relations are simple correlations between CaII or MgII emission core widths and stellar absolute visual magnitude. High-resolution UV observations with IUE are planned for TW Hor which appears relatively bright in the ultraviolet range. High resolution on CaII H and K lines are undertaken at various phases with the La Silla Coudé Echelle Spectrometer (CES) to decide about re-emission in the line cores.

In short, we show that the outer layers of TW Hor consist in a photosphere (Te ~ 2800° K), a warm chromosphere (5000°K < T < 8000° K) and a circumstellar shell. This situation is not greatly dissimilar with what has already been seen in M giants of late type, but with different temperatures. It can be reasonably thought that this may be extended to other carbon stars. Its relative high UV luminosity enabled us to detect in TW Hor what may exist in UV-fainter stars as well. A conspicuous feature is the strong ultraviolet absorption underlined by the theoretical flux curves of carbon stars, contrary to the M stars (Tsuji, 1976): this is the best proof of the presence of dust grains absorbing in the UV spectral range of C stars.

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136 Austria – Observed at ESO

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As an Austrian, I am happy to inform the ESO *Messenger* readers about photoelectric observations of the asteroid 136 Austria carried out successfully at ESO in February 1981 and just being published in *Astronomy and Astrophysics.*

This asteroid—discovered in 1874 by J. Palisa at Pola—is just a small object of only 41 km diameter with classification MEU-type which means that no type assignment was made: but it is definitely a bright asteroid with high reflectivity and does not belong to the darker C-type group.

My observations were carried out using the 0.6 m Bochum telescope during ESO time in February 1981. The nice result is shown in Fig. 1, where the four observing nights are overlapped, based on the resulting spinning period of $P = 11^h.5 \pm 0^h.1$ ($= 0^d.479 \pm 0.004$). Due to the compatibility of $2P = 23^h$, near a full day (and due to the short summer nights), it was not possible to get the complete rotation cycle. But the period should be established pretty well—the light-curve amplitude is at least $0^m.40$, and the mean V-magnitude of 136 Austria was about V= 13.30; the light-curve shows double-wave characteristic with nearly identical primary and secondary maxima; the secondary minimum was never observed.

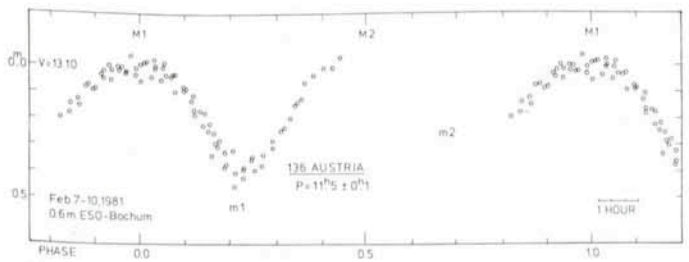

Fig. 1: *Overlap of photoelectric observations for the asteroid 136 Austria, obtained in four nights, Feb. 7–10, 1981 with the 0.6 m Bochum telescope at La Silla. The rotation period of 136 Austria is P = 11h.5, all measurements were reduced to Feb. 10, 1981.*

The reader interested a little bit more in the general aspect of photoelectric observations of asteroids is advised to refer to earlier articles published in the ESO *Messenger* by H.J. Schober in No. 24 (1981) or by H.J. Schober and J. Surdej in No. 29 (1982).

I think I was especially lucky to have finally observed this asteroid at ESO—also in honour of my own country—and I would like to express my gratitude to Prof. L. Woltjer on behalf of ESO, for having allotted so much telescope time to me, though Austria is not a member state of ESO. I should also make my acknowledgements to the "Austrian Research Fund", projects 3136/4852, which helped to cover my travel expenses for those observations!

Applications for Observing Time at La Silla

Period 32 (October 1, 1983 – April 1, 1984)

Please do not forget that your proposals should reach the Section Visiting Astronomers **before April 15, 1983.**