

Lista de artículos

Perspectivas

(Feynman, 1992), (Stone and Kim, 2001), (Whitesides, 2006), (Yager, 2006)

Reviews:

(Reyes et al., 2002), (Stone et al., 2004), (Squires and Quake, 2005), (Di Carlo, 2009),
(Casadevall i Solvas and deMello, 2011), (Seemann et al., 2012)

Fabricación:

(McDonald and Whitesides, 2002), (Duffy and McDonald, 2000), (Ng et al., 2002),
(Nguyen and Wereley, 2002) (capítulo 3)

Aplicaciones (Reviews):

(Whitesides et al., 2001), (Quéré, 2005), (Livak-Dahl et al., 2011)

Clásicos y más:

(Terry et al., 1979), (Ajdari, 1995), (Han and Craighead, 2000),
(Muthukumar, 2001), (Pit et al., 2000), (Stroock et al., 2000),
(Eggleton et al., 2001), (Stroock et al., 2002), (Anna et al., 2003),
(Cottin-Bizonne et al., 2003), (Chen and Meiners, 2004),

Lista de artículos para seminarios

Electrocinética

- 1a. Ajdari, A., 1995. Electro-Osmosis on Inhomogeneously Charged Surfaces. *Phys. Rev. Lett.* 75, 755–758.
- 1b. Stroock, A.D., Weck, M., Chiu, D.T., Huck, W.T.S., Kenis, P.J.A., Ismagilov, R.F., Whitesides, G.M., 2000. Patterning Electro-osmotic Flow with Patterned Surface Charge. *Phys. Rev. Lett.* 84, 3314–3317.
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Mezclado

- 2a. Stroock, A.D., Dertinger, S.K.W., Ajdari, A., Mezić, I., Stone, H.A., Whitesides, G.M., 2002. Chaotic Mixer for Microchannels. *Science* 295, 647–651.
- 2b. Chen, H., Meiners, J.-C., 2004. Topologic mixing on a microfluidic chip. *Appl. Phys. Lett.* 84, 2193.
-

Separación de ADN

- 3a. Han, J., Craighead, H.G., 2000. Separation of Long DNA Molecules in a Microfabricated Entropic Trap Array. *Science* 288, 1026 –1029.
- 3b Muthukumar, M., 2001. Translocation of a Confined Polymer through a Hole. *Phys. Rev. Lett.* 86, 3188–3191.
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Condiciones de borde

- 4a. Pit, R., Hervet, H., Léger, L., 2000. Direct Experimental Evidence of Slip in Hexadecane: Solid Interfaces. *Phys. Rev. Lett.* 85, 980–983.
- 4b. Cottin-Bizonne, C., Barrat, J.-L., Bocquet, L., Charlaix, E., 2003. Low-friction flows of liquid at nanopatterned interfaces. *Nat. Mater.* 2, 237–240.
-

Generación de microgotas

- 5a. Eggleton, C.D., Tsai, T.-M., Stebe, K.J., 2001. Tip Streaming from a Drop in the Presence of Surfactants. *Phys. Rev. Lett.* 87, 048302.
- 5b. Anna, S.L., Bontoux, N., Stone, H.A., 2003. Formation of dispersions using “flow focusing” in microchannels. *Appl. Phys. Lett.* 82, 364.
-

