

Referências Bibliográficas

- [1] MARTIN J. M. *A Economia Mundial da Energia*. São Paulo: Editora da Universidade Estadual Paulista. 1992.
- [2] CAMPBELL C. J., LAHERR J. *The End of Cheap Oil*. Scientific American, 78-83. 1998.
- [3] IEA. International Energy Agency. *World Energy Outlook 2010*. Nov. 2010.
- [4] ROSA A.J., CARVALHO R.S., XAVIER J.A. *Engenharia de Reservatórios de Petróleo*. Rio de Janeiro: Interciência PETROBRAS. 2006.
- [5] BAVIERE M. *Basic Concepts in Enhanced Oil Recovery Processes*. Springer, 1st edition. 1991.
- [6] BAKER R. *A Primer of Offshore Operations*. University of Texas at Austin, Petroleum Extension Service (PETEX), 2nd edition. 1985.
- [7] KOKAL S. *Crude-oil emulsions: a state-of-the-art review*. SPE Production & Facilities. 20, 5-13. 2005.
- [8] RAIKAR N. B., BHATIA S. R., MALONE M. F., HENSON M. A. *Experimental studies and population balance equation models for breakage prediction of emulsion drop size distributions*. Chemical Engineering Science. 64, 2433-2447. 2009.
- [9] JANSSEN P. H. *Characterization of oil-water mixtures produced in high-watercut oil Wells*. Thesis of PhD. Delft University of Technology, The Netherlands. 2000.

- [10] BLUNT M. J. *Flow in porous media pore-network models and multiphase flow*. Current Opinion in Colloid & Interface Science. 6, 197-207. 2001.
- [11] PEÑA T. J., CARVALHO M. S. *Snap-Off of a Liquid Drop Immersed in Another Liquid Flowing Through a Constricted Capillary*. AIChE Journal. 55 (8), 1993-1999. 2009.
- [12] NISISAKO T., OKUSHIMA S., TORII T. *Controlled formulation of monodisperse double emulsions in a multiple-phase microfluidic system*. Soft Matter. 1, 23-27. 2005.
- [13] UMBANHOWAR P. B., PRASAD V., WEITZ D. A. *Monodisperse emulsion generation via drop break off in a coflowing stream*. Langmuir. 16, 347-351. 2000.
- [14] TICE J. D., SONG H., LYON A. D., ISMAGILOV R. F. *Formation of Droplets and Mixing in Multiphase Microfluidics at Low Values of the Reynolds and the Capillary Numbers*. Langmuir. 19, 9127-9133. 2003.
- [15] TICE J. D., LYON A. D., ISMAGILOV R. F. *Effects of viscosity on droplet formation and mixing in microfluidic channels*. Analytica Chimica Acta. 507, 73-77. 2004.
- [16] TAN Y. C., FISHER J. S., LEE A. I., CRISTINI V., LEE A.P. *Design of microfluidic channel geometries for the control of droplet volume, chemical concentration, and sorting*. Lab Chip. 4, 292-298. 2004.
- [17] ZHENG B., TICE J. D., ISMAGILOV R. F. *Formation of Droplets of Alternating Composition in Microfluidic Channels and Applications to Indexing of Concentrations in Droplet-Based Assays*. Analytical Chemistry. 76(17), 4977-4982. 2004.

- [18] GÜNTHER A., KHAN S. A., THALMANN M., TRACHSEL F., JENSEN K. F. *Transport and reaction in microscale segmented gas-liquid flow.* Lab Chip. 4, 278-286. 2004.
- [19] CRAMER C., FISCHER P., WINDHAB E. J. *Drop formation in a co-flowing ambient fluid.* Chemical Engineering Science. 59(15), 3045-3058. 2004.
- [20] UTADA A. S., LORENCEAU E., LINK D. R., KAPLAN P. D., STONE H. A. & WEITZ D. A. *Monodisperse double emulsions generated from a microcapillary device.* Science. 308(5721), 537-541. 2005.
- [21] UTADA A. S., FERNANDEZ-NIEVES A., STONE H. A., WEITZ D. A. *Dripping to jetting transitions in coflowing liquid streams.* Physical Review Letters. 99, 094502, 1-4. 2007.
- [22] UTADA A. S., FERNANDEZ-NIEVES A., GORDILLO J. M., WEITZ D. A. *Absolute instability of a liquid jet in a coflowing stream.* Physical Review Letters. 100, 014502, 1-4. 2008.
- [23] ANNA S. L., BONTOUX N., STONE H. A. *Formation of dispersions using "flow focusing" in microchannels.* Applied Physics Letters. 82(3), 364-366. 2003.
- [24] ANNA S. L., MAYER H. C. *Microscale tipstreaming in a microfluidic flow focusing device.* Carnegie Mellon University. Physics of fluids. 18, 121512, 1-13. 2006.
- [25] GARSTECKI P., GITLIN I., DiLUZIO W., WHITESIDES G., KUMACHEVA E., STONE H. A., *Formation of monodisperse bubbles in a microfluidic flow-focusing device.* Applied Physics Letters. 85(13), 2649-2651. 2004.

