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Resonant photoacoustic simultaneous detection of methane and ethylene by means of a 1.63- μm diode laser

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The intensity values for the $\nu_5 + \nu_9$ band of C_2H_4 reported in Fig. 2a are overestimated by a factor of four as a result of a normalization error.

The corrected Fig. 2 is printed here.

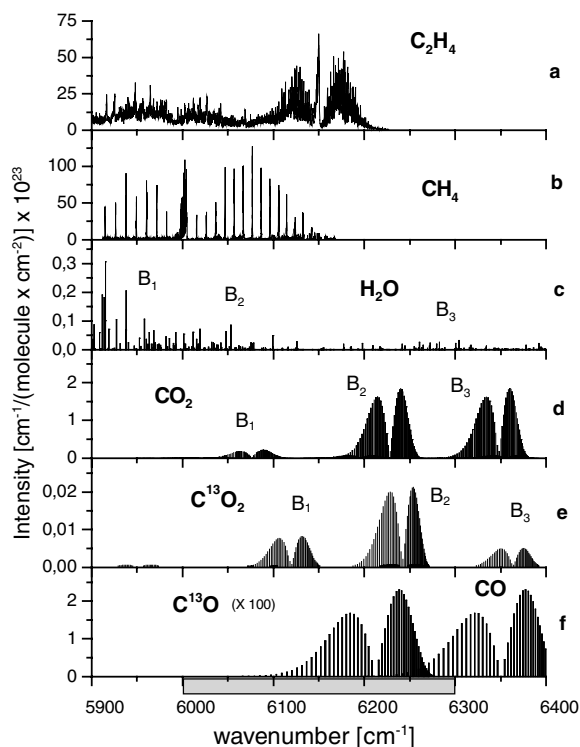


FIGURE 2 Survey spectra between 5900 and 6400 cm^{-1} of C_2H_4 , CH_4 , H_2O , CO_2 and CO . **a** C_2H_4 spectrum. The PQR rotational structure around 6150 cm^{-1} is assigned to the $\nu_5 + \nu_9$ CH stretch combination band. **b** $2\nu_3$ overtone band of CH_4 . **c** H_2O rotational lines of the $\nu_2 + \nu_3$ (B_1), $4\nu_2$ (B_2) and $\nu_1 + 2\nu_2$ (B_3) bands. **d** $30014 \leftarrow 00001$ (B_1), $30013 \leftarrow 00001$ (B_2) and $30012 \leftarrow 0001$ (B_3) bands of CO_2 . **e** $30013 \leftarrow 00001$ (B_1), $30012 \leftarrow 00001$ (B_2) and $30011 \leftarrow 00001$ (B_3) bands of the C^{13}O_2 isotope. **f** Third overtone of the most abundant isotopes of CO . Spectra (**a**) and (**b**) were obtained by pulsed laser photoacoustic measurement with 10 mbar of C_2H_4 or CH_4 in 50 mbar of Ar at room temperature. Spectra (**c**), (**d**), (**e**) and (**f**) have been obtained from the HITRAN96 database. The wavelength interval shown corresponds to the tuning range of the ECDL (5990–6290 cm^{-1})