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Interactive comment on "Aerosol mass and black carbon concentrations, two year-round observations at NCO-P (5079 m, Southern Himalayas)" by A. Marinoni et al.

Anonymous Referee #1

Received and published: 21 May 2010

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.

'Aerosol mass and black carbon concentrations, two year-round observations at NCO-P (5079 m, Southern Himalayas)' Suggest changing to Aerosol mass and black carbon

C2918

concentrations: A two-year record at the Nepal Climate Observatory-Pyramid.

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

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

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

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'

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

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'

Interactive comment on Atmos. Chem. Phys. Discuss., 10, 8379, 2010.