
Contents

The chapters whose numbers have a gray background are completely new.

Supplement to Chapter 6.1

Hydrogenation of Carbonyl Groups Takeshi Ohkuma, Ryoji Noyori	1
--	---

Supplement to Chapter 6.2

Hydrogenation of Imino Groups Takeshi Ohkuma, Ryoji Noyori	43
---	----

Supplement to Chapter 6.3

Hydrosilylation of Carbonyl and Imino Groups Takeshi Ohkuma, Ryoji Noyori	55
--	----

Supplement to Chapter 14

Heck Reaction Masakatsu Shibasaki, Erasmus M. Vogl, Takashi Ohshima.	73
---	----

Chapter 16.4

C–H Insertion Reactions, Cycloadditions and Ylide Formation of Diazo Compounds Huw M. L. Davies	83
---	----

Supplement to Chapter 26.1

Alkylation of C=O Kenso Soai, Takanori Shibata	95
---	----

Supplement to Chapter 26.2

Alkylation of C=N Keiko Hatanaka, Hisashi Yamamoto	107
---	-----

Supplement to Chapter 28

Cyanation of Carbonyl and Imino Groups Petr Vachal, Eric N. Jacobsen	117
---	-----

Supplement to Chapter 29.3**Nitroaldol Reaction**

Masakatsu Shibasaki, Harald Gröger, Motomu Kanai. 131

Chapter 29.4**Direct Catalytic Asymmetric Aldol Reaction**

Masakatsu Shibasaki, Naoki Yoshikawa, Shigeki Matsunaga 135

Chapter 29.5**Mannich Reaction**

Shū Kobayashi, Masaharu Ueno 143

Supplement to Chapter 31.2**Catalytic Conjugate Addition of Stabilized Carbanions**

Masahiko Yamaguchi 151

Supplement to Chapter 34.1**Alkylation of Enolates**

David L. Hughes 161

Supplement to Chapter 39**Combinatorial Approaches**

Amir H. Hoveyda, Kerry E. Murphy 171

Chapter 43**Acylation Reactions**

Elizabeth R. Jarvo, Scott J. Miller 189

Chapter 44**Metathesis Reactions**

Amir H. Hoveyda, Richard R. Schrock 207

Subject Index 235