

# Erratum: “New investigation of the $\nu_3$ C–H stretching region of $^{12}\text{CH}_4$ through the analysis of high temperature infrared emission spectra” [J. Chem. Phys. 148, 134306 (2018)]

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In our recent article,<sup>1</sup> Fig. 9 compares a methane spectrum recorded at 1404 K with spectra calculated at the same conditions using the Theoretical Reims-Tomsk Spectral (TheoReTS) data line list, in addition to predictions from our work. Unfortunately, an older version of the TheoReTS line list was used, instead of the latest version,<sup>2</sup> which accounts for corrections on the line positions. The new Fig. 9 reproduced below corrects this mistake. Its inspection shows the very good agreement between the TheoReTS predictions and the emission spectrum recorded at 1404 K.

We wish to thank Dr. Michaël Rey for indicating us this new version of TheoReTS.

<sup>1</sup>B. Amyay, A. Gardez, R. Georges, L. Biennier, J. Vander Auwera, C. Richard *et al.*, “New investigation of the  $\nu_3$  C–H stretching region of  $^{12}\text{CH}_4$  through the analysis of the high temperature infrared emission spectra,” *J. Chem. Phys.* **148**, 134306 (2018).

<sup>2</sup>M. Rey, A. V. Nikitin, and V. G. Tyuterev, “Accurate theoretical methane line lists in the infrared up to 3000 K and quasi-continuum absorption/emission modeling for astrophysical applications,” *Astrophys. J.* **847**, 105 (2017).

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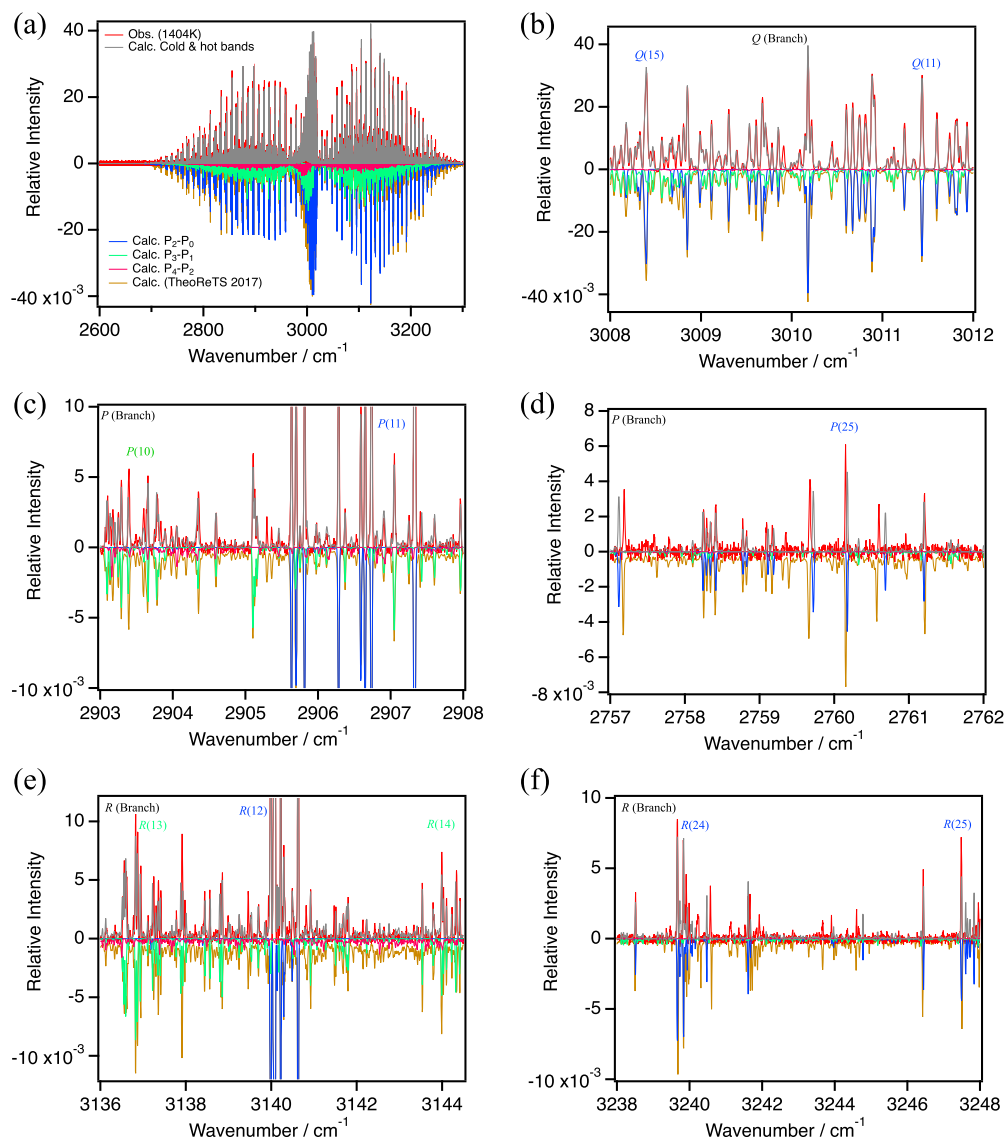


FIG. 9. Comparison between the observed spectrum of  $^{12}\text{CH}_4$  at 1404 K (red) and the calculated spectrum (gray) in the spectral region  $2600\text{--}3300\text{ cm}^{-1}$ . The contribution of the cold band (blue) and related hot bands (green and magenta) is highlighted separately at the bottom of each sub-figure. Also a comparison with the TheoReTS calculated database (brown curve) is given for both low and high  $J$  transitions at the bottom of each sub-figure.