Interactive comment on “Assessment of calculation methods for calcium carbonate saturation in drinking water for DIN 38404-10 compliance” by P. J. de Moel et al.

Anonymous Referee #3

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The manuscript is very detailed on a topic where a limited number of readers might be interested the way it is presented. It is hardly to be considered innovative; it merely describes an application of the strength of the PHREEQC programm. Specifically, it is aimed at evaluating SI and CCPP calculations in the German DIN standard, a topic of less interest for readers from other countries. The conclusions on the necessity of the incorporation of ion pairs in the SI and CCPP calculations and on the use of proper Ks values are of interest for a broader public, even though these conclusions cannot be considered novel.

General calcium carbonate equilibrium calculations are explained into quite some depth, whereas a reference to a standard text book (e.g. Stumm and Morgan) might be sufficient. That would have helped to keep the text more accessible. Although well documented and precisely presented, the conclusions may be reached based on quite a less comprehensive text.

Literature references are biased to the authors and innovative research by KWR Water Research Institute in the 1990’s is missing.

Although advised to publish the manuscript as it is, rejection could be considered, depending on the editors view on the topic’s power to attract readers.