

*M. H. Stans*  
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# Spectrum Formation in Stars With Steady-State Extended Atmospheres

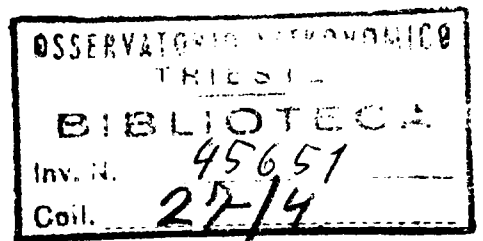
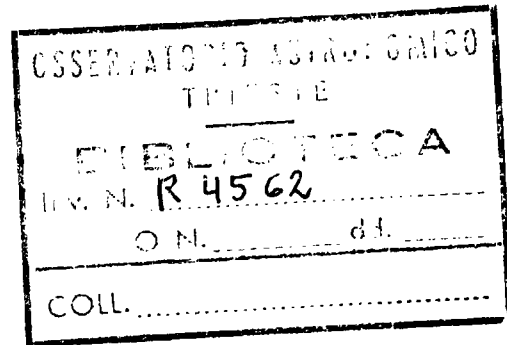
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Edited by

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## GENERAL ABSTRACT

Commission 36 of the International Astronomical Union sponsored a symposium on Spectrum Formation in Extended Stellar Atmospheres held 16 - 19 April, 1969. The host was the Observatory of the University of Munich. A major problem is the definition of what is meant by an extended stellar atmosphere. There are intuitive notions in the literature, but the question of specific definitions in various kinds of objects was discussed. Questions of what specifically cause the anomalous extent were largely bypassed. Attention focused mainly on the type spectrum to be expected in various situations. The spectral features to be expected in both static and dynamic atmospheres, including and excluding departures from LTE, were discussed. The symposium was divided into four sections: A. Type of Problems Which Exist; B. Theoretical Methods for Handling Non-LTE Problems; C. Chromospheres and Coronae of Stars; D. Summary. This volume contains the mms of the formal papers that were presented plus an edited and abridged version of the discussions following each paper.

Key words: extended atmospheres; non-LTE; chromospheres; coronae; non-classical atmospheres.

## Foreword

The planning of this colloquium on Extended Stellar Atmospheres was carried out by Dr. A. B. Underhill, President of Commission 36, and the Organizing Committee of Commission 36, comprised of Drs. K. H. Böhm, R. Cayrel, J. T. Jefferies, V. V. Ivanov, R. N. Thomas, and S. Ueno in close collaboration with Drs. P. Wellmann and H. Groth whose kind invitation gave rise to the idea. This colloquium is one of a series that have been sponsored by Commission 36 on problems in stellar atmospheres. The aim of these colloquia has been to hold a working session among a number of people vitally interested in the problem, and to provide an inexpensive and readily accessible volume of the proceedings, which can be used by all interested in the subject, especially students and young researchers. A number of United States federal laboratories having strong programs in astronomy have been hosts to these colloquia and editors-publishers of the proceedings. These include the National Bureau of Standards through the Joint Institute for Laboratory Astrophysics, the Smithsonian Astrophysical Observatory, and now the Goddard Space Flight Center. These proceedings, published by NBS for JILA, follow the approach explored with the publication of the proceedings of the Symposium on Wolf-Rayet Stars, hosted by JILA in 1968. Dr. R. N. Thomas, aided by Alice Levine, of the JILA staff have provided the link between the formal editors, Drs. Wellmann and Groth, and the NBS publications group, under Betty L. Oberholtzer. The typescript was prepared by Breta Triolo.

Lewis M. Branscomb, *Director*

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