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IRAS 01005+7910, A High Galactic Latitude Post-AGB Star

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Hu et al (1993) have selected a sample of proto-planetary nebula candidates based on the IRAS color-color diagram. IRAS 01005+7910 is one object of this sample. We have observed this object photometrically (Table 1) and spectroscopically (Fig. 1). From its spectral type of B2I and optical color of $B - V = 0.23$, we can derive the reddening as $E(B - V) = 0.39$ and interstellar/circumstellar absorption $A_v = 1.20$. If it is a normal B-type supergiant, the distance module will be $m - M = 16.05$ and distance $d = 16.2$ kpc. Due to the galactic latitude $b = 16.6$, it should be located at about 4.6 kpcabove the galactic plane. This does not fit with normal B-type supergiant and we considered that it is a post-AGB star located at high galactic latitude. Recently Hrivnak et al (2000) found that this object shows carbon-rich features in the infrared. A paper on observations, reduction and discussions of this object has been submitted to the Chinese Journal of Astronomy and Astrophysics.

Table 1. BVRI magnitude and IRAS flux of IRAS 01005+7910

magnitude	IRAS flux
B=11.08	3.90Jy (12 micron)
V=10.85	24.23Jy (25 micron)
R=10.68	10.07Jy (60 micron)
I=10.50	2.42Jy (100 micron)

References

Hrivnak B.J., Volk K., Kwok, S. 2000, ApJ 535, 275
Hu J.Y., Slijkhuis S., de Jong T., Jiang B.W., 1993 A&AS 100, 413

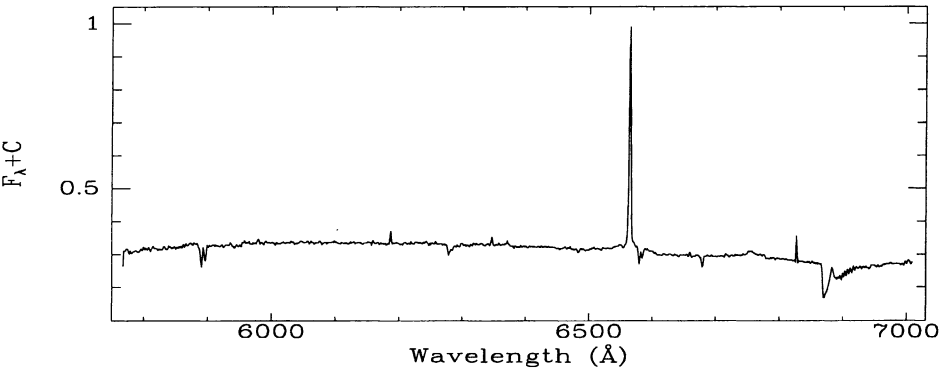

Figure 1. Optical spectrum of IRAS 01005+7910

Manuel Peimbert and Miriam Peña relaxing at lunch outside the Academy dome (photo courtesy of O. de Marco).

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