

WISE Morphological Study of Wolf-Rayet Nebulae

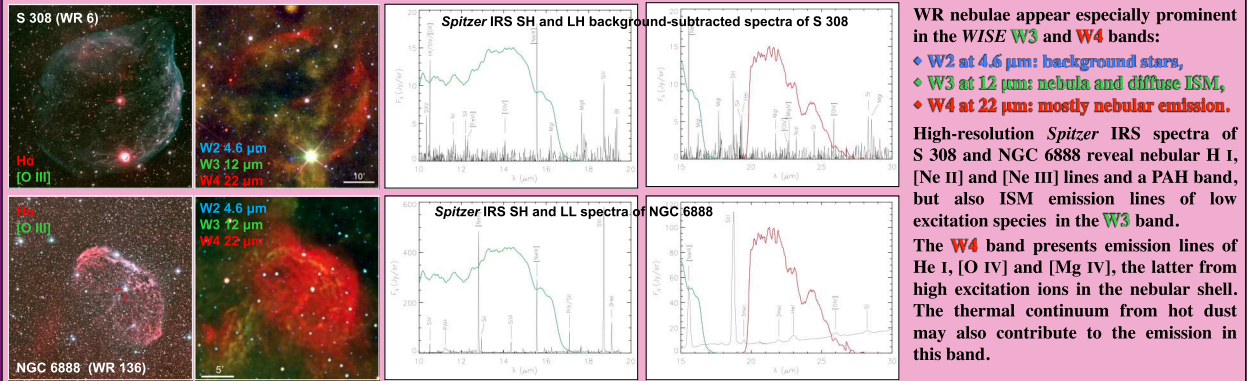
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Wind Blown Bubbles around Wolf-Rayet Stars

During the Wolf-Rayet (WR) phase of the late evolution of massive stars ($M_i > 35 M_\odot$), large nebulae are blown in the circumstellar medium of these stars. The powerful WR wind is expected to have important effects, altering the morphologies of these nebulae in short timescales. We have used optical (mostly H α) and WISE IR images of nebulae around Galactic WR stars to investigate their morphology and to assess their evolutionary stage.

What's in a WISE image of a WR nebula?



Morphological Classification of Wolf-Rayet Nebulae: Clues for Nebular Evolution

We have examined archival H α (mainly from the Super COSMOS Sky Survey and Sloan Digital Sky Survey) and WISE IR images of a sample of 35 Galactic WR nebulae. The optical and IR morphologies have been classified into three broad groups which can be linked to the nebular evolution.

