

Yevgeniy A Bondar

List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

55
papers

402
citations

12
h-index

17
g-index

75
ext. papers

526
ext. citations

2.1
avg, IF

3.6
L-index

#	Paper	IF	Citations
55	Comparison of direct simulation Monte Carlo chemistry and vibrational models applied to oxygen shock measurements. <i>Physics of Fluids</i> , 2014 , 26, 043101	4.4	31
54	Numerical simulation of shock wave propagation in microchannels using continuum and kinetic approaches. <i>Shock Waves</i> , 2009 , 19, 307-316	1.6	30
53	Development and testing of a numerical simulation method for thermally nonequilibrium dissociating flows in ANSYS Fluent. <i>Thermophysics and Aeromechanics</i> , 2016 , 23, 151-163	0.9	25
52	Different variants of R13 moment equations applied to the shock-wave structure. <i>Physics of Fluids</i> , 2017 , 29, 037105	4.4	24
51	Study of the shock wave structure by regularized Grad's set of equations. <i>Physics of Fluids</i> , 2015 , 27, 037104	4.4	21
50	Parallel Object-Oriented Software System for DSMC Modeling of High-Altitude Aerothermodynamic Problems 2011 ,		21
49	Direct simulation of rarefied high-enthalpy flow around the RAM C-II capsule. <i>High Temperature</i> , 2016 , 54, 383-389	0.8	17
48	Direct Monte Carlo simulation of high-temperature chemical reactions in air. <i>Thermophysics and Aeromechanics</i> , 2013 , 20, 553-564	0.9	16
47	Numerical Modeling of Near-Continuum Flow over a Wedge with Real Gas Effects. <i>Journal of Thermophysics and Heat Transfer</i> , 2006 , 20, 699-709	1.3	16
46	Object-Oriented Software Design of Real Gas Effects for the DSMC Method. <i>AIP Conference Proceedings</i> , 2005 ,	0	16
45	High-accuracy deterministic solution of the Boltzmann equation for the shock wave structure. <i>Shock Waves</i> , 2015 , 25, 387-397	1.6	14
44	Surface recombination in the direct simulation Monte Carlo method. <i>Physics of Fluids</i> , 2018 , 30, 107105	4.4	13
43	A detailed DSMC surface chemistry model 2014 ,		12
42	Viscosity effects on weak irregular reflection of shock waves in steady flow. <i>Progress in Aerospace Sciences</i> , 2010 , 46, 89-105	8.8	12
41	Viscous Effects in Steady Reflection of Strong Shock Waves. <i>AIAA Journal</i> , 2009 , 47, 1263-1269	2.1	10
40	DSMC Dissociation Model Based on Two-Temperature Chemical Rate Constant 2007 ,		9
39	Study of the shock wave structure by regularized Grad's set of equations 2012 ,		8

