Vadim S Nikolayev

List of Publications by Year
in descending order

79	2,070	236612	253896
papers	citations	25 h-index	43 g-index

79	79	79	1167
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Evaporation Effect on the Contact Angle and Contact Line Dynamics. , 2022, , 133-187.		4
2	Experimental analysis and transient numerical simulation of a large diameter pulsating heat pipe in microgravity conditions. International Journal of Heat and Mass Transfer, 2022, 187, 122532.	2.5	14
3	Liquid film dynamics with immobile contact line during meniscus oscillation. Journal of Fluid Mechanics, 2021, 923, .	1.4	9
4	Physical principles and state-of-the-art of modeling of the pulsating heat pipe: A review. Applied Thermal Engineering, 2021, 195, 117111.	3.0	66
5	Pulsating Heat Pipe Simulations: Impact of PHP Orientation. Microgravity Science and Technology, 2019, 31, 241-248.	0.7	15
6	3D reconstruction of dynamic liquid film shape by optical grid deflection method. European Physical Journal E, 2018, 41, 5.	0.7	4
7	Thin wedge evaporation/condensation controlled by the vapor dynamics in the atmosphere. European Physical Journal E, 2018, 41, 147.	0.7	1
8	Pulsating Heat Pipes: Experimental Analysis, Design and Applications. , 2018, , 1-62.		26
9	Pulsating Heat Pipes: Basics of Functioning and Modeling. , 2018, , 63-139.		12
10	In situ investigation of liquid films in pulsating heat pipe. Applied Thermal Engineering, 2017, 126, 1023-1028.	3.0	28
11	Evaporation condensation-induced bubble motion after temperature gradient set-up. Comptes Rendus - Mecanique, 2017, 345, 35-46.	2.1	5
12	Effect of tube heat conduction on the pulsating heat pipe start-up. Applied Thermal Engineering, 2017, 117, 24-29.	3.0	29
13	Reprint of: Effect of tube heat conduction on the pulsating heat pipe start-up. Applied Thermal Engineering, 2017, 126, 1077-1082.	3.0	6
14	Role of Vapor Mass Transfer in Flow Coating of Colloidal Dispersions in the Evaporative Regime. Langmuir, 2017, 33, 14078-14086.	1.6	7
15	Effect of tube heat conduction on the single branch pulsating heat pipe start-up. International Journal of Heat and Mass Transfer, 2016, 95, 477-487.	2.5	26
16	Evaporation-driven dewetting of a liquid film. Physical Review Fluids, 2016, 1, .	1.0	20
17	Criticality in the slowed-down boiling crisis at zero gravity. Physical Review E, 2015, 91, 053007.	0.8	9
18	Can hydrodynamic contact line paradox be solved by evaporationâ€“condensation?. Journal of Colloid and Interface Science, 2015, 460, 329-338.	5.0	24

