

CONTENTS

Preface	iii
Contributors	vii
Chapter 1 Aldol and Related Reactions	1
Zoltan G. Hajos	
I. Introduction	2
II. Fundamentals	2
III. Intermolecular Additions and Condensations	7
IV. Intramolecular Aldol Reaction Techniques	33
V. Methods of Circumventing Mixed Aldol Reactions	55
VI. Related Reactions	65
VII. Retroaldol Reactions	77
References	79
Chapter 2 Alkylation and Related Reactions of Ketones and Aldehydes Via Metal Enolates	85
Drury Caine	
I. Introduction	86
II. Alkylation of Related Reactions of Saturated Ketones Via Metal Enolates	89
III. Alkylation and Related Reactions of α,β -Unsaturated Ketones Via Metal Enolates	284
IV. Alkylation of Aldehydes	315
V. Addendum	326
References	329
Chapter 3 Alkylations and Acylations of Phosphonium Ylides	353
H. J. Bestmann and R. Zimmermann	
I. Introduction	354
II. General Data Concerning the Chemistry of Phosphonium Ylides	355

III. Acylation of Phosphonium Ylides and the Resulting Preparative Possibilities	357
IV. Alkoxyacylation of Phosphonium Ylides	378
V. Alkylation of Phosphonium Ylides	381
VI. Cyanylation of Phosphonium Ylides	416
VII. Carboxylation of Phosphonium Ylides and Related Reactions	417
References	421
Author Index	427
Subject Index	451