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THE THERMAL EMISSION OF THE DUST CORONA  
DURING THE ECLIPSE OF JUNE 30, 1973

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Abstract. Observations of the F-corona have been made in the  $10 \mu$  region of the infrared during the eclipse of June 30, 1973. Use of the supersonic aircraft "Concorde 001" permitted 74 min of observation during totality and greatly reduced problems due to sky noise. The plane of the ecliptic was scanned over heliocentric distances of from 3 to 19 solar radii off the east limb. Bright features previously observed at shorter wavelengths, notably emission at 4 solar radii are evident on the  $10 \mu$  scans, strongly indicating that the radiation is due to thermal emission by dust. The specific intensity in the  $4 R_{\odot}$  feature is  $5 \mu \text{ W cm}^{-2} \text{ sterad}^{-1} \mu^{-1}$  higher than the intensity 22 arcmin above the ecliptic. Spectra were taken at one region in the ecliptic and tentatively attributed to silicate-type material. Complete details may be found in *Astron. & Astrophys.* 37, 75-79 and 81-86, 1974.