

A survey of CO(1-0) in high-*z* *Herschel* selected galaxies.

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We present the results of recent VLA observations of CO(1-0) emission for 14 *Herschel* selected galaxies with reliable redshift measurements from Neri et al. (2020) of $2.084 < z < 4.054$. These galaxies were selected as part of the z-GAL pilot program using the IRAM/NOEMA to reliably measure the redshifts of high-*z* submillimetre galaxies (SMGs). All sources were successfully detected in CO(1-0), and four sources in our sample were also detected in the high frequency radio continuum. The CO(1-0) moment-0 maps reveal complex structure that could indicate lensing for six sources. In this poster we will present the CO(1-0) properties of our sample, the measured CO luminosities, gas masses, and estimates of the molecular gas depletion times. Furthermore, we will examine the CO line ratios and SLEDs, by combining the CO(1-0) results with previously observed higher-*J* CO transitions observed with NOEMA.

References:

[1] Neri, R., Cox, P., Omont, A., et al. 2020, A&A, 635, A7, doi: 10.1051/0004-6361/201936988