

VIBRATIONAL-ROTATIONAL ENERGY LEVELS OF H_2^{14}O , H_2^{15}O , H_2^{16}O , H_2^{17}O , H_2^{18}O AND H_2^{19}O

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The paper presents an analysis of the vibrational-rotational energy spectrum of water isotopologues H_2^{14}O , H_2^{15}O , H_2^{16}O , H_2^{17}O , H_2^{18}O AND H_2^{19}O up to $J=20$ and energy of 25000 cm^{-1} . Calculations of the H_2^{17}O and H_2^{18}O levels for such a data configuration are presented for the first time. All calculations were performed based on the high-precision potential energy surface of the molecule by Bubukina et al. 2011 using the DVR3D package. An analysis of the difference in energy levels of different isotopologues corresponding to the same energy level was performed.