

## EXTINCTION - DISTANCES TO PLANETARY NEBULAE

R. Gathier, S.R. Pottasch  
 Kapteyn Astronomical Institute, Groningen, The Netherlands

Individual distances to planetary nebulae (PN) which are independent of any assumption of average nebular characteristics, can be found if one knows the relation between interstellar extinction ( $E(B-V)$ ) and distance along the line-of-sight to the PN, together with the  $E(B-V)$  towards the PN itself (Lutz, 1973 and Acker, 1978). We used VBLUW-photometry (Lub and Pel, 1977) to derive accurate  $E(B-V)$ 's and distances of stars up to V-magnitude + 14, within  $0.3$  from the PN. Table 1 lists the PN we studied. The  $E(B-V)$ 's of the PN are derived from:

- 1) a comparison between radio-flux and  $H_{\beta}$ -flux
- 2) He II line intensities (Seaton, 1978)
- 3) 2200 Å feature (Pottasch et al., 1977)

NGC 2346	NGC 3918
NGC 2440	NGC 5189
NGC 2452	NGC 5315
NGC 2792	He2 -131
NGC 2867	NGC 6565
NGC 3132	NGC 6567
NGC 3211	

Table 1.

Acker: 1978, *Astron. Astrophys. Suppl.* 33, 367

Lub and Pel: 1977, *Astron. Astrophys.* 54, 137

Lutz: 1973, *Ap. J.* 181, 135

Pottasch, Wesselius, Wu and van Duinen: 1977, *Astron. Astrophys.* 54, 435.

Seaton: 1978, *M.N.R.A.S.* 185, 5P.