

DISSECTING THE COMPACT PLANETARY NEBULA M2-31 WITH GTC MEGARA

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Using GTC MEGARA integral field spectroscopic data and NOT ALFOSC medium-resolution spectra and narrow-band images, we present a complete analysis of the compact planetary nebula M 2-31, looking at its spectral properties, spatio-kinematical structure, and chemical composition. M 2-31 discloses a fast spectroscopic bipolar outflow along position angles 50° and 230° , an extended shell and a toroidal structure or waist surrounding the central star perpendicularly aligned with the fast outflows. The GTC MEGARA observations also show that the C II emission is confined in the central region and enclosed by the [N II] emission. The NOT ALFOSC observations allowed us to detect broad WR features from the central star of M 2-31, including previously undetected broad O VI lines that suggest a reclassification as a [WO4]-type star. Also, I'll show results of other studies using MEGARA.