

Interactive comment on “Spatial and temporal distribution of atmospheric aerosols in the lowermost troposphere over the Amazonian tropical rainforest” by R. Krejci et al.

Anonymous Referee #2

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This paper reports measurements of aerosol properties of boundary layer air advecting off the Atlantic Ocean over tropical rain forest when neither biomass burning nor precipitation were important. There are very few previous studies of aerosol evolution over rainforests under these conditions and the paper presents an important contribution to the literature on this topic.

The paper presents the evolution of particle number densities over a diurnal period. Observed increases in Aitken mode particle density during the morning are explained by nucleation and entrainment of new particles from the FT and by direct emissions from vegetation. Accumulation mode number increases in the afternoon which is explained by in-cloud processing and direct emissions from vegetation. The paper makes

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some suggestions on the relative importance of these different processes.

Specific comments

p3575 I14 & I15 The mixed layer heights referred to in the text (800m and 1170m) do not correlate with the horizontal lines in figure 4 drawn to indicate the top of the mixed layer.

Technical corrections

Figure 6 I can not see the arrows that are referred to in the diagram

Figure 8 x-axis caption should read standard not standart

Figure 9 x-axis caption should be ppb not ppm

Interactive comment on Atmos. Chem. Phys. Discuss., 4, 3565, 2004.

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