# Panagiota Angeli

List of Publications by Year
in descending order



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|---|---|---|---|
| 124 papers | 5,167 citations | 94269 37 h-index | 91712 69 g-index |
| 126 all docs | 126 docs citations | 126 times ranked | 3230 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Comparison of surfactant mass transfer with drop formation times from dynamic interfacial tension measurements in microchannels. Journal of Colloid and Interface Science, 2022, 605, 204-213. | 5.0 | 21 |
| 2 | Intensified liquid-liquid extraction of biomolecules using ionic liquids in small channels. Separation and Purification Technology, 2022, 282, 120063. | 3.9 | 14 |
| 3 | Intensified solvent extraction of L-tryptophan in small channels using D2EHPA. Chemical Engineering and Processing: Process Intensification, 2022, 172, 108802. | 1.8 | 0 |
| 4 | Effect of surfactants on drop formation flow patterns in a flow-focusing microchannel. Chemical Engineering Science, 2022, 253, 117517. | 1.9 | 8 |
| 5 | Application of ultrasound techniques in Solid-Liquid fluidized bed. Measurement: Journal of the International Measurement Confederation, 2022, 194, 111017. | 2.5 | 5 |
| 6 | A mechanistic model for the prediction of flow pattern transitions during separation of liquid-liquid pipe flows. International Journal of Multiphase Flow, 2022, 155, 104172. | 1.6 | 3 |
| 7 | Viscoelastic effects of immiscible liquidâ€“liquid displacement in microchannels with bends. Physics of Fluids, 2022, 34, . | 1.6 | 4 |
| 8 | Roles of solid effective stress and fluid-particle interaction force in modeling shear-induced particle migration in non-Brownian suspensions. Physical Review Fluids, 2021, 6, . | 1.0 | 0 |
| 9 | Viscoelastic flow instabilities in static mixers: Onset and effect on the mixing efficiency. Physics of Fluids, 2021, 33, . | 1.6 | 9 |
| 10 | Effect of D-Mannitol on the Microstructure and Rheology of Non-Aqueous Carbopol Microgels. Materials, 2021, 14, 1782. | 1.3 | 1 |
| 11 | Experimental and CFD scale-up studies for intensified actinide/lanthanide separations. Chemical Engineering and Processing: Process Intensification, 2021, 164, 108355. | 1.8 | 5 |
| 12 | Design optimization of microfluidic-based solvent extraction systems for radionuclides detection. Nuclear Engineering and Design, 2021, 383, 111432. | 0.8 | 2 |
| 13 | Application of acoustic techniques to fluid-particle systems â€“ A review. Chemical Engineering Research and Design, 2021, 176, 180-193. | 2.7 | 13 |
| 14 | Investigation of the swollen state of Carbopol molecules in non-aqueous solvents through rheological characterization. Soft Matter, 2020, 16, 9799-9815. | 1.2 | 11 |
| 15 | Scale-Up Studies for Co/Ni Separations in Intensified Reactors. Micromachines, 2020, 11, 1106. | 1.4 | 1 |
| 16 | Mathematical Modeling for the Design and Scale-Up of a Large Industrial Aerosol-Assisted Chemical Vapor Deposition Process under Uncertainty. Industrial & Engineering Chemistry Research, 2020, 59, 1249-1260. | 1.8 | 16 |
| 17 | Surfing of drops on moving liquidâ€“liquid interfaces. Journal of Fluid Mechanics, 2020, 892, . | 1.4 | 7 |
| 18 | Hydrodynamics and mass transfer in segmented flow small channel contactors for uranium extraction. Chemical Engineering and Processing: Process Intensification, 2020, 153, 107921. | 1.8 | 14 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | Experimental investigation of the solid-liquid separation in a stirred tank owing to viscoelasticity. Physical Review Fluids, 2020, 5, . | 1.0 | 4 |
