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Blue compact dwarf galaxies with nitrogen overabundance: a view from integral field spectroscopy

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Abstract

Blue compact dwarf galaxies (BCDs) take up the low end of the distribution of metallicity and nitrogen-to-oxygen (N/O) ratio as derived using collisional emission lines in ionized gaseous nebulae. This chemical status is well explained by chemical evolution models. Nevertheless, there is a subsample of BCDs with large values of N/O which cannot be explained by these models. In this contribution we present Potsdam Multi Aperture Spectrograph (PMAS) integral field spectroscopy (IFS) of a sample of three of these objects. The statistical analysis of the abundances reveals their homogeneity at kpc scales. This preserves WR stars to be the cause of the ISM pollution.