

A New Atomic Line Catalogue for Planetary Nebulae

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The detailed line catalogue for the PN spectra is very useful for line identification. The first version of such catalogue was issued by Feklistova et al. (1994). Since the first edition the numerous weak lines belonging to the heavy elements ($Z > 30$) have been identified in the spectra of NGC 7027 (Péquignot et al. 1994, Baluteau et al. 1995). Moreover, many newly identified lines were found in the spectra of other PN (e.g., Hyung and Aller 1996 and references given therein). This means that the PN line catalogue is needed to be extended and updated.

We have compiled in the new catalogue a full (at the moment) list of the lines observed in the spectra of PN in the range from 919 Å to 610 μm including also the unidentified lines. The transition probabilities for the most of lines listed in the catalogue are also compiled (or calculated). We present the most probable identification for each line. The main formation mechanism for the lines listed is given.

The number of the newly revealed lines in the PN spectra can be strongly enhanced in future. Therefore we plan the permanent updating of the catalogue. The electronic copy of the catalogue will be accessible via ftp or WWW from the end of 1996. For the more detailed information please contact with A.F.Kholtygin (e-mail: afk@aispbu.spb.su) or T.Feklistova (e-mail: tanya@aai.ee).

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