# 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 | 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 |
| 2 | 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 |
| 3 | 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 |
| 4 | 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 |
| 5 | 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 |
| 6 | Combustion waves in narrow samples of solid energetic material: Chaotic versus spinning dynamics. Combustion and Flame, 2021, 229, 111407. | 5.2 | 1 |
| 7 | Flame initiation near a cold isothermal wall: Ignition by an instantaneous thermal dipole. Combustion and Flame, 2021, 234, 111643. | 5.2 | 0 |
| 8 | Combustion wave in a two-layer solid fuel system. Applied Mathematical Modelling, 2020, 77, 1082-1094. | 4.2 | 3 |
| 9 | 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 |
| 10 | 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 |
| 11 | 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 |
| 12 | Stability of combustion waves propagating in two thermally coupled thin solid fuel layers. Combustion Theory and Modelling, 2020, 24, 1039-1053. | 1.9 | 1 |
| 13 | 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 |
| 14 | 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 |
| 15 | 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 |
| 16 | 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 |
| 17 | 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 |
| 18 | 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 |

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|---|---|---|---|
| 19 | 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 |
| 20 | 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 |
| 21 | 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 |
| 22 | Analysis of premixed flame propagation between two closely-spaced parallel plates. Combustion and Flame, 2018, 190, 133-145. | 5.2 | 52 |
| 23 | 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 |
| 24 | 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 |
| 25 | 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 |
| 26 | Effects of stoichiometry on premixed flames propagating in narrow channels: symmetry-breaking bifurcations. Combustion Theory and Modelling, 2017, 21, 1050-1065. | 1.9 | 8 |
| 27 | 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 |
| 28 | 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 |
| 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 | Combustion waves in composite solid material of shellâ€“core type. Combustion Theory and Modelling, 2015, 19, 435-450. | 1.9 | 7 |
| 31 | 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 |
| 32 | 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 |
| 33 | 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 |
| 34 | Self-accelerating flames in long narrow open channels. Proceedings of the Combustion Institute, 2015, 35, 921-928. | 3.9 | 37 |
| 35 | 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 |
| 36 | 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 |

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|---|---|---|---|
| 37 | 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 |
| 38 | Flame propagation in a composite solid energetic material. Combustion and Flame, 2014, 161, 2209-2214. | 5.2 | 15 |
| 39 | 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 |
| 40 | Flame acceleration in long narrow open channels. Proceedings of the Combustion Institute, 2013, 34, 865-872. | 3.9 | 38 |
| 41 | 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 |
| 42 | Initiation of reactive blast waves by external energy sources. Comptes Rendus - Mecanique, 2012, 340, 829-844. | 2.1 | 8 |
| 43 | Diffusive-thermal instability of premixed tubular flames. Combustion and Flame, 2011, 158, 1718-1726. | 5.2 | 7 |
| 44 | 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 |
| 45 | 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 |
| 46 | Analysis of an idealized heat-recirculating microcombustor. Proceedings of the Combustion Institute, 2011, 33, 3275-3284. | 3.9 | 28 |
| 47 | The effect of gas expansion on edge flames stabilized in narrow channels. Proceedings of the Combustion Institute, 2011, 33, 1227-1234. | 3.9 | 14 |
| 48 | Dynamics of premixed flames in a narrow channel with a step-wise wall temperature. Combustion and Flame, 2009, 156, 2190-2200. | 5.2 | 90 |
| 49 | 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 |
| 50 | The porous-plug burner: Flame stabilization, onset of oscillation, and restabilization. Combustion and Flame, 2008, 153, 105-118. | 5.2 | 39 |
| 51 | Oscillations of Premixed Flames in Tubes Near the Flashback Conditions. Combustion Science and Technology, 2008, 180, 731-742. | 2.3 | 19 |
| 52 | Viscous and inviscid flows generated by wall-normal injection into a cylindrical cavity with a headwall. Physics of Fluids, 2008, 20, . | 4.0 | 9 |
| 53 | Experimental and numerical study of premixed flame flashback. Proceedings of the Combustion Institute, 2007, 31, 1275-1282. | 3.9 | 78 |
| 54 | 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 |

