

## EXPERIMENTAL STUDY OF LINE PARAMETERS OF H<sub>2</sub>S AROUND 1.57 μm USING TELECOM DIODE LASER SPECTROSCOPY

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Line intensities, self- and air-broadened linewidths of hydrogen sulfide (H<sub>2</sub>S) have been determined around 1.57 μm utilizing Voigt line profiles. The measurements were performed by means of direct absorption spectroscopy technique using a continuous-wave tunable telecom-grade external cavity diode laser (ECDL) associated with a White type multipass cell. This spectral region corresponds to an interesting transparency window of the atmosphere. Transitions reaching the  $2\nu_1 + \nu_2$  and  $\nu_1 + \nu_2 + \nu_3$  two upper vibrational states of H<sub>2</sub>S bands were reported in our previous contribution<sup>a</sup>. The line parameter analysis of 29 strong well-isolated lines from these two bands is extension of our knowledge.

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<sup>a</sup>O. N. Ulenikov, A. W. Liu, E. S. Bekhtereva, O. V. Gromova, L. Y. Hao, S. M. Hu, *J. Mol. Spectrosc.* 234, 270, (2005)