Fundamentals of Heterocyclic Chemistry. Importance in Nature and in the Synthesis of Pharmaceuticals

Description: Filled with practical examples illustrating key concepts and applications

Based on popular courses taught by the two authors, Fundamentals of Heterocyclic Chemistry enables students to master the basics of heterocyclic chemistry and synthesis. The text features detailed examples throughout and a clear, straightforward approach, making it easy to grasp a vast, complex field. Moreover, with its emphasis on the biological uses of heterocyclic compounds, the text enables students to learn a variety of practical applications in natural products and pharmaceutical research.

Following an introduction to basic nomenclature, Fundamentals of Heterocyclic Chemistry explores the importance of heterocycles in nature and in synthetic pharmaceuticals. Next, synthetic methods are introduced with detailed descriptions of specific reactions used to construct heterocycles. The authors have provided a brief review of each reaction presented.

The text moves on to explore special properties of various aromatic heterocyclic systems. Next, the authors explain the synthesis of some important families of heterocycles, using plenty of examples for illustration, mostly from the field of pharmaceutics. The final chapter covers saturated heterocycles, with an emphasis on stereochemical properties.

This text is ideal for undergraduate and graduate students in organic chemistry as well as pharmaceutical and medicinal chemistry. Most of the chapters include problem sets, enabling students to test and build their knowledge of key concepts by applying principles of heterocyclic chemistry to solve real problems.

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