

*Workshop*

***Stellar End Products: The Low Mass - High Mass Connection***

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**Title:**

The ALMA view on W Aquilae: Observations and Modeling of Molecules in the Circumstellar Envelope

**Abstract:**

AGB stars suffer strong mass-loss and enrich the ISM with heavy elements. Their C/O ratio classifies them as M, S or C-type, where S-type marks the transition from O- to C-rich chemistry. They are perfect targets to study the varying chemical composition of evolved stars.

We present preliminary results of ALMA Cycle 1 observations and radiative transfer models of molecular lines around the S-type AGB star W Aql. The extent of the line emission is analyzed and modeled, improving the accuracy of abundance estimates, stellar parameters, mass-loss rates and properties of the circumstellar envelope.