Atmospheric
Chemistry
and Physics
Discussions

Interactive comment on "Determination of
interfacial parameters of a soluble particle in a
nonideal solution from measured deliquescence
and efflorescence humidities" *by* O. Hellmuth and
A. K. Shchekin

Anonymous Referee #2

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The paper is well-motivated and well-performed being a profound continuation of previous work in this direction, and in particular, of the work of the authors.

In the introduction, the processes under consideration and their impact on atmospheric processes are briefly described and the aim of the present analysis, respectively, the directions of generalization of previous work is explained. The generalization of this program is started then in Section 2 with the outline of the general theoretical approach (given in more detail in the supplementary materials) and applied to different problems

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of particular interest in Sections 3 and 4. A summary of the results completes the paper. Except some minor remarks as given below I do not have any critical suggestions, so I recommend publication after very minor changes.

Some minor remarks:

- In the introduction, the authors talk about "stable nuclei" (page 2). This notation is misleading in the connection as it is used. Supercritical nuclei are as a rule not stable in the thermodynamic sense which is employed also at the same page but somewhat later.

- I propose to change: A full derivation of the calculus -> a comprehensive detailed outline of the calculus

- As possible candidate -> A possible candidate...

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Interactive comment on Atmos. Chem. Phys. Discuss., 14, 22715, 2014.