

TABLE OF CONTENTS

DI	
Synthesis of Natural and Unnatural Prostaglandins	9
Noyori, R.	
Selenium Stabilized Carbenium Ions as Valuable Electrophiles for Carbon-Carbon Bond Formation	17
Hevesi, L.	
New Possibilities in Carbon-Carbon Bond Forming Reactions	22
Mukaiyama, T.	
Synthetic Approaches to Guanolinides and Pseudoguanolinides	30
Kennedy, M., McKervey, M.A. and Maguire, A.R.	
New Synthetic Methods for Steroids	37
Tsuji, J. and Takahashi, T.	
Biosynthesis of the Pigments of Life	46
Battersby, A.R.	
Biological Markers from <i>Botryococcus Brauni</i> : Some Chemistry of Two Natural Hydrocarbons	54
White, J.D.	
The Biosynthetic Pathway to Rotenoids	71
Crombie, L. and Whiting, D.A.	
Aspects of the Biosynthesis and Biomimetic Synthesis of Ansamycin and Mitomycin Antibiotics	80
Rickards, R.W.	
Synthesis and Biosynthesis of the Carbapenem Antibiotics	86
Nozoe, S.	
Synthetic and Biosynthetic Studies on Bioactive Microbial Metabolites	96
Tamm, C.	
Biogenetically Orientated Alkaloid Synthesis	111
Winterfeldt, E.	
An Approach to the Total Synthesis of (3H)-Indoline Alkaloids	120
Heathcock, C.H., Norman, M.H. and Dickman, D.A.	
Approaches to the Synthesis of Spiropentacyclic Indole Alkaloids	127
Jackson, A.H., Shannon, P.V.R. and Wilkins, D.J.	
Synthesis of Chiral Lipid Lowering Agents Derived from Natural Products	136
Baader, E., Bartmann, W., Beck, G., Bergmann, A., Granzer, E., Jendralla, H., Kerekjarto, B.V., Kesseler, K., Krause, R., Paulus, E.F., Schubert, W. and Wess, G.	
A Total Synthesis of the Mushroom Sesquiterpene (+)-Isovellerol via a Diastereoselective Intramolecular Diels-Alder Reaction and an Unusual Pericyclic Rearrangement	145
Wickberg, B., Bergman, R., Hansson, T. and Sterner, O.	
Asymmetric Synthesis of Cycloaliphatic Amino Acids	155
Frahm, A.W., Omar, F.A. and Liem, L.K.	
Transition Metal Templates as Guides for Cyclization Reactions	166
Trost, B.M.	
Synthesis of Tetrodotoxin	173
Isobe, M.	
New Aspects of Indole Chemistry	183
Black, D.St.C., Bowyer, M.C., Durie, A., Ivory, A.J., Keller, P.A. and Kumar, N.	
Pyridinium Ylides in the Synthesis of Naphthopyrans Related to Kalafungin and Eleutheric	192
Aldersley, M.F., Dean, F.M., Douglas, M. and Ennis, D.	
Asymmetric Synthesis with Chiral Iminium Salts	200
Ghosez, L., Yong, C.L., Houge, C., Gobeaux, B., Pollicino, S., Bouvier, V. and Perry, M.	
Thiophene-Containing Spirans in Heterocyclic Synthesis	204
Sauter, F., Frohlich, H. and Stanetty, P.	
Nucleic Acid Synthesis-Some New Aspects of Chemistry and Apparatus	214
Seliger, H., Kotschi, U., Rosch, R. and Zeh, D.	
Pericyclic Reactions of Vinylallenes and Polyenes: Synthetic and Mechanistic Studies	224
Okamura, W.H., Elnagar, H.Y., Theobald, P.G., Bartels, K. and Gibbs, R.A.	
Total Synthesis of (-)-Curdione	231
Thio, D.B. and Wu, Y.C.	
EI	
From Annulenes to Porphyrins	237
Vogel, E.	
Magnesium (Anthracene) Complexes in Synthesis	246
Harvey, S., Junk, P.C., Nicoletti, T.M., Raston, C.L., Salem, G. and Sargent, M.V	

Naked Sugars in the Total Synthesis of Natural Products	246
Vogel, P.	
Aprotic Conjugate Addition Reactions of Allylic Carbanions in the Synthesis of Natural Products	250
Haynes, R.K.	
Synthetic Applications and Biosynthetic Significance of Radical Cyclization	259
Beckwith, A.L.J.	
Total Synthesis of Natural Products via Intramolecular Diels-Alder Reaction with Furan-Diene and Allene-Dienophile	269
De Clercq, P.J. and Cauwberghs, S.	
Biomimetic Syntheses of Novel Porphyrinoids for Chemistry and Medicine	278
Franck, B.	
Synthetic Endeavor Toward Complex Bioactive Natural Products	288
Ito, S. and Hirama, M.	
Asymmetric Induction via Addition-Elimination Process: Application to the Natural Product Synthesis	297
Fuji, K.	
Original Synthetic Approaches to Chrysanthemic Acids, Constituents of the Most Potent Insecticides	302
Krief, A., Dumont, W. and Pasau, P.	
Synthesis of Chemically Stable and Biologically, Potent Prostacyclin Analogues	312
Vorbruggen, H., Skuballa, W. and Rehwinkel, H.	
From Thienamycin to Tienam and Beyond	325
Christensen, B.G.	
Chiral Syntheses of Bioactive Natural Products by Combination of Chemical and Biological Methods	331
Mori, K.	
Synthetic and Chemical Studies on Insect Pheromones and Related Biologically Active Natural Products	338
Norin, T.	
The Synthesis of Drimane and Rearranged Drimane Insect-Antifeedants	348
De Groot, A. and Jansen, B.J.M.	
Organo Copper Chemistry : An Efficient Way to Insect Pheromones	356
Normant, J., Alexakis, A., Gardette, M., Jabri, N., Cahiez, G., Jachiet, D., Mangeney, P., Ghribi, A.	
The Synthesis of Taxol : A Chemical Challenge	361
Fetizon, M.	
Total Synthesis of Cyclopentanoid Natural Products	363
Vandewalle, M., Callant, P., Van der Eycken, E., Van der Eycken, J., Quaghebeur, L., and De Keukeleire, D.	
Stereoselective Syntheses of Mycinolide V, A 16-Membered Macrolide	373
Hoffmann, R.W. and Dittrich, K.	
Studies on the Total Synthesis of Gelsemine	381
Overman, L.E., Earley, W., Jacobsen, E.J., Oh, T.	
Chemistry of Damascones	391
Ohloff, G.	
Strategy Level Reactions for the Efficient Synthesis of Biologically Active Compounds	397
Wender, P.A.	
Heterocyclic Chemistry Related to Natural Products	405
Bremner, J.B.	
Biologically Active Compounds with Nitrogen-Nitrogen Bond	414
Schanti, J.G.	
Novel Reactions Between Phthalide-3-Carboxylic Acid and 3,4-Dihydroisoquinolines	424
Chiefari, J., Janowski, W. and Prager, R.	
Synthesis of Enantiomerically Pure Anthracyclinones Using Mannose, Glucose, (S)-Lactic and Malic Acid	431
Krohn, K., Broser, E., Ekkundi, V.S., Heins, H., Hamann, I., and Rieger, H.	
Anthracyclines the Natural Product and Beyond	436
Russell, R.A.	
Methylenomycin B: Syntheses Based on Organic Phosphorus and Sulfur Reagents	446
Mikolajczyk, M.	
Name Index	457