

for performance tests suggests that the magnitude limits quoted for these bands may have been somewhat degraded by an additional sky noise component.

The new system also offers several other performance advantages which are less directly obvious. No significant chopping offset signals are generated for example and there is thus no baseline drifting due to telescope flexure during long integrations. The possibility of direct guiding through the dichroics avoids the loss of time required to find offset guide stars and the availability of an optically generated reference cross permits accurate optical centring independently of the electronic stability of the TV system. Some observational flexibility has also been gained by virtue of the fact that switching between detectors, changing the chopping amplitude and direction, etc. are now relatively easy operations from the control room.

A Word of Thanks

Many ESO staff have been involved in the project at various stages. For their technical support in Garching we would like particularly to thank D. Enard, G. Hess, G. Huster, B. Jensen,

Tentative Time-table of Council Sessions and Committee Meetings in 1985

May 20	Users Committee
May 21	Scientific Technical Committee
May 22–23	Finance Committee
May 30	Committee of Council, Berlin
May 30–31	Council, Berlin
June 4–5	Observing Programmes Committee, Zürich
November 12	Scientific Technical Committee
November 13–14	Finance Committee
December 11–12	Observing Programmes Committee
December 16	Committee of Council
December 17	Council

All meetings will take place at ESO in Garching unless stated otherwise.

J.-L. Lizon, M. Moresmau, W. Nees, J. Paureau and G. Raffi. During the installation and test we were also ably assisted by the La Silla staff and are particularly grateful for the invaluable help given by T. Bohl, P. Bouchet, F. Gutierrez, G. Ihle, J. Roucher and K. Teschner.

AS 338 in Outburst, or How I Found my “Pet Symbiotic”

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Until some months ago, I used to envy those of my colleagues who were always talking and writing with tremendous enthusiasm about *their favourite object*. My recent observations of the symbiotic star AS 338 enable me now to tell an exciting story as well.

Did I Observe the Right Object?

Symbiotic systems contain late-type (bright) giants or Miras and, in addition, a hot radiation source. They are surrounded by gaseous and dusty envelopes. Therefore, their radiation should be polarized due to scattering in the atmospheres of the late-type stars and/or the circumstellar nebulae. In October 1983, I started a multifilter linear polarization survey of 16 symbiotic stars, using the 1.23 m telescope of the German-Spanish Astronomical Centre. Only four stars showed sufficiently large intrinsic polarization that could be separated from the interstellar component. These were such fashionable symbiotics as HM Sge, V1016 Cyg and R Aqr and, last not least, AS 338. The wavelength dependence of the polarization and the position angle of AS 338 as displayed in Fig. 1 show some interesting properties: a pronounced maximum of the polarization in the B-filter and a significant, sharp rotation of the position angle at H_{α} . In a forthcoming article in *Astronomy and Astrophysics* I shall show in detail that the polarization of AS 338 can be explained by two scattering regions: Mie scattering by solid particles in the extended atmosphere of the M star and Thomson scattering in an asymmetric circumstellar nebula (possibly an accretion disk around a companion star). Encouraged by this result I decided that AS 338 merits a more thorough investigation. Luckily, the low declination of AS 338 allows its observation from the southern hemisphere as well. In July/August 1983, I had observing time at ESO's 1.5 m and 50 cm telescopes for spectroscopic and photometric studies of southern symbiotic stars. During this observing run, I had already secured one IDS spectrum in the range 4500 to 6800 Å

and UBVR photometry of AS 338. Subsequently, I could convince my colleague F. J. Zickgraf of the importance of getting JHKL photometry of AS 338 during his own observing run at the ESO 1 m telescope in April 1984; and J. Bouvier, in July 1984, took another IDS spectrum at the 1.5 m telescope, covering from about 3650 to 8050 Å. The 1983 and 1984 spectrograms are presented in Fig. 2. They show strong emission lines of the Balmer series and HeI and numerous weaker emission lines of singly ionized iron. Only a trace of the underlying late-type continuum is visible longward from H_{α} in the 1984 spectrogram. David Allen's recently published new "Catalogue of Symbiotic Stars" also contains a spectrum of AS 338, dated August 1978 (see Fig. 2). Even a quick look at this spectrogram shows it to be quite different from my own ones: In Allen's spectrogram, the Balmer lines and the HeI lines are stronger and, in addition, there are emission lines of higher ionized species such as HeII, [OIII] and [FeVII]. The M-type absorption spectrum is prominent with strong TiO bands. My surprise changed into fear when I recalled that, for identifying AS 338, I had not used a finding chart, but the description of its position given by P. Merrill and C. Burwell in 1950 (*Astrophysical Journal*, **112**, 72). Did I really observe the right object? Fortunately, during the observations, I had made a quick freehand drawing of the field around AS 338 as it appeared on the TV guider screen. A comparison of this "finding chart" with the one published now by Allen not only proves that I actually did observe the right object, but, in 1983, the star seemed to be much brighter compared to other field stars than on the POSS print used by Allen.

An Outburst?

The spectral changes and the brightening of AS 338 become explainable if we assume that it has undergone an outburst as sometimes observed in symbiotic stars. The published and new near IR data of AS 338 from 1974, 1980 and