

Interactive comment on “First carbon dioxide atmospheric vertical profiles retrieved from space observation using ACE-FTS solar occultation instrument” by P. Y. Foucher et al.

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Received and published: 8 February 2011

Dear S. Kulawik,

Thanks for your comment and your interest in this topic. Your paper about CO₂ retrieval from TES has been added in reference and quoted in the introduction.

To answer your comment, we present in fig.5 a comparison between mean CARIBIC and ACE time series around 10km and fig.6 shows similar comparison with CONTRAIL data except that, in this case, we compare time series for different altitudes or, more precisely, potential temperatures. The difference retrieved from ACE between 9-10 and 10-12km corresponds to the difference measured by the CONTRAIL campaign from
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the tropopause (around 11km) to 20° K (potential temperature) below the tropopause (around 9km), see the red and yellow curves on fig. 6 (from Sawa et al., 2008).

Best regards,

Pierre-Yves Foucher

Interactive comment on Atmos. Chem. Phys. Discuss., 10, 26473, 2010.