



METADATA

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Abstract

This book is addressed both to undergraduate and postgraduate students, who are interested in understanding the theoretical background and applications of "Green Chemistry and Technology", as well as to professionals (chemists, engineers, etc.) in the general scientific area of the Environment Management. In this book there is the necessary material for: 1. Understanding, consolidation and ability to apply knowledge and techniques, which are necessary for: • Familiarity with the philosophy and tools of Green Chemistry. • The understanding the role of catalysis in Green Chemistry, as well as for "green" solvents. • The quality control, the measurement of the environmental impacts of chemical/industrial processes, the treatment of pollution, as well as in general Environmental Management issues (ISO 14000, EMAS etc.). • The Chemistry of renewable resources in order to produce

chemicals and energy (biorefinery, biofuels, etc.). • The Chemistry of Materials Recycling. • The production and saving of energy during chemical processes by applying the principles of Green Chemical Technology (RES etc.). 2. Acquiring familiarity with Green Chemistry methods and techniques for the design of products and processes, which reduce or eliminate hazardous and toxic chemical compounds for humans and the environment ("green" products). 3. Adaptability to the constantly evolving field of Green Chemistry and Green Chemical Technology with emphasis on process design which use renewable raw materials and have a substantial contribution to Sustainable Development. 4. Acquiring more general skills, such as retrieving and analyzing information from internet, databases and primary literature, ability to present research results after critical analysis of the literature.