- [26] GARSTECKI P., FUERSTMAN M., WHITESIDES G. M. *Nonlinear dynamics of a microfluidic flow-focusing bubble generator.* Physical Review Letters. 94, 234502, 1-4. 2005.
- [27] GARSTECKI, P., FUERSTMAN, M. J., STONE, H. A., WHITESIDES, G. M. *Formation of droplets and bubbles in a microfluidic T-junction: scaling and mechanism of break-up.* Lab Chip. 6, 437-446. 2006.
- [28] BASARAN O. A. *Small-scale free surface flows with breakup: drop formation and emerging applications.* AIChE Journal. 48(9), 1842-1848. 2002.
- [29] DE MENECH M., GARSTECKI P., JOUSSE F., STONE H. A. *Transition from squeezing to dripping in a microfluidic T-shaped junction.* Journal of Fluid Mechanics. 595, 141-161. 2008.
- [30] MIRANDA, A. C. *Formação de emulsões no escoamento multifásico de óleo e água em meios porosos.* Dissertação de Mestrado, DEM, PUC-RIO. 2010.
- [31] BECHER, P. *Emulsion theory and practice.* New York: Oxford University Press, 3th edition. 2001.
- [32] SILVA A. L. C., PONZETTO E., ROSA F. *Tensoativos: Conceitos Gerais e suas Aplicações em Tintas.* Oxiteno, Artigo Técnico ART TV007 – 08/03. 2003.
- [33] RIDEAL, K. E. *An introduction to surface chemistry.* Cambridge London: Cambridge U. Press. 1926.
- [34] STEIJN V., KREUTZER M., KLEIJN C. R. *μ -PIV study of the formation of segmented flow in microfluidic T-junctions.* Chemical Engineering Science. 62, 7505-7514. 2007.

- [35] KOBAYASHI I., MUKATAKA S., NAKAJIMA M. *Effect of slot aspect ratio on droplet formation from silicon straight-through microchannels.* Journal of Colloid and Interface Science. 279, 277-280. 2004.
- [36] KOBAYASHI I., MUKATAKA S., NAKAJIMA M. *CFD simulation and analysis of emulsion droplet formation from straight-through microchannels.* Langmuir. 20, 9868-9877. 2004.
- [37] MASON T. G., BIBETTE J. *Shear rupturing of droplets in complex fluid.* Langmuir. 13, 4600-4613. 1997.
- [38] NAKASHIMA T., SHIMIZU M., KUKIZAKI M. *Membrane emulsification by microporous glass.* Key Engineering Materials. 513, 61-62. 1991.
- [39] KAWAKATSU T., KIKUCHI Y., NAKAJIMA M. *Regular-sized cell creation in microchannel emulsification by visual microprocessing method.* Journal of the American Oil Chemists' Society. 74, 317-321. 1997.
- [40] FU T., MA Y., FUNFSCHILLING D., LI H. Z. *Bubble formation and breakup mechanism in a microfluidic flow-focusing device.* Chemical Engineering Science. 64, 2392-2400. 2009.
- [41] FU T., MA Y., FUNFSCHILLING D., ZHU C. LI H. *Squeezing-to-dripping transition for bubble formation in a microfluidic T-junction.* Chemical Engineering Science. 65, 3739-3748. 2010.
- [42] BAROUD CH. N., GALLAIRE F., DANGLA R. *Dynamics of microfluidic droplets.* Lab Chip. 10, 2032-2045. 2010.
- [43] THORSEN T., ROBERTS R. W., ARNOLD F. H., QUAKE S. R. *Dynamic Pattern Formation in a Vesicle-Generating Microfluidic Device.* Physical Review Letters. 86, 4163-4166. 2001.

