Mostafa Barigou

List of Publications by Year in descending order

Source: https://exaly.com/author-pdf/7588225/publications.pdf

Version: 2024-02-01

76 papers	2,601 citations	159358 30 h-index	205818 48 g-index
78 all docs	78 docs citations	78 times ranked	1607 citing authors

#	Article	IF	Citations
1	On the Existence and Stability of Bulk Nanobubbles. Langmuir, 2018, 34, 10964-10973.	1.6	242
2	X-ray micro-computed tomography of cellular food products. Food Research International, 2004, 37, 1001-1012.	2.9	212
3	Interpreting the interfacial and colloidal stability of bulk nanobubbles. Soft Matter, 2018, 14, 9643-9656.	1.2	137
4	Bulk Nanobubbles or Not Nanobubbles: That is the Question. Langmuir, 2020, 36, 1699-1708.	1.6	122
5	Particle Tracking in Opaque Mixing Systems: An Overview of the Capabilities of PET and PEPT. Chemical Engineering Research and Design, 2004, 82, 1258-1267.	2.7	79
6	Fluid trajectories in a stirred vessel of non-newtonian liquid using positron emission particle tracking. Chemical Engineering Science, 2000, 55, 5969-5979.	1.9	69
7	Positron emission particle tracking (PEPT) compared to particle image velocimetry (PIV) for studying the flow generated by a pitched-blade turbine in single phase and multi-phase systems. Chemical Engineering Science, 2009, 64, 4955-4968.	1.9	66
8	Bulk Nanobubbles from Acoustically Cavitated Aqueous Organic Solvent Mixtures. Langmuir, 2019, 35, 2188-2195.	1.6	66
9	CFD Analysis of Caverns and Pseudo-Caverns Developed During Mixing of Non-Newtonian Fluids. Chemical Engineering Research and Design, 2007, 85, 598-604.	2.7	62
10	PEPT measurements of solidâ€“liquid flow field and spatial phase distribution in concentrated monodisperse stirred suspensions. Chemical Engineering Science, 2010, 65, 1905-1914.	1.9	62
11	Foam Destabilization by Mechanical and Ultrasonic Vibrations. Journal of Colloid and Interface Science, 1999, 219, 90-98.	5.0	55
12	The flow of gasâ€“liquid foams in vertical pipes. Chemical Engineering Science, 2000, 55, 4297-4309.	1.9	55
13	Which Parameters Affect Biofilm Removal with Acoustic Cavitation? A Review. Ultrasound in Medicine and Biology, 2019, 45, 1044-1055.	0.7	52
14	Vibrational flow of non-Newtonian fluids. Chemical Engineering Science, 2001, 56, 3845-3853.	1.9	50
15	Using positron emission particle tracking (PEPT) to study nearly neutrally buoyant particles in high solid fraction pipe flow. International Journal of Multiphase Flow, 2001, 27, 1881-1901.	1.6	49
16	CFD investigation of the pipe transport of coarse solids in laminar power law fluids. Chemical Engineering Science, 2009, 64, 322-333.	1.9	49
17	Horizontal laminar flow of coarse nearly-neutrally buoyant particles in non-Newtonian conveying fluids: CFD and PEPT experiments compared. International Journal of Multiphase Flow, 2008, 34, 997-1007.	1.6	48
18	Positron emission particle tracking in a mechanically agitated solidâ€“liquid suspension of coarse particles. Chemical Engineering Research and Design, 2009, 87, 421-429.	2.7	44

