P125a Chemical properties of young stellar objects in the Magellanic Clouds

Sarolta Zahorecz, (Osaka Pref. Univ. / NAOJ), Toshikazu Onishi (Osaka Pref. Univ.), Kazuki Tokuda (Osaka Pref. Univ. / NAOJ), Akiko Kawamura (NAOJ), Takashi Shimonishi (Niigata University)

High-resolution observations with the Atacama Large Millimeter/submillimeter Array (ALMA) enabled us to study the chemical properties of the star-forming regions at sub-pc resolution in the Magellanic Clouds. The study of these regions are important to better understand the star-formation process in low metallicity environments. Recent observations revealed hot cores and complex organic molecules in the Magellanic Clouds. We observed six high-mass YSOs in the Small Magellanic Cloud with ALMA at a spatial resolution of 0.1 pc and the firt results related to the continuum and CO molecular line emission were already presented. Our observations targeted several molecular lines (e.g. SO₂, HCO⁺, H₂CO, CH₃OH, HNCO, H₂CS, NO, etc.) to characterize the physical properties of the sources. We have found a low detection rate of most of the molecules in this sample. We will present the detailed results of the molecular line observations and compare them with the recent survey of high-mass YSOs in the Large Magellanic Cloud.