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Central Bureau for Astronomical Telegrams
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Mailstop 18, Smithsonian Astrophysical Observatory, Cambridge, MA 02138, U.S.A.
IAUSUBS@CFA.HARVARD.EDU or FAX 617-495-7231 (subscriptions)
CBAT@CFA.HARVARD.EDU (science)
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COMET 73P/SCHWASSMANN-WACHMANN

L. Lara, P. Rodrigues, R. Rodrigo, H. Boehnhardt, T. Bonev, and G. Borisov write that R-band images of component 'B' taken on May 7.9 UT with the Calar Alto 2.2-m telescope (+ CAFOS) showed a much brighter coma than on May 2; image processing revealed two short (2000 km) pairs of arclets at p.a. $\sim 100^o/300^o$ and $\sim 180^o/270^o$. R- and B-band images of component 'B' on May 9.0 UT taken with the 2-m telescope (+ focal reducer) of the Bulgarian National Astronomical Observatory, Rozhen, showed that a $10''$ aperture centered on the coma was 3.5 mag brighter than similar images taken on May 5.0. CN-filter images taken on May 8.9 with the same instrumentation revealed a pair of prominent coma arclets extending ~ 5000 km on either side of the sun-comet line.

D. E. Harker, University of California, San Diego; C. E. Woodward, University of Minnesota; M. L. Sitko, Space Science Institute and University of Cincinnati; D. H. Wooden, NASA Ames Research Center; and D. K. Lynch and R. W. Russell, The Aerospace Corporation, report on observations made of comet 73P's component 'B' using the Gemini-N telescope (+ Michelle) on Apr. 29.5 UT. Images of fragment 'B' obtained at 11.7 and 18.5 μm show a dust tail at p.a. 25^o, extending $> 16''$ from the nuclear condensation. The coma appears "detached" from the nucleus with a maximum in the surface brightness $3''.0$ from the peak nuclear isophote. A silicate emission feature is observed in the 10-μm region, both on and offsetted from the nuclear condensation. The continuum flux (measured at 8.0 and 12.5μm) observed on the nuclear condensation is fitted with a blackbody temperature of 310 ± 10 K — a color temperature 15 percent higher than that of a blackbody at an equivalent heliocentric distance (1.11 AU). The feature-to-continuum ratio at 10.5 μm is 1.15. The offset spectrum towards the detached region of the coma $3''.0$ to the southwest has a derived blackbody continuum temperature of 280 ± 10 K (a color temperature 6 percent higher than that of an equivalent blackbody), with an observed 10.5-μm silicate-feature-to-continuum ratio of 1.25. No distinct emission peaks arising from crystalline silicates were observed in either spectra, and the observed spectral-energy distribution can be modelled by an admixture of amorphous olivine and amorphous pyroxene grains. Spectra from 17 to 23 μm are featureless in both the central and offset positions. The measured fluxes in the $0''.6 \times 1''.0$ spectral extraction box centered on the nuclear condensation are as follows: 11.7 μm, 0.68 ± 0.03 Jy; 18.5 μm, 0.85 $\pm$ 0.03 Jy. At the offset of $3''.0$, the fluxes are as follows: 11.7 μm, 0.36 $\pm$ 0.02 Jy; 18.5 $\mu\mathrm{m} = 0.47 \pm 0.02$ Jy.

2006 May 10 *Daniel W. E. Green*