

Interactive comment on “Hygroscopic properties of NaCl and NaNO₃ mixture particles as reacted inorganic sea-salt aerosol surrogates” by D. Gupta et al.

Anonymous Referee #2

Received and published: 29 January 2015

This paper presents results of very thorough investigation of hygroscopic properties of mixed NaCl/NaNO₃ particles. Particles with the broad range of the mixing ratios are systematically studied experimentally and the results are complemented with thermodynamic modeling. The paper is very well organized, carefully written and previous literature relevant to this study is adequately discussed and meticulously referenced. I recommend publication nearly ‘as is’, with only minor/editorial suggestions and comments listed below.

Because accuracy of the RH measurement is +/-0.5%, it does not make sense to report RH values with an accuracy of a tenth percent. I suggest to round up all the reported

C11664

values to the nearest percent value.

Section 3.2. I think that presenting the eutonic case first (3.2.2) followed by NaCl-rich and NaNO₃-rich cases might have some advantage for the text flow and presentation logic.

P33145, line 1 and other similar places: use of ‘remnant’ is somewhat incorrect here. I would avoid using this word.

P33145, line 6: remove ‘genuine’

P33146, line 13 and other similar places: use of word ‘full’ is unnecessary

P33152, line 10: replace ‘on the other hand’ by ‘however’

P33152, line 20: replace ‘exemplar’ by ‘representative’

P33153, line 21: replace ‘particular’ by ‘specific’

Interactive comment on Atmos. Chem. Phys. Discuss., 14, 33143, 2014.