Vadim N Kurdyumov

List of Publications by Year
in descending order

87	1,537	304743	361022
papers	citations	22 h-index	35 g-index

87	87	87	592
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Dynamics of premixed flames in a narrow channel with a step-wise wall temperature. Combustion and Flame, 2009, 156, 2190-2200.	5.2	90
2	Lewis number effect on the propagation of premixed laminar flames in narrow open ducts. Combustion and Flame, 2002, 128, 382-394.	5.2	80
3	Experimental and numerical study of premixed flame flashback. Proceedings of the Combustion Institute, 2007, 31, 1275-1282.	3.9	78
4	Flame flashback and propagation of premixed flames near a wall. Proceedings of the Combustion Institute, 2000, 28, 1883-1889.	3.9	67
5	Lewis number effect on the propagation of premixed flames in narrow adiabatic channels: Symmetric and non-symmetric flames and their linear stability analysis. Combustion and Flame, 2011, 158, 1307-1317.	5.2	63
6	Dynamics of an edge flame in a mixing layer. Combustion and Flame, 2004, 139, 329-339.	5.2	56
7	Analysis of premixed flame propagation between two closely-spaced parallel plates. Combustion and Flame, 2018, 190, 133-145.	5.2	52
8	Radiation losses as a driving mechanism for flame oscillations. Proceedings of the Combustion Institute, 2002, 29, 45-52.	3.9	51
9	The porous-plug burner: Flame stabilization, onset of oscillation, and restabilization. Combustion and Flame, 2008, 153, 105-118.	5.2	39
10	Propagation of symmetric and non-symmetric premixed flames in narrow channels: Influence of conductive heat-losses. Combustion and Flame, 2014, 161, 927-936.	5.2	39
11	Flame acceleration in long narrow open channels. Proceedings of the Combustion Institute, 2013, 34, 865-872.	3.9	38
12	Laminar free convection induced by a line heat source, and heat transfer from wires at small Grashof numbers. Journal of Fluid Mechanics, 1998, 362, 199-227.	3.4	37
13	On the calculation of the minimum ignition energy. Combustion and Flame, 2004, 136, 394-397.	5.2	37
14	Effect of the equivalence ratio, DamkÃ¶hler number, Lewis number and heat release on the stability of laminar premixed flames in microchannels. Combustion and Flame, 2014, 161, 1282-1293.	5.2	37
15	Self-accelerating flames in long narrow open channels. Proceedings of the Combustion Institute, 2015, 35, 921-928.	3.9	37
16	Stabilization and onset of oscillation of an edge-flame in the near-wake of a fuel injector. Proceedings of the Combustion Institute, 2007, 31, 909-917.	3.9	35
17	Steady Flows in the Slender, Noncircular, Combustion Chambers of Solid Propellant Rockets. AIAA Journal, 2006, 44, 2979-2986.	2.6	33
18	Free convection from a point source of heat, and heat transfer from spheres at small Grashof numbers. International Journal of Heat and Mass Transfer, 1999, 42, 3849-3860.	4.8	29

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19	Diffusion flame attachment and lift-off in the near wake of a fuel injector. Proceedings of the Combustion Institute, 2000, 28, 2125-2131.	3.9	29
20	DNS study of the propagation and flashback conditions of lean hydrogen-air flames in narrow channels: Symmetric and non-symmetric solutions. International Journal of Hydrogen Energy, 2015, 40, 12541-12549.	7.1	29
21	Analysis of an idealized heat-recirculating microcombustor. Proceedings of the Combustion Institute, 2011, 33, 3275-3284.	3.9	28
22	Propagation of symmetric and non-symmetric lean hydrogenâ€“air flames in narrow channels: Influence of heat losses. Proceedings of the Combustion Institute, 2017, 36, 1559-1567.	3.9	26
23	Cnoidal wave trains and solitary waves in a dissipation-modified Korteweg-de Vries equation. Acta Applicandae Mathematicae, 1995, 39, 457-475.	1.0	22
24	Influence of radiation losses on the stability of premixed flames on a porous-plug burner. Proceedings of the Combustion Institute, 2013, 34, 989-996.	3.9	20
25	Heat Transfer From a Circular Cylinder at Low Reynolds Numbers. Journal of Heat Transfer, 1998, 120, 72-75.	2.1	19
26	Free and forced convection around line sources of heat and heated cylinders in porous media. Journal of Fluid Mechanics, 2001, 427, 389-409.	3.4	19
27	Oscillations of Premixed Flames in Tubes Near the Flashback Conditions. Combustion Science and Technology, 2008, 180, 731-742.	2.3	19
28	Effects of thermal expansion on the stabilization of an edge-flame in a mixing-layer model. Proceedings of the Combustion Institute, 2009, 32, 1107-1115.	3.9	18
29	Effects of gas compressibility on the dynamics of premixed flames in long narrow adiabatic channels. Combustion Theory and Modelling, 2016, 20, 1046-1067.	1.9	18
30	Flame-acoustics interaction for symmetric and non-symmetric flames propagating in a narrow duct from an open to a closed end. Combustion and Flame, 2021, 225, 499-512.	5.2	18
31	The differential diffusion effect of the intermediate species on the stability of premixed flames propagating in microchannels. Combustion Theory and Modelling, 2014, 18, 582-605.	1.9	17
32	The role of conductive heat losses on the formation of isolated flame cells in Hele-Shaw chambers. Combustion and Flame, 2019, 209, 187-199.	5.2	16
33	The role of timeâ€varying gravity on the motion of a drop induced by Marangoni instability. Physics of Fluids, 1995, 7, 2670-2678.	4.0	15
34	Cylindrical solitary waves and their interaction in BÃ©nard-Marangoni layers. Physical Review E, 1998, 57, 5473-5482.	2.1	15
35	A PDF model for dispersed particles with inelastic particleâ€“wall collisions. Physics of Fluids, 1999, 11, 1858-1868.	4.0	15
36	Heat propagation from a concentrated external energy source in a gas. Journal of Fluid Mechanics, 2003, 491, 379-410.	3.4	15

