Vladimir M Zhdanov

List of Publications by Year in Descending Order

54 papers	335 citations	10 h-index	15 g-index
59 ext. papers	372 ext. citations	2.3 avg, IF	3.6 L-index

#	Paper	IF	Citations
54	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	0.6	
53	Equations and improved coefficients for parallel transport in multicomponent collisional plasmas: Method and application for tokamak modeling. *Physics of Plasmas*, **2021**, 28, 062308	2.1	3
52	Gas mixture flow, diffusion, and heat transfer in a long tube at moderately small Knudsen numbers. *Physics of Fluids*, **2021**, 33, 012106	4.4	3
51	Boundary slip phenomena in multicomponent gas mixtures. *Physics of Fluids*, **2019**, 31, 062105	4.4	2
50	Barodiffusion in Slow Flows of a Gas Mixture. *Technical Physics*, **2019**, 64, 596-605	0.5	3
49	Slip and barodiffusion phenomena in slow flows of a gas mixture. *Physical Review E*, **2017**, 95, 033106	2.4	4
48	Gas mixture flow in nanoporous media in the presence of surface forces. The dusty-gas model. *Colloid Journal*, **2017**, 79, 116-125	1.1	
47	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	3.3	6
46	Kinetic theory of transport processes in partially ionized reactive plasma, I: General transport equations. *Physica A: Statistical Mechanics and Its Applications*, **2016**, 446, 35-53	3.3	5
45	Dusty-gas model. Allowance for surface forces. *Colloid Journal*, **2016**, 78, 363-370	1.1	2
44	Nonequilibrium thermodynamics of transport processes on membrane surfaces. *Colloid Journal*, **2016**, 78, 652-657	1.1	2
43	Effect of the orientation of a bilayer catalytic membrane on the effective conversion. *Theoretical Foundations of Chemical Engineering*, **2015**, 49, 10-20	0.9	
42	Entropy production on sorbing medium surfaces. *Colloid Journal*, **2015**, 77, 500-506	1.1	1
41	Electron Transport Coefficients in Molecular and Atomic Plasmas with Account for Inelastic Collisions. *Physics Procedia*, **2015**, 71, 110-115		1
40	On the separation factor of binary gaseous mixtures in two-layer nanoporous membranes. *Colloid Journal*, **2014**, 76, 76-84	1.1	4
39	Free-Molecular Gas Flow in a Narrow (Nanosize) Channel. *Journal of Engineering Physics and Thermophysics*, **2014**, 87, 802-814	0.6	1
38	Separation of a Gaseous Mixture in Nanosize Channels. The Role of Surface Diffusion. *Journal of Engineering Physics and Thermophysics*, **2013**, 86, 356-362	0.6	2

37	Influence of resonant charge exchange on the viscosity of partially ionized plasma in a magnetic field. *Plasma Physics Reports*, **2013**, 39, 976-985	1.2	2
36	The effect of gas surface diffusion on the asymmetric permeability of two-layer porous membranes. *Colloid Journal*, **2012**, 74, 717-720	1.1	9
35	On the thermal force acting on dust grain in fully ionized plasma. *Physics of Plasmas*, **2011**, 18, 033702	2.1	5
34	Asymmetric gas mixture transport in composite membranes. *Advances in Colloid and Interface Science*, **2011**, 168, 223-46	14.3	29
33	On the gas-separation properties of two-layer porous membranes. *Colloid Journal*, **2010**, 72, 633-639	1.1	5
32	GAS FLOW AND DIFFUSION IN NANO-SIZED CAPILLARIES AND POROUS BODIES. *International Journal of Nanomechanics Science and Technology*, **2010**, 1, 49-97		3
31	GAS FLOW AND DIFFUSION IN NANO-SIZED CAPILLARIES AND POROUS BODIES. *International Journal of Nanomechanics Science and Technology*, **2010**, 1, 99-125		2
30	A phenomenological and kinetic description of diffusion and heat transport in multicomponent gas mixtures and plasma. *Prikladnaya Matematika I Mekhanika*, **2007**, 71, 718-736		9
29	Kinetic phenomena in the gas mixture flow through nanodimensional capillaries: The effect of surface forces. *Technical Physics*, **2006**, 51, 436-443	0.5	8
28	Effect of Surface Forces on the Gas Flow in Nanosize Capillaries. *AIP Conference Proceedings*, **2005**,	0	1
27	The Effect of Surface Forces on the Thermal Slip of a Simple Gas. *Colloid Journal*, **2004**, 66, 333-338	1.1	
26	In memory of Vladimir Markovich Eleonskii. *Physics-Uspekhi*, **2003**, 46, 443-444	2.8	
25	Effect of Surface Forces on the Gas Flow in Nanosized Capillaries. *Colloid Journal*, **2003**, 65, 598-601	1.1	9
24	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		12
23	On a kinetic justification of the generalized nonequilibrium thermodynamics of multicomponent systems. *Journal of Experimental and Theoretical Physics*, **2002**, 95, 682-696	1	9
22	Non-equilibrium thermodynamics and kinetic theory of gas mixtures in the presence of interfaces. *Advances in Colloid and Interface Science*, **2002**, 98, 121-215	14.3	29
21	Kinetic Phenomena in the Diffusion of Gases in Capillaries and Porous Bodies. *Colloid Journal*, **2002**, 64, 1-24	1.1	12
20	Transport Processes in Multicomponent Plasma. *Plasma Physics and Controlled Fusion*, **2002**, 44, 2283-2283		28

