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Discover how carbonyl compounds bridge reactants, catalysts, and specific products

Carbonyl-containing molecules represent some of the most versatile functionalities in organic chemistry, with applications in a wide variety of areas.

In *Carbonyl Compounds: Reactants, Catalysts and Products*, accomplished chemists and authors Feng Shi, Hongli Wang, and Xingchao Dai deliver a comprehensive treatment of these multi-functional compounds. You'll discover how to build carbonyl molecules with traditional and non-traditional methods, how to transform carbonyl-containing molecules into fine chemicals, and how to use carbonyl-containing molecules as catalytic materials for the synthesis of fine chemicals.

The book is a comprehensive and systematic treatment of carbonyl compounds as reactants, catalysts, and products. From the use of carbon monoxide in the hydroformylation of alkenes and alkynes to the reactions via carbonyl and hydroxyl groups recycling, you'll find everything you need to know about these versatile compounds.

Readers will also benefit from the inclusion of:

- A thorough introduction to carbonyl molecules as reactants, including treatments of carbon monoxide, carbon dioxide, HCHO, HCOOH, and CO surrogates
- An exploration of carbonyl compounds as catalysts, including acid catalyzed reactions with CO_2H and reactions via carbonyl and hydroxyl groups recycling
- A practical discussion of the synthetic applications of carbonyl compounds, including the synthesis of functional molecules and the synthesis of functional materials
- A concise treatment of future perspectives and potential research trends for carbonyl molecules

Perfect for organic, catalytic, pharmaceutical, and physical chemists, *Carbonyl Compounds* will also earn a place in the libraries of chemical engineers and materials scientists seeking a one-stop reference for up-to-date information about the building, transformation, and applications of carbonyl-containing molecules.

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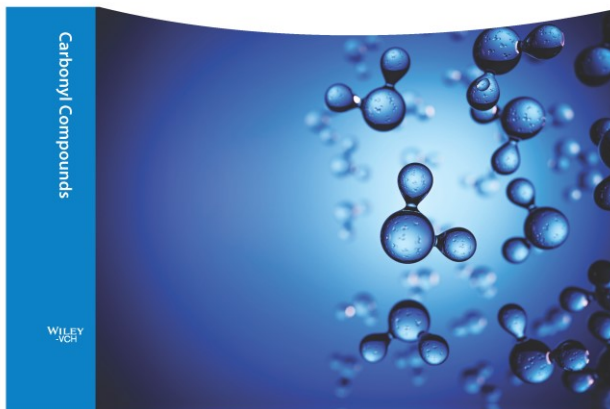
Feng Shi, Hongli Wang, and Xingchao Dai

Carbonyl Compounds

Reactants, Catalysts and Products

Carbonyl Compounds

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Contents

Preface *xi*

Part I Carbonyl molecules as Reactants 1

- 1 Carbon Monoxide 3**
- 1.1 Hydroformylation of Alkenes and Alkynes 3
 - 1.1.1 Co Catalysts 4
 - 1.1.2 Rh Catalysts 5
 - 1.1.3 Au Catalysts 7
 - 1.1.4 Ligand-Modified Heterogeneous Catalysts 7
 - 1.1.5 Single-Atom Catalysts 10
 - 1.2 Hydroxy-, Alkoxy-, and Aminocarbonylation of Alkenes and Alkynes 11
 - 1.2.1 Hydroxycarbonylation of Alkenes 11
 - 1.2.2 Hydroxycarbonylation of Alkynes 13
 - 1.2.3 Alkoxy carbonylation of Alkenes 14
 - 1.2.4 Alkoxy carbonylation of Alkynes 16
 - 1.2.5 Aminocarbonylation of Alkenes 17
 - 1.2.6 Aminocarbonylation of Alkynes 19
 - 1.3 The Pauson–Khand Reaction 20
 - 1.3.1 The Catalytic Pauson–Khand Reaction 21
 - 1.3.2 Stereoselective Pauson–Khand Reactions 23
 - 1.3.3 Pauson–Khand Transfer Carbonylation Reactions 25
 - 1.4 Synthesis of Acetic Acid 26
 - 1.4.1 Process Considerations 26
 - 1.4.2 Rhodium-Catalyzed Carbonylation 27
 - 1.4.3 Iridium-Catalyzed Carbonylation 28
 - 1.5 Carbonylation of C–X Bonds 30
 - 1.5.1 Hydroxy-, Alkoxy-, and Aminocarbonylations of C–X Bonds 30
 - 1.5.2 Reductive Carbonylations 34

