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The VoTe Room Temperature H₂¹⁶O Line List up to 25000 cm⁻¹*

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Received October 11, 2019

Revised October 31, 2019

Accepted November 07, 2019

A new line list transition for the water molecule is presented. The line lists is created on the basis of VoTe calculations using cutoff values of 25000 cm⁻¹ in transition wavenumber and $J_{\max} = 50$. Calculations use the high accuracy, empirical potential energy surface (PES) of Bubukina et al. LTP2011 and the CVR water dipole moment surface (DMS) of Lodi et al. (2011). Vibration — rotation energy levels up to $J = 50$ are computed using DVR3D; a novel method of labeling is used which allows more thorough labelling of the energy levels with approximate vibrational and rotational quantum numbers than previous water line lists.

Keywords: H₂¹⁶O, VoTe, line list, water vapour.

* Полный текст статьи опубликован в „Optics and Spectroscopy“
V. 127 N 6 2019.