19	Study of the operation of a gas-liquid atomizer with a porous mixing element. *Journal of Engineering Physics and Thermophysics*, **2000**, 73, 465-469	0.6	
18	The method of moments and the nonequilibrium thermodynamics of rarefied gases. *Journal of Experimental and Theoretical Physics*, **1998**, 86, 1141-1148	1	10
17	Non-equilibrium thermodynamics and kinetic theory of rarefied gases. *Physics-Uspekhi*, **1998**, 41, 349-378	1.8	32
16	Flow and diffusion of gases in capillaries and porous media. *Advances in Colloid and Interface Science*, **1996**, 66, 1-21	14.3	22
15	Moment method and the rarefied gas flow in channels. *Physica A: Statistical Mechanics and Its Applications*, **1993**, 199, 291-298	3.3	14
14	The moment method and rarefied gas flow in channels. General relations. *Physica A: Statistical Mechanics and Its Applications*, **1992**, 184, 169-186	3.3	14
13	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	0.6	
12	Nonisothermal flow of a rarefied multiatomic gas in a channel. *Journal of Applied Mechanics and Technical Physics*, **1985**, 26, 333-338	0.6	2
11	Gas mixture flow in a cylindrical channel at intermediate knudsen numbers. *Journal of Engineering Physics*, **1983**, 45, 998-1003		4
10	Nonisothermal flow of a rarefied gas in a circular cylindrical channel. *Journal of Engineering Physics*, **1983**, 44, 524-529		3
9	Baro-and thermodiffusion of a gas mixture in a capillary. *Journal of Applied Mechanics and Technical Physics*, **1982**, 23, 201-204	0.6	4
8	Diffusion and heat transfer in a multicomponent completely ionized plasma. *Journal of Applied Mechanics and Technical Physics*, **1981**, 21, 453-461	0.6	5
7	Nonisothermic flow of gas mixture in a channel at intermediate Knudsen numbers. *Prikladnaya Matematika I Mekhanika*, **1981**, 45, 801-808		7
6	Diffusion slip and barodiffusion of a gaseous mixture in plane and cylindrical channels. *Journal of Applied Mechanics and Technical Physics*, **1979**, 19, 656-665	0.6	4
5	Transfer equations in chemically reacting inhomogeneous gases consideration of internal degrees of freedom. *Fluid Dynamics*, **1976**, 9, 603-609	0.7	2
4	Kinetic theory of recondensation in a binary gas mixture with arbitrary Knudsen numbers. *Fluid Dynamics*, **1976**, 10, 664-668	0.7	1
3	Positron annihilation in vitreous As-Se and As-Sn-Se systems. *Soviet Physics Journal (English Translation of Izvestiia Vysshykh Uchebnykh Zavedenii, Fizika)*, **1975**, 18, 716-717		
2	Transport equations for chemical reactions in an inhomogeneous gas phase. *Fluid Dynamics*, **1972**, 7, 473-483	0.7	

1	Electrical conductivity of a partially ionized gas mixture in a magnetic field. *Journal of Applied Mechanics and Technical Physics*, **1965**, 6, 41-43	0.6