

Mostafa Barigou

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

74
papers

1,815
citations

26
h-index

39
g-index

78
ext. papers

2,191
ext. citations

4.4
avg, IF

5.51
L-index

#	Paper	IF	Citations
74	Computation of Lagrangian coherent structures from experimental fluid trajectory measurements in a mechanically agitated vessel. <i>Chemical Engineering Science</i> , 2022 , 254, 117598	4.4	1
73	Lagrangian Stochastic Modelling of Liquid Flow in a Mechanically Agitated Vessel. <i>Chemical Engineering Science</i> , 2021 , 249, 117318	4.4	1
72	Response to "Comment on Bulk Nanobubbles or Not Nanobubbles: That is the Question". <i>Langmuir</i> , 2021 , 37, 596-601	4	4
71	Numerical Simulations of Red-Blood Cells in Fluid Flow: A Discrete Multiphysics Study. <i>ChemEngineering</i> , 2021 , 5, 33	2.6	
70	Generation of Bulk Nanobubbles Using a High-Shear Rotor-Stator Device. <i>Industrial & Engineering Chemistry Research</i> , 2021 , 60, 8597-8606	3.9	1
69	A practical approach for extracting mechanical properties of microcapsules using a hybrid numerical model. <i>Microfluidics and Nanofluidics</i> , 2021 , 25, 1	2.8	3
68	Effects of flow constriction on foamed viscous shear-thinning fluids downstream of a continuous multi rotor-stator foaming device. <i>Journal of Food Engineering</i> , 2021 , 292, 110341	6	
67	On the clustering of bulk nanobubbles and their colloidal stability. <i>Journal of Colloid and Interface Science</i> , 2021 , 601, 816-824	9.3	9
66	Lagrangian Recurrence Tracking: A Novel Approach for Description of Mixing in Liquid and Particle-Liquid Flows. <i>Industrial & Engineering Chemistry Research</i> , 2021 , 60, 18501-18512	3.9	0
65	Local description of foam flow, deformation and pressure drop in narrow constricted channels. <i>International Journal of Multiphase Flow</i> , 2020 , 128, 103279	3.6	9
64	Bulk Nanobubbles or Not Nanobubbles: That is the Question. <i>Langmuir</i> , 2020 , 36, 1699-1708	4	68
63	Proving and interpreting the spontaneous formation of bulk nanobubbles in aqueous organic solvent solutions: effects of solvent type and content. <i>Soft Matter</i> , 2020 , 16, 4502-4511	3.6	18
62	Modeling the agglomeration of settling particles in a dewatering process. <i>Physics of Fluids</i> , 2020 , 32, 123314	4.4	3
61	A Henry's law method for generating bulk nanobubbles. <i>Nanoscale</i> , 2020 , 12, 15869-15879	7.7	23
60	Rheological properties of wet foams generated from viscous pseudoplastic fluids. <i>Innovative Food Science and Emerging Technologies</i> , 2020 , 64, 102304	6.8	6
59	Foams generated from viscous non-Newtonian shear-thinning liquids in a continuous multi rotor-stator device. <i>Innovative Food Science and Emerging Technologies</i> , 2020 , 59, 102231	6.8	8
58	Deformation and rupture of compound cells under shear: A discrete multiphysics study. <i>Physics of Fluids</i> , 2019 , 31, 051903	4.4	23