#	Article	IF	Citations
19	A Henry's law method for generating bulk nanobubbles. Nanoscale, 2020, 12, 15869-15879.	2.8	43
20	Numerical modelling of velocity field and phase distribution in dense monodisperse solidâ€“liquid suspensions under different regimes of agitation: CFD and PEPT experiments. Chemical Engineering Science, 2013, 101, 837-850.	1.9	39
21	The Fluid Mechanics of Two-Phase Solid-Liquid Food Flows: A Review. Food and Bioproducts Processing, 1997, 75, 73-105.	1.8	36
22	Comparative study of different mixing strategies in small high throughput experimentation reactors. Chemical Engineering Science, 2005, 60, 2355-2368.	1.9	36
23	Concentric flow regime of solidâ€“liquid food suspensions: theory and experiment. Chemical Engineering Science, 2003, 58, 1671-1686.	1.9	35
24	Shannon entropy for local and global description of mixing by Lagrangian particle tracking. Chemical Engineering Science, 2010, 65, 2865-2883.	1.9	35
25	An improved vibration technique for enhancing temperature uniformity and heat transfer in viscous fluid flow. Chemical Engineering Science, 2015, 123, 609-619.	1.9	35
26	Reconstruction of 3-D Flow Field Inside Miniature Stirred Vessels Using a 2-D PIV Technique. Chemical Engineering Research and Design, 2007, 85, 560-567.	2.7	34
27	Discrete multi-physics: A mesh-free model of blood flow in flexible biological valve including solid aggregate formation. PLoS ONE, 2017, 12, e0174795.	1.1	34
28	Foam flow phenomena in sudden expansions and contractions. International Journal of Multiphase Flow, 2001, 27, 1463-1477.	1.6	32
29	Enhancing radial temperature uniformity and boundary layer development in viscous Newtonian and non-Newtonian flow by transverse oscillations: A CFD study. Chemical Engineering Science, 2010, 65, 2199-2212.	1.9	32
30	Modelling and simulation of flow and agglomeration in deep veins valves using discrete multi physics. Computers in Biology and Medicine, 2017, 89, 96-103.	3.9	32
31	Heat Transfer in Two-Phase Solid-Liquid Food Flows: A Review. Food and Bioproducts Processing, 1998, 76, 3-29.	1.8	29
32	A Langrangian Study of Solids Suspension in a Stirred Vessel by Positron Emission Particle Tracking(PEPT). Chemical Engineering and Technology, 2002, 25, 521-528.	0.9	29
33	The effects of the azimuthal position of the measurement plane on the flow parameters determined by PIV within a stirred vessel. Chemical Engineering Science, 2010, 65, 2454-2463.	1.9	29
34	Proving and interpreting the spontaneous formation of bulk nanobubbles in aqueous organic solvent solutions: effects of solvent type and content. Soft Matter, 2020, 16, 4502-4511.	1.2	29
35	Deformation and rupture of compound cells under shear: A discrete multiphysics study. Physics of Fluids, 2019, 31, .	1.6	27
36	Using discrete multi-physics for detailed exploration of hydrodynamics in an in vitro colon system. Computers in Biology and Medicine, 2017, 81, 188-198.	3.9	26

#	Article	IF	Citations
37	An enhanced electrical resistance technique for foam drainage measurement. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2001, 189, 237-246.	2.3	24
38	CFD analysis of viscous non-Newtonian flow under the influence of a superimposed rotational vibration. Computers and Fluids, 2008, 37, 24-34.	1.3	24
39	On the clustering of bulk nanobubbles and their colloidal stability. Journal of Colloid and Interface Science, 2021, 601, 816-824.	5.0	22
40	Soap film drainage: theory of experiment. Chemical Engineering Science, 1994, 49, 1807-1819.	1.9	21
41	Using Positron Emission Particle Tracking (PEPT) to Study Mixing in Stirred Vessels: Validation and Tackling Unsolved Problems in Opaque Systems. Journal of Chemical Engineering of Japan, 2009, 42, 839-846.	0.3	21
42	Combined Use of PEPT and ERT in the Study of Aluminum Hydroxide Precipitation. Industrial & Engineering Chemistry Research, 2009, 48, 1019-1028.	1.8	21
43	Foam Rupture by Mechanical and Vibrational Methods. Chemical Engineering and Technology, 2001, 24, 659-663.	0.9	20
44	Angle-Resolved Particle Image Velocimetry Measurements of Flow and Turbulence Fields in Small-Scale Stirred Vessels of Different Mixer Configurations. Industrial & Engineering Chemistry Research, 2009, 48, 1008-1018.	1.8	18
45	CFD simulation of transverse vibration effects on radial temperature profile and thermal entrance length in laminar flow. AICHE Journal, 2011, 57, 51-56.	1.8	18
46	Lagrangian tools for the analysis of mixing in singleâ€phase and multiphase flow systems. AICHE Journal, 2012, 58, 31-45.	1.8	18
47	The flow of gasâ€“liquid foams through pipe fittings. International Journal of Heat and Fluid Flow, 2001, 22, 94-101.	1.1	17
48	Mechanical suppression of the dynamic foam head in bubble column reactors. Chemical Engineering and Processing: Process Intensification, 2000, 39, 207-217.	1.8	16
49	Mixing of dense binary suspensions: Multiâ€component hydrodynamics and spatial phase distribution by PEPT. AICHE Journal, 2011, 57, 2302-2315.	1.8	15
50	Foams generated from viscous non-Newtonian shear-thinning liquids in a continuous multi rotor-stator device. Innovative Food Science and Emerging Technologies, 2020, 59, 102231.	2.7	15
51	Computation of Lagrangian coherent structures from experimental fluid trajectory measurements in a mechanically agitated vessel. Chemical Engineering Science, 2022, 254, 117598.	1.9	15
52	Multiscale wavelet analysis of 3D Lagrangian trajectories in a mechanically agitated vessel. Chemical Engineering Science, 2022, 260, 117844.	1.9	15
53	Visualisation of foam microstructure when subject to pressure change. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2007, 311, 112-123.	2.3	14
54	Lagrangian stochastic modelling of liquid flow in a mechanically agitated vessel. Chemical Engineering Science, 2022, 249, 117318.	1.9	14

