

New and Misclassified Planetary Nebulae

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This fifth supplement to the 'Catalogue of Galactic Planetary Nebulae' (CGPN - Perek, Kohoutek, 1967) covers the period 1991-1994 and contains four lists. In Table 1 we present 86 new PN, their PK designations, names and equatorial coordinates together with the references of their discovery as PN (!). The summary of the main properties of a PN and of a central star (Paper III) was used. We believe that the mean values given there are still valid, although some 'limits' (in parentheses) of the data have to be changed. It concerns mainly PN with very young central stars (stellar temperature down to ≈ 20000 K, gravity down to $\log g \approx 3-4$, variable spectrum) as well as old PN (diameter of the main nebular body up to ≈ 2.5 pc). Besides, large exp. velocity up to ≈ 300 km/s was measured for the nebular outer structure.

There exist objects which are evolutionarily before and after the stage of PN and as in Paper IV they have not been regarded as new PN (Table 1). The list of possible pre-PN is given in Appendix A to Table 1. This list is a continuation of the Appendix to Table 1 given in the last Supplement (Paper IV). It contains 147 objects which are in transition phase between AGB and PN. In the list of possible post-PN given in Appendix B to Table 1 there are 69 stars on the evolutionary way to WD and already without nebulae.

Great effort has been made during the last years in investigating the pre-PN and post-PN, and our appendices should support further studies of these important stages of the stellar evolution.

In Table 2 we suggest removing 6 objects from the Catalogue or from the previous Supplements (Papers I,II,III,IV) as misclassified PN. Again, we did not remove objects which belong to some groups mentioned in Paper IV: mainly symbiotic stars and objects having $H\alpha$ emission lines only.

Our number of PN differs slightly from that given in SECGPN (Acker et al., 1992) which can be explained by different classification criteria used (see Paper II and III), especially concerning the classification of some objects simultaneously as PN and symbiotic stars (SS). The designation of the objects as misclassified PN is difficult and somewhat questionable even if the morphology and the spectra of the nebulae are known. A better nomenclature - what is a PN - would be desirable.

The entire text of this poster (including all tables) will be published elsewhere.

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