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SUMMARY

The region of the O VI resonance doublet around  $1030 \text{ \AA}$  has been observed in 9 stars with the high resolution ( $0.051 \text{ \AA}$  FWHM) detector on the Copernicus satellite spectrometer. Although the spectra are confused with interstellar Lyman  $\beta$  and  $\text{H}_2$  absorption, P Cygni profiles or shifted absorption lines indicating mass flow were found in  $\zeta$  Pup (O4If), 15 Mon (O7V), HD 151804 (O8Iaf), 10 Lac (O9.4V),  $\upsilon$  Ori (B0V) and  $\tau$  Sco (B0V). However, no O VI could be seen in  $\rho$  Leo (B1Iab) or  $\gamma$  Ara (B1Ib). The O VI profiles display a considerable variety that is not correlated with spectral type. Zeta Pup has a broad emission and deep absorption ranging over all velocities to about  $-2800 \text{ km s}^{-1}$ , while HD 151804 has only narrow absorption from  $-1060$  to  $-1660 \text{ km s}^{-1}$ , and 15 Mon has a narrower feature from  $-1700$  to  $-2100 \text{ km s}^{-1}$ . Both 10 Lac and  $\tau$  Sco have broad relatively shallow absorptions extending from positive velocities to  $-1380$  and  $-1000 \text{ km s}^{-1}$  respectively. In contrast, the absorptions are narrower with steeper wings in  $\zeta$  Oph and  $\upsilon$  Ori. The latter star also has emission, while in  $\zeta$  Oph the absorption is split into two components from about  $-1550$  to  $-1280$  and  $-1280$  to  $-980 \text{ km s}^{-1}$ .

DISCUSSION FOLLOWING MORTON

Castor: It is not true that the ionization must go up with radius in a photoionization model. If the wind is opaque to the ionizing radiation, the ionization goes down with radius as the radiation is absorbed. This occurs in the Auger-ionization model, as the softer X-rays are absorbed low in the wind.

Lamers: This depends on the mass loss rates. Joe can answer this better than I.

Cassinelli: For optically thick winds one finds that the degree of ionization decreases in the outward direction, as I will show in my discussion tomorrow.

Morton: Since the wind of  $\tau$  Sco is optically thin, the ionization should increase in the outward direction and hence I wonder about the interpretation of the profile wings.