

## RAPID EVOLUTIONARY CHANGES IN THE WR BINARY HD 5980

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Observations of the Wolf-Rayet eclipsing binary HD 5980 in the Small Magellanic Cloud show how one component of this binary system unexpectedly underwent an eruption transforming its spectral type from a hot WNE to a cooler and luminous WN11 type. Radial velocity analysis of the preoutburst spectra indicates that both components of the binary are massive stars of WN type. The component that erupted is found to be the more massive one. Differential analysis of the H Balmer and HeII Pickering emission line strengths indicates that the hydrogen content changes with the cooling of the spectrum. The maximum light of the eruption of HD 5980 had a duration of a few months, but the slow change from a WNE spectrum to WNL type took about 10 years. The present spectrum of HD 5980 is described. The environment and orbital parameters of this massive binary suggest that the lower metal content of the Small Magellanic Cloud changes the spectral appearance of WR type stars, as compared with their galactic counterparts.