LSIV -12° 111 – A NEWLY EMERGING HALO PLANETARY NEBULA

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Abstract. We report on multi-wavelength observations of a young halo planetary nebula, LSIV –12° 111. This object was previously classified as an emission–line young B–type star but a model atmosphere abundance analysis of high resolution optical spectra revealed it to be an evolved object, probably in the post-asymptotic giant branch (post-AGB) evolutionary phase. The presence of an infrared excess and low excitation nebular emission lines implies that the central star may have just started to photoionize the remnant (AGB) circumstellar material. Here we discuss the nebular and dust properties of LSIV –12° 111 and re-determine some metal abundances for the central star. These results are used to constrain the evolutionary status of this unique halo planetary nebula.

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