38	Comparison of the Shakhov kinetic equation and DSMC method as applied to space vehicle aerothermodynamics. <i>Journal of Computational and Applied Mathematics</i> , 2020 , 364, 112354	2.4	8
37	Analysis of Repeated Collisions in the DSMC Method. <i>AIP Conference Proceedings</i> , 2005 ,	0	7
36	On the Accuracy of DSMC Modeling of Rarefied Flows with Real Gas Effects. <i>AIP Conference Proceedings</i> , 2005 ,	0	7
35	The analysis of different variants of R13 equations applied to the shock-wave structure 2016 ,		6
34	On the total enthalpy behavior inside a shock wave. <i>Physics of Fluids</i> , 2020 , 32, 041703	4.4	6
33	Hydrogen-Oxygen Detonation Study by the DSMC Method 2011 ,		5
32	Accuracy analysis of DSMC chemistry models applied to a normal shock wave 2012 ,		5
31	Uniform rovibrational collisional N2 bin model for DSMC, with application to atmospheric entry flows 2016 ,		5
30	Numerical study of shock wave entry and propagation in a microchannel. <i>Thermophysics and Aeromechanics</i> , 2012 , 19, 17-32	0.9	4
29	Effects of surface chemistry on high-altitude aerothermodynamics of space vehicles 2014 ,		4
28	Validation of DSMC results for chemically nonequilibrium air flows against measurements of the electron number density in RAM-C II flight experiment 2014 ,		4
27	Evidence-Based Interventions for ASD: A Focus on Applied Behavior Analysis (ABA) Interventions. <i>Psychology, Journal of the Higher School of Economics</i> , 2018 , 15, 711-727	1.6	4
26	Rarefaction effects in hypersonic flow about a blunted leading edge. <i>Thermophysics and Aeromechanics</i> , 2011 , 18, 523-534	0.9	3
25	Study of the Shock Wave Structure about a Body Entering the Martian Atmosphere. <i>AIP Conference Proceedings</i> , 2003 ,	0	3
24	Plane Couette Flow Computations by TRMC and MFS Methods. <i>AIP Conference Proceedings</i> , 2005 ,	0	3
23	Numerical study of non-equilibrium high-enthalpy separated flows near a double cone and a wedge 2017 ,		2
22	DSMC Study of an H ₂ /O ₂ Detonation Wave Structure 2010 ,		2
21	Numerical Study of the Shock Wave Propagation in a Micron-Scale Contracting Channel 2011 ,		2

20	Numerical Study of Triple-Shock-Wave Structure in Steady Irregular Reflection 2011 ,		2
19	Rarefaction and Non-equilibrium Effects in Hypersonic Flows about Leading Edges of Small Bluntness 2011 ,		2
18	DSMC Modeling of the Detonation Wave Structure in Narrow Channels 2009 ,		2
17	Effect of surface catalycity on high-altitude aerothermodynamics of reentry vehicles 2016 ,		2
16	Investigation of an ionized shock layer in a rarefied gas flow around a reentry vehicle 2016 ,		2
15	Numerical study of non-equilibrium gas flows with shock waves by using the Navier-Stokes equations in the two-temperature approximation 2016 ,		2
14	R13 moment equations applied to supersonic flow with solid wall interaction 2019 ,		1
13	Probabilities for DSMC modelling of CO2 vibrational kinetics 2016 ,		1
12	Aerothermodynamics of the Federation crew module at high-altitude reentry 2019 ,		1
11	State-to-state models of vibrational relaxation in Direct Simulation Monte Carlo (DSMC). <i>Journal of Physics: Conference Series</i> , 2017 , 815, 012011	0.3	1
10	DSMC Modeling of High-Temperature Chemical Reactions in Air 2011 ,		1
9	A Study of the Finite Flat Plate Problem Using Various Kinetic and Continuum Models 2011 ,		1
8	Resonant VV Exchange in the DSMC Method with the Larsen-Borgnakke Model 2008 ,		1
7	Direct statistical Monte Carlo simulation of the shock-wave structure in dissociating gas. <i>Thermophysics and Aeromechanics</i> , 2006 , 13, 239-256	0.9	1
6	On the calculation of the electron temperature flowfield in the DSMC studies of ionized re-entry flows. <i>Advances in Aerodynamics</i> , 2020 , 2,	2.2	1
5	Comparison of modern implementations of the direct simulation Monte Carlo method. <i>Journal of Physics: Conference Series</i> , 2019 , 1404, 012123	0.3	1
4	Numerical and experimental study of shock wave formation on the leading edge of a wedge in a high-velocity air 2018 ,		1
3	Modeling of the plasma environment of re-entry space vehicles 2018 ,		1

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| 2 | NO production on the reentry spacecraft thermal protection system surface in the direct simulation Monte Carlo method. <i>Journal of Physics: Conference Series</i> , 2019 , 1404, 012118 | 0.3 | 0 |
| 1 | Comparison of nonequilibrium dissociation models in the direct simulation Monte Carlo method. <i>Journal of Physics: Conference Series</i> , 2019 , 1404, 012107 | 0.3 | 0 |