

Bile Acids: chemistry, biosynthesis, analysis, chemical and metabolic transformations and pharmacology

by M. Mikov and J.P. Fawcett (Eds.) MEDISSET PUBLISHERS
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Book review

Bile acids are important biological compounds that are crucial for functions like the elimination of cholesterol and the intestinal solubilisation of lipids and vitamins. However, these compounds are so interesting not only because of their biological function, but also because they have major therapeutic applications. These can be exerted either by the specific activity of the bile acid itself or by the bile acids acting as absorption promoters and carriers that increase the delivery of other drugs. Thus, bile acids are at the focus of intensive research.

Not many textbooks are available on the topic of bile acids. The currently available ones are either old books from the 70s and the 80s, or the new series of the proceedings of the Falk symposia. The latter deal mainly with the biological, cellular and applied side of bile acid research. However, there was no textbook that describes in detail the chemistry of bile acids. That is until now. The book edited by Mikov and Fawcett provides a detailed overview about the chemistry of bile acids.

The book is divided into several sections that cover different aspects of the chemistry of bile acids. It begins with a historic overview of the use of bile acids and the discoveries in the field since the ancient days until the 20th century. Then, it goes into a detailed description of the molecular structure of bile acids, the pathways of their biosynthesis and their physiological roles. This is followed by a chapter dealing with experimental methods for the isolation and determination of bile acids. This chapter ends with a focus on analytical chemistry and its applications for bile acids. The next chapter deals with chemical and metabolic transformations of bile acids. The last chapter describes the pharmacology of bile acids and potential therapeutic uses.

The book is highly chemically oriented, and is aimed mainly at chemists and biochemists that study bile acids or need an introduction to the field. It is rich in chemical structures, formulas and reactions and summarizes the advances in the chemistry of bile acids throughout the 20th century. This book is not intended for cell biologists and clinicians, and does not focus on the physiological medical aspects of bile acids, which are described only briefly in the last chapter of the book. As such, the book has almost no references for the latest research about bile acids (from 2000 onwards).

The book is accompanied by a CD that contains two pdf files: one with the full text of the book, and one with the book cover. There is not much added value by including this CD, and it presents no extra features compared to the book itself.

In summary, scientists that are interested in the chemical aspects of bile acids will be interested in this book. Biologists and clinicians will have to wait for textbooks that describe the biological and biomedical aspects of bile acids.

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