

B. HELIUM IN THE UNIVERSE

(Edited by J. S. Mathis)

OPENING REMARKS AT JOINT DISCUSSION ON THE HELIUM IN THE UNIVERSE

I wish to thank the Organizing Committee members who planned and organized this Joint Discussion – Professor Fowler, who will preside this afternoon, Dr Hearn, Dr Reeves, Professor Tayler, Professor Underhill, Professor Wallerstein, and Professor Mathis, who has consented to edit the published proceedings.

We feel we have assembled a team of the world's greatest experts on the helium problem, and we know that there are many other even greater experts in the audience. The general idea of the program is that the first session will be devoted to deductions about what the abundance (or abundances) of helium is (or are) in various objects, and the second session to what these abundances imply about stellar, galactic, or universal evolution. We very much want to encourage discussion and the presentation of new results following each review paper.

It is particularly appropriate to discuss helium at this IAU General Assembly in England, as this element was discovered in 1868 by Sir Norman Lockyer, who measured $\lambda 5876$ in the spectrum of the chromosphere, and realized that none of the then known elements could produce it. Helium is thus a real British astronomical element. Furthermore, helium was first identified on the Earth by Sir William Ramsay, who observed the same line in the gas obtained from uranium, and thus showed it was a terrestrial element too.

Let us then pass on to the Scientific Program, beginning with Professor Tayler of this University, one of our kind hosts who has taken time from his duties in our behalf on the Local Organizing Committee, to give us a General Introduction to the helium problem.

D. E. OSTERBROCK

Chairman of the Organizing Committee