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MILLIMETRIC ASTROPHYSICAL OBSERVATIONS: PRESENT AND FUTURE OF THE OASI-COCHISE PROJECT

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We report on astrophysical observations carried out from the OASI telescope (Infrared and Submillimetric Antarctic Observatory), at the Italian Station MZS. During the last two years, the research has been focused on strong galactic HII Regions, where star formation takes place; by means of these observations we derive some physical parameters of the sources, such as dust temperature and bolometric luminosity. The results on a small sample of these sources are discussed.

We also report on the state of the art of the COCHISE telescope, that will be installed at the Italian-French Station at Dome Concordia during the next Antarctic summer (2006-2007). COCHISE (Cosmological Observations at Concordia with High sensitivity Instrument for Source Extraction) is a 2.6 m telescope very similar to OASI, that will be used both for site testing and for astrophysical research.

We also discuss the future applications of OASI and COCHISE, that involve galactic observations as well as Sunyaev-Zeldovich effect measurements.