

Report on Observations during Total Solar Eclipse of October 24, 1995

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Summary

The solar eclipse-95 took place during the minimum of sunspots and in the period of high level of polar activity of the Sun. We planned to observe the polar coronal structures in order to study the magnetic field in polar coronal holes.

The polar zones were scanned with a high resolution CCD-camera (ST-6) joined to a video recorder (Supra T21) during 39 seconds.

A comparison of the computer-stimulated polar corona of the Sun with structures detected during observations shows that the magnetic field in the polar coronal holes is 2.5 - 3.0 times higher than the normal background magnetic field. The 14-SM Maksutov Cassegrain telescope ($F = 100$ cm) with an equatorial mounting (PT) was used.

The observations of the solar corona were made with a CCD video camera (Panasonic MSIE) during 39 seconds to compare the large-scale structure of the corona with our mathematical model of the corona based on data of H-alpha charts and magnetograms.

Using a colour photographic film and a Maksutov-Cassegrain telescope ($F = 50$ cm, $D = 10$ cm) we received very good data for color-photometry of the solar corona.

We would like to thank Dr Jagdev Singh and all the staff of the Indian Institute of Astrophysics expedition for their help and attention. We intend to publish our results jointly with colleagues from IIA.