| 20 | Process intensification applied to spent nuclear fuel reprocessing: An alternative flowsheet using small channels. Chemical Engineering and Processing: Process Intensification, 2019, 143, 107618. | 1.8 | 3 |
| 21 | Experimental and numerical studies on the flow characteristics and separation properties of dispersed liquid-liquid flows. Physics of Fluids, 2019, 31, . | 1.6 | 12 |
| 22 | Gelation kinetics of non-aqueous Carbopol dispersions. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2019, 577, 84-95. | 2.3 | 8 |
| 23 | Vortex-induced interfacial waves in liquidâ€“liquid flows across cylindrical bluff bodies of various sizes. European Journal of Mechanics, B/Fluids, 2019, 76, 340-351. | 1.2 | 2 |
| 24 | Studies on mass transfer of europium(III) in micro-channels using a micro Laser Induced Fluorescence technique. Chemical Engineering Journal, 2019, 372, 1154-1163. | 6.6 | 19 |
| 25 | A modelling approach for the comparison between intensified extraction in small channels and conventional solvent extraction technologies. Chemical Engineering Science, 2019, 203, 201-211. | 1.9 | 10 |
| 26 | Intensified Liquid-Liquid Extraction Technologies in Small Channels: A Review. Johnson Matthey Technology Review, 2019, 63, 299-310. | 0.5 | 16 |
| 27 | On the closure problem of the effective stress in the Eulerian-Eulerian and mixture modeling approaches for the simulation of liquid-particle suspensions. Physics of Fluids, 2019, 31, . | 1.6 | 11 |
| 28 | Laser induced fluorescence studies on the distribution of surfactants during drop/interface coalescence. Physics of Fluids, 2019, 31, . | 1.6 | 21 |
| 29 | Separated oil-water flows with drag reducing polymers. Experimental Thermal and Fluid Science, 2019, 102, 467-478. | 1.5 | 16 |
| 30 | Experimental studies on droplet formation in a flow-focusing microchannel in the presence of surfactants. Chemical Engineering Science, 2019, 195, 507-518. | 1.9 | 42 |
| 31 | Modelling of Microfluidic Devices for Analysis of Radionuclides. Computer Aided Chemical Engineering, 2019, 46, 1807-1812. | 0.3 | 2 |
| 32 | Mathematical modelling of intensified extraction for spent nuclear fuel reprocessing. Nuclear Engineering and Design, 2018, 332, 162-172. | 0.8 | 8 |
| 33 | Intensified extraction of uranium(VI) in impinging-jets contactors. Chemical Engineering Journal, 2018, 342, 251-259. | 6.6 | 19 |
| 34 | Computational fluid dynamic studies of mixers for highly viscous shear thinning fluids and PIV validation. Chemical Engineering Science, 2018, 179, 133-149. | 1.9 | 20 |
| 35 | Effect of surfactant on emulsification in microchannels. Chemical Engineering Science, 2018, 176, 139-152. | 1.9 | 63 |
| 36 | Modelling under Uncertainty for Process Design and Scale-up of an Industrial AACVD. Computer Aided Chemical Engineering, 2018, , 253-258. | 0.3 | 3 |

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| 37 | Hydrodynamics studies of the behaviour of traditional and two-phase ionic liquid solvent systems in countercurrent chromatography (CCC). Chemical Engineering Science, 2018, 192, 551-564. | 1.9 | 4 |
| 38 | Optimal design of a COEX process for spent nuclear fuel reprocessing using small channels. Computer Aided Chemical Engineering, 2018, 44, 2365-2370. | 0.3 | 1 |
