

Volume Editors' Preface

Within the coverage of compounds with one carbon—heteroatom bond (Category 5), the present volume of **Science of Synthesis** is the first to deal with the heteroatom nitrogen as an element of group 15 of the periodic table. Specifically, the chemistry of aliphatic amines and related organic nitrogen compounds with a formally sp^3 -hybridized nitrogen is covered and so another important field of organic synthesis is now included in the series.

Following the organizational hierarchy of **Science of Synthesis**, the emphasis is on the synthesis of amines and related organonitrogen compounds; synthetic applications of the products will be found in the other volumes of **Science of Synthesis**. However, the specific chemical and biological properties of amines and the related compounds make them attractive targets in themselves. In several examples the amine target is a natural product and so represents an amine in a more complex chemical environment.

The chemistry presented in this volume is extensively reviewed in different volumes of the traditional *Houben–Weyl* series, especially in Vols. 10/2 (1967), 11/1 (1957), XI/2 (1958) and updated in Vols. E16a (1990), E16c (1992), and E16d, part II (1992). The authors of the present volume have done a great job in culling out the still important information from the old sources and adding to it the new developments, which include improved methods or introduction of novel reagents. This volume demonstrates that today we have a flexible arsenal of methods to synthesize primary, secondary, and tertiary amines, hydroxylamines, and hydrazines including their cyclic or onium derivatives. Moreover, in most cases reliable diastereo- and enantioselective methods to obtain chiral targets are available. If the passing user should be overwhelmed by the multitude of methods, the introductory sections will provide a general orientation and serve as a guideline.

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