of the two kinds of observations yields a direct measure of the distance and the three dimensional structure of the envelope.

THE MASER STRENGTH OF OH/IR STARS, THE EVOLUTION OF MASS LOSS AND THE FORMATION OF A PLANETARY NEBULA

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From observations we find that the OH luminosity L_{OH} of an OH/IR star increases with R^2, where R is the size of the masing region. From this correlation we deduce that the mass loss rate M, the expansion velocity v_e and L_{OH} are related by $L_{OH} \sim (M/v_e)^2$. Next we consider the large range that is observed in L_{OH} and the steep OH luminosity distribution for OH/IR stars. Both facts can be explained by the postulate that these objects undergo accelerated mass loss, and thus steadily increase their OH luminosity. We propose that OH/IR stars are at the extreme end of the Asymptotic Giant Branch and that many of them are in the process of blowing off their entire envelope in a superwind phase. Their mass loss rate during this superwind, as deduced from OH observations of the circumstellar shell, is given by a simple modification of the Reimers equation. This modification connects the superwind continuously to the Reimers wind and it provides observational evidence for the formation of a planetary nebula.

CATALOGUE OF CENTRAL STARS OF PLANETARY NEBULAE

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The catalogue contains 460 nuclei of 393 true and 67 possible planetary nebulae; 87 of these were discovered after the publication in 1967 of the catalogue of planetary nebulae of Perek and Kohoutek.

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