

Foreword

This book covers the contemporary topic “Hazardous Reagents Substitution” and features several aspects regarding reagents used for various chemical transformations. Despite the ready availability of many journals and access to various data bases and search engines, it is rather difficult for chemists to routinely and quickly glean informed inputs for selecting the right reagents for a desired synthetic transformation in terms of hazards involved and environmental footprint associated with it. This book, edited by two chemists with diverse backgrounds, one an experienced and knowledgeable chemist from industry involved in process innovation and research and the other from academia, captures some notable case studies where hazardous reagents are sought to be replaced by less hazardous ones. Valuable information about existing and upcoming reagents and catalysts for diverse transformations is also included in the book. The extent of information and trends in pharmaceutical development captured in this book makes it an essential resource for scientists working at the frontiers of research both in industry and in academia. All the chapters are written with considerable rigor and duly factor-in the context of each example and the choice of reagents employed in a particular synthesis. All the chapters provide the relevant background and include relevant references. The book can be regarded as a benchmark for the development and evolution of non-hazardous reagents and facilitate making a ‘reagent switch’ wherever considerations of sustainability, green chemistry and safety (non-hazardous handling) so warrant. Taken as a whole, this contribution has the potential to offer an extremely useful guide to arrive at safer reagents for synthesis of not only pharmaceutically relevant molecules but also for useful materials deployed in diverse domains.

The Editors of the book, Prof. Rakesh K. Sharma, University of Delhi and Dr Rakeshwar Bandichhor, Dr Reddy’s Laboratories, Hyderabad, along with

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others who have contributed chapters deserve to be complemented for their efforts and for drawing attention to the important issue of the avoidance of hazardous chemicals and materials. It is to be hoped that this endeavor will enthuse scientists in industry and academia to revisit and devise processes that are non-hazardous, which will go a long way in improving the public perception of chemistry.

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