

VI. LIST OF NAMED ORGANIC REACTIONS

Acetoacetic Ester Synthesis	2
Acyloin Condensation	4
Alder (Ene) Reaction (Hydro-Allyl Addition)	6
Aldol Reaction	8
Alkene (Olefin) Metathesis	10
Alkyne Metathesis	12
Amadori Reaction/Rearrangement	14
Arbuzov Reaction (Michaelis-Arbuzov Reaction)	16
Arndt-Eistert Homologation/Synthesis	18
Aza-Claisen Rearrangement (3-Aza-Cope Rearrangement)	20
Aza-Cope Rearrangement	22
Aza-Wittig Reaction	24
Aza-[2,3]-Wittig Rearrangement	26
Baeyer-Villiger Oxidation/Rearrangement	28
Baker-Venkataraman Rearrangement	30
Baldwin's Rules/Guidelines for Ring-Closing Reactions	32
Balz-Schiemann Reaction (Schiemann Reaction)	34
Bamford-Stevens-Shapiro Olefination	36
Barbier Coupling Reaction	38
Bartoli Indole synthesis	40
Barton Nitrite Ester Reaction	42
Barton Radical Decarboxylation Reaction	44
Barton-McCombie Radical Deoxygenation Reaction	46
Baylis-Hillman Reaction	48
Beckmann Rearrangement	50
Benzilic Acid Rearrangement	52
Benzoin and Retro-Benzoin Condensation	54
Bergman Cycloaromatization Reaction	56
Biginelli Reaction	58
Birch Reduction	60
Bischler-Napieralski Isoquinoline Synthesis	62

Brook Rearrangement.....	64
Brown Hydroboration Reaction	66
Buchner Method of Ring Expansion (Buchner Reaction).....	68
Buchwald-Hartwig Cross-Coupling	70
Burgess Dehydration Reaction.....	72
Cannizzaro Reaction.....	74
Carroll Rearrangement (Kimel-Cope Rearrangement).....	76
Castro-Stephens Coupling	78
Chichibabin Amination Reaction (Chichibabin Reaction).....	80
Chugaev Elimination Reaction (Xanthate Ester Pyrolysis).....	82
Ciamician-Dennstedt Rearrangement	84
Claisen Condensation/Claisen Reaction	86
Claisen Rearrangement	88
Claisen-Ireland Rearrangement	90
Clemmensen Reduction.....	92
Combes Quinoline Synthesis	94
Cope Elimination / Cope Reaction	96
Cope Rearrangement.....	98
Corey-Bakshi-Shibata Reduction (CBS Reduction)	100
Corey-Chaykovsky Epoxidation and Cyclopropanation.....	102
Corey-Fuchs Alkyne Synthesis	104
Corey-Kim Oxidation	106
Corey-Nicolaou Macrolactonization.....	108
Corey-Winter Olefination.....	110
Cornforth Rearrangement	112
Criegee Oxidation	114
Curtius Rearrangement.....	116
Dakin Oxidation.....	118
Dakin-West Reaction	120
Danheiser Benzannulation	122
Danheiser Cyclopentene Annulation	124
Danishefsky's Diene Cycloaddition	126
Darzens Glycidic Ester Condensation.....	128
Davis' Oxaziridine Oxidations.....	130

