THE FIRST ACETIC ACID SURVEY FROM CARMA

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Detecting interstellar acetic acid and other large molecules is essential to understanding the formation of interstellar molecules of biological importance. The new interferometer CARMA provides higher sensitivity maps and spectra than the previous BIMA and OVRO arrays. For the first time, we apply this instrument to a survey to probe weak transition lines of large molecules in compact molecular clouds, including hot cores and low mass star forming regions. We present the latest CARMA observational results for our acetic acid survey toward G19.61, IRAS4 and IRAS16293-2422. Furthermore, to demonstrate the CARMA data quality, we also compare with the previous G19.61 observations from the BIMA array. Based on our observations, we suggest new selection rules and detection criteria for further acetic acid surveys. We acknowledge support from the Laboratory for Astronomical Imaging at the University of Illinois and NSF grant AST-0540459.