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|---|---|---|---|
| 55 | 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 |
| 56 | 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 |
| 57 | Steady Flows in the Slender, Noncircular, Combustion Chambers of Solid Propellant Rockets. AIAA Journal, 2006, 44, 2979-2986. | 2.6 | 33 |
| 58 | Natural convection near an isothermal wall far downstream from a source. Physics of Fluids, 2005, 17, 087106. | 4.0 | 1 |
| 59 | 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 |
| 60 | On the calculation of the minimum ignition energy. Combustion and Flame, 2004, 136, 394-397. | 5.2 | 37 |
| 61 | Dynamics of an edge flame in a mixing layer. Combustion and Flame, 2004, 139, 329-339. | 5.2 | 56 |
| 62 | Heat propagation from a concentrated external energy source in a gas. Journal of Fluid Mechanics, 2003, 491, 379-410. | 3.4 | 15 |
| 63 | 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 |
| 64 | Radiation losses as a driving mechanism for flame oscillations. Proceedings of the Combustion Institute, 2002, 29, 45-52. | 3.9 | 51 |
| 65 | The anchoring of gaseous jet diffusion flames in stagnant air. Aerospace Science and Technology, 2002, 6, 507-516. | 4.8 | 6 |
| 66 | Lewis number effect on the propagation of premixed laminar flames in narrow open ducts. Combustion and Flame, 2002, 128, 382-394. | 5.2 | 80 |
| 67 | 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 |
| 68 | Autoignition of hydrogen/air mixtures by a thin catalytic wire. Proceedings of the Combustion Institute, 2000, 28, 1359-1364. | 3.9 | 14 |
| 69 | Flame flashback and propagation of premixed flames near a wall. Proceedings of the Combustion Institute, 2000, 28, 1883-1889. | 3.9 | 67 |
| 70 | 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 |
| 71 | A PDF model for dispersed particles with inelastic particleâ€“wall collisions. Physics of Fluids, 1999, 11, 1858-1868. | 4.0 | 15 |
| 72 | 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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|---|---|---|---|
| 73 | Existence conditions and drift velocities of adiabatic flame-balls in weak gravity fields. Combustion Theory and Modelling, 1999, 3, 281-296. | 1.9 | 11 |
| 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 | Cylindrical solitary waves and their interaction in BÃ©nard-Marangoni layers. Physical Review E, 1998, 57, 5473-5482. | 2.1 | 15 |
| 76 | Heat Transfer From a Circular Cylinder at Low Reynolds Numbers. Journal of Heat Transfer, 1998, 120, 72-75. | 2.1 | 19 |
| 77 | 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 |
| 78 | Cnoidal wave trains and solitary waves in a dissipation-modified Korteweg-de Vries equation. Acta Applicandae Mathematicae, 1995, 39, 457-475. | 1.0 | 22 |
| 79 | 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 |
| 80 | Mass transfer from a particle in a shear flow with surface reactions. Acta Mechanica, 1993, 101, 155-160. | 2.1 | 3 |
| 81 | Effect of hydrodynamics and radial mixing on steady-state multiplicity in a chemical reactor. Fluid Dynamics, 1991, 25, 914-918. | 0.9 | 0 |
| 82 | Mass transfer problem for particles, drops and bubbles in a shear flow. Fluid Dynamics, 1991, 25, 611-615. | 0.9 | 5 |
| 83 | Stabilization of the unstable steady-state regimes of a flow reactor. Fluid Dynamics, 1989, 24, 260-264. | 0.9 | 0 |
| 84 | Stability of a stationary front of an exothermic reaction in the gas phase. Fluid Dynamics, 1988, 22, 504-506. | 0.9 | 1 |
| 85 | 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 |
| 86 | The stability of steady regimes in an isothermal chemical flow reactor. Fluid Dynamics, 1985, 20, 322-325. | 0.9 | 2 |
| 87 | 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 |