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19	Boiling Crisis Dynamics: Low Gravity Experiments at High Pressure. Microgravity Science and Technology, 2015, 27, 253-260.	0.7	6
20	TRIGGERING THE BOILING CRISIS: A STUDY OF THE DRY SPOT SPREADING MECHANISM. Interfacial Phenomena and Heat Transfer, 2014, 2, 363-383.	0.3	10
21	Contact angle hysteresis and pinning at periodic defects in statics. Physical Review E, 2014, 90, 012406.	0.8	6
22	Boiling phenomena in near-critical SF6 observed in weightlessness. Acta Astronautica, 2014, 100, 22-29.	1.7	3
23	OSCILLATING MENISCI AND LIQUID FILMS AT EVAPORATION/CONDENSATION. Heat Pipe Science and Technology an International Journal, 2014, 5, 59-67.	0.2	3
24	EVALUATION OF THE VAPOR THERMODYNAMIC STATE IN PHP. Heat Pipe Science and Technology an International Journal, 2014, 5, 369-376.	0.2	15
25	Oscillatory instability of the gasâ€“liquid meniscus in a capillary under the imposed temperature difference. International Journal of Heat and Mass Transfer, 2013, 64, 313-321.	2.5	20
26	Moving contact line of a volatile fluid. Physical Review E, 2013, 88, 060404.	0.8	21
27	Quench cooling under reduced gravity. Physical Review E, 2013, 88, 013004.	0.8	1
28	Apparent-contact-angle model at partial wetting and evaporation: Impact of surface forces. Physical Review E, 2013, 87, 012404.	0.8	22
29	Development and test of a cryogenic pulsating heat pipe and a pre-cooling system. AIP Conference Proceedings, 2012, , .	0.3	22
30	Contact line singularity at partial wetting during evaporation driven by substrate heating. Europhysics Letters, 2012, 100, 14003.	0.7	30
31	Impact of the apparent contact angle on the bubble departure at boiling. International Journal of Heat and Mass Transfer, 2012, 55, 7352-7354.	2.5	11
32	Magnetic Gravity Compensation. Microgravity Science and Technology, 2011, 23, 113-122.	0.7	24
33	Comment on â€œFlow and heat transfer of liquid plug and neighboring vapor slugs in a pulsating heat pipeâ€•by Yuan, Qu, & Ma. International Journal of Heat and Mass Transfer, 2011, 54, 2226-2227.	2.5	8
34	A Dynamic Film Model of the Pulsating Heat Pipe. Journal of Heat Transfer, 2011, 133, .	1.2	60
35	Thermally induced two-phase oscillating flow inside a capillary tube. International Journal of Heat and Mass Transfer, 2010, 53, 3905-3913.	2.5	85
36	Transparent heater for study of the boiling crisis near the vaporâ€“liquid critical point. Acta Astronautica, 2010, 66, 760-768.	1.7	9

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37	Dips and Rims in Dried Colloidal Films. Physical Review Letters, 2010, 105, 266103.	2.9	31
38	Dynamics of the triple contact line on a nonisothermal heater at partial wetting. Physics of Fluids, 2010, 22, .	1.6	47
39	Possibility of long-distance heat transport in weightlessness using supercritical fluids. Physical Review E, 2010, 82, 061126.	0.8	25
40	Magnetic Compensation of Gravity: Experiments with Oxygen. Microgravity Science and Technology, 2009, 21, 129-133.	0.7	15
41	Comparison of various radiation-cooled dew condensers using computational fluid dynamics. Desalination, 2009, 249, 707-712.	4.0	41
42	Dynamic modelling of the deformed contact line under partial wetting conditions: Quasi-static approach. European Physical Journal: Special Topics, 2009, 166, 181-184.	1.2	0
43	Near-critical fluid boiling: Overheating and wetting films. European Physical Journal E, 2008, 26, 345-353.	0.7	2
44	Dynamic modeling of contact-line deformation: Comparison with experiment. Physical Review E, 2008, 78, 021605.	0.8	6
45	Collecting dew as a water source on small islands: the dew equipment for water project in BisË˜evo (Croatia). Energy, 2007, 32, 1032-1037.	4.5	53
46	The effect of vibrations on heterogeneous fluids: Some studies in weightlessness. Acta Astronautica, 2007, 61, 1002-1009.	1.7	13
47	Comment on â€œThe moisture from the air as water resource in arid region: Hopes, doubt and factsâ€•by Kogan and Trahtman. Journal of Arid Environments, 2006, 67, 343-352.	1.2	16
48	Modeling of the moving deformed triple contact line: Influence of the fluid inertia. Journal of Colloid and Interface Science, 2006, 302, 605-612.	5.0	8
49	Bubble spreading during the boiling crisis: modelling and experimenting in microgravity. Microgravity Science and Technology, 2006, 18, 34-37.	0.7	7
50	Study of fluid behaviour under gravity compensated by a magnetic field. Microgravity Science and Technology, 2006, 18, 196-199.	0.7	12
51	Experimental Evidence of the Vapor Recoil Mechanism in the Boiling Crisis. Physical Review Letters, 2006, 97, 184503.	2.9	93
52	Computational Fluid Dynamic (CFD) Applied to Radiative Cooled Dew Condensers. , 2006, , .		3
53	Dynamics of Drop Coalescence on a Surface: The Role of Initial Conditions and Surface Properties. International Journal of Thermophysics, 2005, 26, 1743-1757.	1.0	31
54	Dynamics and depinning of the triple contact line in the presence of periodic surface defects. Journal of Physics Condensed Matter, 2005, 17, 2111-2119.	0.7	15

