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Abstract

Green Chemistry is a new approach to chemical research. It aims to minimize waste, to minimize or eliminate the use and production of hazardous substances during the production processes of chemical products, by modifying the methods by which they are designed, synthesized and used. Green Engineering approaches the design of chemical products and processes through technologically feasible solutions on large scale in order to achieve: (i) reduction of the pollution caused by the construction and operation of an industrial facility, (ii) minimization of human exposure to risk, (iii) optimization of the material and energy use, (iv) economic viability. Green Chemistry is an interdisciplinary field that combines Chemistry, Biology and Physics, and finds applications in the development of chemical products. Green Engineering is a branch of Engineering that serves as a guide for all the fields of Engineering that deal with the processes and systems design. The present book offers spherical coverage of Green Chemistry and Green Engineering, as well as gradual familiarization with the offered knowledge (basic knowledge, specialization, connection between the knowledge and practical problems).

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