| 39 | Predictive model for the scale-out of small channel two-phase flow contactors. Chemical Engineering Journal, 2018, 351, 589-602. | 6.6 | 18 |
| 40 | On the effect of surfactants on drop coalescence at liquid/liquid interfaces. Chemical Engineering Science, 2017, 161, 215-227. | 1.9 | 35 |
| 41 | Flow pattern transition in liquid-liquid flows with a transverse cylinder. International Journal of Multiphase Flow, 2017, 90, 1-12. | 1.6 | 15 |
| 42 | Experimental and CFD studies of power consumption in the agitation of highly viscous shear thinning fluids. Chemical Engineering Research and Design, 2017, 119, 171-182. | 2.7 | 42 |
| 43 | Experimental investigations of nonâ€Newtonian/Newtonian liquidâ€liquid flows in microchannels. AICHE Journal, 2017, 63, 3599-3609. | 1.8 | 37 |
| 44 | The nonlinear analysis of horizontal oil-water two-phase flow in a small diameter pipe. International Journal of Multiphase Flow, 2017, 92, 39-49. | 1.6 | 21 |
| 45 | Liquid-liquid dispersions in intensified impinging-jets cells. Chemical Engineering Science, 2017, 171, 149-159. | 1.9 | 22 |
| 46 | Experimental and numerical hydrodynamic studies of ionic liquid-aqueous plug flow in small channels. Chemical Engineering Journal, 2017, 328, 717-736. | 6.6 | 58 |
| 47 | In memory of Professor Barry Azzopardi. International Journal of Multiphase Flow, 2017, 97, A1-A2. | 1.6 | 0 |
| 48 | An experimental study on the drop/interface partial coalescence with surfactants. Physics of Fluids, 2017, 29, . | 1.6 | 26 |
| 49 | Optical measurements in evolving dispersed pipe flows. Experiments in Fluids, 2017, 58, 1. | 1.1 | 27 |
| 50 | Mathematical Modelling of Intensified Extraction for Spent Nuclear Fuel Reprocessing. Computer Aided Chemical Engineering, 2017, , 355-360. | 0.3 | 1 |
| 51 | Multiphase Flow and Transfer Phenomenon. International Journal of Chemical Engineering, 2017, 2017, 1-2. | 1.4 | 0 |
| 52 | Probability Density Functions for Droplet Sizing in Aerosol Transport Modelling. Computer Aided Chemical Engineering, 2017, , 2245-2250. | 0.3 | 3 |
| 53 | Extraction of {UO2}2+ in Intensified Separators of Different Sizes Using Ionic Liquids. , 2016, , . | | 0 |
| 54 | Effect of channel size on liquidâ€liquid plug flow in small channels. AICHE Journal, 2016, 62, 315-324. | 1.8 | 71 |

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| 55 | Transition from stratified to non-stratified oilâ€“water flows using a bluff body. Experimental Thermal and Fluid Science, 2016, 76, 175-184. | 1.5 | 13 |
| 56 | Surfactant effects on the coalescence of a drop in a Hele-Shaw cell. Physical Review E, 2016, 94, 033101. | 0.8 | 20 |
| 57 | A PIV investigation of the effect of disperse phase fraction on the turbulence characteristics of liquidâ€“liquid mixing in a stirred tank. Chemical Engineering Science, 2016, 152, 528-546. | 1.9 | 34 |
| 58 | Intensified Eu(III) extraction using ionic liquids in small channels. Chemical Engineering Science, 2016, 143, 276-286. | 1.9 | 64 |
| 59 | Effect of drag reducing polymer on horizontal liquidâ€“liquid flows. Experimental Thermal and Fluid Science, 2015, 64, 164-174. | 1.5 | 37 |
| 60 | Investigations of interfacial waves at the inlet section in stratified oilâ€“water flows. Experimental Thermal and Fluid Science, 2015, 60, 115-122. | 1.5 | 5 |
| 61 | Studies of plug formation in microchannel liquidâ€“liquid flows using advanced particle image velocimetry techniques. Experimental Thermal and Fluid Science, 2015, 69, 99-110. | 1.5 | 21 |
