Tatiana Gambaryan-Roisman

List of Publications by Year
in descending order

97 papers	2,196 citations	185998 28 h-index	253896 43 g-index
100 all docs	100 docs citations	100 times ranked	1656 citing authors

#	Article	IF	Citations
1	Drop Impact, Spreading, Splashing, and Penetration into Electrospun Nanofiber Mats. Langmuir, 2010, 26, 9516-9523.	1.6	117
2	Liquids on porous layers: wetting, imbibition and transport processes. Current Opinion in Colloid and Interface Science, 2014, 19, 320-335.	3.4	100
3	Conductive Ceramic Foams from Preceramic Polymers. Journal of the American Ceramic Society, 2001, 84, 2265-2268.	1.9	90
4	Experimental investigation of circular free-surface jet impingement quenching: Transient hydrodynamics and heat transfer. Experimental Thermal and Fluid Science, 2011, 35, 1435-1443.	1.5	84
5	Nanofiber coating of surfaces for intensification of drop or spray impact cooling. International Journal of Heat and Mass Transfer, 2009, 52, 5814-5826.	2.5	78
6	The effect of three-phase contact line speed on local evaporative heat transfer: Experimental and numerical investigations. International Journal of Heat and Mass Transfer, 2012, 55, 1896-1904.	2.5	78
7	Measurement of water falling film thickness to flat plate using confocal chromatic sensoring technique. Experimental Thermal and Fluid Science, 2009, 33, 273-283.	1.5	77
8	Local heat transfer and phase change phenomena during single drop impingement on a hot surface. International Journal of Heat and Mass Transfer, 2013, 61, 605-614.	2.5	75
9	Inverse-Leidenfrost phenomenon on nanofiber mats on hot surfaces. Physical Review E, 2011, 84, 036310.	0.8	74
10	Static and dynamic contact angles of evaporating liquids on heated surfaces. Journal of Colloid and Interface Science, 2010, 342, 550-558.	5.0	71
11	Static and dynamic wetting of soft substrates. Current Opinion in Colloid and Interface Science, 2018, 36, 46-57.	3.4	63
12	Marangoni-induced deformation and rupture of a liquid film on a heated microstructured wall. Physics of Fluids, 2006, 18, 012104.	1.6	62
13	Marangoni convection and heat transfer in thin liquid films on heated walls with topography: Experiments and numerical study. Physics of Fluids, 2005, 17, 062106.	1.6	60
14	Dynamics of the cavity and the surface film for impingements of single drops on liquid films of various thicknesses. Journal of Colloid and Interface Science, 2010, 350, 336-343.	5.0	51
15	Nonisothermal drop impact and evaporation on polymer nanofiber mats. Physical Review E, 2011, 83, 036305.	0.8	51
16	Evaporation of a thin viscous liquid film sheared by gas in a microchannel. International Journal of Heat and Mass Transfer, 2014, 68, 527-541.	2.5	51
17	Influence of the substrate thermal properties on sessile droplet evaporation: Effect of transient heat transport. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2013, 432, 64-70.	2.3	49
18	Experimental investigation of evaporative heat transfer characteristics at the 3-phase contact line. Experimental Thermal and Fluid Science, 2010, 34, 1036-1041.	1.5	48

