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## Interactive comment on "Aerosol hygroscopicity at Ispra EMEP-GAW station" by M. Adam et al.

**Anonymous Referee #2** 

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The manuscript presents hygroscopicity data measured at Ispra station, emphasizing on the effect of water uptake on atmospheric aerosol optical properties. This work is important to the atmospheric community taking into account that standard measuring procedures for aerosol optical properties refer to dry conditions. However it will be a great improvement if in the manuscript more focus was given to lower relative humidities than 90% so that a wider range of real environmental conditions is covered, as stated in the text, ambient conditions are used in radiative transfer models. The Introduction section is not adequate for this manuscript. An overview of similar work would be very interesting and helpful. The second and third paragraph of the Introduction should be moved to the Methodology. Additionally the second paragraph of Section 2 should be moved to Methodology as well. On the other hand the first paragraph of section 3.1 should be moved to the Introduction. Section 3.3 should be merged with 4.3. Figure 1 should be removed since no important information is provided in it and

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Figures 4 and 6 should be presented in a summarized way. Page 3, line 16: How far is the station from the nearest urban center? Page 4, line 1: Why do you use a density of 1.5? Give a reference or explain. Page 9, line 1: The interpolation for the missing months should be validated and explained in more detail. Page 5, line 15: "that the growth factors" Page 10, line 9: "which is known" Page 10, line 16: "Table 1. Particles" Page 14, line 19: "is rather low"

Interactive comment on Atmos. Chem. Phys. Discuss., 12, 5293, 2012.