G P Oblapenko

List of Publications by Year in descending order

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1163117 996975 22 259 8 15 citations h-index g-index papers 22 22 22 94 docs citations times ranked citing authors all docs

#	Article	IF	CITATIONS
1	Advanced models for vibrational–chemical coupling in multi-temperature flows. Chemical Physics, 2016, 464, 1-13.	1.9	56
2	Reaction and internal energy relaxation rates in viscous thermochemically non-equilibrium gas flows. Physics of Fluids, 2015 , 27 , .	4.0	39
3	Development and testing of a numerical simulation method for thermally nonequilibrium dissociating flows in ANSYS Fluent. Thermophysics and Aeromechanics, 2016, 23, 151-163.	0.5	37
4	Validation of vibration-dissociation coupling models in hypersonic non-equilibrium separated flows. Acta Astronautica, 2018, 144, 147-159.	3.2	36
5	Mutual effect of vibrational relaxation and chemical reactions in viscous multitemperature flows. Physical Review E, 2016, 93, 033127.	2.1	23
6	Calculation of Vibrational Relaxation Times Using a Kinetic Theory Approach. Journal of Physical Chemistry A, 2018, 122, 9615-9625.	2.5	18
7	On the applicability of simplified state-to-state models of transport coefficients. Chemical Physics Letters, 2017, 686, 161-166.	2.6	17
8	Transport coefficients in high-temperature ionized air flows with electronic excitation. Physics of Plasmas, 2018, 25, .	1.9	9
9	A velocity space hybridization-based Boltzmann equation solver. Journal of Computational Physics, 2020, 408, 109302.	3.8	7
10	Inverse Laplace transform as a tool for calculation of state-specific cross sections of inelastic collisions. AIP Conference Proceedings, 2016, , .	0.4	5
11	Rates of VT transitions and dissociation and normal mean stress in a non-equilibrium viscous multitemperature N2/N flow. , 2014, , .		4
12	Hedging direct simulation Monte Carlo bets via event splitting. Journal of Computational Physics, 2022, , 111390.	3.8	2
13	State-to-state models of vibrational relaxation in Direct Simulation Monte Carlo (DSMC). Journal of Physics: Conference Series, 2017, 815, 012011.	0.4	1
14	Assessment of recent thermo-chemical relaxation models using the DLR-TAU code. AIP Conference Proceedings, 2019, , .	0.4	1
15	Modeling of Ionized Gas Flows with a Velocity-space Hybrid Boltzmann Solver. , 2021, , .		1
16	Velocity-Space Hybridization of Direct Simulation Monte Carlo and a Quasi-Particle Boltzmann Solver. Journal of Thermophysics and Heat Transfer, 0, , 1-12.	1.6	1
17	Moment method for the Boltzmann equation of reactive quaternary gaseous mixture. Physica A: Statistical Mechanics and Its Applications, 2021, 574, 125874.	2.6	1
18	Influence of angular momentum on transport coefficients in rarefied gases. Physica A: Statistical Mechanics and Its Applications, 2020, 553, 124673.	2.6	1

#	Article	IF	CITATIONS
19	Low-Cost Robotic Set-Up for Pursuit Problems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 124-127.	0.4	O
20	Vibration-dissociation coupling in multi-temperature viscous gas flows. AIP Conference Proceedings, $2016, , .$	0.4	0
21	Overview and perspectives of KAPPA library. AIP Conference Proceedings, 2019, , .	0.4	O
22	Improving PIC-DSMC Simulations of Electrical Breakdown via Event Splitting. , 2022, , .		0