Observations during the Total Solar Eclipse from Nim Ka Thana

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Abstract

Two experiments were carried out during totality in the frame of joint researches with Brazilian, French and USA astronomers

The Corona Colour experiment was aimed at searching the effect of "reddening" the corona colour Contrary to the former eclipse observations made by different observers a special slide film was used the speed at blue and red wavelength intervals was in 2 orders of magnitude more as compared with the same at green spectral range. Comparative colour photometry of several corona pictures obtained during totality will allow to get a reliable conclusion about existence of effect of "reddening" for distances of 3-4 solar radii.

The Fabry-Perot experiment was to get the spectra of the green coronal line (Fe XIV, 5303Å) Two exposures were made during totality Parts of fringes were obtained for the inner corona due to non-perfect operation of the image intensifier Joint data reduction will be carried out for the eclipse 1994 (fringes reach distances of 3 solar radii) and 1995 (the inner corona) interferograms Accent at researches of coronal rotation and polar regions will be done