Druckfreigabe/approval for printing	
Without corrections/ ohne Korrekturen	<input type="checkbox"/>
After corrections/ nach Ausführung der Korrekturen	<input type="checkbox"/>
Date/Datum:
Signature/Zeichen:

vi | Contents

1.5.3	Carbonylative Coupling Reactions with Organometallic Reagents	37
1.5.4	Carbonylative Sonogashira Reactions	41
1.5.5	Carbonylative C–H Activation Reactions	44
1.5.6	Carbonylative Heck Reactions	46
1.6	Carbonylation of Epoxides	48
1.6.1	Ring-expansion Carbonylation of Epoxides	48
1.6.2	Hydroformylation and Silylformylation of Epoxides	50
1.6.3	Alternating Copolymerization of Epoxides	50
1.6.4	Alkoxy carbonylation and Aminocarbonylation of Epoxides	51
1.7	Carbonylation of Aldehydes	52
1.7.1	Amidocarbonylations of Aldehydes	52
1.7.2	Hydroformylation and Silylformylation of Aldehydes	54
1.7.3	Hetero Pauson–Khand Reactions of Aldehydes	55
1.7.4	Reactions of Aldehydes with Acylanions	55
1.7.5	Miscellaneous of Aldehydes	56
1.8	Oxidative Carbonylation Reaction	57
1.8.1	Oxidative Carbonylation of Alkenes	57
1.8.2	Oxidative Carbonylation of Alkynes	59
1.8.3	Oxidative Carbonylation of Organometallic Reagents	63
1.8.4	Oxidative Carbonylation of Arenes	65
1.8.5	Oxidative Carbonylation of Amines	67
1.9	Other Reactions	69
1.9.1	Reactions of Diazoalkanes with Carbon Monoxide	70
1.9.2	Reaction of C–NO ₂ with CO	73
2	Carbon Dioxide	75
2.1	Synthesis of Urea Derivatives	75
2.1.1	Metal-free Catalyst Systems	75
2.1.2	Ph ₃ SbO as Catalyst	75
2.1.3	Pd Catalyst Systems	76
2.1.4	Ionic Liquids as Catalyst	76
2.1.5	CeO ₂ as Catalyst	77
2.2	Synthesis of Carbamate Derivatives	78
2.2.1	Ru Catalyst Systems	78
2.2.2	Sn or Ni Catalyst Systems	79
2.2.3	Zeolite as Catalyst	79
2.2.4	Other Catalyst Systems	81
2.3	Synthesis of Carboxyl Acid Derivatives	82
2.4	Cycloaddition of Epoxide with CO ₂	88
2.4.1	Oxides Catalysts	93
2.4.2	Zeolite Catalysts	94
2.4.3	Supported Nanoparticle and Lewis Acid Catalysts	95
2.4.4	Carbon Catalysts	98
2.4.5	Salen, Porphyrins, and Phthalocyanines Catalysts	98

Druckfreigabe/approval for printing	
Without corrections/ ohne Korrekturen	<input type="checkbox"/>
After corrections/ nach Ausführung der Korrekturen	<input type="checkbox"/>
Date/Datum:	
Signature/Zeichen:	

