Reviewer's report

Title: In vitro effect of fluoride oral hygiene tablets on artificial caries lesion formation and remineralization in human enamel

Version: 1 Date: 27 May 2009

Reviewer: Annette Wiegand

Reviewer's report:

General comment:
The results of this work are less surprising showing a higher remineralisation potential for the tablet with higher fluoride content.

Major Compulsory Revisions
1. In the introduction it is mentioned that the fluoride availability is higher for Denttabs compared to a conventional dentifrice: How long can this difference be seen? Is it a clinically relevant difference?
2. Were the tooth samples polished prior to the experiment?
3. How was the sample size in each group determined? Please, give aditional information for which kind of comparisons the respective statistical tests were used.
4. Which volume of the de- and remineralizing solutions was used?
5. Please discuss the precision of the PLM in comparison to TMR, for example.
6. I do not agree that the present model simulate in vivo-like conitions (second last sentence of the discussion). Additionally, the present study do not show whether the higher fluoride availability from the 4350 ppm tabs might contribute to remineralisation of advanced caries lesions – in this context the authors should discuss the relevance of a slightly higher fluoride availability under clinical conditions.
7. The results of figures 3-5 can be summarized in one table.
8. Table 2: Please add standard deviations

Minor Essential Revisions:
9. Abstract: Total challenge time is 360h? From the methods section, I assume that it is 432 h (18 days)?

Discretionary Revisions:

Level of interest: An article of limited interest

Quality of written English: Acceptable
**Statistical review:** No, the manuscript does not need to be seen by a statistician.

**Declaration of competing interests:**
I declare that I have no competing interests