

60–80°)—diethyl ether (25%) as eluent. After removal of 1,2-di(4'-methoxyphenyl)-1,2-diphenylethylene in the first fractions, mixed cyclopropane isomers were obtained (4.8 g, crude yield 13.8%). Fractional crystallization from MeOH gave the cis isomer **7a** as white crystals, mp 111–112°, and the trans isomer **7b** as white crystals, mp 98.5–100°. Nmr (**7a**, CCl₄) δ 1.03 (t, 3 H, CH₃ of CO₂Et), 2.96 (d, 1 H, cyp H, $J = 6.5$ Hz), 3.53 (d, 1 H, cyp H, $J = 6.5$ Hz), 3.65 (s, 3 H, OCH₃), 3.92 (q, 2 H, OCH₂), 6.6–7.4 (m, 14 H, Ar H). Anal. (C₂₅H₂₄O₃) C, H. Nmr (**7b**, CCl₄) δ 0.96 (t, 3 H, CH₃ of CO₂Et), 2.90 (d, 1 H, cyp H, $J = 7.0$ Hz), 3.55 (d, 1 H, cyp H, $J = 7.0$ Hz), 3.60 (s, 3 H, OCH₃), 3.88 (q, 2 H, OCH₂), 6.4–7.5 (m, 14 H, Ar H). Anal. (C₂₅H₂₄O₃) C, H.

3-Ethoxycarbonyl-4,5-diphenyl-5-(4-dimethylaminoethoxyphenyl)-2-pyrazoline (11). Ethyl cinnamate (3 ml, 17 mmol) was added in a nitrogen atmosphere to 1-phenyl-1(4'-dimethylaminoethoxyphenyl)diazomethane (3.3 g, 11.7 mmol) [from 4'-dimethylaminoethoxybenzophenone after refluxing for 50 hr with 64% hydrazine and barium oxide in ethanol and shaking of the residual oil from ether extraction with yellow mercuric oxide in petroleum ether (bp 40–60°) for 5 hr. Filtration and evaporation of the petroleum ether left the diazomethane as a red oil]. The mixture was allowed to stand for 6 days by which time the color had faded to pale yellow. No effervescence occurred on heating the mixture, which was then taken up in ether. This was shaken with 2 N HCl and the ether layer separated, washed with water, dried, and evaporated to yield unchanged ethyl cinnamate. The acid layer was basified with 2 N NaOH and ether extracted. Washed, dried extracts yielded a brown oil on evaporation which gave a yellow solid on boiling with petroleum ether (bp 60–80°). Recrystallization from benzene-petroleum ether (bp 60–80°)

gave **11** as white crystals (0.6 g, 11.1%), mp 129–130.5°. Anal. (C₂₅H₃₁O₃N₃) C, H, N.

Attempts to decompose the pyrazoline by refluxing with benzene, with copper and xylene, and by uv irradiation, were unsuccessful, resulting in unchanged starting materials or tars.

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Book Reviews

Malaria. Roger M. Pinder, Ed. Scientifica Ltd., Bristol, England. 1973. xii + 316 pp. 17 × 24.5 cm. £10.00.

Writing of malaria, the World Health Organization in 1961 stated that "the clinician has at his disposal a complete series of effective drugs for the treatment of all stages of the disease." Yet this epitaph on antimalarial research tumbled from its pedestal with the increasing emergence of drug-resistant plasmodia and of Anopheles mosquitoes resistant to the insecticides commonly used in malarial vector eradication. In contrast to earlier phases of malaria research, present investigations use many modern tools unavailable even one decade ago. In addition, strong emphasis is being placed on biochemical causation of resistance phenomena and on the biochemical mode of action of chemical agents in chemotherapy and vector eradication. Thus, a whole new set of data has to be considered, and a monograph covering all phases of malariology is a timely and welcome contribution to this broad and overwhelmingly important field of research. The volume by Pinder fulfills the most demanding expectations of such a review. It summarizes, in considerable detail and with meticulous documentation, every aspect of malaria research, from parasitology to experimental and clinical chemotherapy, and from drug resistance to

vector control. The author's interest in drug design is emphasized in almost 200 pp of descriptions of the history of antimalarial chemotherapy up to the newest approaches to this work, with strong concern for the mode of action of antimalarial drugs and their effect on plasmodial metabolism. From such data arise quite naturally chapters on multiple attacks on the different stages of plasmodial life cycles by drug combinations and repository antimalarials which form the basis of the routine clinical therapy and prophylaxis of the malarias. Apart from the coverage of every aspect of malariology which will satisfy entomologists, parasitologists, pharmacologists, biochemists, medicinal chemists, clinicians, ecologists, and biostatisticians, the great extra bonus for the reader is the style of this book. The volume presents some of the best English this reviewer has read in scientific books. A vast and fluent vocabulary, a touch of humor, a critical attitude toward debatable practices, and a sense of authoritative knowledge sifting the obsolete from the pertinent will endear this book to anybody interested in the study of one of the oldest and most debilitating scourges of mankind.

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