Journal of Molecular Structure 1233 (2021) 130115

Contents lists available at ScienceDirect

Journal of Molecular Structure

journal homepage: www.elsevier.com/locate/molstr

Corrigendum to "Measurement and temperature dependence of the water vapor self-continuum between 70 and 700 cm^{-1}" [J. Mol. Struct. 1210 (2020) 128046]

Tatyana A. Odintsova[a,*], Mikhail Yu. Tretyakov[a], Anna A. Simonova[b], Igor V. Ptashnik[b], Olivier Pirali[c,d], Alain Campargue[e]

[a] Institute of Applied Physics RAS, Nizhniy Novgorod, Russia
[b] V.E. Zuev Institute of Atmospheric Optics SB RAS, Tomsk, Russia
[c] SOLEIL Synchrotron, L'Orme des Merisiers, Saint-Aubin 91192, Gif-Sur-Yvette, France
[d] Université Paris-Saclay, CNRS, Institut des Sciences Moléculaires d'Orsay, 91405, Orsay, France
[e] Univ. Grenoble Alpes, CNRS, LIPhy, 38000 Grenoble, France

The authors regret that the MT_CKD-3.2 ([14] in the original paper) continuum spectrum of the water vapor corresponding to 296 K was unintentionally presented with an error related to the subtraction of the monomer contribution in the original publication of this paper. This led to the overestimation of the MT_CKD-3.2 cross-section by 5% (Fig. 2, left panel) and the MT_CKD-3.2 temperature exponent by 7 % (Fig. 3). The data for 326 K in Fig. 2 were correct and have no changes. We thank Dr. Eli J. Mlawer for revealing this mistake and paying our attention to this issue. The corrected data are given in the renewed Figures below, keeping their numbers from the original publication. The corrections do not affect the conclusions presented in the original paper.

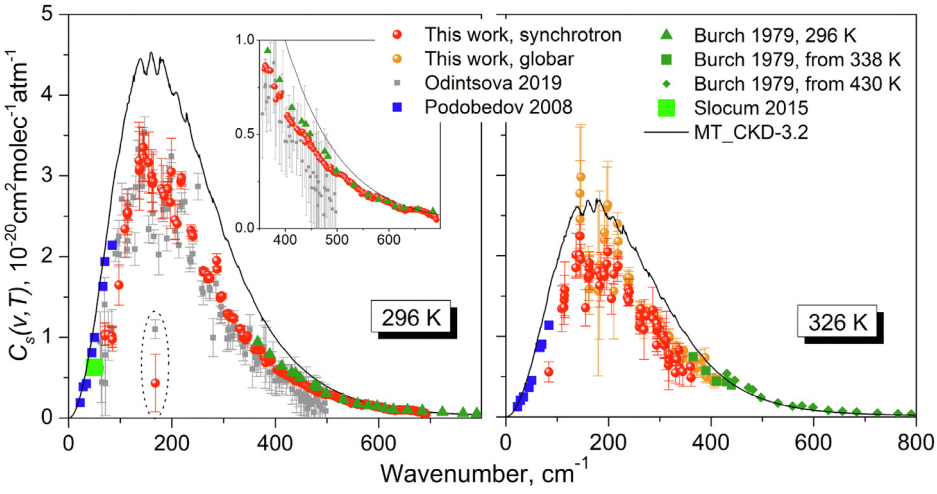

Fig. 2. Cross-sections of the water vapor self-continuum absorption in the region of the rotational band. *Left panel* (296 K): present synchrotron measurements (red circles); Odintsova *et al.* [24] (grey squares); Podobedov *et al.* [26] (blue squares); Burch [33] (dark green triangles); Slocum *et al.* [40] (bright green square). *Right panel* (326 K): present synchrotron and globar measurements (red and orange circles, respectively); Podobedov *et al.* [26] (blue squares), recalculated from measurements of Burch [33] at 338 K (dark green squares) and at 430 K (dark green rhombs). Note that the errors stated in Refs. [26,40] are smaller than size of the symbols and the uncertainty values were not reported in Ref. [33]. Solid black curves are MT_CKD-3.2 model [14] with the "plinth" subtracted. Note marked outlier at 167.7 cm^{-1}. See text for details.

DOI of original article: 10.1016/j.molstruc.2020.128046
* Corresponding author
E-mail address: odintsova@ipfran.ru (T.A. Odintsova).

https://doi.org/10.1016/j.molstruc.2021.130115

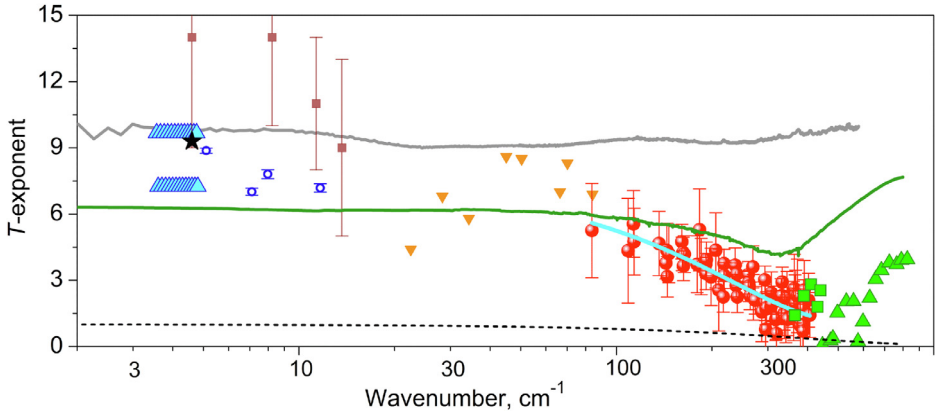

Fig. 3. Water vapor continuum temperature exponent *n versus* wavenumber: present data (red circles) and its approximation (cyan curve) at temperatures of 296 and 326 K, Podobedov *et al.* [26] at 293-333 K (orange triangles), Koshelev *et al.* [27] at 270-330 K (bottom cyan triangles) and Tretyakov [43] the same data at 270-300 K (top cyan triangles), Liebe et al. [28] at 282-316 K (black star), data from Lille University [29–32] at 296-346 K (blue circles) and Katkov et al. [22] field measurements at 257-270 K (brown squares), data recalculated from experimental spectra at 296 and 430 K (green triangles) and at 296 and 338 K (green squares) from Burch [33] (see text for details), MT_CKD-3.2 model [14] at 296 and 326 K (green curve), bound dimer [25] at 257–327 K (grey curve), stimulated absorption term between 296 and 326 K (dash curve). All presented *n* values are given in accordance with Eq. (5).

It is worth noting that the MT_CKD spectra at both temperatures in the updated Fig. 2 contain a characteristic oscillating structure that appears when the “pedestal” (also called “plinth”) spectrum is subtracted from the MT_CKD model. In the original paper, these spectra were presented in a "smoothed" form.

The authors would like to apologize for any inconvenience caused.