

Vladimir M Zhdanov

List of Publications by Year in descending order

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papers

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59
all docs

59
docs citations

59
times ranked

216
citing authors

#	ARTICLE	IF	CITATIONS
1	Transport Processes in Multicomponent Plasma. Plasma Physics and Controlled Fusion, 2002, 44, 2283-2283.	0.9	45
2	Non-equilibrium thermodynamics and kinetic theory of rarefied gases. Physics-Uspexhi, 1998, 41, 349-378.	0.8	41
3	Non-equilibrium thermodynamics and kinetic theory of gas mixtures in the presence of interfaces. Advances in Colloid and Interface Science, 2002, 98, 121-215.	7.0	35
4	Asymmetric gas mixture transport in composite membranes. Advances in Colloid and Interface Science, 2011, 168, 223-246.	7.0	29
5	Flow and diffusion of gases in capillaries and porous media. Advances in Colloid and Interface Science, 1996, 66, 1-21.	7.0	25
6	Moment method and the rarefied gas flow in channels. Physica A: Statistical Mechanics and Its Applications, 1993, 199, 291-298.	1.2	17
7	The moment method and rarefied gas flow in channels. General relations. Physica A: Statistical Mechanics and Its Applications, 1992, 184, 169-186.	1.2	16
8	Kinetic Phenomena in the Diffusion of Gases in Capillaries and Porous Bodies. Colloid Journal, 2002, 64, 1-24.	0.5	13
9	The use of the moment method to derive the gas and plasma transport equations with transport coefficients in higher-order approximations. Prikladnaya Matematika I Mekhanika, 2003, 67, 365-388.	0.4	12
10	Equations and improved coefficients for parallel transport in multicomponent collisional plasmas: Method and application for tokamak modeling. Physics of Plasmas, 2021, 28, 062308.	0.7	11
11	The method of moments and the nonequilibrium thermodynamics of rarefied gases. Journal of Experimental and Theoretical Physics, 1998, 86, 1141-1148.	0.2	10
12	A phenomenological and kinetic description of diffusion and heat transport in multicomponent gas mixtures and plasma. Prikladnaya Matematika I Mekhanika, 2007, 71, 718-736.	0.4	10
13	The effect of gas surface diffusion on the asymmetric permeability of two-layer porous membranes. Colloid Journal, 2012, 74, 717-720.	0.5	10
14	Kinetic theory of transport processes in partially ionized reactive plasma, II: Electron transport properties. Physica A: Statistical Mechanics and Its Applications, 2016, 461, 310-324.	1.2	10
15	On a kinetic justification of the generalized nonequilibrium thermodynamics of multicomponent systems. Journal of Experimental and Theoretical Physics, 2002, 95, 682-696.	0.2	9
16	Effect of Surface Forces on the Gas Flow in Nanosized Capillaries. Colloid Journal, 2003, 65, 598-601.	0.5	9
17	Diffusion and heat transfer in a multicomponent completely ionized plasma. Journal of Applied Mechanics and Technical Physics, 1981, 21, 453-461.	0.1	8
18	Kinetic phenomena in the gas mixture flow through nanodimensional capillaries: The effect of surface forces. Technical Physics, 2006, 51, 436-443.	0.2	8

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19	Kinetic theory of transport processes in partially ionized reactive plasma, I: General transport equations. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2016, 446, 35-53.	1.2	8
20	Nonisothermic flow of gas mixture in a channel at intermediate Knudsen numbers. <i>Prikladnaya Matematika I Mekhanika</i> , 1981, 45, 801-808.	0.4	7
21	Boundary slip phenomena in multicomponent gas mixtures. <i>Physics of Fluids</i> , 2019, 31, .	1.6	7
22	On the gas-separation properties of two-layer porous membranes. <i>Colloid Journal</i> , 2010, 72, 633-639.	0.5	5
23	On the thermal force acting on dust grain in fully ionized plasma. <i>Physics of Plasmas</i> , 2011, 18, 033702.	0.7	5
24	Diffusion slip and barodiffusion of a gaseous mixture in plane and cylindrical channels. <i>Journal of Applied Mechanics and Technical Physics</i> , 1979, 19, 656-665.	0.1	4
25	Baro-and thermodiffusion of a gas mixture in a capillary. <i>Journal of Applied Mechanics and Technical Physics</i> , 1982, 23, 201-204.	0.1	4
26	Gas mixture flow in a cylindrical channel at intermediate knudsen numbers. <i>Journal of Engineering Physics</i> , 1983, 45, 998-1003.	0.0	4
27	On the separation factor of binary gaseous mixtures in two-layer nanoporous membranes. <i>Colloid Journal</i> , 2014, 76, 76-84.	0.5	4
28	Electron Transport Coefficients in Molecular and Atomic Plasmas with Account for Inelastic Collisions. <i>Physics Procedia</i> , 2015, 71, 110-115.	1.2	4
29	Slip and barodiffusion phenomena in slow flows of a gas mixture. <i>Physical Review E</i> , 2017, 95, 033106.	0.8	4
30	Barodiffusion in Slow Flows of a Gas Mixture. <i>Technical Physics</i> , 2019, 64, 596-605.	0.2	4
31	Nonisothermal flow of a rarefied gas in a circular cylindrical channel. <i>Journal of Engineering Physics</i> , 1983, 44, 524-529.	0.0	3
32	Gas mixture flow, diffusion, and heat transfer in a long tube at moderately small Knudsen numbers. <i>Physics of Fluids</i> , 2021, 33, 012106.	1.6	3
33	GAS FLOW AND DIFFUSION IN NANO-SIZED CAPILLARIES AND POROUS BODIES. <i>International Journal of Nanomechanics Science and Technology</i> , 2010, 1, 49-97.	0.5	3
34	Transfer equations in chemically reacting inhomogeneous gases consideration of internal degrees of freedom. <i>Fluid Dynamics</i> , 1976, 9, 603-609.	0.2	2
35	Nonisothermal flow of a rarefied multiatomic gas in a channel. <i>Journal of Applied Mechanics and Technical Physics</i> , 1985, 26, 333-338.	0.1	2
36	Separation of a Gaseous Mixture in Nanosize Channels. The Role of Surface Diffusion. <i>Journal of Engineering Physics and Thermophysics</i> , 2013, 86, 356-362.	0.2	2

