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## **ACPD**

8, S10813-S10814, 2009

Interactive Comment

## Interactive comment on "Atmospheric oxygen and carbon dioxide observations from two European coastal stations 2000–2005: continental influence, trend changes and APO climatology" by C. Sirignano et al.

## **Anonymous Referee #3**

Received and published: 1 February 2009

The paper presents CO2 and O2 measurements over a period of five years at a coastal station in the Netherlands and at Mace Head. The comparison of the measured trends at these stations enables the authors to study the influence of anthropogenic activities and to propose an improvement of the CO2 models. The paper is generally well organized and clearly written. It thus deserves to be published, perhaps with a several small modifications specified below.

Sampling Stations and measurement techniques: As paired samples were analysed for some time, the authors could provide an experimentally derived precision of both

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the CO2, CO, CH4 and O2/N2 measurements. The beginning of the measurements should be specified too.

Analysis, results and discussion: A reader unfamiliar with the O2/N2 measurements will be looking for the relation of per meg unit to  $\mu$ mol/(mol dry air) at the beginning of this chapter but he will find it only some 11 pages later (page 20134). The conversion factor should be mentioned already in the Section 4.1.

Page 20125, 1st paragraph: The last two sentences read as if there were no effects of the Gulf stream at Mace Head. Is it true?

Interactive comment on Atmos. Chem. Phys. Discuss., 8, 20113, 2008.

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