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55	Quasistatic relaxation of arbitrarily shaped sessile drops. Physical Review E, 2005, 72, 011606.	0.8	10
56	Wetting film dynamics during evaporation under weightlessness in a near-critical fluid. Physical Review E, 2005, 72, 031602.	0.8	22
57	Measurement and modelling of dew in island, coastal and alpine areas. Atmospheric Research, 2005, 73, 1-22.	1.8	98
58	Contact Line Dynamics in Drop Coalescence and Spreading. Langmuir, 2004, 20, 1213-1221.	1.6	97
59	Crise d'Ã©bullition : inhibition du dÃ©tachement de la bulle de vapeur par la force de recul. Mecanique Et Industries, 2004, 5, 553-558.	0.2	1
60	Using radiative cooling to condense atmospheric vapor: a study to improve water yield. Journal of Hydrology, 2003, 276, 1-11.	2.3	118
61	Fast heat transfer calculations in supercritical fluids versus hydrodynamic approach. Physical Review E, 2003, 67, 061202.	0.8	14
62	Equation of motion of the triple contact line along an inhomogeneous surface. Europhysics Letters, 2003, 64, 763-768.	0.7	14
63	Vapour spreading and the boiling crisis. Journal of Physics Condensed Matter, 2003, 15, S435-S442.	0.7	4
64	Relaxation of nonspherical sessile drops towards equilibrium. Physical Review E, 2002, 65, 046135.	0.8	28
65	Liquid-vapor phase separation in a thermocapillary force field. Europhysics Letters, 2002, 59, 245-251.	0.7	17
66	Coalescence of sessile drops. Journal of Fluid Mechanics, 2002, 453, 427-438.	1.4	124
67	Using magnetic levitation to produce cryogenic targets for inertial fusion energy: experiment and theory. Cryogenics, 2002, 42, 253-261.	0.9	24
68	Gas â€œWetsâ€•a Solid Wall in Orbit. International Journal of Thermophysics, 2002, 23, 89-101.	1.0	8
69	Growth of a dry spot under a vapor bubble at high heat flux and high pressure. International Journal of Heat and Mass Transfer, 2001, 44, 3499-3511.	2.5	33
70	Gas spreading on a heated wall wetted by liquid. Physical Review E, 2001, 64, 051602.	0.8	31
71	Piston effect in a supercritical fluid sample cell : A phenomenological approach of the mechanisms. European Physical Journal Special Topics, 2001, 11, Pr6-23-Pr6-34.	0.2	8
72	Boiling crisis and non-equilibrium drying transition. Europhysics Letters, 1999, 47, 345-351.	0.7	79

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73	Coherent light transmission by a dew pattern. Optics Communications, 1998, 150, 263-269.	1.0	36
74	Coalescence limited by hydrodynamics. Physics of Fluids, 1997, 9, 3227-3234.	1.6	16
75	Water recovery from dew. Journal of Hydrology, 1996, 182, 19-35.	2.3	125
76	New Hydrodynamic Mechanism for Drop Coarsening. Physical Review Letters, 1996, 76, 3144-3147.	2.9	74
77	Twin spacing and the structural phase transitions inRBa2Cu3O7âˆ'Î´high-Tcsuperconductors. Physical Review B, 1994, 50, 4163-4167.	1.1	4
78	Twin spacing versus size of a monocrystal for the nonstoichiometric 1:2:3 superconductors. Physics Letters, Section A: General, Atomic and Solid State Physics, 1993, 180, 157-163.	0.9	3
79	On the theory of formation of a twin (Ferroelastic) structure in high-temperature superconductors with oxygen nonstoichiometry. Solid State Communications, 1990, 75, 503-506.	0.9	3