57	Which Parameters Affect Biofilm Removal with Acoustic Cavitation? A Review. <i>Ultrasound in Medicine and Biology</i> , 2019 , 45, 1044-1055	3.5	36
56	Bulk Nanobubbles from Acoustically Cavitated Aqueous Organic Solvent Mixtures. <i>Langmuir</i> , 2019 , 35, 2188-2195	4	37
55	Interpreting the interfacial and colloidal stability of bulk nanobubbles. <i>Soft Matter</i> , 2018 , 14, 9643-9656	3.6	76
54	On the Existence and Stability of Bulk Nanobubbles. <i>Langmuir</i> , 2018 , 34, 10964-10973	4	130
53	Using discrete multi-physics for detailed exploration of hydrodynamics in an in vitro colon system. <i>Computers in Biology and Medicine</i> , 2017 , 81, 188-198	7	21
52	Discrete multi-physics: A mesh-free model of blood flow in flexible biological valve including solid aggregate formation. <i>PLoS ONE</i> , 2017 , 12, e0174795	3.7	28
51	Modelling and simulation of flow and agglomeration in deep veins valves using discrete multi physics. <i>Computers in Biology and Medicine</i> , 2017 , 89, 96-103	7	27
50	Assessing the potential of using chaotic advection flow for thermal food processing in heating tubes. <i>Journal of Food Engineering</i> , 2016 , 177, 9-20	6	7
49	Using chaotic advection to enhance the continuous heat-hold-cool sterilisation process. <i>Innovative Food Science and Emerging Technologies</i> , 2016 , 34, 352-366	6.8	3
48	Lagrangian particle tracking in mechanically agitated polydisperse suspensions: Multi-component hydrodynamics and spatial distribution. <i>International Journal of Multiphase Flow</i> , 2015 , 73, 80-89	3.6	5
47	Mixing of Pharmaceutical Solid-Liquid Suspensions 2015 , 233-285		
46	An improved vibration technique for enhancing temperature uniformity and heat transfer in viscous fluid flow. <i>Chemical Engineering Science</i> , 2015 , 123, 609-619	4.4	18
45	Experimentally Validated Computational Fluid Dynamics Simulations of Multicomponent Hydrodynamics and Phase Distribution in Agitated High Solid Fraction Binary Suspensions. <i>Industrial & Engineering Chemistry Research</i> , 2014 , 53, 895-908	3.9	5
44	Numerical modelling of velocity field and phase distribution in dense monodisperse solid-liquid suspensions under different regimes of agitation: CFD and PEPT experiments. <i>Chemical Engineering Science</i> , 2013 , 101, 837-850	4.4	25
43	X-ray micro-computed tomography for resolving food microstructures 2013 , 246-272		7
42	Lagrangian tools for the analysis of mixing in single-phase and multiphase flow systems. <i>AICHE Journal</i> , 2012 , 58, 31-45	3.6	13
41	CFD simulation of transverse vibration effects on radial temperature profile and thermal entrance length in laminar flow. <i>AICHE Journal</i> , 2011 , 57, 51-56	3.6	12
40	Mixing of dense binary suspensions: Multi-component hydrodynamics and spatial phase distribution by PEPT. <i>AICHE Journal</i> , 2011 , 57, 2302-2315	3.6	9

- 39 PEPT measurements of solid-liquid flow field and spatial phase distribution in concentrated monodisperse stirred suspensions. *Chemical Engineering Science*, **2010**, 65, 1905-1914 4.4 42
- 38 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 4.4 22
- 37 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 4.4 19
- 36 Shannon entropy for local and global description of mixing by Lagrangian particle tracking. *Chemical Engineering Science*, **2010**, 65, 2865-2883 4.4 27
- 35 CFD investigation of the pipe transport of coarse solids in laminar power law fluids. *Chemical Engineering Science*, **2009**, 64, 322-333 4.4 35
- 34 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 4.4 42
- 33 Positron emission particle tracking in a mechanically agitated solid-liquid suspension of coarse particles. *Chemical Engineering Research and Design*, **2009**, 87, 421-429 5.5 42
- 32 Combined Use of PEPT and ERT in the Study of Aluminum Hydroxide Precipitation. *Industrial & Engineering Chemistry Research*, **2009**, 48, 1019-1028 3.9 20
- 31 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 3.9 15
- 30 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 6.8 16
- 29 CFD analysis of viscous non-Newtonian flow under the influence of a superimposed rotational vibration. *Computers and Fluids*, **2008**, 37, 24-34 2.8 14
- 28 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 3.6 29
- 27 Visualisation of foam microstructure when subject to pressure change. *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, **2007**, 311, 112-123 5.1 11
- 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 5.5 31
- 25 CFD Analysis of Caverns and Pseudo-Caverns Developed During Mixing of Non-Newtonian Fluids. *Chemical Engineering Research and Design*, **2007**, 85, 598-604 5.5 52
- 24 Ultrasound-Assisted Generation of Foam. *Industrial & Engineering Chemistry Research*, **2005**, 44, 3313-3320 3.3 11
- 23 Just Because It's Small Doesn't Mean It's Well Mixed: Ensuring Good Mixing in Mesoscale Reactors. *Industrial & Engineering Chemistry Research*, **2005**, 44, 9695-9704 3.9 9
- 22 Pneumatic foam generation in the presence of a high-intensity ultrasound field. *Ultrasonics Sonochemistry*, **2005**, 12, 385-93 8.9 8

