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V496 SCUTI

R. J. Rudy and T. R. Prater, The Aerospace Corporation; R. C. Puetter, University of California at San Diego; and R. B. Perry, NASA, report 0.9- to 2.5-μm spectroscopy of V496 Sct (cf. *IAUCs* 9093, 9097) on Nov. 27.08 UT using the Aerospace Corporation's Near-Infrared Imaging Spectrograph on the 3-m Shane reflector at Lick Observatory. The nova displays very strong emission from the first overtone of carbon monoxide; this is a rare and extremely short-lived feature in novae and occurs just before dust formation. The nova also displays several C I lines that are among the brightest emission lines in the spectrum. The strongest of these display P-Cyg profiles, behavior not observed previously in novae. Very strong C I emission in early novae spectra is a common occurrence in novae that form dust. The authors believe that dust formation in V496 Sct is almost certain and that there is a good probability that it will occur within the next week. K. Baker helped in acquiring the measurements.

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W. J. Merline, Southwest Research Institute (SwRI); P. M. Tamblyn, Binary Astronomy, Dillon, CO, U.S.A., and SwRI; J. D. Drummond, Starfire Optical Range, Air Force Research Laboratory; J. C. Christou, Gemini Observatory; A. R. Conrad, W. M. Keck Observatory; B. Carry, Observatoire de Paris; C. R. Chapman, SwRI; C. Dumas, European Southern Observatory (Chile); D. D. Durda, SwRI; W. M. Owen, Jet Propulsion Laboratory; and B. L. Enke, SwRI, report the discovery on Nov. 24.4 UT of a satellite of minor planet (317) Roxane from K_p-band imaging using the 8-m Gemini-North telescope (+ Altair/NIRI adaptive-optics system). On Nov. 24.39992, the satellite was at separation 0''.27 (projected separation 245 km) and position angle 76^o. The satellite was imaged in K_p-, H-, and J-bands and was tracked for more than 26 hours. The brightness difference in the K_p band is $\sim$ 2.7 mag, giving an estimated diameter (primary diameter assumed of 19 km) of the satellite of 5 km. This binary has characteristics that are very similar to the other wide binaries previously reported by the authors (see *IAUCs* 7827, 8075, 8232, 8293, 8297), all being consistent with the EEB formation mechanism of Durda *et al.* (2004, *Icarus* **170**, 243). Among binaries that can be resolved by imaging, this appears to be the first of type E. Given the recent detection of dual lightcurve periods in (1509) Esclangona (*CBET* 2020), it is possible that separate spin periods could be extracted from lightcurve data of (317).

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