

Superwinds from AGB Stars

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We have modeled the AGB stars which pass through super wind phases due to thermal pulses. Planetary nebulae often show two, and sometimes three, shell like structures around them. These may be due to abrupt changes in the mass loss rate back when the star was a AGB star. The AGB star has long since lost its envelope and is now a nuclei of the planetary nebula, and is illuminating these past episodes of mass loss. Accelerated model results are very similar to conventional models with smaller optical depth. But decelerated models do show significant differences in energy spectra with conspicuous 60 - 100 μm excess. Thermal pulses may hide showing the difference in energy spectra when it enters through the dust shells but they do make differences with decelerating density distribution at the end of their phase. This is more clear when we consider IRAS 2-Color diagrams.