21	Comparative study of different mixing strategies in small high throughput experimentation reactors. <i>Chemical Engineering Science</i> , 2005 , 60, 2355-2368	4.4	36
20	Particle Tracking in Opaque Mixing Systems: An Overview of the Capabilities of PET and PEPT. <i>Chemical Engineering Research and Design</i> , 2004 , 82, 1258-1267	5.5	58
19	X-ray micro-computed tomography of cellular food products. <i>Food Research International</i> , 2004 , 37, 1001-1012	1.82	
18	Concentric flow regime of solid-liquid food suspensions: theory and experiment. <i>Chemical Engineering Science</i> , 2003 , 58, 1671-1686	4.4	27
17	A Lagrangian Study of Solids Suspension in a Stirred Vessel by Positron Emission Particle Tracking (PEPT). <i>Chemical Engineering and Technology</i> , 2002 , 25, 521-528	2	25
16	Foam flow phenomena in sudden expansions and contractions. <i>International Journal of Multiphase Flow</i> , 2001 , 27, 1463-1477	3.6	29
15	Using positron emission particle tracking (PEPT) to study nearly neutrally buoyant particles in high solid fraction pipe flow. <i>International Journal of Multiphase Flow</i> , 2001 , 27, 1881-1901	3.6	36
14	The flow of gas-liquid foams through pipe fittings. <i>International Journal of Heat and Fluid Flow</i> , 2001 , 22, 94-101	2.4	16
13	An enhanced electrical resistance technique for foam drainage measurement. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2001 , 189, 237-246	5.1	20
12	Vibrational flow of non-Newtonian fluids. <i>Chemical Engineering Science</i> , 2001 , 56, 3845-3853	4.4	35
11	The flow of gas-liquid foams in vertical pipes. <i>Chemical Engineering Science</i> , 2000 , 55, 4297-4309	4.4	46
10	Fluid trajectories in a stirred vessel of non-newtonian liquid using positron emission particle tracking. <i>Chemical Engineering Science</i> , 2000 , 55, 5969-5979	4.4	58
9	Mechanical suppression of the dynamic foam head in bubble column reactors. <i>Chemical Engineering and Processing: Process Intensification</i> , 2000 , 39, 207-217	3.7	14
8	Particle Passage Time Distributions in Vertical Pipe Flow of Solid-Liquid Food Mixtures. <i>Food and Bioproducts Processing</i> , 1999 , 77, 293-301	4.9	2
7	Foam Destabilization by Mechanical and Ultrasonic Vibrations. <i>Journal of Colloid and Interface Science</i> , 1999 , 219, 90-98	9.3	50
6	Heat Transfer in Two-Phase Solid-Liquid Food Flows: A Review. <i>Food and Bioproducts Processing</i> , 1998 , 76, 3-29	4.9	21
5	The Fluid Mechanics of Two-Phase Solid-Liquid Food Flows: A Review. <i>Food and Bioproducts Processing</i> , 1997 , 75, 73-105	4.9	30
4	Soap film drainage: theory of experiment. <i>Chemical Engineering Science</i> , 1994 , 49, 1807-1819	4.4	18

- 3 The fluid mechanics of the soap film meter. *Chemical Engineering Science*, **1993**, 48, 2587-2597 4.4 11
- 2 Solid-Liquid Mixing 199-229
- 1 Electrochemically Induced Bulk Nanobubbles. *Industrial & Engineering Chemistry Research*, 3.9 3