

## HITRAN2012. Part II: Closer look at the data

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An adjacent poster (Part I) provides an overview of the HITRAN2012 database which was recently released [1]. In this poster, the details on some of the most important and drastic changes with respect to the previous edition of the database (HITRAN2008 [2]) will be given.

In particular, choices and the importance of new data for water vapor, carbon dioxide, molecular oxygen, methane, etc, will be explained and justified. The impact of the changes to remote sensing and planetary applications will be demonstrated, and future needs will be identified.

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[1] L.S. Rothman, I.E. Gordon, Y. Babikov, A. Barbe, D. Chris Benner, P.F. Bernath, M. Birk, L. Bizzocchi, V. Boudon, L.R. Brown, A. Campargue, K. Chance, E.A. Cohen, L.H. Coudert, V.M. Devi, B.J. Drouin, A. Fayt, J.-M. Flaud, R.R. Gamache, J.J. Harrison, J.-M. Hartmann, C. Hill, J.T. Hodges, D. Jacquemart, A. Jolly, J. Lamouroux, R.J. Le Roy, G. Li, D.A. Long, O.M. Lyulin, C.J. Mackie, S.T. Massie, S. Mikhailenko, H.S.P. Müller, O.V. Naumenko, A.V. Nikitin, J. Orphal, V. Perevalov, A. Perrin, E.R. Polovtseva, C. Richard, M.A.H. Smith, E. Starikova, K. Sung, S. Tashkun, J. Tennyson, G.C. Toon, V.G. Tyuterev, G. Wagner, "The HITRAN2012 molecular spectroscopic database," *JQSRT* **2013**, <http://dx.doi.org/10.1016/j.jqsrt.2013.07.002> .

[2] L.S. Rothman, I.E. Gordon, A. Barbe, D. Chris Benner, P.F. Bernath, M. Birk, V. Boudon, L.R. Brown, A. Campargue, J.-P. Champion, K. Chance, L.H. Coudert, V. Dana, V.M. Devi, S. Fally, J.-M. Flaud, R.R. Gamache, A. Goldman, D. Jacquemart, I. Kleiner, N. Lacome, W.J. Lafferty, J.-Y. Mandin, S.T. Massie, S. Mikhailenko, C.E. Miller, N. Moazzen-Ahmadi, O.V. Naumenko, A. Nikitin, J. Orphal, A. Predoi-Cross, V. Perevalov, A. Perrin, C.P. Rinsland, M. Rotger, M. Šimečková, M.A.H. Smith, K. Sung, S. Tashkun, J. Tennyson, R.A. Toth, A.C. Vandaele, J. Vander Auwera. "The HITRAN 2008 molecular spectroscopic database," *JQSRT* **2009**, 110, 532.