

R25a Large Area Survey Observation of the Large Magellanic Cloud with AKARI

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We present the observation program of the large area survey of the Large Magellanic Cloud (LMC) with the AKARI satellite. The survey will cover more than 10 square degree with 5 bands from 3 to 24 micron as well as slitless spectroscopy in the near-infrared with the infrared camera (IRC) on board AKARI. The expected detection limit ranges several micro Jansky in the near-infrared to several hundred micro Jansky in the mid-infrared. The present observations will detect most Herbig Ae/Be stars and dusty AGB stars that have undergone strong mass-loss. It will enable us to study the interaction of supernova remnants with the surrounding medium and investigate the variation in the properties of dust grains in the LMC. Together with the far-infrared survey at 4 bands from 50 to 170 micron with the far-infrared surveyor (FIS), the present observations will provide a significant database to study the star-formation, the stellar mass-loss process, and the material circulation within a galaxy. The observed data will be released to the public after the completion of the survey. One quarter of the observations has been completed by June. This report will present the observation program, the expected results, and the current status of the LMC observations of with AKARI.