- Ajdari, A., 1995. Electro-Osmosis on Inhomogeneously Charged Surfaces. *Phys. Rev. Lett.* 75, 755–758.
- Anna, S.L., Bontoux, N., Stone, H.A., 2003. Formation of dispersions using “flow focusing” in microchannels. *Appl. Phys. Lett.* 82, 364.
- Casadevall i Solvas, X., deMello, A., 2011. Droplet microfluidics: recent developments and future applications. *Chem. Commun.* 47, 1936.
- Chen, H., Meiners, J.-C., 2004. Topologic mixing on a microfluidic chip. *Appl. Phys. Lett.* 84, 2193.
- Cottin-Bizonne, C., Barrat, J.-L., Bocquet, L., Charlaix, E., 2003. Low-friction flows of liquid at nanopatterned interfaces. *Nat. Mater.* 2, 237–240.
- Di Carlo, D., 2009. Inertial microfluidics. *Lab. Chip* 9, 3038.
- Duffy, D., McDonald, 2000. Fabrication of microfluidic systems in poly(dimethylsiloxane). *Electrophoresis* 21, 27–40.
- Eggleton, C.D., Tsai, T.-M., Stebe, K.J., 2001. Tip Streaming from a Drop in the Presence of Surfactants. *Phys. Rev. Lett.* 87, 048302.
- Feynman, R.P., 1992. There’s plenty of room at the bottom [data storage]. *J. Microelectromechanical Syst.* 1, 60–66.
- Han, J., Craighead, H.G., 2000. Separation of Long DNA Molecules in a Microfabricated Entropic Trap Array. *Science* 288, 1026–1029.
- Livak-Dahl, E., Sinn, I., Burns, M., 2011. Microfluidic Chemical Analysis Systems. *Annu. Rev. Chem. Biomol. Eng.* 2, 325–353.
- McDonald, J.C., Whitesides, G.M., 2002. Poly(dimethylsiloxane) as a Material for Fabricating Microfluidic Devices. *Acc Chem Res* 35, 491–499.
- Muthukumar, M., 2001. Translocation of a Confined Polymer through a Hole. *Phys. Rev. Lett.* 86, 3188–3191.
- Ng, J.M.K., Gitlin, I., Stroock, A.D., Whitesides, G.M., 2002. Components for integrated poly(dimethylsiloxane) microfluidic systems. *ELECTROPHORESIS* 23, 3461–3473.
- Nguyen, N.-T., Wereley, S.T., 2002. Fundamentals and applications of microfluidics. Artech House.
- Pit, R., Hervet, H., Léger, L., 2000. Direct Experimental Evidence of Slip in Hexadecane: Solid Interfaces. *Phys. Rev. Lett.* 85, 980–983.
- Quééré, D., 2005. Non-sticking drops. *Reports Prog. Phys.* 68, 2495.
- Reyes, D.R., Iossifidis, D., Auroux, P.-A., Manz, A., 2002. Micro Total Analysis Systems. 1. Introduction, Theory, and Technology. *Anal. Chem.* 74, 2623–2636.
- Seemann, R., Brinkmann, M., Pfohl, T., Herminghaus, S., 2012. Droplet based microfluidics. *Reports Prog. Phys.* 75, 016601.
- Squires, T.M., Quake, S.R., 2005. Microfluidics: Fluid physics at the nanoliter scale. *Rev. Mod. Phys.* 77, 977–1026.
- Stone, H.A., Kim, S., 2001. Microfluidics: Basic issues, applications, and challenges. *AIChE J.* 47, 1250–1254.
- Stone, H.A., Stroock, A.D., Ajdari, A., 2004. Engineering flows in small devices: Microfluidics toward a lab-on-a-chip. *Annu. Rev. Fluid Mech.* 36, 381–411.
- Stroock, A.D., Dertinger, S.K.W., Ajdari, A., Mezić, I., Stone, H.A., Whitesides, G.M., 2002. Chaotic Mixer for Microchannels. *Science* 295, 647–651.

- Stroock, A.D., Weck, M., Chiu, D.T., Huck, W.T.S., Kenis, P.J.A., Ismagilov, R.F., Whitesides, G.M., 2000. Patterning Electro-osmotic Flow with Patterned Surface Charge. *Phys. Rev. Lett.* 84, 3314–3317.
- Terry, S.C., Jerman, J.H., Angell, J.B., 1979. A gas chromatographic air analyzer fabricated on a silicon wafer. *Electron Devices IEEE Trans.* 26, 1880–1886.
- Whitesides, G.M., 2006. The origins and the future of microfluidics. *Nature* 442, 368–373.
- Whitesides, G.M., Ostuni, E., Takayama, S., Jiang, X., Ingber, D.E., 2001. Soft Lithography in Biology and Biochemistry. *Annu. Rev. Biomed. Eng.* 3, 335.
- Yager, P., 2006. Microfluidic diagnostic technologies for global public health. *Nature* 442, 412–418.