

SPECTROPHOTOMETRY OF COMET BENNETT FROM OAO-2

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ABSTRACT

In addition to the strong emission features of H(1216Å) and OH(3090Å), a number of weaker features, such as OI(1304Å) and CI(1657Å) are present in spectral scans of Comet 1970 II which were obtained with the Orbiting Astronomical Observatory (OAO-2) spacecraft. Observed emission rates and column densities or upper limits are presented for molecules with transitions in the 1000–3000Å region which are expected to be present in the nucleus of a comet. The apparent emission rates at different wavelengths measured with the stellar photometers on OAO-2 are shown to be in good agreement with the spectrometer data. The ultraviolet scattering efficiency of dust in Comet Bennett will be discussed.