STUDIES OF THE SOLAR ATMOSPHERE USING DENSITY-SENSITIVE LINE RATIOS

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The density sensitivity of lines in the Be I-like ion sequence has been discussed by several authors [1, 2, 3]. The observed behaviour of the 977 Å and 1175 Å lines of C III was studied [4] using the Harvard instrument on Skylab, and limits were placed on the density variations across the quiet solar network and in active regions. Some limb data were also analyzed.

More recently, further observations of the intensities of the 1175 Å, 1909 Å and 1247 Å lines of C III at the solar limb have been published, [5, 6, 7]. Similar observations have been made for the 1371 Å and 1218 Å lines of O V, [5, 6].

The present paper will discuss the interpretation of the above data in terms of N_e and other parameters in the solar atmosphere.

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