

## CHAPTER OVERVIEW

### 7: Chemistry of Life and Green Chemistry

“A microscopic cell of photosynthetic cyanobacteria constitutes a complex of chemical factories that carry out a multitude of biochemical processes. Powered by solar energy and operating under ambient conditions, these organisms take carbon dioxide and nitrogen from air and simple inorganic ions dissolved in water and make all the life molecules they need for their metabolism and reproduction. In eons past these kinds of organisms generated all of the oxygen that is in Earth’s atmosphere. For all their knowledge of chemistry it would be impossible for humans to reproduce the chemical processes of these remarkable bacteria”

[7.1: Green Biochemistry](#)

[7.2: Biochemistry and the Cells](#)

[7.3: Carbohydrates](#)

[7.4: Proteins](#)

[7.5: Lipids - Fats, Oils, and Hormones](#)

[7.6: Nucleic Acids](#)

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[7.8: Biochemical Processes in Metabolism](#)

[7.9: Biochemistry of Toxic Substances and Toxicological Chemistry](#)

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