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19	Influence of the governing dimensionless parameters on heat transfer during single drop impingement onto a hot wall. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2013, 432, 57-63.	2.3	47
20	Heat transfer during simultaneous impact of two drops onto a hot solid substrate. International Journal of Heat and Mass Transfer, 2017, 113, 898-907.	2.5	44
21	Effect of Longitudinal Minigrooves on Flow Stability and Wave Characteristics of Falling Liquid Films. Journal of Heat Transfer, 2009, 131, .	1.2	39
22	A hydrodynamic model for subcooled liquid jet impingement at the Leidenfrost condition. International Journal of Thermal Sciences, 2011, 50, 993-1000.	2.6	38
23	Modulation of Marangoni convection in liquid films. Advances in Colloid and Interface Science, 2015, 222, 319-331.	7.0	36
24	Analysis of Falling Film Evaporation on Grooved Surfaces. Journal of Enhanced Heat Transfer, 2003, 10, 445-458.	0.5	34
25	Marangoni convection, evaporation and interface deformation in liquid films on heated substrates with non-uniform thermal conductivity. International Journal of Heat and Mass Transfer, 2010, 53, 390-402.	2.5	32
26	On the development of a thin evaporating liquid film at a receding liquid/vapour-interface. International Journal of Heat and Mass Transfer, 2015, 88, 346-356.	2.5	32
27	Breakup and atomization of a stretching crown. Physical Review E, 2007, 76, 026302.	0.8	31
28	Solidâ€“Liquid Interface Thermal Resistance Affects the Evaporation Rate of Droplets from a Surface: A Study of Perfluorohexane on Chromium Using Molecular Dynamics and Continuum Theory. Langmuir, 2017, 33, 5336-5343.	1.6	31
29	Evaporation of Falling and Shear-Driven Thin Films on Smooth and Grooved Surfaces. Flow, Turbulence and Combustion, 2005, 75, 85-104.	1.4	26
30	Experimental investigation of hydrodynamics and heat transport during vertical coalescence of multiple successive drops impacting a hot wall under saturated vapor atmosphere. Experimental Thermal and Fluid Science, 2020, 118, 110145.	1.5	25
31	Effect of the microscale wall topography on the thermocapillary convection within a heated liquid film. Experimental Thermal and Fluid Science, 2005, 29, 765-772.	1.5	24
32	Gravity effect on spray impact and spray cooling. Microgravity Science and Technology, 2007, 19, 151-154.	0.7	20
33	Intact deposition of cationic vesicles on anionic cellulose fibers: Role of vesicle size, polydispersity, and substrate roughness studied via streaming potential measurements. Journal of Colloid and Interface Science, 2016, 473, 152-161.	5.0	19
34	Flow and Stability of Rivulets on Heated Surfaces With Topography. Journal of Heat Transfer, 2009, 131, .	1.2	18
35	Effect of nano-textured heater surfaces on evaporation at a single meniscus. International Journal of Heat and Mass Transfer, 2017, 108, 2444-2450.	2.5	18
36	Effect of Grain Thermal Expansion Mismatch on Thermal Conductivity of Porous Ceramics. Journal of the American Ceramic Society, 1999, 82, 994-1000.	1.9	17

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37	Droplet on an elastic substrate: Finite Element Method coupled with lubrication approximation. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2017, 521, 13-21.	2.3	16
38	Influence of System Pressure on Pool Boiling Regimes on A Microstructured Surface Compared to A Smooth Surface. Experimental Heat Transfer, 2020, 33, 318-334.	2.3	16
39	Trains of Taylor bubbles over hot nano-textured mini-channel surface. International Journal of Heat and Mass Transfer, 2016, 93, 827-833.	2.5	14
40	Numerical Simulations of Hydrodynamics and Heat Transfer in Wavy Falling Liquid Films on Vertical and Inclined Walls. Journal of Heat Transfer, 2013, 135, .	1.2	13
41	Heat transfer in granular medium for application to selective laser melting: A numerical study. International Journal of Thermal Sciences, 2017, 113, 38-50.	2.6	13
42	Influence of lipid bilayer phase behavior and substrate roughness on the pathways of intact vesicle deposition: A streaming potential study. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2017, 521, 302-311.	2.3	13
43	Superspreading and Drying of Trisiloxane-Laden Quantum Dot Nanofluids on Hydrophobic Surfaces. Langmuir, 2020, 36, 3798-3813.	1.6	12
44	Influence of segregation-diffusion processes on the effective thermal conductivity of porous ceramics. International Journal of Heat and Mass Transfer, 1993, 36, 4123-4131.	2.5	11
45	Long-Wave and Integral Boundary Layer Analysis of Falling Film Flow on Walls With Three-Dimensional Periodic Structures. Heat Transfer Engineering, 2011, 32, 705-713.	1.2	11
46	Fingering instability of partially wetting evaporating liquids. Journal of Engineering Mathematics, 2012, 73, 31-38.	0.6	11
47	Drop evaporation of hydrocarbon fluids with deposit formation. International Journal of Heat and Mass Transfer, 2019, 128, 115-124.	2.5	11
48	Splashing of a Newtonian drop impacted onto a solid substrate coated by a thin soft layer. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2018, 553, 89-96.	2.3	10
49	Spreading and Imbibition of Vesicle Dispersion Droplets on Porous Substrates. Colloids and Interfaces, 2019, 3, 53.	0.9	10
50	Thin liquid films with time-dependent chemical reactions sheared by an ambient gas flow. Physical Review Fluids, 2017, 2, .	1.0	10
51	A numerical model for the thermocapillary flow and heat transfer in a thin liquid film on a microstructured wall. International Journal of Numerical Methods for Heat and Fluid Flow, 2007, 17, 247-262.	1.6	10
52	Capillary-driven flow in corner geometries. Current Opinion in Colloid and Interface Science, 2022, 59, 101575.	3.4	10
53	Influence of gas emission on heat transfer in porous ceramics. International Journal of Heat and Mass Transfer, 2003, 46, 385-397.	2.5	9
54	Combined direct numerical simulation and long-wave simulation of a liquid film sheared by a turbulent gas flow in a channel. Physics of Fluids, 2019, 31, .	1.6	9

