

CONTENTS

FOREWORD	vii
PREFACE	ix
CONTRIBUTORS	xi
CHAPTER 1 <i>C-H FUNCTIONALIZATION: A NEW STRATEGY FOR THE SYNTHESIS OF BIOLOGICALLY ACTIVE NATURAL PRODUCTS</i>	1
Sophie Rousseaux, Benoît Liégault, and Keith Fagnou	
CHAPTER 2 <i>THE NEGISHI CROSS-COUPPLING IN THE SYNTHESIS OF NATURAL PRODUCTS AND BIOACTIVE MOLECULES</i>	33
Evelina Colacino, Jean Martinez, and Frédéric Lamaty	
CHAPTER 3 <i>METAL-CATALYZED C-HETEROATOM CROSS-COUPPLING REACTIONS</i>	77
Renata Marcia de Figueiredo, Jean Marc Campagne, and Damien Prim	
CHAPTER 4 <i>GOLDEN OPPORTUNITIES IN THE SYNTHESIS OF NATURAL PRODUCTS AND BIOLOGICALLY ACTIVE COMPOUNDS</i>	111
Fabien Gagosz	
CHAPTER 5 <i>METATHESIS-BASED SYNTHESIS OF COMPLEX BIOACTIVES</i>	155
Jean-Alexandre Richard, Sin Yee Ng, and David Y.-K. Chen	
CHAPTER 6 <i>ENANTIOSELECTIVE ORGANOCATALYSIS: A POWERFUL TOOL FOR THE SYNTHESIS OF BIOACTIVE MOLECULES</i>	189
Mitsuru Shoji and Yujiro Hayashi	
CHAPTER 7 <i>ASYMMETRIC PHASE-TRANSFER CATALYSIS</i>	213
Seiji Shirakawa, Shin A. Moteki, and Keiji Maruoka	
CHAPTER 8 <i>REARRANGEMENTS IN NATURAL PRODUCT SYNTHESIS</i>	243
José Marco-Contelles and Elena Soriano	

CHAPTER 9	<i>DOMINO REACTIONS IN THE ENANTIOSELECTIVE SYNTHESIS OF BIOACTIVE NATURAL PRODUCTS</i>	271
	Lutz F. Tietze, Scott G. Stewart, and Alexander Diefert	
CHAPTER 10	<i>FLUOROUS LINKER-FACILITATED SYNTHESIS OF BIOLOGICALLY INTERESTING MOLECULES</i>	335
	Wei Zhang	
CHAPTER 11	<i>THE EVOLUTION OF IMMOBILIZED REAGENTS AND THEIR APPLICATION IN FLOW CHEMISTRY FOR THE SYNTHESIS OF NATURAL PRODUCTS AND PHARMACEUTICAL COMPOUNDS</i>	359
	Rebecca M. Myers, Kimberley A. Roper, Ian R. Baxendale, and Steven V. Ley	
CHAPTER 12	<i>SYNTHETIC APPROACHES TO BIOACTIVE CARBOHYDRATES</i>	395
	Xavier Guinchard, Sébastien Picard, and David Crich	
CHAPTER 13	<i>AMMONIUM YLIDES AS BUILDING BLOCKS FOR ALKALOID SYNTHESIS</i>	433
	Scott Bur and Albert Padwa	
CHAPTER 14	<i>PRECURSOR-DIRECTED BIOSYNTHESIS OF POLYKETIDE AND NONRIBOSOMAL PEPTIDE NATURAL PRODUCTS</i>	485
	Colin J. B. Harvey and Chaitan Khosla	
CHAPTER 15	<i>TARGET-ORIENTED AND DIVERSITY-ORIENTED ORGANIC SYNTHESIS</i>	513
	Raphaël Rodriguez	
CHAPTER 16	<i>DNA AS A TOOL FOR MOLECULAR DISCOVERY</i>	539
	Michael Smietana, Jean-Jacques Vasseur, Janine Cossy, and Stelios Arseniyadis	
INDEX		557