#	Article	IF	Citations
55	The fluid mechanics of the soap film meter. Chemical Engineering Science, 1993, 48, 2587-2597.	1.9	13
56	Ultrasound-Assisted Generation of Foam. Industrial & Engineering Chemistry Research, 2005, 44, 3312-3320.	1.8	13
57	X-ray micro-computed tomography for resolving food microstructures. , 2013, , 246-272.		12
58	Local description of foam flow, deformation and pressure drop in narrow constricted channels. International Journal of Multiphase Flow, 2020, 128, 103279.	1.6	12
59	Pneumatic foam generation in the presence of a high-intensity ultrasound field. Ultrasonics Sonochemistry, 2005, 12, 385-393.	3.8	11
60	Lagrangian Recurrence Tracking: A Novel Approach for Description of Mixing in Liquid and Particleâ€“Liquid Flows. Industrial & Engineering Chemistry Research, 2021, 60, 18501-18512.	1.8	11
61	Experimentally Validated Computational Fluid Dynamics Simulations of Multicomponent Hydrodynamics and Phase Distribution in Agitated High Solid Fraction Binary Suspensions. Industrial & Engineering Chemistry Research, 2014, 53, 895-908.	1.8	10
62	Just Because It's Small Doesn't Mean It's Well Mixed:Â Ensuring Good Mixing in Mesoscale Reactors. Industrial & Engineering Chemistry Research, 2005, 44, 9695-9704.	1.8	9
63	Assessing the potential of using chaotic advection flow for thermal food processing in heating tubes. Journal of Food Engineering, 2016, 177, 9-20.	2.7	9
64	Response to â€œComment on Bulk Nanobubbles or Not Nanobubbles: That is the Questionâ€• Langmuir, 2021, 37, 596-601.	1.6	9
65	Lagrangian particle tracking in mechanically agitated polydisperse suspensions: Multi-component hydrodynamics and spatial distribution. International Journal of Multiphase Flow, 2015, 73, 80-89.	1.6	8
66	A practical approach for extracting mechanical properties of microcapsules using a hybrid numerical model. Microfluidics and Nanofluidics, 2021, 25, 1.	1.0	8
67	Modeling the agglomeration of settling particles in a dewatering process. Physics of Fluids, 2020, 32, .	1.6	7
68	Rheological properties of wet foams generated from viscous pseudoplastic fluids. Innovative Food Science and Emerging Technologies, 2020, 64, 102304.	2.7	6
69	Electrochemically Induced Bulk Nanobubbles. Industrial & Engineering Chemistry Research, 2021, 60, 17999-18006.	1.8	6
70	Using chaotic advection to enhance the continuous heat-hold-cool sterilisation process. Innovative Food Science and Emerging Technologies, 2016, 34, 352-366.	2.7	5
71	Generation of Bulk Nanobubbles Using a High-Shear Rotorâ€“Stator Device. Industrial & Engineering Chemistry Research, 2021, 60, 8597-8606.	1.8	5
72	Eulerian-Lagrangian Modelling of Turbulent Two-Phase Particle-Liquid Flow in a Stirred Vessel: CFD and Experiments Compared. International Journal of Multiphase Flow, 2022, 155, 104191.	1.6	5

#	Article	IF	Citations
73	Particle Passage Time Distributions in Vertical Pipe Flow of Solidâ€“Liquid Food Mixtures. Food and Bioproducts Processing, 1999, 77, 293-301.	1.8	2
74	Solidâ€“Liquid Mixing. , 0, , 199-229.		0
75	Effects of flow constriction on foamed viscous shear-thinning fluids downstream of a continuous multi rotor-stator foaming device. Journal of Food Engineering, 2021, 292, 110341.	2.7	0
76	Numerical Simulations of Red-Blood Cells in Fluid Flow: A Discrete Multiphysics Study. ChemEngineering, 2021, 5, 33.	1.0	0