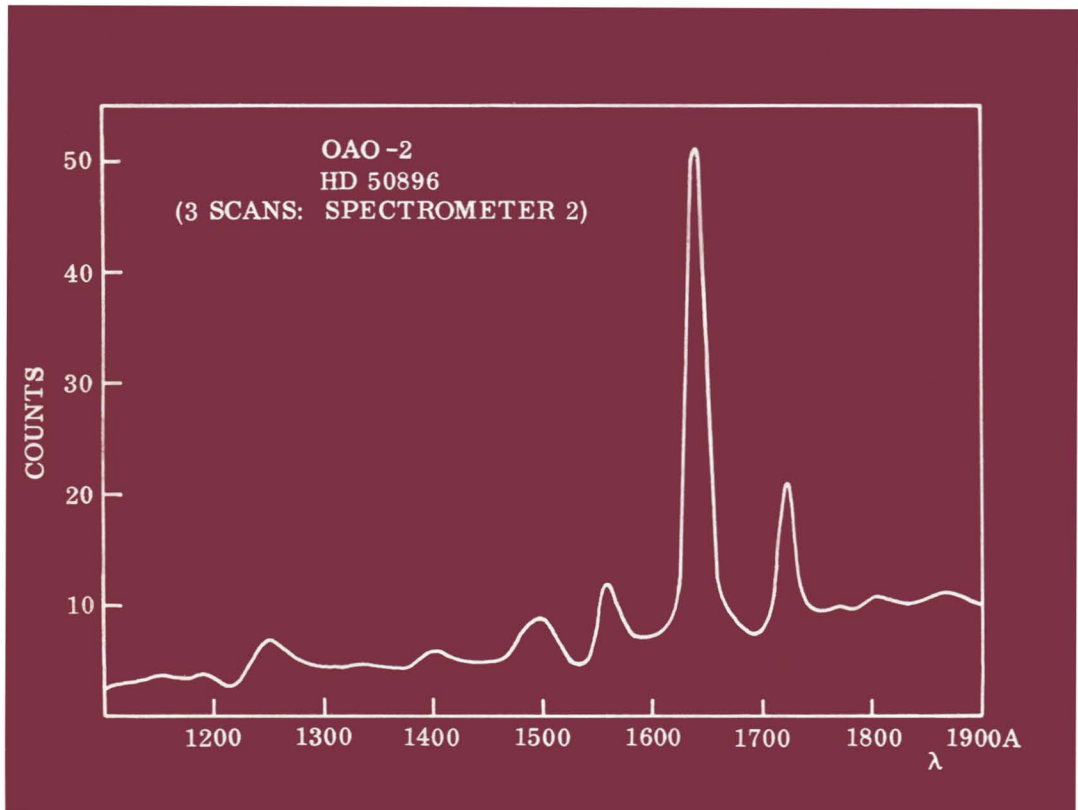


INTERNATIONAL ASTRONOMICAL UNION

SYMPOSIUM No. 49

WOLF-RAYET AND HIGH-TEMPERATURE STARS

Edited by M. K. V. BAPPU and J. SAHADE



INTERNATIONAL ASTRONOMICAL UNION
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This volume records the Proceedings of I.A.U. Symposium No. 49 on Wolf-Rayet and High-Temperature Stars. Comprehensive reviews by invited speakers evaluate the current state of each area. They are followed by extended discussions elucidating the principal aspects of the problem and in many cases indicating the course for future research. R. N. Thomas discusses the general problems of extended atmospheres and non-classical atmospheric models and their bearing on the Wolf-Rayet stars. The next section is devoted to low dispersion spectroscopy and spectrophotometry. A comprehensive review by L. F. Smith on the classification of WR stars, their galactic distribution and an interpretation of the WN sequence, is followed by an account by H. M. Johnson on UV and radio frequency observations of WR stars and a report by D. C. Morton on their effective temperatures. Section Three comprises an account of high dispersion studies of these stars by M. K. V. Bappu. Section Four deals with the properties of objects related to the WR stars. Here P. S. Conti provides a summary of the properties of O and Of stars, M. de Groot discusses the points of similarity between the WR and P Cygni stars, and L. F. Smith elaborates the features of nuclei of planetary nebulae with WR features. A very detailed account by B. Paczyński on the evolutionary aspects of WR stars and their mass-loss characteristics forms Section Five. D. van Blerkom then discusses the theory of WR spectra seeking interpretation of the principal features in terms of the expanding shell hypothesis. A discourse on WR binaries and atmospheric stratification by L. V. Kuhi, and L. F. Smith's interpretation of the WC stars, constitute Section Seven. In the last section A. B. Underhill sums up the entire situation regarding the problems of the nature and physical structure of WR stars.

Readership:

Graduate students and professional astronomers interested in the field.

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This volume is dedicated to

C. S. BEALS

B. EDLEN

CECILIA PAYNE-GAPOSCHKIN

P. SWINGS

*For their contributions to our present degree of comprehension of
Wolf-Rayet Spectra*

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