

Book Review

Natural Product Chemistry: A Mechanistic, Biosynthetic and Ecological Approach, 2nd ed. Kurt B.G. Torssell. Stockholm, Sweden: Apotekarsocieteten, 1997, pp. 480, £29.95, ISBN 91 8627 463 5

Natural product chemistry as a subject is in its different aspects an ancient science. The preparation of foodstuffs, colouring matters, fibres, toxins, medicinals and stimulants are examples of activities as old as mankind. Traditionally, natural product chemistry has been divided into primary metabolism, the life processes, and secondary metabolism, characterized by a vast number of derived compounds, more or less essential to the survival or evolutionary significance of the species. Therefore, the author has focused on two important fields: biological oxidation and chemical ecology. Biological oxidation can be formulated either as hydride transfer, as one-electron transfer followed by hydrogen abstraction, or as a two-electron transfer. Chemical ecology is defined as the discipline describing those relationships/interactions between species, that can be related to an effect of naturally produced compounds.

The book *Natural Product Chemistry* is organised in 9 Chapters, including introduction and general considerations,

chemical ecology, carbohydrates and primary metabolites, the shikimic acid pathway, the polyketide pathway, the mevalonic acid pathway, the terpenes, amino acids, peptides and proteins, the alkaloids, N-heteroaromatics and answers to problems. Including new chapters on chemical ecology and evolution, the author presents a coherent picture of biological hydroxylations and the functions of transition metal, Fe, Co, Mn, in enzyme reactions-areas which for a long time have been poorly understood.

Natural Product Chemistry is an interdisciplinary science of common interest to organic chemists, biochemists, pharmacologists, biologists and ecologists. This new edition is a thoroughly revised, expanded and updated version, the reader being introduced to a fascinating world of chemical effects, signals and phenomena with chemical background.

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