

# CO, CS and HCO<sup>+</sup> in the SMC

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## Abstract.

We present multi-transition <sup>12</sup>CO, <sup>13</sup>CO, CS and HCO<sup>+</sup> observations towards six molecular clouds in the SMC: LIRS 36, LIRS49/N27, N66, N88, Hodge 15 and SMC-B1#1. N66 and N88 are associated with bright HII regions, LIRS 36 and LIRS 49 are close to less prominent ones while Hodge 15 and SMC-B1#1 are located in regions far away from high mass star formation activity.

The observations were made during several runs with the Swedish-ESO Submillimetre Telescope (SEST) and the Japanese Atacama Submillimeter Telescope Experiment (ASTE). To estimate physical properties and abundances of the molecular gas we apply the Mean Escape Probability (MEP) approximation of the radiative transfer equations.

**Keywords.** galaxies: ISM, abundances, Magellanic Clouds

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