Reviewer's report

**Title**: Identification of the occurrence and pattern of sleep bruxism using EMG and accelerometer systems

**Version**: 1  **Date**: 14 July 2008

**Reviewer**: Ales Celar

**Reviewer's report:**

**MAJOR C R**

1. p2: BruxChecker is not widely known tool, therefore write: The prevalence of bruxism was studied adults using a custom made colour-stained foil on the maxillary dentition overnight. This BruxChecker showed occlusal contacts where the colour was ground off indicating a majority of subjects exhibiting sleep bruxism [9].

2. p5: accelerometer on the chin - did you make sure if there were any skin movements without any mandibular movement?

3. p5: Measurements of maximum voluntary contraction - HOW MUCH TIME BEFORE the subjects went to sleep?

4. at least 3 clenches - did they clench into intercuspal position?

5. Results: The first three sentences belong into the discussion. The fourth sentence should be: "Bruxism was assigned to three types: grinding, clenching, and tapping. This 4th sentences and the following ones until p.8 "in the XY-axis" belong to "METHODS"!

6. p.11: Although the duration and events of clenching and grinding were not significantly different, the total muscle activities in clenching and grinding were (SIGNIFICANTLY?) different. WHICH ARE THE STATISTICALLY SIGNIFICANT FINDINGS (should be repeated in "Conclusion")?

7. p.11 "1.6% MVC to 0.05% MVC" is absolutely unclear - parafunctional movements are expected to reach higher levels than max. voluntary contraction.

**MINOR E R**

pp2&8: 60% instead of 56.9, 40% instead of 39.6

p5: The attempt to establish ...

**DISCR R**

p6: subsequent data so that all EMG signals could be...
Keep abbreviations uniformly (ACC vs. Acc, etc.).

**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Acceptable

**Statistical review:** Yes, but I do not feel adequately qualified to assess the statistics.