



Book review

Organic reaction mechanisms. M. Gomez Gallego and M.A. Sierra, Springer-Verlag, Berlin, 2004, p. 290, SFr 88.50, GB£ 38.50, US\$ 54.95 hardcover, ISBN 3-540-00352-5

A student's problem-solving ability is an important skill that the teaching of chemistry can develop. In this book the authors have collected together forty mechanistic problems illustrating various areas of organic chemistry. The range of problems is quite wide, including topics in both synthetic and physical organic chemistry. The problems are mostly taken from the recent literature. The experimental methods that are used to elucidate the solutions include isotopic labelling and kinetic data. The problems are presented at three levels, depending on their difficulty. There is a consistent pattern in the organization of the material for each problem, involving the presentation of the experimental information, the discussion, the references and additional questions, and a listing of the topics that are revised. Each problem is completed by a summary that notes the main teaching points. In discussing each of the problems, the authors present various reasonable alter-

native mechanisms and show how the experimental data preclude particular possibilities and lead to a solution.

The authors indicate that the book is aimed at the advanced undergraduate. In practice most of the problems are probably better suited to graduate courses. They will provide useful material for problem-solving sessions. The book is well produced, making use of different colours to highlight particular sections. It has a good subject index.

The numerous structures are well drawn. There are a few places where the English could have been improved and where words such as "epoxy" are spelt "epoxi". However these do not detract from a useful book, which can be recommended as a source of interesting and stimulating problems based in modern organic chemistry.

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