

P135a Searching for hot cores in the Small Magellanic Cloud

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The Magellanic Clouds are excellent targets to study the chemical properties of star-forming complexes at low metallicity. Sub-pc resolution observations, and therefore the detection of 0.1 pc size hot cores are became possible with the Atacama Large Millimeter/submillimeter Array (ALMA) at the distance of the Magellanic Clouds. Previous ALMA studies identified three hot cores and complex organic molecules in the Large Magellanic Cloud. In the lower metallicity Small Megallanic Cloud (SMC), only one embeddd YSO was studied earlier with ALMA, and no hot core was detected around it, but its chemical properties was revealed. To extend the study, we observed six high-mass YSOs in the SMC with ALMA at a spatial resolution of 0.1 pc. Continuum and molecular line emission of the sources were targeted (e.g. SO_2 , HCO^+ , H_2CO , CH_3OH , HNCO , H_2CS , NO , etc.) to characterize their physical properties and to have a complementary dataset to the Galactic and LMC sources. These studies can help us to better understand the chemical processes in the low metallicity environment, which characterised the early Universe.