

Contents

Biophysics

Chapter 01	Chromatography	1
Chapter 02	Electrophoresis	17
Chapter 03	Spectroscopy	31
Chapter 04	Mass spectrometry	55
Chapter 05	Centrifugation	61
Chapter 06	Microscopy	70
Chapter 07	Flow cytometry	86
Chapter 08	X-ray crystallography	97
Chapter 09	Patch clamp techniques	102
Chapter 10	Immunotechniques	107
Chapter 11	FRET and FRAP	126

Molecular Biology

Chapter 12	Molecular Biology Techniques	
	12.1 Polymerase chain reaction	134
	12.2 Nucleic acid hybridization	147
	12.3 Labeling of nucleic acids	148
	12.4 Blotting	158
	12.5 Phage display	160
	12.6 Yeast two-hybrid assay	162
	12.7 Transcript analysis	163
	12.8 DNA microarray	165
	12.9 Electrophoretic mobility shift assay	168
	12.10 Footprinting assay	169
	12.11 Site-directed mutagenesis	172
	12.12 DNA sequencing	179
	12.13 Biosensors	187
	12.14 CRISPR/Cas systems	191

Self Test

Index