

Molecular Clouds and Star formation in the Galaxy and the Magellanic System by NANTEN

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Abstract. We have been carrying out a large scale survey toward the Galaxy and the Magellanic system by NANTEN at Las Campanas Observatory in Chile. These observations unveil the distributions and the properties of the molecular clouds, from massive star forming giant molecular clouds (GMCs) in the wide area of the galaxies to low mass star forming regions in the Solar vicinity. The survey toward the Magellanic clouds gave us a complete set of the GMCs with an angular resolution as high as about 40 pc in the system including the Bridge. The mass spectrum and the line-width distribution of the GMCs in the Galactic plane and in the LMC are consistent to each other. Nevertheless, one of the surprising results is a detection of GMCs without any signs of massive star formation in the Magellanic clouds, while almost all the GMCs show massive star formation in the Solar vicinity.

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