

Dans le cas du peptide A_3 (Pro·Arg) la position initiale de la proline a été confirmée par la technique de SANGER⁹. L'hydrolyse partielle du tripeptide A_2 (Pro·Arg·Gly) réalisée dans les mêmes conditions (4 jours, 37°, HCl 11.2 N) permet d'isoler à côté de la proline, de l'arginine et de la glycine libres, le dipeptide A_3 (Pro·Arg). Enfin, les tétrapeptides A_4 et A_5 contenant Pro, Arg, Gly, Glu, avec la proline en position initiale, donnent l'enchaînement Pro·Arg·Gly·Glu, enchaînement confirmé par l'isolement dans le filtrat de la silice d'un dipeptide contenant Gly et Glu. Le fait que l'on ait affaire à deux tétrapeptides de même composition en acides aminés et pourtant de comportements différents peut s'expliquer par l'état différent du résidu glutamique, susceptible, par exemple, de porter encore un groupe amidé.

BIBLIOGRAPHIE

- ¹ R. A. TURNER, J. G. PIERCE ET V. DU VIGNEAUD, *J. Biol. Chem.*, 191 (1951) 21.
- ² P. FROMAGEOT, H. CLAUSER ET H. MAIER-HÜSER, *Biochim. Biophys. Acta*, (sous presse).
- ³ J. TABONE, D. ROBERT, S. THOMASSEY ET N. MAMOUNAS, *Bull. Soc. Chim. Biol.*, 32 (1950) 529.
- ⁴ G. TOENNIES ET J. J. KOLB, *Anal. Chem.*, 23 (1951) 823.
- ⁵ R. H. HORROCKS, *Nature*, 164 (1949) 44.
- ⁶ R. ACHER, M. JUTISZ ET C. FROMAGEOT, *Biochim. Biophys. Acta*, 8 (1952) 442.
- ⁷ R. ACHER, M. JUTISZ ET C. FROMAGEOT, *Biochim. Biophys. Acta*, 5 (1950) 81.
- ⁸ W. GRASSMAN ET K. V. ARNIM, *Ann.*, 519 (1938) 192.
- ⁹ F. SANGER, *Biochem. J.*, 39 (1945) 507.
- ¹⁰ E. F. MCFARREN, *Anal. Chem.*, 23 (1951) 168.

Reçu le 3 septembre 1952

BOOK REVIEW

Bioluminescence. By E. NEWTON HARVEY. Academic Press Inc., New York, 1952. xvi + 649 pp. 187 ill. Price, \$ 13.00.

In this book, Prof. HARVEY has made an attempt to compile all available knowledge concerning the production of light by living organisms. To quote from the preface, it intends to be: "—a comprehensive monograph of the reference type. . . . a complete guide to knowledge on the subject". The groups of luminous organisms have been presented in phylogenetic order, discussing luminous species, morphology, histology, physiology, biochemistry and biophysics of the light-producing structures.

In performing this most difficult task, Prof. HARVEY has rendered a very great service to all interested in the subject. The literature on bioluminescence is scattered, sometimes difficultly available, often uncritical. This book will be, therefore, an invaluable source of reference. It certainly deserves a much wider circle of readers than the relatively small group of specialists, however. It clearly exposes the astonishingly fragmentary nature of our knowledge of the occurrence of luminous forms. May it therefore also be a stimulus to the general biologist to resume or continue observation in this fascinating field.

The literature from 1800–1950 has been covered with great care. The bibliography occupies 76 pages, containing some 1800 references.

Notwithstanding the fact that some important advances have been made in recent years, the biochemistry of luminescence is still in need of enlightenment. This is chiefly a consequence of the fact that sufficient and suitable material is seldom available. Prof. HARVEY's book makes it nevertheless clear that important fundamental biochemical observations on various groups of luminescent organisms could still be made by the occasional observer with the aid of relatively simple techniques.

The literature on bioluminescence is overburdened with conflicting observations, opinions and theories. The time has not yet arrived when it will be possible to separate the useful from the valueless. In the reviewer's opinion, it could nevertheless have been possible for the author to adopt a more critical attitude towards many older interpretations of experimental results, which have since lost their basis as a consequence of more recent findings. To give only one example, the quantum yield for light production in luminous bacteria, quoted on page 95, certainly is without significance.

The appearance of the book is of a high standard, but there are many printing errors.

C. J. P. SPRUIT (Wageningen)