Preface

The creation of the book “Non-conventional synthesis: Bioactive heterocycles” was a great challenge. Within the huge discipline of different heterocycles, we focused on the bioactive derivatives. The book comprises promising or really bioactive N-, O-, S- or P-heterocycles with different ring size, and in not less cases with more heteroatoms. Excellent scientists were invited from all over the World. Biorelevant heterocycles are important from the point of view pharmaceutical industry and plant protecting agents. The main stress was placed on showing up-to-date methods and techniques for the syntheses. Perhaps the most important techniques applied in the preparations are microwave and sonochemical irradiation making use of local overheating and cavitation, respectively, allowing fast and efficient syntheses. Electrolysis, photochemical irradiation, and the use of ball-mill reactors also represent modern approaches in accord with the 12 principals (laws) of green chemistry. A few techniques allow solvent-free accomplishments and involve the use of green solvents, such as ionic liquids. Different kinds of catalysis, like enantioselective metal catalysis and nanocatalysis also represent novel techniques, not speaking about the application of flow reactors making possible safe accomplishments and good productivities.

This book may be of interest for researchers working in academia, and specialists developing industrial processes. Beside chemists, chemical engineers, PhD students and students may make use of the valuable subject matter collected in this book.

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