This paper reports measurements of DRH on bulk samples of some atmospherically-relevant salts. The technique as described is novel and such measurements are of importance in atmospheric chemistry. This paper is suitable for publication in AMT after the authors address the following major issues:

1. Experimental: What is the sample mass needed for this technique? Does this potentially limit its atmospheric applications? If the sample were to be extracted from a filter, what would the mass need to be?

2. Results and Discussion: More details on the E-AIM model should be provided: why was it chosen? What were the parameters used?

3. Figure 3: The agreement between reference and measured DRH values is excellent for most salts shown in Figure 3. However, $(NH_4)_2SO_4$ seems to be an outlier. Similarly, the data for $(NH_4)_2SO_4$ does not fully agree with the model in Figure 4. Can authors comment on this discrepancy? Was there perhaps some contamination in the $(NH_4)_2SO_4$ sample specifically?

4. Figure 4: I agree with the other reviewers that more points are needed on these plots to fully appreciate how measurements compare to the model.

5. Figure 4 and others: All figures that show experimental measurements need error bars. Similarly, uncertainties should be reported on measured DRH values in Table 1.