**Atmospheric
Measurement
Techniques
Discussions**

Interactive comment on "A Fourier transform infrared trace gas analyser for atmospheric applications" *by* D. W. T. Griffith et al.

Anonymous Referee #1

Received and published: 11 July 2012

The authors present the optimisation of a commercial FTIR spectrometer for the analysis of trace gas mixing ratios (CO_2, CH_4, CO, N_2O) and their isotopic composition (d13C-CO_2, dD-H_2O, d15N-N_2O). Additionally, various applications are given, ranging from clean air monitoring, mobile platforms, point source emission detection, tower profile and flux measurements to different chamber measurements.

The developed analytical approach reaches impressive performance characteristics (e.g. precision), however, it was already published by the same authors before (see for example Deutscher et al., 2010; Griffith et al. 2011). Additionally, the discussion of the analyser's performance is mainly adopted from a companion manuscript by S. Hammer et al. (2012). The presented field campaigns are also mainly published work

(see for example Deutscher et al., 2010; Griffith et al. 2011; Humphries et al., 2012; Haverd et al., 2011), and no significant new or more detailed information is given.

In summary the manuscript represents an "overview publication" without substantial new concepts, ideas, methods, or data. However, as the manuscript is intended for a special issue "Carbon dioxide, other greenhouse gases, and related measurement techniques – 16th WMO/IAEA meeting (GGMT-2011)" it might be exceptionally within the frame of AMT.

Interactive comment on Atmos. Meas. Tech. Discuss., 5, 3717, 2012.