Evgeny S Asmolov

List of Publications by Year
in descending order

61	1,341	471061 17	344852 36
papers	citations	h-index	g-index

62	62	62	1073
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	The inertial lift on a spherical particle in a plane Poiseuille flow at large channel Reynolds number. Journal of Fluid Mechanics, 1999, 381, 63-87.	1.4	569
2	Inertial focusing of finite-size particles in microchannels. Journal of Fluid Mechanics, 2018, 840, 613-630.	1.4	59
3	Effective slip boundary conditions for arbitrary one-dimensional surfaces. Journal of Fluid Mechanics, 2012, 706, 108-117.	1.4	52
4	Gas cushion model and hydrodynamic boundary conditions for superhydrophobic textures. Physical Review E, 2014, 90, 043017.	0.8	44
5	Stability of a dusty-gas laminar boundary layer on a flat plate. Journal of Fluid Mechanics, 1998, 365, 137-170.	1.4	32
6	Drag force on a sphere moving toward an anisotropic superhydrophobic plane. Physical Review E, 2011, 84, 026330.	0.8	32
7	Electro-osmotic flow in hydrophobic nanochannels. Physical Chemistry Chemical Physics, 2019, 21, 23036-23043.	1.3	32
8	Dynamics of a spherical particle in a laminar boundary layer. Fluid Dynamics, 1991, 25, 886-890.	0.2	31
9	The inertial lift on an oscillating sphere in a linear shear flow. International Journal of Multiphase Flow, 1999, 25, 739-751.	1.6	30
10	Enhanced slip properties of lubricant-infused grooves. Physical Review E, 2018, 98, .	0.8	30
11	Principles of transverse flow fractionation of microparticles in superhydrophobic channels. Lab on A Chip, 2015, 15, 2835-2841.	3.1	29
12	Effective slip-length tensor for a flow over weakly slipping stripes. Physical Review E, 2013, 88, 023004.	0.8	28
13	Flow past superhydrophobic surfaces with cosine variation in local slip length. Physical Review E, 2013, 87, 023005.	0.8	27
14	The inertial lift on a small particle in a weak-shear parabolic flow. Physics of Fluids, 2002, 14, 15-28.	1.6	22
15	Effective hydrodynamic boundary conditions for microtextured surfaces. Physical Review E, 2013, 87, 011002.	0.8	22
16	Flows and mixing in channels with misaligned superhydrophobic walls. Physical Review E, 2015, 91, 033020.	0.8	21
17	Flow in channels with superhydrophobic trapezoidal textures. Soft Matter, 2013, 9, 11671.	1.2	18
18	Inertial migration of oblate spheroids in a plane channel. Physics of Fluids, 2020, 32, .	1.6	18

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19	Inertial migration of neutrally buoyant particles in superhydrophobic channels. Physical Review Fluids, 2020, 5, .	1.0	18
20	Achieving large zeta-potentials with charged porous surfaces. Physics of Fluids, 2020, 32, .	1.6	17
21	<title>Gas hydrodynamics of CW laser cutting of metals in inert gas</title>. , 1994, , .		15
22	Flow-driven collapse of lubricant-infused surfaces. Journal of Fluid Mechanics, 2020, 901, .	1.4	15
23	Asymptotic model of the inertial migration of particles in a dilute suspension flow through the entry region of a channel. Physics of Fluids, 2008, 20, 123301.	1.6	14
24	Light-induced manipulation of passive and active microparticles. European Physical Journal E, 2021, 44, 50.	0.7	13
25	Boundary conditions at the gas sectors of superhydrophobic grooves. Physical Review Fluids, 2018, 3, .	1.0	13
26	Effective slippage on superhydrophobic trapezoidal grooves. Journal of Chemical Physics, 2013, 139, 174708.	1.2	12
27	Lattice-Boltzmann simulations of the drag force on a sphere approaching a superhydrophobic striped plane. Journal of Chemical Physics, 2014, 140, 034707.	1.2	12
28	Dusty-gas flow in a laminar boundary layer over a blunt body. Journal of Fluid Mechanics, 1995, 305, 29-46.	1.4	11
29	Inertial migration of sedimenting particles in a suspension flow through a Hele-Shaw cell. Fluid Dynamics, 2009, 44, 405-418.	0.2	11
30	Lift force exerted on a spherical particle in a laminar boundary layer. Fluid Dynamics, 1990, 24, 710-714.	0.2	10
31	Evolution of fluctuations in a suspension sedimenting in a container bounded by horizontal walls. Physics of Fluids, 2004, 16, 3086-3093.	1.6	9
32	The inertial lift on a spherical particle settling in a horizontal viscous flow through a vertical slot. Physics of Fluids, 2009, 21, .	1.6	9
33	Self-diffusiophoresis of Janus particles that release ions. Physics of Fluids, 2022, 34, .	1.6	9
34	Motion of a suspension in the laminar boundary layer on a flat plate. Fluid Dynamics, 1992, 27, 49-54.	0.2	8
35	Advective superdiffusion in superhydrophobic microchannels. Physical Review E, 2017, 96, 033109.	0.8	8
36	Enhanced transport of ions by tuning surface properties of the nanochannel. Physical Review E, 2021, 104, 035107.	0.8	7