2.4.6	Ionic Liquid Catalysts	101
2.4.7	Metal–Organic Framework (MOF) Catalysts	106
2.4.8	Bifunctional Catalysts	109
2.4.9	Other Catalysts	117
2.5	Reaction of Polyalcohols/Olefins with CO ₂	119
2.6	Formylation of Amines with CO ₂	121
2.7	Reactions of Propargyl Alcohols/Propargyl Amines with CO ₂	125
2.8	Other Reactions	127
2.8.1	Reactions of Aromatic Halides with CO ₂	127
2.8.2	Reactions of 2-Aminobenzonitriles with CO ₂	130
3	Other C₁ Carbonyl Molecules	133
3.1	Formaldehyde (HCHO)	133
3.1.1	Carbonylation of Halides with HCHO	134
3.1.2	Carbonylation of Olefins with HCHO	136
3.1.3	Carbonylation of Alkynes with HCHO	142
3.2	Formic Acid (HCOOH)	144
3.2.1	Hydroxycarbonylation of Arenes with Formic Acid	144
3.2.2	Carbonylation of Alkenes with Formic Acid	144
3.2.3	Carbonylation of Alkynes with Formic Acid	148
3.2.4	N-Formylation Reactions with Formic Acid	150
3.2.4.1	Metal Oxides Catalysts	150
3.2.4.2	Brønsted Acidic as Catalyst	151
3.2.4.3	Amberlite IR-120 Resins as Catalysts	152
3.2.4.4	Magnetic Catalysts	152
3.2.4.5	Zeolite as Catalyst	153
3.2.4.6	Ionic Liquids (ILs) as Catalyst	154
3.2.4.7	Other Catalysts	156
3.2.5	Carbonylation of C–X with Formic Acid	157
3.2.6	Other Reactions	161
4	CO Surrogates	163
4.1	Carbonyl Metal	163
4.2	Formates	165
4.3	Formamides	168
4.4	Formic Anhydride	169
4.5	Silacarboxylic Acid	170
4.6	N-Formylsaccharin	172
4.7	Acyl Chloride	172
4.8	In Situ Generated Carbonyl Source	174
4.8.1	Methanol	174
4.8.2	Glycerol	176
4.8.3	Aldoses	178
4.8.4	Epoxide	179
4.8.5	Chloroform	181

Druckfreigabe/approval for printing	
Without corrections/ ohne Korrekturen	<input type="checkbox"/>
After corrections/ nach Ausführung der Korrekturen	<input type="checkbox"/>
Date/Datum:	
Signature/Zeichen:	

viii | Contents

- 4.8.5.1 Pd-catalyzed Carbonylation Reactions 182
- 4.8.5.2 Fe-Catalyzed Carbonylation Reactions 185
- 4.8.5.3 Zn-Catalyzed Carbonylation Reactions 186

Part I References 187**Part II Carbonyl Compounds as Catalysts 217**

- 5 Acid-Catalyzed Reactions with $-\text{CO}_2\text{H}$ 219**
 - 5.1 Carboxylic Acid Molecules Catalyzed Reactions 219
 - 5.1.1 Hydrolysis/Aminolysis/Ethanolysis Reactions 219
 - 5.1.2 Mutarotation of 2,3,4,6-Tetramethyl-d-glucose (TM-G) 221
 - 5.1.3 Depolymerization of Polyoxymethylenes 221
 - 5.1.4 Elimination Reactions 221
 - 5.1.5 Hydrogen-Deuterium Exchange Reactions 222
 - 5.1.6 Reduction Reactions 222
 - 5.1.7 Decomposition of Diazodiphenylmethane 222
 - 5.1.8 Amino-Imino Tautomerism Reactions 222
 - 5.1.9 Aldol Reaction 224
 - 5.1.10 Friedel-Crafts Reaction 224
 - 5.1.11 Hydrogen Shifts Reaction 225
 - 5.1.12 Cyclization Reaction 226
 - 5.1.13 Hydroboration Reaction 229
 - 5.1.14 Trifluoromethylation Reaction 229
 - 5.2 Carbon Material-Catalyzed Reactions 230
 - 5.2.1 Reduction of Nitric Oxide 230
 - 5.2.2 Oxidative Coupling of Amines to Imines 233
 - 5.2.3 Depolymerization of Cellulose and Lignocellulose 233
 - 5.2.4 Nitrobenzene Reduction Reaction and Beckmann Rearrangement Reaction 236
 - 5.2.5 Ring-Opening Reaction of Styrene Oxide 236
- 6 Reactions via Carbonyl and Hydroxyl Groups Recycling 239**
 - 6.1 Carbon-Catalyzed Selective Oxidation Reactions 239
 - 6.1.1 Oxidative Dehydrogenation of Ethylbenzene 239
 - 6.1.2 Oxidative Dehydrogenation of *n*-Butane 242
 - 6.1.3 Oxidative Dehydrogenation of Isobutane 243
 - 6.1.4 Oxidative Dehydrogenation of Propane 245
 - 6.2 Polymer-Catalyzed Selective Oxidation Reactions 245
 - 6.2.1 Oxidative Dehydrogenation of Ethylbenzene 245
 - 6.2.2 Oxidative Dehydrogenation of Heterocyclic Compounds 246
 - 6.3 Aldehyde/Ketone-Catalyzed Borrowing-Hydrogen Reactions 247
 - 6.3.1 Dehydrative β -C-Alkylation Reaction of Methyl Carbinols with Alcohols 247

