

Additions and Corrections

1982, Volume 25

Peter Ulrich* and Anthony Cerami: Potential Anti-trypanosomal Agents. 1,*N*²-Disubstituted 2-Amino-5-hydroxy-4-methylnaphtho[1,2-*d*]thiazolium Salts and Related Compounds.

Page 655. In Table I, the melting point listed for compound 20 (229–230 °C) is incorrect. The correct melting point is 280–285 °C dec.

1983, Volume 26

Carroll Temple, Jr.,* Glynn P. Wheeler, Robert D. Elliott, Jerry D. Rose, Robert N. Comber, and John A. Montgomery: 1,2-Dihydropyrido[3,4-*b*]pyrazines: Structure–Activity Relationships.

Page 92. Compounds 8 and 9 contain the 7,8-dihydropteridine ring system rather than the 1,2-dihydropyrido[3,4-*b*]pyrazine ring system.

Page 94. In the first column of Table II, 14 should be listed as 10.

J. P. Yevich,* D. L. Temple, Jr., J. S. New, Duncan P. Taylor, and L. A. Riblet: Buspirone Analogues. 1. Structure–Activity Relationships in a Series of *N*-Aryl- and Heteroarylpiperazine Derivatives.

Page 200. In Table V, the inhibition of [³H]spiperone binding (the first data column) for compound 27 is incorrectly reported as an IC₅₀ value of 300 nM. The correct value is 1300 nM.

Book Reviews

The Fischer Indole Synthesis. By Brian Robinson. Wiley, New York. 1982. xiii + 923 pp. 16.5 × 23.5 cm. ISBN 0-471-100099. \$200.00.

This is a monumental, probably definitive, account—of historical proportions—of the Fischer indole synthesis and related reactions, by a known practitioner in the field who has contributed appreciably to it. A subtitle could well be: “Everything You Wanted to Know About the Fischer Indole Synthesis but Didn’t Know Where to Look”.

Following an all-too-brief biography of Emil Fischer, the work is divided into seven chapters, dealing with the following topics: discovery of the Fischer indole synthesis, its early development and related reactions; the mechanism of the Fischer indolization and related studies; Fischer indolizations of potential directional ambiguity and closely related indolizations; selected examples and uses of the Fischer indole synthesis; successful Fischer indolizations with subsequent product modification under the reaction conditions; extensions of the Fischer indole synthesis; and limitations, exceptions, and alternative reactions to Fischer indolization. There are 76 pages of references (>2000 references) and a very complete subject index (42 pages thereof). Among the related reactions discussed are the Borsche carbazole synthesis, the Brunner oxindole synthesis, and the Piloty synthesis of pyrroles. The synthesis of phenylhydrazines is also discussed in detail. The literature is covered through the 1981 Volume 94 issue of *Chemical Abstracts*.

The author states that he has attempted to refer to all known examples of the reaction that have been published, and he clearly is as good as his word! If he has missed anything, I certainly couldn’t tell. Indeed, he appears to have read in great detail each of the references he quotes and injects here and there personal notes and comments about the authors, which give insight into the foibles of well-known chemical personalities. He even notes, in some cases, discrepancies between the melting points of reportedly the same compounds prepared by two different groups. He indicates clearly where he thinks a specific point has not been settled and where further investigation is warranted. These, however, are minor points remaining as, for example, the mechanism of the dehalogenation occasionally observed with 2,6-dichlorophenylhydrazones, and the loss (methyl or methoxyl) or migration (1,4-Me migration) of other groups. More likely, a young

investigator wanting to carry out novel work in this field might be discouraged from doing so by the very mass of detailed work presented in this book, perhaps feeling that with so much already done his contribution might only lead to a small additional footnote. Thus, the main value of the book to the practicing investigator will be in having, in one volume, most, if not all, of the work carried out on every arylhydrazone (and related compounds) ever made.

Unfortunately, the book (except for the biographical sketch) is virtually unreadable, and only one with “a need to know” a specific item will stick it out. Clearly, when the decision was made to refer to every single attempted Fischer cyclization (successful and unsuccessful) no selection process occurred and one is overwhelmed by the sheer mass of data. More serious, however, was the choice made of how to reference the text, and what the author settled upon—clearly because it is very convenient from his point of view—was to write the names of the authors and the year in the body of the text, instead of assigning a number to that reference. Thus, the list of references can be prepared in alphabetical order of the first author’s name (plus initials if necessary) and in chronological order. This, of course, can lead to a slightly (or very) irritating repetition of the same names, many times on the same page (e.g., page 22). Where it becomes completely unacceptable is, say on page 231, where all but three lines of that page consists of authors’ names, and then from the middle of page 242 to the top of page 252, the same! (There are actually about 10–15 lines of chemistry interspersed within these last 10 pages—it is quite a challenge to find them!). Not only does this mar the book, but it also makes it *considerably* longer than necessary. The system cannot be used for obvious reasons in the tables. The author is then forced to give reference numbers and then repeat all the (now numbered) references in a very long footnote (Table 4 is a prime example of this—177 references).

It is inevitable that in a text of this kind and size many errors appear—too many to list here, although an endocyclic trans double bond in a six-membered ring in structures 803 and 807 and a single-headed arrow between canonical structures 498 ↔ 499 must be mentioned. An all too brief errata sheet is provided. Still wishing to provide “diversion for the reviewer” (Preface), the author made two errors in that sheet.

In conclusion, this tour de force will be of value mainly to those who wish to synthesize an indole or indolenine using the Fischer