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37	Migration of settling particles in a horizontal viscous flow through a vertical slot with porous walls. International Journal of Multiphase Flow, 2011, 37, 453-461.	1.6	6
38	Shear-induced self-diffusion in a wall-bounded dilute suspension. Physical Review E, 2008, 77, 066312.	0.8	5
39	Far-field disturbance flow induced by a small non-neutrally buoyant sphere in a linear shear flow. Journal of Fluid Mechanics, 2010, 643, 449-470.	1.4	3
40	Instability of particle inertial migration in shear flow. Physics of Fluids, 2021, 33, .	1.6	3
41	Stability of Two-Phase Boundary Layer on a Flat Plate. , 1995, , 333-340.		2
42	Flow past a sphere undergoing unsteady rectilinear motion and unsteady drag at small Reynolds number. Journal of Fluid Mechanics, 2001, 446, 95-119.	1.4	2
43	Instability of a horizontal plane-channel flow of a dilute suspension. Fluid Dynamics, 2009, 44, 45-54.	0.2	2
44	Accurate Solutions to Non-Linear PDEs Underlying a Propulsion of Catalytic Microswimmers. Mathematics, 2022, 10, 1503.	1.1	2
45	Boundary kinetic effects in the problem of slow flow over an evaporating heat-conducting spherical particle. Fluid Dynamics, 1987, 22, 279-283.	0.2	1
46	Particle motion in a laminar boundary layer on the transverse velocity relaxation length. Fluid Dynamics, 1993, 28, 63-68.	0.2	1
47	Dispersed phase motion in laminar boundary layer flow over a wedge. Fluid Dynamics, 1994, 28, 778-784.	0.2	1
48	Repetitively pulsed gas-jet laser cutting of metals in an oxygen-containing gas. Quantum Electronics, 2000, 30, 45-47.	0.3	1
49	Effect of Interphase Heat Transfer on the Stability of a Turbulent Multicomponent Flow in a Vortex. Fluid Dynamics, 2005, 40, 929-939.	0.2	1
50	Fluctuating interface in a dilute sedimenting suspension. Physical Review E, 2007, 76, 016309.	0.8	1
51	Numerical simulation of rarefied suspension sedimentation in a container. Fluid Dynamics, 2007, 42, 410-418.	0.2	1
52	Role of the Knudsen layer in the problem of droplet evaporation. Fluid Dynamics, 1984, 19, 107-111.	0.2	0
53	Experimental investigation of the gas flow in gas-assisted laser cutting by means of geometrically similar models. , 1996, , .		0
54	Computational and experimental investigation of gas-assisted laser cutting of thick metal. , 1996, 2713, 248.		0

#	Article	IF	Citations
55	<title>Some possibilities for optimizing a repetively pulsed regime of gas-assisted laser cutting</title>. , 1999, , .		0
56	The Calculation of Turbulent Multiphase Swirl Flows of a Viscous Heat-Conducting Gas with Volume Heat Release. High Temperature, 2005, 43, 595-602.	0.1	0
57	Turnable CO 2 laser measurements of composition and concentrations in multicomponent wake behind supersonic civil aircraft. , 2005, , .		0
58	The effect of interphase interaction on the development of perturbations in a turbulent swirl flow in multicomponent cocurrent supersonic stream. High Temperature, 2006, 44, 879-886.	0.1	0
59	Numerical Simulation of the Coherent Structures in a Homogeneous Sedimenting Suspension. , 2003, , 159-164.		0
60	Shear-induced self-diffusion in a Couette flow of a dilute suspension. , 2009, , .		0
61	Shear-induced self-diffusion in a Couette flow of a dilute suspension. Springer Proceedings in Physics, 2009, , 375-378.	0.1	0