

## ***Interactive comment on “***

# **Characterization of a volcanic ash episode in southern Finland caused by the Grimsvötn eruption in Iceland in May 2011” by V.-M. Kerminen et al.**

### **Anonymous Referee #1**

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#### General comments:

This paper characterizes the aerosol at Helsinki (Finland) on a day where volcanic ash aerosols from an Icelandic volcano were present. For this case study, a set of various in-situ techniques, dispersion model simulations, and satellite retrievals is used.

Though each applied method is probably not new, the combination of the methods and

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their application to this case study provides consistent interesting results which will be useful for further studies. This paper is well written. The description of the methods and the discussion of the results is reasonable. I recommend to publish this paper in ACP after few minor corrections.

#### Specific comments and technical corrections:

[page/line]

24934/1: Remove ", "

24935/3-4: What does "various environments" mean here?

24936/7: Replace "surface air" by "boundary layer".

24937/10: "to generate vacuum to vacuum chambers.": Maybe you can improve this sentence.

24944/19: replace "SO<sub>2</sub>" by "SO<sub>2</sub>"

24951/5-6: "satellites are not yet able to provide ... vertical location of volcanic particles": This is not true because space-borne lidars (like CALIOP) are able to do this.

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Interactive comment on Atmos. Chem. Phys. Discuss., 11, 24933, 2011.