Contents

Pretace		1X
I	On Searching the Literature	I
	Searching for a Compound, its Synthesis and Properties—Searching for a Reaction, Method, Concept, Process—On Reviews in General—Searching By Author—Keeping Up to Date—On Organizing Your Information—Hints on Scanning a Journal	
2	On Carrying Out Small-scale Reactions Choosing the Right Type of Reaction Flask—Drying Tubes—Thermometers—Magnetic Stirring— Heating with Stirring—Cooling—Stoppers—Boiling Aids—Drying Apparatus, Flaming Out—Ensuring an Inert Reaction Atmosphere—The Right	28

Reaction Set Up—Support Stands and Frameworks
—Hoods—Drying of Solvents and Their Transfer—
Transfer and Addition of Sensitive Liquid Reagents
and Solutions—Graduated Pipettes and Pipette
Fillers—On Rubber Septa and Syringes—
Working with Sodium and Potassium Hydrides—
On the Use of Dipolar Aprotic Solvents—On the
Advantages of Using Reagents in Solution—Dryboxes and Gloveboxes—their Use and Misuse—
Other Books on the Subject

3	On Isolating and Purifying the Product	7
	Capillary Pipettes-Working Up-Solvent Re-	
	moval—On the Importance of Azeotropes—On	
	Chromatography—Column, TLC and Preparative	
	TLC—On Getting your Product Crystalline—On	
	Using the Kugelrohr Apparatus—On Fractional	

Distillation—Preparing Samples for Analysis—

Sending Samples to Friends and Colleagues

4 Some Basic Safety Rules

I 14

5 On Catalytic Hydrogenation

117

Catalysts—Catalyst Recovery—Hydrogenation at Atmospheric Pressure—Hydrogenation at Medium Pressure (up to 4 atm.)—General

6 On Keeping It Clean

123

7 Some Detailed Reaction Examples

125

8 Various Hints and Gadgets

135

CONTENTS	vii
On Ordering, Bottling and Storing Chemicals	150
Choosing a Supplier—Quality and Price—Packaging and Bottling—Ordering Alkali Metals and Hydrides—Methyl and Other Esters—Adsorbents—Ordering, Rebottling and Transfer of Sensitive Liquids and Solutions—Solvents—Ordering Chemicals by Air Mail and Air Freight—Labelling and Storage	
References	163
Supply Firms Cited	167
Index	169