lengths. The effect of increasing the temperature is to increase the cutoff wavelength and the general absorption of the glass. This behavior appears to be a general property of all colored glasses.

Approximate numerical integrations of "warm" and "cold" B and V response curves indicate summer-winter effective-wavelength shifts of about 24 and 38 Å, respectively, due to the filter coefficients alone. If the photomultiplier is also at ambient temperature, these figures become 29 and 74, respectively. Since both B and V shift together, the $B-V$ color baseline is only slightly affected, even though the effective-wavelength change is about 5% of the bandwidth.

Direct numerical integrations confirm McCullough's (*Astron. J.* 69, 251, 1964) observed temperature coefficient of 0.0010 mag./mag./°C for the V band.

Spectral Energy Distributions and Reflectivities of Martian Maria and Continents in the Visible and Near Infrared. ROBERT L. YOUNKIN, *Jet Propulsion Laboratory*.—Photoelectric measurements were carried out on 17 and 18 February 1965 to determine the ratio of the specific intensity of the

Martian maria to that of the continents at a series of wavelengths from 5000 to 11 125 Å. The measurements were made with the Mt. Wilson 60-in. reflector and the Mt. Wilson Ebert spectrometer.

Syrtis Major was selected as the representative mare, and Aeria as the continent. The ratio of their intensities, corrected for normal incidence, increased monotonically from 1.25 at 5000 Å to 2.1 near 8000 Å. Beyond this wavelength it was very nearly constant.

The measurements on Syrtis Major and Aeria were also reduced independently to determine their relative spectral energy distributions and reflectivities. In the visible spectral region, 5000 to 7000 Å, the energy distribution of both areas increased sharply to the red, although that of Syrtis Major less than Aeria. The reflectivity of each area is very nearly constant at longer wavelengths. As λ decreases the two merge together in accordance with the results of previous observers who have found a complete obliteration of surface details by the atmosphere below 4200 Å.

The laboratory limonite absorption band near 8000 Å is totally lacking from the reflection spectrum of Aeria with an uncertainty of no more than 2%. It may be concluded the continents of Mars are not covered with pure limonite.