Druckfreigabe/approval for printing	
Without corrections/ ohne Korrekturen	<input type="checkbox"/>
After corrections/ nach Ausführung der Korrekturen	<input type="checkbox"/>
Date/Datum:	
Signature/Zeichen:	

6.3.2	Dehydrative α -Alkylation Reactions of Ketones with Alcohols	248
6.3.3	Dehydrative Alkylation Reactions of Fluorenes with Alcohols	248
6.3.4	Dehydrative N-Alkylation Reactions of Amines with Alcohols	249
6.4	Carbon-Catalyzed Borrowing-Hydrogen Reactions	250

Part II References 251

Part III The Synthetic Applications of Carbonyl Compounds 255

7	Synthesis of Functional Molecules	257
7.1	Reduction of Carbonyl Compounds	257
7.1.1	Aldehydes and Ketones to Alcohol	257
7.1.2	Acids to the Alcohols and Aldehydes	259
7.1.2.1	To Alcohols	259
7.1.2.2	To Aldehydes	261
7.1.3	Ester to Alcohols and Ethers	263
7.1.3.1	To Alcohols	263
7.1.3.2	To Ethers	264
7.1.4	Amides to Amines	264
7.1.5	Clemmensen Reduction	267
7.1.6	Wolff-Kishner Reduction	268
7.2	Nucleophilic Addition Reactions of Aldehydes and Ketones	270
7.2.1	Carbon Nucleophiles	270
7.2.1.1	Grignard Reagent and Other Organometallic Reagents	270
7.2.1.2	Reformatsky Reaction	271
7.2.1.3	Benzoin Condensation	272
7.2.1.4	CN Group	272
7.2.1.5	Aromatic and Aliphatic C—H Bond	273
7.2.2	Nitrogen Nucleophiles	275
7.2.3	Oxygen Nucleophiles	277
7.2.3.1	H ₂ O as a Nucleophile	277
7.2.3.2	ROH as a Nucleophile	277
7.3	Addition Elimination Reactions of Aldehydes and Ketones	278
7.3.1	Aldol Reaction	278
7.3.2	Perkin Reaction	278
7.3.3	Knoevenagel Condensation	280
7.4	Oxidation of Aldehydes and Ketones	281
7.4.1	Baeyer-Villiger Oxidation	281
7.4.2	To Acid	282
7.5	Wittig Reaction	285
7.6	Reductive Amination Reaction	286
7.6.1	Homogeneous Catalyst System	287
7.6.2	Heterogeneous Catalyst System	290

Druckfreigabe/approval for printing	
Without corrections/ ohne Korrekturen	<input type="checkbox"/>
After corrections/ nach Ausführung der Korrekturen	<input type="checkbox"/>
Date/Datum:	
Signature/Zeichen:	

x | Contents

7.7	Hydroboration/Hydrophosphonylation/Hydrosilylation/Hydroacylation of Aldehydes and Ketones	293
7.7.1	Hydroboration	293
7.7.2	Hydrophosphonylation	296
7.7.3	Hydrosilylation Reactions	297
7.7.4	Hydroacylation Reactions	300
7.8	Oxidative Cross-Coupling Reaction of Aldehydes	302
7.8.1	Homogeneous Catalyst System	302
7.8.2	Heterogeneous Catalyst System	304
7.9	Reductive Coupling Reactions of Aldehydes	306
7.10	Reaction of Acids as Starting Materials	310
7.10.1	Esterification Reactions	310
7.10.2	Amidation Reactions	310
7.10.3	Decarboxylation Coupling Reactions	311
7.11	Reaction of Esters as Starting Materials	317
7.11.1	Hydrolysis Reaction	317
7.11.2	Transesterification Reaction	318
7.11.3	Aminolysis Reaction	319
7.12	Reaction of Amides as Starting Materials	320
7.12.1	Hydrolysis Reaction	320
7.12.2	Alcoholysis Reaction	320
8	Synthesis of Functional Materials	323
8.1	Polyamides	323
8.1.1	Aliphatic Polyamides	324
8.1.2	Aromatic Polyamides	325
8.1.3	Long-Chain Semiaromatic Polyamides	326
8.2	Phenol Formaldehyde Resins	329
8.2.1	Novolac Resins	329
8.2.2	Resole Resins	330
8.3	Polyurethanes	332
8.4	Polyesters	335
9	Conclusion and Perspectives	339
9.1	Conclusion	339
9.2	Perspectives	340
	Part III References	343
	Index	355