(SUB-) MILLIMETER WAVE SPECTRUM OF METHYLENE CHLORIDE, $CH_2^{35}Cl_2$, UP TO 1.1 THz

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Methylene chloride is of fundamental interest as a small and fairly light molecule. In addition, it is an important industrial solvent, and its identification by spectroscopic means in industrial transportation and in the processing of petroleum products. We have recorded its high resolution rotational spectrum in two laboratories throughout most of the frequencies from 75 GHz to 1.09 THz. More than 4000 rotational transitions have been identified with $J \leq 108$ and $K_a \leq 20$. These data have been fit to within 20 kHz employing spectroscopic parameters up to 10th order.

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