Volume Editor's Preface

This volume of **Science of Synthesis** is concerned with six-membered hetarenes containing two identical heteroatoms, i.e. oxygen, sulfur, selenium, tellurium, nitrogen, or phosphorus ring atoms. As with other volumes of **Science of Synthesis**, it is the *synthesis* of these hetarenes which is the dominant topic; their *chemistry* is covered only when relevant to their synthesis, or in a few instances where it leads to generally useful synthetic procedures.

The chemistry of six-memberered hetarenes with two nitrogen atoms (pyridazine, cinnoline, phthalazine, pyrimidine, quinazoline, pyrazine, quinoxaline, phenazine, purine, pyridodiazines, pteridine, and related compounds) has been studied for a very long time. Accordingly, many of the references included in this volume date back to fairly early work, although the literature coverage continues up to 2002. Some of the six-membered heterenes with two nitrogen atoms retain considerable industrial interest up to the present day, because of their biological activities and of their use as dyes. Pyrimidine and purine are essential for any form of life. Six-membered hetarenes with two sulfur or selenium atoms, especially thianthrene and selenanthrene and their analogues, are being investigated for their organoconducting properties. Therefore, the compound classes covered in this volume are of considerable contemporary interest and are likely to remain so for many years to come.

The structure of this volume follows that established in the other hetarene volumes of **Science of Synthesis**, i.e. the material is organized into methods for the synthesis of the product class in question, with each method usually including a discussion of the scope of the method, examples, and an experimental procedure. The product classes are ordered according to the **Science of Synthesis** guidelines, with the methods and variations within each product class following the sequence: synthesis by ring-closure reactions, synthesis by ring transformation, aromatization, and synthesis by substituent modification.

Finally, I should like to thank everyone who has contributed to this volume, in particular Dr. Joe P. Richmond for his help at the planning stage, and the authors for all their hard work in putting it together. Finally, I gratefully acknowledge the unstinting efforts of Dr. M. Fiona Shortt de Hernandez and her team at Thieme for their support, patience, and hard work during the course of this project.

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