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## Interactive comment on "Volcanic ash from Iceland over Munich: mass concentration retrieved from ground-based remote sensing measurements" by J. Gasteiger et al.

## **Anonymous Referee #1**

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This paper presents mass concentration estimates of volcanic ash over Munich using multi-wavelength Raman lidar and sun photometer. The quality of the paper is high, and the paper can be accepted for ACP with minor revisions.

In my opinion, a discussion from the practical point of view on flight safety should be added. The limitation of the methods in sensitivity to large particles should be written in abstract and summary and conclusions, though it is discussed in the text. The mass/extinction factor at a distance closer to the volcano can be much larger, and that can cause a serious problem if the extinction coefficient is used as an alarm. What is actually important is to understand the size distribution at emission and the change

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during the transport. A discussion aiming at this direction would be useful.

Interactive comment on Atmos. Chem. Phys. Discuss., 10, 26705, 2010.