Object:

Response to comments on "Aerosol mass and black carbon concentrations, two year-round observations at NCO-P (5079 m, Southern Himalayas)" now changed to "Aerosol mass and black carbon concentrations, a two year record at NCO-P (5079 m, Southern Himalayas)"

Himalayas)"

by A. Marinoni et al.

Dear Editor,

Please find below the responses to the specific comments raised in the 2 reviews. We believe all comments have been addressed and we followed all suggested changes. Modifications as respect to the original manuscript are performed in the new version. We thank the referees for the useful comments and we hope the manuscript now meets ACP scientific standards for publication.

Sincerely,

Angela Marinoni

### **Anonymous Referee #1**

The paper makes a nice contribution to the (small) body of knowledge existing on aerosol properties in the Himalayan region of Nepal. The paper is well-written and clear, albeit could be shortened somewhat. I have a few specific (generally minor) comments to address before this work is published below. One overall comment is that the text (20 pages) is somewhat dense and could be reduced which would help the reader glean the most important points. One area mentioned below is the comparison with other sites. Another is the diurnal variation section.

## We agree with referee comment and we shortened both indicated paragraphs

'Aerosol mass and black carbon concentrations, two year-round observations at NCOP (5079 m, Southern Himalayas)' Suggest changing to Aerosol mass and black carbon concentrations: A two-year record at the Nepal Climate Observatory-Pyramid.

### Title is now changed following the referee suggestion

P.8382, Line 23, 'Glacierized': :: Is that a word? Glacial?

## This was changed to "in area of the Himalayan glaciers"

P. 8384, Line 13, 'operative'...perhaps operational?

# The word is now changed in "active"

P. 8385, Line 23, the STP conditions should be specified (1 atm and xx degC).

### This was added (1 atm and 0°C)

P. 8388, Line 17 'Even though BC contributes only a few percents to the total aerosol mass, it produces significant radiative effects.' Change to a few percent'

### This was changed

P. 8391, Line 25, 'and BC grazing 5 µgm-3', replace with "attaining"

#### This was changed

P. 8392, Line 20, "while the averaged BC concentration averaged was 160.5 ngm-3, with a standard deviation of 296.1 ngm 3, accounting for 10.8% of PM1 on average." Replace 'averaged' with 'mean' and delete the second 'averaged'

## This was changed