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37	Flame propagation in a composite solid energetic material. Combustion and Flame, 2014, 161, 2209-2214.	5.2	15
38	Autoignition of hydrogen/air mixtures by a thin catalytic wire. Proceedings of the Combustion Institute, 2000, 28, 1359-1364.	3.9	14
39	The effect of gas expansion on edge flames stabilized in narrow channels. Proceedings of the Combustion Institute, 2011, 33, 1227-1234.	3.9	14
40	Asymptotic structure of premixed flames for a simple chain-branching chemistry model with finite activation energy near the flammability limit. Combustion and Flame, 2012, 159, 3110-3118.	5.2	14
41	Critical conditions for non-symmetric flame propagation in narrow channels: Influence of the flow rate, the thermal expansion, the Lewis number and heat-losses. Combustion and Flame, 2019, 209, 430-440.	5.2	14
42	Thermal expansion effect on the propagation of premixed flames in narrow channels of circular cross-section: Multiplicity of solutions, axisymmetry and non-axisymmetry. Proceedings of the Combustion Institute, 2019, 37, 1927-1935.	3.9	12
43	Structure and stability of premixed flames stabilized behind the trailing edge of a cylindrical rod at low Lewis numbers. Proceedings of the Combustion Institute, 2015, 35, 981-988.	3.9	11
44	Global stability analysis of gasless flames propagating in a cylindrical sample of energetic material: Influence of radiative heat-losses. Combustion and Flame, 2015, 162, 1996-2005.	5.2	11
45	Structure and stability of premixed flames propagating in narrow channels of circular cross-section: Non-axisymmetric, pulsating and rotating flames. Combustion and Flame, 2016, 167, 149-163.	5.2	11
46	Controlling of flame propagation in a composite solid energetic material: From stabilization to chaotic regimes. Combustion and Flame, 2017, 182, 167-178.	5.2	11
47	Existence conditions and drift velocities of adiabatic flame-balls in weak gravity fields. Combustion Theory and Modelling, 1999, 3, 281-296.	1.9	11
48	Dynamics of an edge-flame in the corner region of two mutually perpendicular streams. Proceedings of the Combustion Institute, 2007, 31, 929-938.	3.9	10
49	Viscous and inviscid flows generated by wall-normal injection into a cylindrical cavity with a headwall. Physics of Fluids, 2008, 20, .	4.0	9
50	Propagation of nonlinear waves in a fluidized bed in the presence of interaction between the particles of the dispersed phase. Fluid Dynamics, 1987, 22, 235-242.	0.9	8
51	Initiation of reactive blast waves by external energy sources. Comptes Rendus - Mecanique, 2012, 340, 829-844.	2.1	8
52	Effects of stoichiometry on premixed flames propagating in narrow channels: symmetry-breaking bifurcations. Combustion Theory and Modelling, 2017, 21, 1050-1065.	1.9	8
53	Impact of the gravity field on stability of premixed flames propagating between two closely spaced parallel plates. Proceedings of the Combustion Institute, 2019, 37, 1937-1943.	3.9	8
54	Diffusive-thermal instability of premixed tubular flames. Combustion and Flame, 2011, 158, 1718-1726.	5.2	7

