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DR21(OH) SUB-CORES: Inferring an Evolutionary Status Using the Prestaline Tool[1]

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In this work we present the results of chemical modelling of two sub-cores in a well-known region of massive star-formation DR21(OH): MM1a and MM1b. These sub-cores are situated in close proximity to each other but exhibit distinguishable difference in their observed spectra, mostly in the intensity of S-bearing species emission lines. Calculations of the chemical evolution and synthetic spectra for these regions allowed us to trace and explain the origin of these features. The research was performed using the PRESTALINE (PRESTA + RADEX) tool, a package for modelling and analysing spectral data.

Keywords: star-formation, ISM, astrochemistry, synthetic spectra

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