

Chemical Synthesis of Hormones, Pheromones and Other Bioregulators; by Kenji Mori, Wiley & Sons: Chichester, 2010, softcover, 314 pp., €51.90, ISBN: 978-0-470-69723-8

This book of the Wiley 'Postgraduate Chemistry Series' is not as the title would suggest a textbook about hormone and pheromone research and synthesis, but it is the scientific autobiography of the eminent natural product chemist Kenji Mori. Given the extraordinary stature of the author in the field of pheromone synthesis, the book almost inevitably represents a scientific history of the development of this field.

After a short, but very instructive introductory chapter in which the author defines the various subtypes of biofunctional molecules whom he has dedicated his scientific career, he uses the following five chapters to present the syntheses of 173 small molecules, which have all been synthesized in his own lab. Very clear and instructive reaction schemes with reaction conditions and reported yields make it pleasant for the reader to handle this enormous amount of material. As the career of the author spans more than 50 years, the reader also notices that some of the earlier syntheses from a today's perspective look complicated and involve poor yields, reflecting the then state of the art of organic methodology. One would have wished that the author at least names or gives the references for the – very often – more elegant and efficient

syntheses of the same molecules reported by other scientists. Only in rare cases the authors has provided this useful piece of information. Mirroring the scientific focus of the author, the chapters about phytochemicals (Chapter 2) and pheromones (Chapter 4) represent the largest share of the reported syntheses. In my point of view, a true gem is the concluding sub-chapter 4.6 in which the author has summarized the surprising complexity of the significance of chirality in pheromone synthesis. He distinguishes and illustrates by examples ten different situations, which range from the classic one, in which only a single enantiomer is active, to more unexpected cases, in which only the racemate is active while the individual enantiomers are inactive. Especially readable is Chapter 7 entitled 'Synthetic Examination of Incorrectly Proposed Structures of Biomolecules', in which the author lists case studies from his and other labs demonstrating that in any step of interdisciplinary research mistakes can occur, which have led to wrong structures or falsely reported bioactivities.

Although the title at first sight promises too much, this scientific autobiography of Kenji Mori is worth reading and therefore should be made accessible to any graduate student through the library of their university.

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