

## THE SUBMILLIMETER WAVE SPECTRUM OF METHYL HYPOCHLORITE UP TO 500 GHz

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Organohalogen molecules are important reactants in Earth's atmosphere contributing to ozone layer loss. The simplest oxygen bearing organochloride, methyl hypochlorite  $\text{CH}_3\text{OCl}$ , is expected as a product in ozone hole chemistry. Interstellar chemistry of organohalogen has received recent interest through the detection of the methylchloride, while searches for more complex organochlorides is limited due to lack of available spectra. We synthesized and recorded the submillimeter wave spectrum of methyl hypochlorite between 150-500 GHz using absorption spectroscopy. The fitted spectra are extended for both chlorine isotopologues, with hyperfine structure present to high frequencies. The details of the spectroscopic analysis and prospects for detection in space will be discussed.