Franck Pigeonneau

List of Publications by Year
in descending order

40 papers	499 citations	759233 12 h-index	713466 21 g-index
41 all docs	41 docs citations	41 times ranked	444 citing authors

#	Article	IF	Citations
1	Freezing of a Subcooled Liquid Droplet. Journal of Colloid and Interface Science, 1995, 169, 90-102.	9.4	89
2	Film drainage of viscous liquid on top of bare bubble: Influence of the Bond number. Physics of Fluids, 2013, 25, .	4.0	42
3	Nano-Structured Optical Fibers Made of Glass-Ceramics, and Phase Separated and Metallic Particle-Containing Glasses. Fibers, 2019, 7, 105.	4.0	30
4	Nanoparticles in optical fiber, issue and opportunity of light scattering [Invited]. Optical Materials Express, 2022, 12, 2635.	3.0	27
5	A Hybrid High-Order Method for the Cahn--Hilliard problem in Mixed Form. SIAM Journal on Numerical Analysis, 2016, 54, 1873-1898.	2.3	26
6	Low-Reynolds-number gravity-driven migration and deformation of bubbles near a free surface. Physics of Fluids, 2011, 23, .	4.0	25
7	Flow analysis of the polymer spreading during extrusion additive manufacturing. Additive Manufacturing, 2019, 29, 100794.	3.0	24
8	Heating and flow computations of an amorphous polymer in the liquefier of a material extrusion 3D printer. Additive Manufacturing, 2020, 32, 101001.	3.0	22
9	Mass transfer of a rising bubble in molten glass with instantaneous oxidationâ€“reduction reaction. Chemical Engineering Science, 2009, 64, 3120-3129.	3.8	18
10	Experimental study of bubble formation in a glassâ€forming liquid doped with cerium oxide. Journal of the American Ceramic Society, 2020, 103, 2453-2462.	3.8	16
11	Shrinkage of an oxygen bubble rising in a molten glass. Chemical Engineering Science, 2010, 65, 3158-3168.	3.8	15
12	Practical laws for natural convection of viscous fluids heated from above in a shallow cavity. International Journal of Heat and Mass Transfer, 2012, 55, 436-442.	4.8	13
13	Drainage in a rising foam. Soft Matter, 2016, 12, 905-913.	2.7	13
14	Stability of vertical films of molten glass due to evaporation. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2012, 408, 8-16.	4.7	11
15	Mechanism of mass transfer between a bubble initially composed of oxygen and molten glass. International Journal of Heat and Mass Transfer, 2011, 54, 1448-1455.	4.8	9
16	Thermal analysis of the fused filament fabrication printing process: Experimental and numerical investigations. International Journal of Material Forming, 2021, 14, 763-776.	2.0	9
17	The impact of iron content in oxidation front in soda-lime silicate glasses: An experimental and comparative study. Journal of Non-Crystalline Solids, 2013, 380, 86-94.	3.1	8
18	Massâ€transfer enhancement by a reversible chemical reaction across the interface of a bubble rising under <scp>Stokes</scp> flow. AIChE Journal, 2014, 60, 3376-3388.	3.6	8

#	Article	IF	Citations
19	Rate of chaotic mixing in localized flows. Physical Review Fluids, 2016, 1, .	2.5	8
20	Intermittent flow in yield-stress fluids slows down chaotic mixing. Physical Review E, 2013, 88, 023024.	2.1	7
21	Spatial distribution of nucleated bubbles in molten glasses undergoing coalescence and growth. Journal of the American Ceramic Society, 2018, 101, 1892-1905.	3.8	7
22	Discontinuous Galerkin finite element method applied to the coupled unsteady Stokes/Cahnâ€Hilliard equations. International Journal for Numerical Methods in Fluids, 2019, 90, 267-295.	1.6	7
23	Experimental and numerical investigations of an oxygen singleâ€bubble shrinkage in a borosilicate glassâ€forming liquid doped with cerium oxide. Journal of the American Ceramic Society, 2020, 103, 6736-6745.	3.8	7
24	Mass transfer around a rising bubble in a glass-forming liquid involving oxidation-reduction reaction: Numerical computation of the Sherwood number. Chemical Engineering Science, 2021, 232, 116382.	3.8	7
25	Collision of drops with inertia effects in strongly sheared linear flow fields. Journal of Fluid Mechanics, 2002, 455, 359-386.	3.4	6
26	Toward Engineered Nanoparticle-Doped Optical Fibers for Sensor Applications. Frontiers in Sensors, 2022, 2, .	3.3	6
27	A systemic approach for glass manufacturing process modeling. Chemical Engineering and Processing: Process Intensification, 2009, 48, 1310-1320.	3.6	5
28	Xâ€ray imaging of a highâ€temperature furnace applied to glass melting. Journal of the American Ceramic Society, 2020, 103, 979-992.	3.8	5
29	A feedback mechanism between crystals and bubbles in a RuO2-bearing melt. Journal of Non-Crystalline Solids, 2022, 582, 121456.	3.1	5
30	Kinematic regimes of convection at high Prandtl number in a shallow cavity. Comptes Rendus - Mecanique, 2004, 332, 783-788.	2.1	4
31	From steady to unsteady horizontal gradient-driven convection at high Prandtl number. International Journal of Heat and Mass Transfer, 2014, 71, 469-474.	4.8	4
32	Low-Reynolds-number rising of a bubble near a free surface at vanishing Bond number. Physics of Fluids, 2016, 28, 063102.	4.0	4
33	Collision and size evolution of drops in homogeneous isotropic turbulence. Journal of Aerosol Science, 1998, 29, S1279-S1280.	3.8	3
34	Slow viscous gravity-driven interaction between a bubble and a free surface with unequal surface tensions. Physics of Fluids, 2015, 27, 043102.	4.0	3
35	Inferring bubble volume fraction in a glass melt through in situ impedance spectroscopy measurements. International Journal of Applied Glass Science, 2021, 12, 358-366.	2.0	3
36	Kinematic regimes of convection at high Prandtl number in a shallow cavity. Comptes Rendus - Mecanique, 2004, 332, 783-788.	2.1	2

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37	Chondrule radiative cooling in a non-uniform density environment. Icarus, 2019, 329, 1-7.	2.5	1
38	Thermoconvective instabilities of a non-uniform Joule-heated liquid enclosed in a rectangular cavity. Journal of Fluid Mechanics, 2018, 843, 601-636.	3.4	0
39	TEST-CASE NO 16: IMPACT OF A DROP ON A THIN FILM OF THE SAME LIQUID (PE, PA). Multiphase Science and Technology, 2004, 16, 105-109.	0.5	0
40	TEST-CASE NO 23: RELATIVE TRAJECTORIES AND COLLISION OF TWO DROPS IN A SIMPLE SHEAR FLOW (PA). Multiphase Science and Technology, 2004, 16, 135-142.	0.5	0