Atmos. Chem. Phys. Discuss., 10, C13123–C13128, 2011
www.atmos-chem-phys-discuss.net/10/C13123/2011/

Atmospheric Chemistry and Physics Discussions

Interactive comment on "Three-year observations of halocarbons at the Nepal Climate Observatory at Pyramid (NCO-P, 5079 m a.s.l.) on the Himalayan range" *by* M. Maione et al.

M. Maione et al.

michela.maione@uniurb.it

Received and published: 1 February 2011

Referee comment: Abstract The abstract is overall a summary of the conclusions but doesn't give information about speciïňĄc results (i.e. trends, mean concentration values etc.) Quantitative results should be highlighted in this part of the paper.

Reply: We have modified the abstract adding more specific information —

Referee comment 2.1. A detailed description of the sampling site is referred to Bonasoni et al. 2010 but in my opinion a sampling site overview should be included in this work. In particular details on the geographical position of the Observatory, possible polluting sources location, and the meteorological conditions of the site should be better

speciïňĄed.

Reply: we modify the text accordingly to the referees' comment and add the reference Bollasina, M., Bertolani, L., Tartari, G.: Meteorological observations at high altitude in Khumbu Valley, Nepal Himalayas, 1994–1999, Bull. Glaciol. Res., 19, 1–11, 2002. —

Referee comment p.22343-line 8 "...over a period of about 10 min..." The sentence doesn't give information about the amount of air collected. What is the volume of the ïňĆasks? What is the pressure reached inside the ïňĆasks? Please specify. p.22343-line18 ": : :improved accuracy: : :" What is the accuracy reached with the new detector? How much the accuracy has been improved compared with the old one?

Reply: we have revised the text accordingly to the referees' comments adding more details and a table reporting specific data on accuracy. —

Referee comment 3.1.1 Atmospheric baselines p.22347, line 3- There are no comments on ïňĄg.4. Please comment this ïňĄgure.

Reply: the discussion has been added —

Referee comment: 3.1.3.Atmospheric trends p.22348, lines 9-10 ""the four-month data sub-set are denoted by an asterisk in Table 3." The asterisks and sub-sets are absent. p.22348, lines 11-12 "Compounds for which the confidence interval is well below the trend itself can be considered significant and are indicated in bold in the table, while italics denote: : :" Italics and bold characters are absent.

Reply: The italics and bold notation disappeared formatting the PDF document. —

Referee comment. 3.2 Methyl halides p.22350, line 7 ": : :time series reported in Fig. 7a and b" CH3Cl data series is reported twice (in Figure 7b and in Fig.8). I suggest to delete Fig.7b and to report in Fig. 7a the CH3Br time series recorded at NCO-P compared with baseline data measured at other global station (as done for CH3Cl in Fig.8).

ACPD
10, C13123–C13128, 2011

Reply: we have modified the figures following the referee's suggestion. —

Technical comments: have all been accepted and incorporated in the text —

The revised manuscript is attached as well as the revised figures (Figure 4, 6 and 7)

Please also note the supplement to this comment:
http://www.atmos-chem-phys-discuss.net/10/C13123/2011/acpd-10-C13123-2011-supplement.pdf

---

Interactive comment on Atmos. Chem. Phys. Discuss., 10, 22339, 2010.

