A SPECTROSCOPIC SEARCH FOR HOT (B-TYPE) POST-AGB STARS

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Abstract. At Queen's University, we have been undertaking a spectroscopic programme to elucidate the nature of faint blue stars at high galactic latitudes. We have identified approximately 50 that appear to spectroscopically identical (even at high resolution and signal-to-noise) to normal young Population I B-type stars in the galactic disc. However, we have also found seven faint objects () that were previously classified as Population I on the basis of photometry and/or low resolution spectroscopy; careful model atmosphere analyses of high resolution spectra now indicate that they have non-Population I compositions. Their derived atmospheric parameters are coincident with theoretical post-AGB evolutionary tracks and thus together with their peculiar composition, they would appear to be hot evolved post-AGB objects.

A systematic search for other B-type post-AGB objects has been initiated. Criteria for target selection include high latitude, supergiant spectral classification and characteristic post-AGB infrared features. Spectroscopic data have been obtained at the Anglo-Australian Telescope and Mount Stromlo Observatory and analysed using model atmosphere techniques. Preliminary results are presented here.

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