

## TWO SOUTHERN LOW EXCITATION PLANETARY NEBULAE

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**ABSTRACT:** Within a spectroscopic study of some southern planetary nebulae, we have observed 32 objects. Some of them are symbiotic or suspected symbiotic stars, and one (He 2-61) is evidently not an emission object.

We discuss here two nebulae with similar characteristics: He 2-138 and He 2-151. They are both classified by Stenholm and Acker (1987) as possible PN? with high density. Our observations cover the wavelength range  $\lambda\lambda 3400$  to  $8600$  Å. The main characteristics of the spectra are as follows: the continua are blue, reaching a maximum at about  $\lambda 3650$  Å; [O III] is not observed; [O II]  $\lambda 3727$  is conspicuous; [N II]  $\lambda 6584$  is comparable to  $H\alpha$ , though fainter in He 2-151 than in He 2-138; helium lines are not detected; the [S II] doublet at  $\lambda\lambda 6717, 6731$  is clearly seen, being fairly well separated, with  $I(6731) > I(6717)$  for He 2-138; these lines are more blended in He 2-151.

He 2-138 has already been recognized as a low excitation PN; consequently, we may assume that He 2-151 falls in the same category.

A detailed study of both nebulae will be published elsewhere.

### REFERENCES

Stenholm, B. and Acker, A. 1987, *Astron. Astrophys. Suppl. Series*, 68, 51.