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BOOK REVIEW

MAGEE, P. S., KOHN, G. K., MENN, J. J.: *PESTICIDE SYNTHESIS THROUGH RATIONAL APPROACHES*. ACS Symposium Series 225. — American Chemical Society, Washington, D.C. 1984. 352 pp. Price US + Canada US \$ 54.95, Export US \$ 65.95.

The objective of this publication, based on a symposium held at the Meeting of the American Chemical Society, 1983, was to discuss methods for synthesizing safer and more selective pesticides that will be harmless to the human population and to the environment. The introductory part of the book entitled: "Guided and serendipitous discovery" deals with the synthesis and action of new pesticides: avermectins, a product of *Streptomyces avermectilis*, which exhibit anthelmintic activity, further sulfonylureas, which exhibit weed-killer activity and bromethalin, used as an acute rodenticide. The second part of the publication: "Biochemical and physical design-assisted synthesis" is opened with papers on the action of propesticides — compounds which in their original form are inactive and are transformed into pesticidally active state by a plant, animal or microorganism metabolism. Examples are given with four different classes of propesticides, *i.e.*, the methylcarbamate esters, formamidines, phosphoramidothioates and nereistoxin analogs. Further contributions discuss biochemical and biophysical rationales useful in designing selective pesticide molecules and methods for optimization of physicochemical and biophysical properties of pesticides. The concluding part of the book: "Computer-assisted synthesis and quantitative structure-activity relationships" describes modern approaches to the design of new pesticides, *e.g.*, computer-assisted computation of passive partitioning in pesticide mode of action, regression approaches to structure-activity relationships *etc.*

All those concerned with the synthesis of new pesticides will find a stimulating amount of material in this volume.

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