De Mayo Cycloaddition (Enone-Alkene [2+2] Photocycloaddition)	132
Demjanov Rearrangement and Tiffeneau-Demjanov Rearrangement	134
Dess-Martin Oxidation.....	136
Dieckmann Condensation	138
Diels-Alder Cycloaddition	140
Dienone-Phenol Rearrangement.....	142
Dimroth Rearrangement.....	144
Doering-LaFlamme Allene Synthesis.....	146
Dötz Benzannulation Reaction	148
Enders SAMP/RAMP Hydrazone Alkylation.....	150
Enyne Metathesis.....	152
Eschenmoser Methenylation.....	154
Eschenmoser-Claisen Rearrangement	156
Eschenmoser-Tanabe Fragmentation.....	158
Eschweiler-Clarke Methylation (Reductive Alkylation)	160
Evans Aldol Reaction	162
Favorskii and Homo-Favorskii Rearrangement.....	164
Feist-Bénary Furan Synthesis.....	166
Ferrier Reaction/Rearrangement.....	168
Finkelstein Reaction.....	170
Fischer Indole Synthesis.....	172
Fleming-Tamao Oxidation.....	174
Friedel-Crafts Acylation.....	176
Friedel-Crafts Alkylation	178
Fries-, Photo-Fries, and Anionic Ortho-Fries Rearrangement.....	180
Gabriel Synthesis	182
Gattermann and Gattermann-Koch Formylation	184
Glaser Coupling	186
Grignard Reaction	188
Grob Fragmentation	190
Hajos-Parrish Reaction	192
Hantzsch Dihydropyridine Synthesis.....	194
Heck Reaction.....	196
Heine Reaction.....	198

Hell-Volhard-Zelinsky Reaction	200
Henry Reaction	202
Hetero Diels-Alder Cycloaddition (HDA)	204
Hofmann Elimination	206
Hofmann-Löffler-Freytag Reaction (Remote Functionalization)	208
Hofmann Rearrangement.....	210
Horner-Wadsworth-Emmons Olefination.....	212
Horner-Wadsworth-Emmons Olefination – Still-Gennari Modification	214
Houben-Hoesch Reaction/Synthesis.....	216
Hunsdiecker Reaction	218
Jacobsen Hydrolytic Kinetic Resolution	220
Jacobsen-Katsuki Epoxidation	222
Japp-Klingemann Reaction	224
Johnson-Claisen Rearrangement.....	226
Jones Oxidation/Oxidation of Alcohols by Chromium Reagents	228
Julia-Lythgoe Olefination.....	230
Kagan-Molander Samarium Diiodide-Mediated Coupling	232
Kahne Glycosidation	234
Keck Asymmetric Allylation	236
Keck Macrolactonization	238
Keck Radical Allylation	240
Knoevenagel Condensation	242
Knorr Pyrrole Synthesis	244
Koenigs-Knorr Glycosidation.....	246
Kolbe-Schmitt Reaction.....	248
Kornblum Oxidation.....	250
Krapcho Dealkoxycarbonylation (Krapcho reaction)	252
Kröhnke Pyridine Synthesis	254
Kulinkovich Reaction.....	256
Kumada Cross-Coupling	258
Larock Indole Synthesis	260
Ley Oxidation	262
Lieben Haloform Reaction.....	264
Lossen Rearrangement.....	266

Luche Reduction	268
Madelung Indole Synthesis	270
Malonic Ester Synthesis	272
Mannich Reaction	274
McMurry Coupling	276
Meerwein Arylation	278
Meerwein-Ponndorf-Verley Reduction	280
Meisenheimer Rearrangement	282
Meyer-Schuster and Rupe Rearrangement	284
Michael Addition Reaction	286
Midland Alpine Borane Reduction	288
Minisci Reaction	290
Mislow-Evans Rearrangement	292
Mitsunobu Reaction	294
Miyaura Boration	296
Mukaiyama Aldol Reaction	298
Myers Asymmetric Alkylation	300
Nagata Hydrocyanation	302
Nazarov Cyclization	304
Neber Rearrangement	306
Nef Reaction	308
Negishi Cross-Coupling	310
Nenitzescu Indole Synthesis	312
Nicholas Reaction	314
Noyori Asymmetric Hydrogenation	316
Nozaki-Hiyama-Kishi Reaction	318
Oppenauer Oxidation	320
Overman Rearrangement	322
Oxy-Cope Rearrangement and Anionic Oxy-Cope Rearrangement	324
Paal-Knorr Furan Synthesis	326
Paal-Knorr Pyrrole Synthesis	328
Passerini Multicomponent Reaction	330
Paterno-Büchi Reaction	332
Pauson-Khand Reaction	334

