



HITRAN2008: from Earth to Exoplanets

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A new edition of the HITRAN database¹ will be presented at the meeting. The line-by-line lists for almost all of the 39 HITRAN molecules were updated in comparison with the previous compilation (HITRAN2004). The caliber of the updates ranges from corrections to the representations of quantum assignments to complete replacements of the lists. In addition, 3 new molecules, CH₃Br, CH₃CN and CF₄ have made their debut in the database. The new significantly improved parameters for the major atmospheric absorbers such as H₂O, CO₂, and CH₄ will be given particular attention. The most recent validations of new line lists will be presented. Finally, the necessity of future improvements and extensions of HITRAN towards extensive studies of planetary atmospheres will be addressed.

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