1.	1.3	6
28	The Hornbeck-Molnar process in argon. Journal of Physics B: Atomic, Molecular and Optical Physics, 2002, 35, 111-124.	1.5	5
29	State-to-state modeling of ultrashort laser-induced plasmas. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2017, 127, 7-19.	2.9	5
30	Interface detection by picosecond Laser-Induced Breakdown Spectroscopy (LIBS): Application to a physical vapor deposited tungsten layer on a copper-chromium-zirconium substrate. Optics and Laser Technology, 2022, 150, 107913.	4.6	5
31	Elaboration of a collisional-radiative model for CO ₂ -N ₂ -Ar plasma flows: Application to atmospheric Martian entries. , 2011, , .		3
32	Absorption of a nanosecond laser pulse by a picosecond laser-induced preformed aluminum plasma. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2021, 175, 106011.	2.9	3
33	Double pulse laser-induced plasmas on W and Al by ps-LIBS: Focus on the plasma-second pulse interaction. Fusion Engineering and Design, 2021, 168, 112364.	1.9	3
34	Dynamical analysis of a helium glow discharge. I A model. Physics Letters, Section A: General, Atomic and Solid State Physics, 2004, 323, 267-277.	2.1	2
35	Role of molecular ions in plasmas of atmospheric and energetic interest. Journal of Physics: Conference Series, 2005, 4, 205-210.	0.4	1
36	Collisional-Radiative modeling of the transient excitation of a carbon atoms beam crossing a tokamak plasma edge. Journal of Physics: Conference Series, 2014, 511, 012045.	0.4	1

#	ARTICLE	IF	CITATIONS
37	Dissociative recombination in reactive flows related to planetary atmospheric entries. EPJ Web of Conferences, 2015, 84, 06005.	0.3	1
38	Thermochemical Non-Equilibrium in Thermal Plasmas. Atoms, 2019, 7, 5.	1.6	1
39	CoRaM-Al: a Collisional-Radiative model dedicated to aluminum laser-induced plasma. , 2011, , .		0
40	Achievement of local thermodynamic equilibrium for ns laser-induced plasmas on aluminium sample at different wavelengths. Journal of Physics: Conference Series, 2014, 550, 012048.	0.4	0
41	Temporal description of aluminum laser-induced plasmas by means of a collisional-radiative model. Journal of Physics: Conference Series, 2014, 511, 012062.	0.4	0
42	State-to-state modeling of non equilibrium low-temperature atomic plasmas. AIP Conference Proceedings, 2017, , .	0.4	0
43	Electron dissociative attachment to ArH+, HD+, N2 + and CO2. Journal of Physics: Conference Series, 2020, 1412, 172005.	0.4	0