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37	Influence of resonant charge exchange on the viscosity of partially ionized plasma in a magnetic field. Plasma Physics Reports, 2013, 39, 976-985.	0.3	2
38	Free-Molecular Gas Flow in a Narrow (Nanosize) Channel. Journal of Engineering Physics and Thermophysics, 2014, 87, 802-814.	0.2	2
39	Dusty-gas model. Allowance for surface forces. Colloid Journal, 2016, 78, 363-370.	0.5	2
40	Nonequilibrium thermodynamics of transport processes on membrane surfaces. Colloid Journal, 2016, 78, 652-657.	0.5	2
41	GAS FLOW AND DIFFUSION IN NANO-SIZED CAPILLARIES AND POROUS BODIES. International Journal of Nanomechanics Science and Technology, 2010, 1, 99-125.	0.5	2
42	Kinetic theory of recondensation in a binary gas mixture with arbitrary Knudsen numbers. Fluid Dynamics, 1976, 10, 664-668.	0.2	1
43	Effect of Surface Forces on the Gas Flow in Nanosize Capillaries. AIP Conference Proceedings, 2005, , .	0.3	1
44	Entropy production on sorbing medium surfaces. Colloid Journal, 2015, 77, 500-506.	0.5	1
45	Transport equations for partially ionized reactive plasma in magnetic field. AIP Conference Proceedings, 2016, , .	0.3	1
46	Electrical conductivity of a partially ionized gas mixture in a magnetic field. Journal of Applied Mechanics and Technical Physics, 1965, 6, 41-43.	0.1	0
47	Transport equations for chemical reactions in an inhomogeneous gas phase. Fluid Dynamics, 1972, 7, 473-483.	0.2	0
48	Positron annihilation in vitreous As-Se and As-Sn-Se systems. Soviet Physics Journal (English) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 302 T	0.0	0
49	Nonisothermal flow of a polyatomic gas in a channel and the thermomolecular pressure difference effect. Journal of Applied Mechanics and Technical Physics, 1988, 28, 668-674.	0.1	0
50	Study of the operation of a gas-liquid atomizer with a porous mixing element. Journal of Engineering Physics and Thermophysics, 2000, 73, 465-469.	0.2	0
51	In memory of Vladimir Markovich Eleonskii. Physics-Uspekhi, 2003, 46, 443-444.	0.8	0
52	The Effect of Surface Forces on the Thermal Slip of a Simple Gas. Colloid Journal, 2004, 66, 333-338.	0.5	0
53	Moment method and non-equilibrium thermodynamics of rarefied gas mixture. , 2012, , .		0
54	On the non-equilibrium thermodynamics of rarefied gases: Relationships between the Chapman-Enskog and moment methods. , 2012, , .		0

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55	Effect of the orientation of a bilayer catalytic membrane on the effective conversion. Theoretical Foundations of Chemical Engineering, 2015, 49, 10-20.	0.2	0
56	Transport equations for partially ionized reactive plasma in magnetic field. AIP Conference Proceedings, 2016, , .	0.3	0
57	Transport phenomena in partially ionized molecular plasma in magnetic field. AIP Conference Proceedings, 2017, , .	0.3	0
58	Gas mixture flow in nanoporous media in the presence of surface forces. The dusty-gas model. Colloid Journal, 2017, 79, 116-125.	0.5	0
59	Separation of a Gas Mixture in Nanosize Porous Membranes. Effect of Adsorption and Surface Diffusion. Journal of Engineering Physics and Thermophysics, 2021, 94, 623-632.	0.2	0