

Contents

Preface	ix
Acknowledgments.....	xi
Editors.....	xiii
Contributors.....	xv

Part I Devices for Chromosome Handling

Chapter 1 Mechanical Approaches to Elucidate Mechanisms of Chromosome Condensation at the Nano- and Microlevels.....	1
--	---

Kazushige Kawabata, Keisuke Nomura, Kensuke Ikeda, Osamu Hoshi, Daisuke Fukushi, Hisashi Haga and Taisuo Ushiki

Chapter 2 Development of Novel AFM Probes for Chromosome Manipulation	15
---	----

Masato Saito, Gen Hashiguchi and Eiichi Tamiya

Chapter 3 Microchamber Array-Based Sequence-Specific DNA Detection from a Single Chromosome via Trace Volume PCR.....	31
---	----

Masato Saito and Eiichi Tamiya

Chapter 4 On-Chip Chromosome Sorter Using Electric and Magnetic Fields	43
--	----

Takahito Inoue, Yasuyuki Fujita, Susumu Uchiyama, Tomoyuki Doi, Kiichi Fukui and Hiroshi Yokoyama

Part II Visualization of Chromosomes at the Nano- and Microlevels

Chapter 5 Fluorescence Microscopy for Analysis of Chromosome Dynamics	53
---	----

Sachihito Matsunaga