| 62 | Review and perspectives of AFM application on the study of deformable drop/bubble interactions. Advances in Colloid and Interface Science, 2015, 225, 88-97. | 7.0 | 19 |
| 63 | Effect of channel size on mass transfer during liquidâ€“liquid plug flow in small scale extractors. Chemical Engineering Journal, 2015, 262, 785-793. | 6.6 | 151 |
| 64 | A Semi-Empirical Model for Predicting the Onset of Drop Formation in Stratified Horizontal Oil-Water Flow. Chemical Engineering Communications, 2015, 202, 415-419. | 1.5 | 2 |
| 65 | Pressure drop and holdup predictions in horizontal oilâ€“water flows for curved and wavy interfaces. Chemical Engineering Research and Design, 2015, 93, 55-65. | 2.7 | 48 |
| 66 | åˆ†æ•£ä½“ç³»ä¸æ¶²æ»´é—´åŠ›å¦¨ç¢ä¸. Chinese Science Bulletin, 2015, 60, 2272-2281. | 0.4 | 0 |
| 67 | {UO2}2+ Extraction Using Ionic Liquids in Intensified Extractors. , 2014, , . | | 2 |
| 68 | Effect of dispersed holdup on drop size distribution in oilâ€“water dispersions: Experimental observations and population balance modeling. Chemical Engineering Science, 2014, 105, 22-31. | 1.9 | 33 |
| 69 | Spectral density analysis of the interface in stratified oilâ€“water flows. International Journal of Multiphase Flow, 2014, 65, 117-126. | 1.6 | 10 |
| 70 | In situ diagnostic techniques for characterisation of polymer electrolyte membrane water electrolysers â€“ Flow visualisation and electrochemical impedance spectroscopy. International Journal of Hydrogen Energy, 2014, 39, 4468-4482. | 3.8 | 136 |
| 71 | Extraction of dioxouranium(VI) in small channels using ionic liquids. Chemical Engineering Research and Design, 2013, 91, 681-687. | 2.7 | 47 |
| 72 | Dioxouranium(VI) extraction in microchannels using ionic liquids. Chemical Engineering Journal, 2013, 227, 151-157. | 6.6 | 69 |

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| 73 | Interfacial characteristics of stratified liquidâ€“liquid flows using a conductance probe. Experiments in Fluids, 2013, 54, 1. | 1.1 | 26 |
| 74 | Flow patterns and pressure drop of ionic liquidâ€“water two-phase flows in microchannels. International Journal of Multiphase Flow, 2013, 54, 1-10. | 1.6 | 100 |
| 75 | Silica Nanoparticles for Micro-Particle Imaging Velocimetry: Fluorosurfactant Improves Nanoparticle Stability and Brightness of Immobilized Iridium(III) Complexes. Langmuir, 2013, 29, 14701-14708. | 1.6 | 18 |
| 76 | Luminescent ruthenium(II) tris-bipyridyl complex caged in nanoscale silica for particle velocimetry studies in microchannels. Measurement Science and Technology, 2012, 23, 084004. | 1.4 | 6 |
| 77 | Mixing patterns in water plugs during water/ionic liquid segmented flow in microchannels. Chemical Engineering Science, 2012, 80, 334-341. | 1.9 | 93 |
| 78 | Experimental study on interfacial waves in stratified horizontal oilâ€“water flow. International Journal of Multiphase Flow, 2011, 37, 930-940. | 1.6 | 54 |
| 79 | Investigation on heavy crude-water two phase flow and related flow characteristics. International Journal of Multiphase Flow, 2011, 37, 1156-1164. | 1.6 | 64 |
| 80 | Effect of glycerol addition on phase inversion in horizontal dispersed oilâ€“water pipe flows. Experimental Thermal and Fluid Science, 2011, 35, 628-635. | 1.5 | 12 |
| 81 | Bubble growth rate from stainless steel substrate and needle nozzles. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2011, 384, 240-247. | 2.3 | 32 |