Payne Rearrangement	336
Perkin Reaction.....	338
Petasis Boronic Acid-Mannich Reaction	340
Petasis-Ferrier Rearrangement.....	342
Peterson Olefination.....	344
Pfitzner-Moffatt Oxidation.....	346
Pictet-Spengler Tetrahydroisoquinoline Synthesis	348
Pinacol and Semipinacol Rearrangement	350
Pinner Reaction.....	352
Pinnick Oxidation	354
Polonovski Reaction.....	356
Pomeranz-Fritsch Reaction.....	358
Prévost Reaction.....	360
Prilezhaev Reaction	362
Prins Reaction.....	364
Prins-Pinacol Rearrangement	366
Pummerer Rearrangement	368
Quasi-Favorskii Rearrangement	370
Ramberg-Bäcklund Rearrangement.....	372
Reformatsky Reaction.....	374
Regitz Diazo Transfer	376
Reimer-Tiemann Reaction	378
Riley Selenium Dioxide Oxidation	380
Ritter Reaction	382
Robinson Annulation	384
Roush Asymmetric Allylation.....	386
Rubottom Oxidation	388
Saegusa Oxidation.....	390
Sakurai Allylation.....	392
Sandmeyer Reaction.....	394
Schmidt Reaction	396
Schotten-Baumann Reaction	398
Schwartz Hydrozirconation	400
Seydel-Gilbert Homologation	402

Sharpless Asymmetric Aminohydroxylation	404
Sharpless Asymmetric Dihydroxylation	406
Sharpless Asymmetric Epoxidation.....	408
Shi Asymmetric Epoxidation	410
Simmons-Smith Cyclopropanation.....	412
Skraup and Doebner-Miller Quinoline Synthesis.....	414
Smiles Rearrangement	416
Smith-Tietze Multicomponent Dithiane Linchpin Coupling	418
Snieckus Directed Ortho Metalation.....	420
Sommelet-Hauser Rearrangement	422
Sonogashira Cross-Coupling	424
Staudinger Ketene Cycloaddition	426
Staudinger Reaction.....	428
Stephen Aldehyde Synthesis (Stephen Reduction).....	430
Stetter Reaction	432
Stevens Rearrangement	434
Stille Carbonylative Cross-Coupling.....	436
Stille Cross-Coupling (Migita-Kosugi-Stille Coupling).....	438
Stille-Kelly Coupling	440
Stobbe Condensation.....	442
Stork Enamine Synthesis	444
Strecker Reaction.....	446
Suzuki Cross-Coupling (Suzuki-Miyaura Cross-Coupling)	448
Swern Oxidation.....	450
Takai-Utimoto Olefination (Takai Reaction)	452
Tebbe Olefination/Petasis-Tebbe Olefination.....	454
Tishchenko Reaction.....	456
Tsuji-Trost Reaction/Allylation.....	458
Tsuji-Wilkinson Decarbonylation Reaction	460
Ugi Multicomponent Reaction	462
Ullmann Biaryl Ether and Biaryl Amine Synthesis/Condensation	464
Ullmann Reaction/Coupling/Biaryl Synthesis	466
Vilsmeier-Haack Formylation	468
Vinylcyclopropane-Cyclopentene Rearrangement	470

von Pechman Reaction	472
Wacker Oxidation.....	474
Wagner-Meerwein Rearrangement.....	476
Weinreb Ketone Synthesis	478
Wharton Fragmentation	480
Wharton Olefin Synthesis (Wharton Transposition)	482
Williamson Ether Synthesis.....	484
Wittig Reaction	486
Wittig Reaction - Schlosser Modification	488
Wittig-[1,2]- and [2,3]-Rearrangement.....	490
Wohl-Ziegler Bromination.....	492
Wolff Rearrangement	494
Wolff-Kishner Reduction	496
Wurtz Coupling.....	498
Yamaguchi Macrolactonization	500