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55	Influence of nanofiber coating thickness and drop volume on spreading, imbibition, and evaporation. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2021, 631, 127450.	2.3	9
56	SIMULTANEOUS IMBIBITION AND EVAPORATION OF LIQUIDS ON GROOVED SUBSTRATES. Interfacial Phenomena and Heat Transfer, 2019, 7, 239-253.	0.3	9
57	Thermocapillarity-induced vortexes and liquid film dynamics on structured heated walls. Journal of Non-Equilibrium Thermodynamics, 2005, 30, .	2.4	8
58	The influence of splattering on the development of the wall film after horizontal jet impingement onto a vertical wall. Experiments in Fluids, 2019, 60, 1.	1.1	8
59	A fully coupled numerical model for deposit formation from evaporating urea-water drops. International Journal of Heat and Mass Transfer, 2020, 159, 120069.	2.5	8
60	Wetting at nanoscale: Effect of surface forces and droplet size. Physical Review Fluids, 2021, 6, .	1.0	8
61	Effect of surface segregation kinetics on the effective thermal conductivity of porous ceramics. International Journal of Heat and Mass Transfer, 1996, 39, 1687-1695.	2.5	7
62	Reactionâ€“diffusion model of surface and grain boundary segregation kinetics. International Journal of Heat and Mass Transfer, 2000, 43, 4135-4151.	2.5	7
63	Novel heat-transfer mechanisms affecting the thermal conductivity of porous ceramics. High Temperatures - High Pressures, 2001, 33, 27-33.	0.3	7
64	Thermocapillary convection and interface deformation in a liquid film within a micro-slot with structured walls. Microfluidics and Nanofluidics, 2007, 3, 207-215.	1.0	7
65	Falling liquid films on longitudinal grooved geometries: Integral boundary layer approach. Physics of Fluids, 2012, 24, 014104.	1.6	7
66	Direct Numerical Simulation of the Microscale Fluid Flow and Heat Transfer in the Three-Phase Contact Line Region During Evaporation. Journal of Heat Transfer, 2018, 140, .	1.2	7
67	Capillary rise and evaporation of a liquid in a corner between a plane and a cylinder: A model of imbibition into a nanofiber mat coating. European Physical Journal: Special Topics, 2020, 229, 1799-1818.	1.2	7
68	Marangoni-induced deformation of evaporating liquid films on composite substrates. Journal of Engineering Mathematics, 2012, 73, 39-52.	0.6	6
69	Numerical and experimental analysis of short-scale Marangoni convection on heated structured surfaces. International Journal of Heat and Mass Transfer, 2015, 86, 764-779.	2.5	6
70	Imbibition of water into substrates prepared by thermal treatment of polydimethylsiloxane layers. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2017, 521, 69-77.	2.3	6
71	Numerical investigation of the evolution and breakup of an evaporating liquid film on a structured wall. International Journal of Heat and Fluid Flow, 2018, 70, 104-113.	1.1	6
72	A hydrodynamic analogy based modelling approach for zero-gravity distillation with metal foams. Chemical Engineering Research and Design, 2019, 147, 615-623.	2.7	6