| 82 | Effect of Inlet Conditions on Taylor Bubble Length in Microchannels. Heat Transfer Engineering, 2011, 32, 1117-1125. | 1.2 | 57 |
| 83 | Mass transfer during Taylor flow in microchannels with and without chemical reaction. Chemical Engineering Journal, 2010, 160, 873-881. | 6.6 | 112 |
| 84 | Bubble Formation on Top of Submerged Needle and Substrate Plates. , 2010, , . | | 0 |
| 85 | Onset of entrainment and degree of dispersion in dual continuous horizontal oilâ€“water flows. Experimental Thermal and Fluid Science, 2009, 33, 774-781. | 1.5 | 5 |
| 86 | Flow regimes for adiabatic gasâ€“liquid flow in microchannels. Chemical Engineering Science, 2009, 64, 2749-2761. | 1.9 | 229 |
| 87 | Predictive model of the entrained fraction in horizontal oilâ€“water flows. Chemical Engineering Science, 2009, 64, 2817-2825. | 1.9 | 13 |
| 88 | A methodology for predicting phase inversion during liquidâ€“liquid dispersed pipeline flow. Chemical Engineering Research and Design, 2009, 87, 318-324. | 2.7 | 33 |
| 89 | Effect of glycerol on the binary coalescence of water drops in stagnant oil phase. Chemical Engineering Research and Design, 2009, 87, 1640-1648. | 2.7 | 26 |
| 90 | Observations on single drop formation from a capillary tube at low flow rates. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2009, 334, 197-202. | 2.3 | 30 |

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| 91 | Droplet size and velocity in dual continuous horizontal oilâ€“water flows. Chemical Engineering Research and Design, 2008, 86, 83-93. | 2.7 | 13 |
| 92 | Design of a mesh microreactor for even flow distribution and narrow residence time distribution. Chemical Engineering Journal, 2008, 135, S259-S269. | 6.6 | 21 |
| 93 | CFD simulations of the effect of inlet conditions on Taylor flow formation. International Journal of Heat and Fluid Flow, 2008, 29, 1603-1611. | 1.1 | 68 |
| 94 | Hydrodynamics of Taylor flow in small channels: A Review. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 2008, 222, 737-751. | 1.1 | 178 |
| 95 | Axial mass transfer in Taylor flow through circular microchannels. AICHE Journal, 2007, 53, 1413-1428. | 1.8 | 24 |
| 96 | Mean and turbulent fluctuating velocities in oilâ€“water vertical dispersed flows. Chemical Engineering Science, 2007, 62, 1199-1214. | 1.9 | 23 |
| 97 | Transition between stratified and non-stratified horizontal oilâ€“water flows. Part I: Stability analysis. Chemical Engineering Science, 2007, 62, 2915-2928. | 1.9 | 74 |
| 98 | Transition between stratified and non-stratified horizontal oilâ€“water flows. Part II: Mechanism of drop formation. Chemical Engineering Science, 2007, 62, 2929-2940. | 1.9 | 40 |
| 99 | Effect of drag-reducing polymers on horizontal oilâ€“water flows. Journal of Petroleum Science and Engineering, 2007, 57, 334-346. | 2.1 | 72 |
| 100 | Population balance modelling of phase inversion in liquidâ€“liquid pipeline flows. Chemical Engineering Science, 2006, 61, 4994-4997. | 1.9 | 25 |
| 101 | Upward and downward inclination oilâ€“water flows. International Journal of Multiphase Flow, 2006, 32, 413-435. | 1.6 | 82 |
| 102 | On the formation of Taylor bubbles in small tubes. Chemical Engineering Science, 2006, 61, 6653-6666. | 1.9 | 59 |
| 103 | Evaluation of drop size distribution from chord length measurements. AICHE Journal, 2006, 52, 931-939. | 1.8 | 39 |
