LIF SPECTROSCOPY OF JET-COOLED CHD_2O

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Rotationally resolved Laser-induced Fluorescence measurement is performed on the electronic transition $\tilde{\mathrm{A}}^2A' \leftarrow \tilde{\mathrm{X}}^2E_{3/2}$ of jet-cooled CHD_2O from 2900-3100 cm^{-1} in vibrational excitation energy of the $\tilde{\mathrm{A}}^2A'$ state, where *ab initio* result suggests the fundamental of C-H stretch is located. Resorting to a rotational analysis, eight vibrational bands are recognized and characterized. The vibrational assignments are confirmed by a relative intensity analysis and the symmetries thoughtfully determined in the rotational analysis.

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