- [44] STEEGMANS M. L. J., SCHROËN C. G. P. H., BOOM R. M. *Generalised insights in droplet formation at T-junctions through statistical analysis.* Chemical Engineering Science. 64, 3042-3050. 2009.
- [45] XU J. H., LI S. W., TAN J., WANG Y. J., LUO G. S. *Preparation of highly monodisperse droplet in a T-Junction microfluidic device.* AIChE Journal. 52, 3005-3010. 2006.
- [46] XU J. H., LI S. W., TAN J., LUO G. S. *Correlations of droplet formation in T-junction microfluidic devices: from squeezing to dripping.* Microfluid Nanofluid. 5, 711-717. 2008.
- [47] CHRISTOPHER G. F., NOHARUDDIN N. N., TAYLOR J. A., ANNA S. L. *Experimental observations of the squeezing-to-dripping transition in T-shaped microfluidic junctions.* Physical Review. E78, 036317, 1-12. 2008.
- [48] ZHAO C. X., MIDDELBERG A. P. J. *Two-phase microfluidic flows.* Chemical Engineering Science. 66, 1394-1411. 2011.
- [49] CUBAUD T., TATIENI M. T., ZHONG X., HO C. M. *Bubble dispenser in microfluidic devices.* Physical Review. E72, 037302, 1-4. 2005.
- [50] DOLLET B., VAN HOEVE W., RAVEN J. P., MARMOTTANT P., VERSLUIS M. *Role of the channel geometry on the bubble pinch off in flow focusing devices.* Physical Review Letters. 100, 034504, 1-4. 2008.
- [51] NIU X., GULATI S., EDEL J. B., DEMELLO A. J. *Pillar-induced droplet merging in microfluidic circuits.* Lab Chip. 8, 1837-1841. 2008.
- [52] GUILLOT P., COLIN A., UTADA A. S., AJDARI A. *Stability of a Jet in Confined Pressure-Driven Biphasic Flows at Low Reynolds Numbers.* Physical Review Letters. 99, 104502, 1-4. 2007.

- [53] BREMOND N., THIAM A. R., BIBETTE J. *Decompressing emulsion droplets favors coalescence*. Physical Review Letters. 100, 024501, 1-4. 2008.
- [54] PRIEST C., HERMINGHAUS S., SEEMANN R. *Controlled electrocoalescence in microfluidics: targeting a single lamella*. Applied Physics Letters. 89, 134101, 1-3. 2006.
- [55] LEE W., WALKER L. M., ANNA S. L. *Role of geometry and fluid properties in droplet and thread formation processes in planar flow focusing*. Physics of Fluids. 21, 032103, 1-14. 2009.
- [56] YEOM S., LEE S. Y. *Size prediction of drops formed by dripping at a micro T-junction in liquid–liquid mixing*. Experimental Thermal and Fluid Science. 35, 387-394. 2011.
- [57] SEO M., PAQUET C., NIE Z. H., XU S. Q., KUMACHEVA E. *Microfluidic consecutive flow-focusing droplet generators*. Soft Matter. 3, 986-992. 2007.
- [58] GAÑAN-CALVO A. M. *Revision of capillary cone-jet physics: Electrospray and flow focusing*. Physical Review. E79, 066305, 1-18. 2009.
- [59] HUMPHRY K. J., AJDARI A., FERNANDEZ-NIEVES A., STONE H. A., WEITZ D. A. *Suppression of instabilities in multiphase flow by geometric confinement*. Physical Review. E79, 056310, 1-5. 2009.
- [60] HUSNY J., COOPER-WHITE J. J. *The effect of elasticity on drop creation in T-shaped microchannels*. Journal of Non-Newtonian Fluid Mechanics. 137, 121-136. 2006.
- [61] ZAGNONI M., ANDERSON J., COOPER J. M. *Hysteresis in Multiphase Microfluidics at a T-Junction*. Langmuir. 26(12), 9416-9422. 2010.

- [62] MBANJWA M. B., LAND K. J., JEWELL L., MOSS E. A., GLEDHILL I. *Experimental observation of capillary instabilities of two phase flow in a microfluidic T-junction.* Seventh South African Conference on Computational and Applied Mechanics-SACAM10. Pretoria, January 2010.
- [63] CHRISTOPHER G. F., ANNA S. L. *Microfluidic methods for generating continuous droplet streams.* Journal of Physics D: Applied Physics. 40, R319–R336. 2007.
- [64] ZHANG X., BASARAN O. A. *An experimental study of dynamics of drop formation.* Physics of Fluids. 7, 1184-1203. 1995.
- [65] KOBAYASHI I., MUKATAKA S., NAKAJIMA M. *Effects of Type and Physical Properties of Oil Phase on Oil-in-Water Emulsion Droplet Formation in Straight-Through Microchannel Emulsification, Experimental and CFD Studies.* Langmuir. 21, 5722-5730. 2005.
- [66] FAIRBROTHER F., STUBBS A. E. *Studies in electroendosmosis. Part vi. the bubble-tube methods of measurement.* J. Chem. Soc. 1935.
- [67] WONG H., RADKE C. J., MORRIS S. *The motion of long bubbles in polygonal capillaries. part 1. thin films.* Journal of Fluid Mechanics. 292, 71–94. 1995.
- [68] WONG H., RADKE C. J., MORRIS S. *The motion of long bubbles in polygonal capillaries. part 2. drag, fluid pressure and fluid flow.* Journal of Fluid Mechanics. 292, 95–110. 1995.