| 104 | Phase Inversion and Associated Phenomena in Oil-Water Vertical Pipeline Flow. Canadian Journal of Chemical Engineering, 2006, 84, 94-107. | 0.9 | 26 |
| 105 | Phase inversion in dispersed liquidâ€“liquid flows. Experimental Thermal and Fluid Science, 2005, 29, 331-339. | 1.5 | 87 |
| 106 | Prediction of phase inversion in agitated vessels using a two-region model. Chemical Engineering Science, 2005, 60, 3487-3495. | 1.9 | 31 |
| 107 | Drop size distribution in highly concentrated liquid-liquid dispersions using a light back scattering method. Journal of Chemical Technology and Biotechnology, 2005, 80, 545-552. | 1.6 | 60 |
| 108 | Sample Pulse Broadening in Taylor Flow Microchannels for Screening Applications. Chemical Engineering and Technology, 2005, 28, 509-514. | 0.9 | 21 |

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| 109 | Gasâ^'Liquid and Gasâ^'Liquidâ^'Solid Microstructured Reactors:Â Contacting Principles and Applications. Industrial & Engineering Chemistry Research, 2005, 44, 9750-9769. | 1.8 | 269 |
| 110 | Experimental studies on the dual continuous flow pattern in oilâ€“water flows. International Journal of Multiphase Flow, 2004, 30, 139-157. | 1.6 | 156 |
| 111 | A model for predicting axial mixing during gasâ€“liquid Taylor flow in microchannels at low Bodenstein numbers. Chemical Engineering Journal, 2004, 101, 391-396. | 6.6 | 46 |
| 112 | Separation studies in a continuous flow fluorous biphasic system. Journal of Molecular Catalysis A, 2004, 221, 19-27. | 4.8 | 5 |
| 113 | Flow distribution in different microreactor scale-out geometries and the effect of manufacturing tolerances and channel blockage. Chemical Engineering Journal, 2004, 101, 379-390. | 6.6 | 173 |
| 114 | Droplet size and velocity profiles in liquidâ€“liquid horizontal flows. Chemical Engineering Science, 2004, 59, 3105-3115. | 1.9 | 50 |
| 115 | A continuous process concept for homogeneous catalysis in fluorous biphasic systems. Chemical Engineering Science, 2004, 59, 4983-4989. | 1.9 | 13 |
| 116 | The design of a continuous reactor for fluorous biphasic reactions under pressure and its use in alkene hydroformylationElectronic supplementary information (ESI) available: Fig. S1: Photograph of the continuous flow reactor. See http://www.rsc.org/suppdata/dt/b4/b404760e/. Dalton Transactions, 2004, , 2062. | 1.6 | 20 |
| 117 | Low Inclination Oilâ€water Flows. Canadian Journal of Chemical Engineering, 2004, 82, 303-315. | 0.9 | 24 |
| 118 | Scale-down studies on the hydrodynamics of two-liquid phase biocatalytic reactors. Bioprocess and Biosystems Engineering, 2002, 25, 143-153. | 1.7 | 25 |
| 119 | Technology and Applications of Microengineered Reactors. Chemical Engineering Research and Design, 2002, 80, 3-30. | 2.7 | 199 |
| 120 | Mixing characteristics of T-type microfluidic mixers. Journal of Micromechanics and Microengineering, 2001, 11, 126-132. | 1.5 | 301 |
| 121 | Droplet Size in Two-Phase Liquid Dispersed Pipeline Flows. Chemical Engineering and Technology, 2001, 24, 431-434. | 0.9 | 7 |
| 122 | Flow structure in horizontal oilâ€“water flow. International Journal of Multiphase Flow, 2000, 26, 1117-1140. | 1.6 | 250 |
| 123 | Drop size distributions in horizontal oil-water dispersed flows. Chemical Engineering Science, 2000, 55, 3133-3143. | 1.9 | 129 |
| 124 | Pressure gradient in horizontal liquidâ€“liquid flows. International Journal of Multiphase Flow, 1999, 24, 1183-1203. | 1.6 | 142 |