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73	Edge wetting: Steady state of rivulets in wedges. Physics of Fluids, 2022, 34, .	1.6	5
74	Electrokinetic investigation of deposition of cationic fabric softener vesicles on anionic porous cotton fabrics. Journal of Colloid and Interface Science, 2018, 514, 132-145.	5.0	4
75	Charge and size mattersâ€"How to formulate organomodified silicones for textile applications. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2019, 560, 180-188.	2.3	4
76	Flow Patterns and Heat Transfer in Thin Liquid Films on Walls With Straight, Meandering and Zigzag Mini-Grooves. , 2008, , .		3
77	Dynamics of free liquid films during formation of polymer foams. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2011, 382, 113-117.	2.3	3
78	Wetting and Evaporation of Solvents on Thin Soluble Substrates. Colloids and Interfaces, 2020, 4, 48.	0.9	3
79	HEAT TRANSFER IN SHEAR-DRIVEN THIN LIQUID FILM FLOWS. Computational Thermal Sciences, 2013, 5, 303-315.	0.5	3
80	Surface force-mediated dynamics of droplets spreading over wetting films. Physics of Fluids, 2021, 33, 122107.	1.6	3
81	Effect of double-diffusive heat transfer on thermal conductivity of porous sintered ceramics: Macrotransport analysis. International Journal of Heat and Mass Transfer, 2011, 54, 4844-4855.	2.5	2
82	Effect of Geometry on Electrokinetic Characterization of Solid Surfaces. Langmuir, 2017, 33, 7556-7568.	1.6	2
83	A Novel Twoâ€Step Model to Investigate Turbulent Gas Flows Shearing Thin Liquid Films. Proceedings in Applied Mathematics and Mechanics, 2019, 19, e201900083.	0.2	2
84	High Resolution Heat Transfer Measurements at the Three Phase Contact Line of a Moving Single Meniscus. , 2014, , .		2
85	Numerical simulation of the evaporation process of pinned urea-water droplets in cavities. International Journal of Heat and Fluid Flow, 2022, 95, 108970.	1.1	2
86	Falling Films in Micro- and Minigrooves: Heat Transfer and Flow Stability. , 2003, , 449.		1
87	Experimental and numerical investigation of evaporative heat transfer in the vicinity of the 3-phase contact line. , 2010, , .		1
88	Influence of Surface Topography on Heat Transfer in Shear-Driven Liquid Films. Journal of Physics: Conference Series, 2012, 395, 012164.	0.3	1
89	Hydrodynamics and Heat Transfer in a Liquid Film Flowing Over a Spinning Disk With Wall Topography. Heat Transfer Engineering, 2013, 34, 266-278.	1.2	1
90	Solid Substrate Properties. , 2015, , 139-156.		1

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91	A novel numerical method for radiation exchange in granular medium. Heat and Mass Transfer, 2016, 52, 2587-2591.	1.2	1
92	Spreading of Micrometer-Sized Droplets under the Influence of Insoluble and Soluble Surfactants: A Numerical Study. Colloids and Interfaces, 2019, 3, 56.	0.9	1
93	Numerical study of heat transfer and phase change in a single metal particle of powder material in application to selective laser sintering. Computational Thermal Sciences, 2011, 3, 169-177.	0.5	1
94	Wetting and evaporation of pinned ureaâ€“water-droplets on substrates of different wettability. International Journal of Heat and Fluid Flow, 2021, 92, 108886.	1.1	1
95	Hydrodynamics and Heat Transfer in a Liquid Film Flowing Over a Spinning Disk With Specific Wall Topography. , 2011, , .		0
96	HEAT TRANSFER, PHASE CHANGE, AND COALESCENCE OF PARTICLES DURING SELECTIVE LASER SINTERING OF METAL POWDERS. Computational Thermal Sciences, 2012, 4, 411-423.	0.5	0
97	EXPERIMENTAL INVESTIGATION OF DYNAMICS AND ATOMIZATION OF A LIQUID FILM FLOWING OVER A SPINNING DISK. Atomization and Sprays, 2013, 23, 589-603.	0.3	0