

Title: Observations of WR Galaxies with HET Telescope
Authors: [Rochowicz, K.](#)
Affiliation: AA(Centre for Astronomy, N. Copernicus University, ul. Gagarina 11, 87-100 Toruń, Poland)
Publication: Astronomische Gesellschaft Abstract Series, Vol. 18. Abstracts of Contributed Talks and Posters presented at the Annual Scientific Meeting of the Astronomische Gesellschaft at the Joint European and National Meeting JENAM 2001 of the European Astronomical Society and the Astronomische Gesellschaft at Munich, September 10-15, 2001, abstract #P76.
Publication Date: 00/2001
Origin: AG
Bibliographic Code: [2001AGM....18..P76R](#)

Abstract

Wolf-Rayet (WR) galaxies are extragalactic objects whose integrated spectra show features typical for WR stars, most striking being the broad HeII λ 4686 feature originating in the stellar winds. Since the first detection of such a feature in He 2-10 (Allen et al. 1976 MNRAS 177, 91), the number of known WR galaxies has grown rapidly in the recent years to more than 130 in the catalogue by Schaerer et al. (1999 A&AS 136, 35). WR galaxies are found among a large variety of morphological types, from low-mass blue compact dwarf and irregular galaxies, to massive spirals and luminous merging IRAS galaxies or LINEARs. Their common property is the ongoing or recent star formation which has produced stars massive enough to evolve to the WR stage. They are therefore ideal objects to study the early phases of starbursts, determine burst properties (age, duration, SFR), and to constrain parameters of the upper part of the IMF at different z . So far very few systematic searches for WR galaxies have been undertaken. Our goal is to conduct new observations to conclusively establish the presence or absence of WR features in the candidate galaxies identified by some of the previous searches or found in the literature. Most of the suspect WR galaxies included in our list come from the spectrophotometric catalogue of HII galaxies of Terlevich et al. (1991 A&AS 91, 285) and the analyses of Masegosa et al. (1991 A&A 244, 273) as compiled in Schaerer et al. (1999). This paper is based on first observations with HET low resolution spectrograph and reports absence of WR features in two WR-candidate HII galaxies from the Schaerer's list: UM 456 and UM 594. It presents also new determinations of redshift (z) of those galaxies based on strong nebular lines.