



Sensory Mechanisms of the Retina

B. H. C. MATTHEWS

Nature **163**, 423–424(1949) | [Cite this article](#)

8 Accesses | **0** Altmetric | [Metrics](#)

Abstract

THIS book is not a general treatise on vision, but in deals with some additions to visual physiology in the last fifteen years that have been derived from the study of action potentials of the retina and the optic nerve, and particularly with work in this field with which the author has been closely associated and in which his laboratory has been notably active. It has been possible in many types of visual sense organ to record nerve impulse discharges set up by the stimulus of light ; in work on a simple eye (*Limulus*), Hartline showed that visual sense cells, like other sensory nerve endings that have been investigated, set up impulses of frequency related to the strength of the stimulus, and Hartline later confirmed this for single opticnerve fibres from the frog's retina. But here the response was complicated by fibres responding when the light was extinguished—the well-known off-discharge found by Adrian and R. Matthews in the eel's optic nerve. Granit's work has extended this investigation to mammalian eyes ; and the response in single optic-nerve fibres in many eyes has been studied and related to the wave-length of the light evoking it.

Sensory Mechanisms of the Retina

With an Appendix on Electroretinography. By Dr. Ragnar Granit. Pp. xxiii+412. (London, New York and Toronto : Oxford University Press, 1947.) 35s. net.