

Contents

Recent Advances in the Synthesis of Morphine and Related Alkaloids	1
Noritaka Chida	
Opioids in Preclinical and Clinical Trials	29
Hiroshi Nagase and Hideaki Fujii	
Synthesis of 14-Alkoxymorphinan Derivatives and Their Pharmacological Actions	63
Helmut Schmidhammer and Mariana Spetea	
14-Amino-4,5-Epoxymorphinan Derivatives and Their Pharmacological Actions	93
John W. Lewis and Stephen M. Husbands	
Nonpeptidic Delta (δ) Opioid Agonists and Antagonists of the Diarylmethyllpiperazine Class: What Have We Learned?	121
Silvia N. Calderon	
Synthesis of Neoclerodane Diterpenes and Their Pharmacological Effects	141
Kimberly M. Lovell, Katherine M. Prevatt-Smith, Anthony Lozama, and Thomas E. Prisinzano	
Synthesis of Novel Basic Skeletons Derived from Naltrexone	187
Hiroshi Nagase and Hideaki Fujii	
Twin and Triplet Drugs in Opioid Research	239
Hideaki Fujii	
3D-Pharmacophore Identification for κ-Opioid Agonists Using Ligand-Based Drug-Design Techniques	277
Noriyuki Yamaotsu and Shuichi Hirono	
Index	309

xiii