

EXPLANATORY NOTE TO THE PAPER: PHOTOELECTRIC, ABSOLUTE H β FLUXES FOR 55 PLANETARY NEBULAE

L. Carrasco, A. Serrano, and R. Costero

Instituto de Astronomía
Universidad Nacional Autónoma de México

Received 1984 February 28

RESUMEN

En un artículo anterior, los autores de esta nota hicieron afirmaciones que requieren de las aclaraciones y correcciones que aquí se hacen.

ABSTRACT

Some clarifications and corrections are made to a previous paper by the authors of this note.

Key words: PLANETARY NEBULAE – PHOTOMETRY

After the publication of the paper by Carrasco, Serrano, and Costero (1983), some clarifying comments and corrections were called to our attention by J.B. Kaler: 1) The paper by Kaler (1978) contains some H β fluxes that we missed. The nebulae IIC 2120 and Ba 1, that we claimed to have observed for the first time, had fluxes reported in Kaler's (1978) paper. 2) The reference to the flux of IC 418, attributed to Kaler (1976) is incorrect. The reference should be to Kohoutek and Martin (1981), and the correct value for the flux should read $-\log F_{H\beta} = 9.59$. Due to this error, the discrepancy with Kaler's (1976) paper is smaller than previously reported. Consequently, the warning about the precision of the fluxes given by Kaler (1976) must be withdrawn from the paper by Carrasco *et al.* (1983). 3) The flux for NGC 2392 listed in Kaler (1983a) is, in fact, a partial flux as the angular size of the nebula is larger than the aperture used in the measurement (a "surface flux" according to Kaler). Thus, it should be deleted from both Table 1 and Figure 1. 4) In the case of small planetary nebulae, the continuum of the central star cannot be subtracted by the procedure adopted by us. In the cases in which this component to the flux is important, our values of $\log F_{H\beta}$ are upper limits to the true nebular values. Dr. Kaler notes that such is the case for M4-18 and M1-2 for which $\log F_{H\beta}$ should be reduced by 0.16; in the case of M2-2 and Sn 1 the corresponding reductions to the flux are 0.02 and 0.05. 5) NGC 1985 is a reflexion nebula according to Sabbadin and Hamzaoglu (1981). Hence, our flux is simply a measure of the continuum.

A revised comparison of ours and other's photometries is provided in Table 1 of this note, and replaces the previously published Table 4. 6) While our paper was

in press, a recent paper by Kaler (1983b) was published. Dr. Kaler's paper contains several H β fluxes in common with us.

TABLE 1

COMPARISON BETWEEN PRESENT FLUXES, LOG F(H β),
AND PREVIOUS OBSERVATIONS

| Author ^a | N | Zero Points | Dispersion |
|---------------------|----|-------------|------------|
| B 78 | 7 | -0.034 | 0.06 |
| CD 60 | 5 | +0.008 | 0.04 |
| K 76 | 8 | -0.059 | 0.04 |
| K 78 | 11 | -0.006 | 0.05 |
| K 83 | 11 | -0.079 | 0.12 |
| KoM 81 | 6 | +0.030 | 0.02 |
| OD 63 | 7 | -0.016 | 0.04 |
| P 71 | 17 | +0.013 | 0.17 |

a. B 78: Barker 1978; CD 60: Capriotti and Daub 1960; K 76: Kaler 1976; K 78: Kaler 1978; K 83: Kaler 1983a; KoM 81: Kohoutek and Martin 1981; OD 63: O'Dell 1963; P 71: Perek 1971.

REFERENCES

- Barker, T. 1978, *Ap. J.*, **219**, 914.
 Capriotti, E.R. and Daub, C.T. 1960, *Ap. J.*, **132**, 677.
 Carrasco, L., Serrano, A., and Costero, A. 1983, *Rev. Mexicana Astron. Astrof.*, **8**, 187.
 Kaler, J.B. 1976, *Ap. J.*, **210**, 113.
 Kaler, J.B. 1978, *Ap. J.*, **222**, 947.
 Kaler, J.B. 1983a, *Ap. J.*, **264**, 594.
 Kaler, J.B. 1983b, *Ap. J.*, **271**, 188.
 Kohoutek, L. and Martin, W. 1981, *Astr. and Ap. Suppl.*, **44**, 325.
 O'Dell, C.R. 1963, *Ap. J.*, **138**, 239.
 Perek, L. 1971, *Bull. Astr. Inst. Czechoslovakia*, **22**, 103.
 Sabbadin, F. and Hamzaoglu E. 1981, *Astr. and Ap.*, **94**, 25.

Luis Carrasco, Rafel Costero, and Alfonso Serrano: Instituto de Astronomía, UNAM, Apartado Postal 70-264, 04510 México, D.F., México.