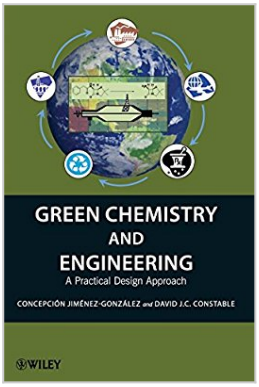

Green Chemistry and Engineering: A Practical Design Approach

By Concepci?n Jim?nez-Gonz?lez, David J. C. Constable

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The past, present, and future of green chemistry and green engineering

From college campuses to corporations, the past decade witnessed a rapidly growing interest in understanding sustainable chemistry and engineering. *Green Chemistry and Engineering: A Practical Design Approach* integrates the two disciplines into a single study tool for students and a practical guide for working chemists and engineers.

In *Green Chemistry and Engineering*, the authors—each highly experienced in implementing green chemistry and engineering programs in industrial settings—provide the bottom-line thinking required to not only bring sustainable chemistry and engineering closer together, but to also move business towards more sustainable practices and products. Detailing an integrated, systems-oriented approach that bridges both chemical syntheses and manufacturing processes, this invaluable reference covers:

- Green chemistry and green engineering in the movement towards sustainability
- Designing greener, safer chemical synthesis
- Designing greener, safer chemical manufacturing processes
- Looking beyond current processes to a lifecycle thinking perspective
- Trends in chemical processing that may lead to more sustainable practices

The authors also provide real-world examples and exercises to promote further thought and discussion.

The EPA defines green chemistry as the design of chemical products and processes that reduce or eliminate the use or generation of hazardous substances. Green engineering is described as the design, commercialization, and use of products and processes that are feasible and economical while minimizing both the generation of pollution at the source and the risk to human health and the environment. While there is no shortage of books on either discipline, *Green Chemistry and Engineering* is the first to truly integrate the two.

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Editorial Review

Review
"It also makes an excellent reference for those working in these areas, as it is the first work to incorporate both green chemistry and engineering and apply them in industrial settings. Summing Up: Highly recommended. Upper-division undergraduates through professionals/practitioners." (Choice, 1 November 2011)

"To meet this need, the book provides examples and practical exercises that help the student or advanced practitioner use understand these concepts as applied to the industrial setting and to use the material in direct and indirect applications. The exercises make the book suitable for self-study or as a textbook." (AZom, 1 March 2011)

From the Back Cover

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Concepción Jiménez-González is Director of Operational Sustainability in the Sustainability and Environment Center of Excellence at GlaxoSmithKline. Prior to joining GSK, she was program manager and

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