MILLIMETER WAVE FASSST SPECTRUM OF METHANOL-$D_4$

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The millimeter wave (MMW) spectra of the astrophysically significant methanol species $CD_3OD$ have been measured in the frequency ranges of 130-360, 461-486 and 596-610 GHz using the fast scan sub-millimeter spectroscopy technique (FASSST)at the Ohio State University. More than 1500 MMW lines have been assigned. The assignments and the fitting of the MMW lines along with about 4000 high resolution FTFIR transitions with J 40 and K 15 in the ground and first excited torsional states, with a reduced torsion-rotational Hamiltonian will be discussed.