

Introduction - DTU Orbit (08/11/2017)

Introduction

This chapter presents an introduction to the microfluidics field and microfluidic biochips. We discuss the main fluid propulsion principles used by modern microfluidic platforms, with a focus on “digital” microfluidic biochips, which are the topic of this book. Digital microfluidic biochips manipulate the fluids as small “droplets” using electrokinetics, i.e., electrowetting-on-dielectric. Several application areas for biochips are discussed, and the motivation behind the work presented in this book is introduced. At the end of the chapter, we outline the structure of the book and an overview of the topics covered.

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