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55	Combustion waves in composite solid material of shellâ€“core type. Combustion Theory and Modelling, 2015, 19, 435-450.	1.9	7
56	Critical conditions for flame acceleration in long adiabatic channels closed at their ignition end. Proceedings of the Combustion Institute, 2017, 36, 1549-1557.	3.9	7
57	Propagation of a reaction front in a narrow sample of energetic material with heat losses: Chaotic regimes, extinction and intermittency. Combustion and Flame, 2018, 191, 19-31.	5.2	7
58	The anchoring of gaseous jet diffusion flames in stagnant air. Aerospace Science and Technology, 2002, 6, 507-516.	4.8	6
59	Analysis of an idealized counter-current microchannel-based reactor to produce hydrogen-rich syngas from methanol. International Journal of Hydrogen Energy, 2019, 44, 23807-23820.	7.1	6
60	Influence of heat-loss on compressibility-driven flames propagating from the closed end of a long narrow duct. Combustion and Flame, 2020, 214, 1-13.	5.2	6
61	Mass transfer problem for particles, drops and bubbles in a shear flow. Fluid Dynamics, 1991, 25, 611-615.	0.9	5
62	Propagation of premixed isobaric flames in narrow channels with heat-losses: The asymptotic analysis revised and reliance on the flame-sheet model. Combustion and Flame, 2019, 206, 138-149.	5.2	4
63	Superadiabatic small-scale combustor with counter-flow heat exchange: Flame structure and limits to narrow-channel approximation. Combustion and Flame, 2020, 222, 233-241.	5.2	4
64	Analytical study of superadiabatic small-scale combustors with a two-step chain-branching chemistry model: Lean burning below the flammability limit. Combustion and Flame, 2022, 235, 111731.	5.2	4
65	Mass transfer from a particle in a shear flow with surface reactions. Acta Mechanica, 1993, 101, 155-160.	2.1	3
66	STRUCTURE OF A FLAME FRONT PROPAGATING AGAINST THE FLOW NEAR A COLD WALL. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 2002, 12, 2547-2555.	1.7	3
67	Far-field description of the flow produced by a source of both momentum and mass. Journal of Fluid Mechanics, 2005, 532, 191-198.	3.4	3
68	Combustion wave in a two-layer solid fuel system. Applied Mathematical Modelling, 2020, 77, 1082-1094.	4.2	3
69	Dynamics of combustion waves in narrow samples of solid energetic material: Impact of radiative heat losses on chaotic behavior and dynamical extinction phenomenon. Combustion and Flame, 2020, 219, 349-358.	5.2	3
70	The stability of steady regimes in an isothermal chemical flow reactor. Fluid Dynamics, 1985, 20, 322-325.	0.9	2
71	Flame stabilisation by a highly conductive body: multiple steady-state solutions and time-dependent dynamics. Combustion Theory and Modelling, 2022, 26, 669-685.	1.9	2
72	Asymptotic study of premixed flames in inert porous media layers of finite width: Parametric analysis of heat recirculation phenomena. Combustion and Flame, 2022, 241, 112109.	5.2	2

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73	Stability of a stationary front of an exothermic reaction in the gas phase. Fluid Dynamics, 1988, 22, 504-506.	0.9	1
74	Particle phase boundary layer theory in vertical two-phase gasâ€“solid flow. Physica A: Statistical Mechanics and Its Applications, 1998, 255, 26-47.	2.6	1
75	Natural convection near an isothermal wall far downstream from a source. Physics of Fluids, 2005, 17, 087106.	4.0	1
76	Thermal plume induced by a line source of heat in asymmetrical environment. Zeitschrift Fur Angewandte Mathematik Und Physik, 2006, 57, 269-284.	1.4	1
77	One-dimensional modelling of flame propagation in solid composite fuel with different geometrical configurations. Combustion Theory and Modelling, 2017, 21, 560-574.	1.9	1
78	Numerical and experimental studies of torus-like flame around the vortex filament in a premixed reactant flow. Combustion Science and Technology, 2019, 191, 81-94.	2.3	1
79	Stability of combustion waves propagating in two thermally coupled thin solid fuel layers. Combustion Theory and Modelling, 2020, 24, 1039-1053.	1.9	1
80	Combustion waves in narrow samples of solid energetic material: Chaotic versus spinning dynamics. Combustion and Flame, 2021, 229, 111407.	5.2	1
81	Stabilization of the unstable steady-state regimes of a flow reactor. Fluid Dynamics, 1989, 24, 260-264.	0.9	0
82	Effect of hydrodynamics and radial mixing on steady-state multiplicity in a chemical reactor. Fluid Dynamics, 1991, 25, 914-918.	0.9	0
83	Formation of dynamic spatial flame structures for gas burning in microchannels with temperature gradients on walls. Thermophysics and Aeromechanics, 2011, 18, 293-304.	0.5	0
84	Premixed flames in a narrow slot with a step-wise wall temperature: linear stability analysis and dynamics. Combustion Theory and Modelling, 0, , 1-26.	1.9	0
85	Flame initiation near a cold isothermal wall: Ignition by an instantaneous thermal dipole. Combustion and Flame, 2021, 234, 111643.	5.2	0
86	Corrigendum to â€œFlame-acoustics interaction for symmetric and non-symmetric flames propagating in a narrow duct from an open to a closed endâ€•[Combust. Flame 225 (2021) 499-512]. Combustion and Flame, 2022, 237, 111736.	5.2	0
87	Experimental and numerical study of submerged jets from pipes of different wall thickness for Re<1. Revista Mexicana De FÃsica, 2019, 66, 69-76.	0.4	0