MEASUREMENT OF TORSIONALLY EXCITED MICROWAVE TRANSITIONS IN METHANOL-$D_4$

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In this work, 14 new microwave transitions have been measured in $CD_3OD$ species of methanol with an estimated accuracy of 100 kHz. The transitions have been assigned to definite torsional-rotational quantum states in the vibrational ground state. The majority of the assigned transitions involve the first excited torsional state. The present data along with the previously known microwave transitions and recently assigned Fourier transform transitions have been fitted with a recently developed Hamiltonian model and the torsion-rotation molecular parameters determined.