ACPD
10, C13123–C13128, 2011

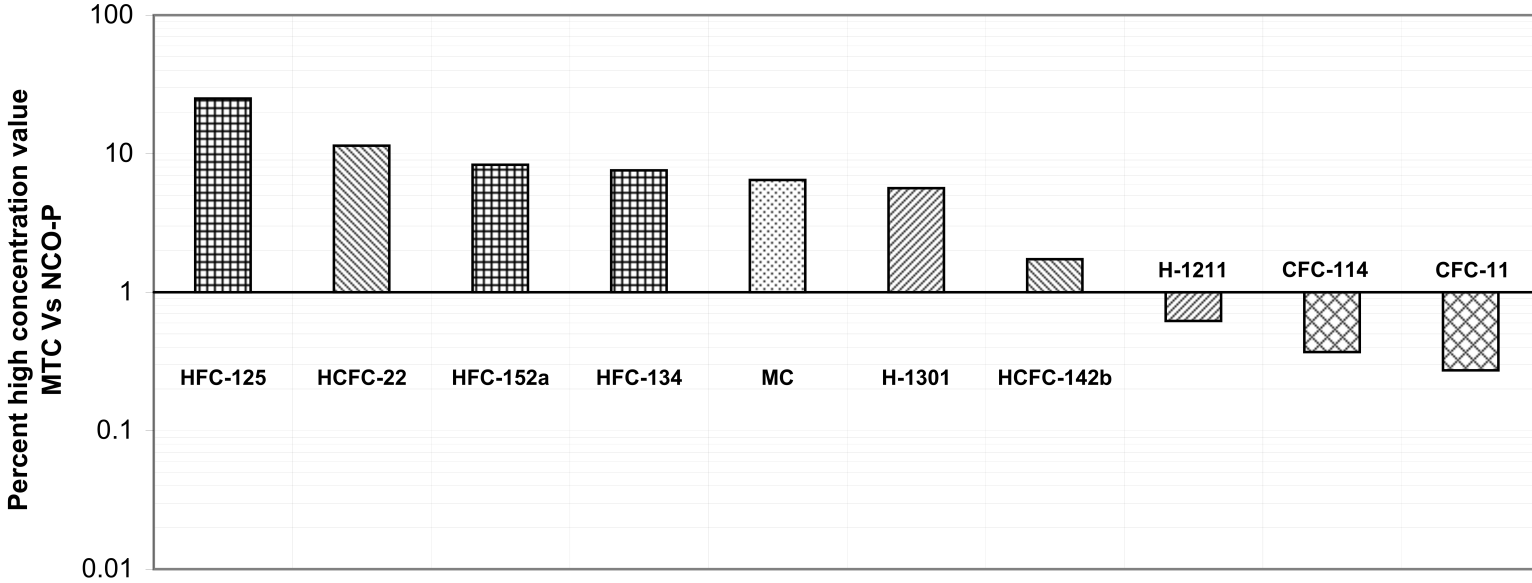

Fig. 1. Figure 4: Ratios of the occurrence of high concentration values at MTC with respect to NCO-P. Chemically homogeneous classes of compounds are denoted by identical shading.

Printer-friendly Version
Interactive Discussion
Discussion Paper

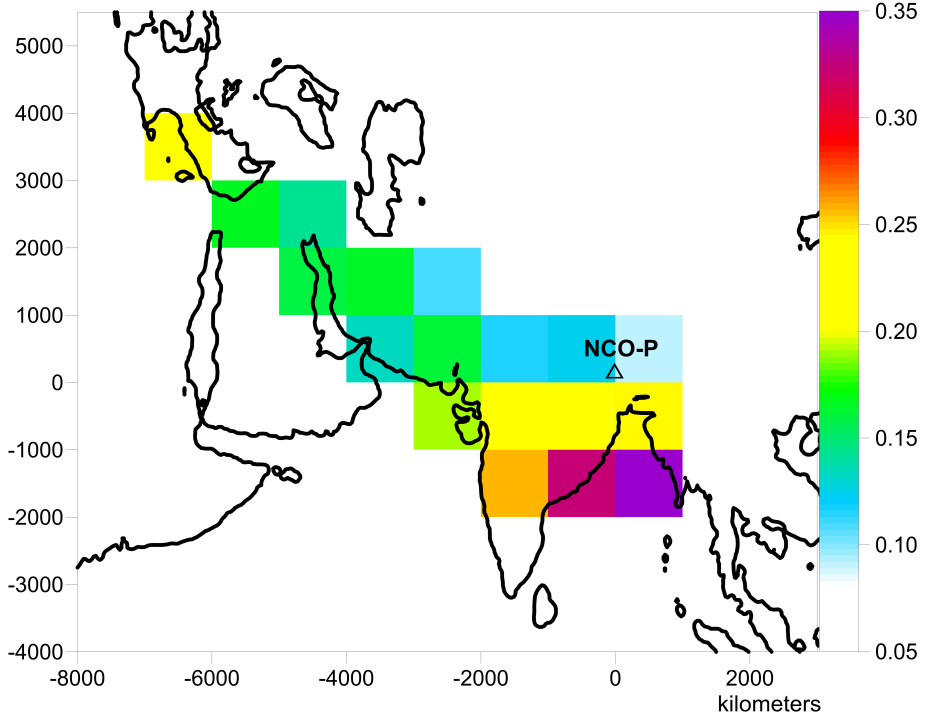

Fig. 2. Figure 6. Map of conditional probability of potential sources of anthropogenic halocarbons, based on observations at NCO-P observatory. The scale represents the fraction of polluted trajectories over

ACPD
10, C13123–C13128, 2011

ACPD
10, C13123–C13128, 2011

Interactive Comment

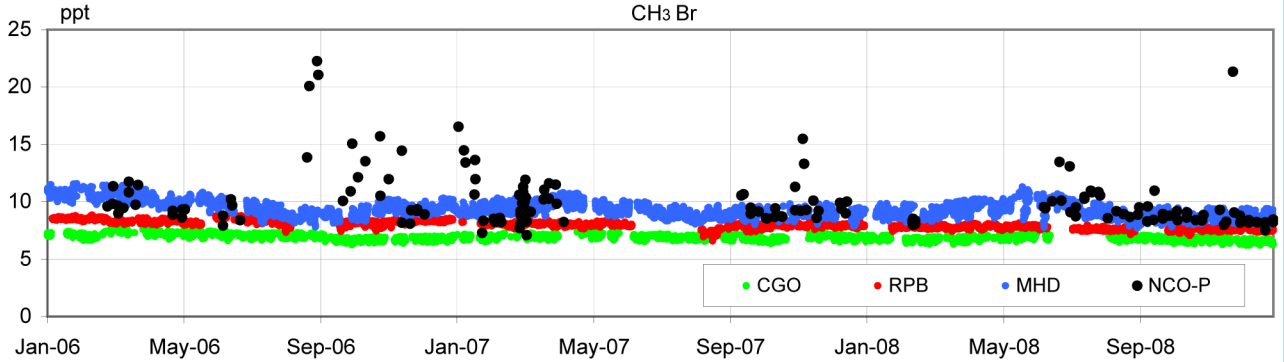

Fig. 3. Figure 7. CH3Br measured at NCO-P (all data) compared with baseline data at at MHD (blue), RPB (red) and CGO (green).

Full Screen / Esc
Printer-friendly Version
Interactive Discussion
Discussion Paper