

Subject: [BDS] Editor Decision

Dear Diana Ghiggi Basso, Patrícia Moreira de Freitas, Leonardo Saraiva, Paula Benetti:

Your submission Flexural and adhesive strength of 5Y-PSZ translucent zirconia after irradiation with Er:YAG laser. to Brazilian Dental Science, has been revised and according to reviewers' comments, there are questions to be addressed and/or points to be clarified/corrected.

Please answer the reviewers considerations point-by-point in a separate document and also please make all the corrections in the text highlighted in yellow.

Deadline: 30 days

Thank you for considering Brazilian Dental Science for publishing your research. We are looking forward the revised version of you manuscript.

Sincerely,

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Reviewer A:

Recommendation: Revisions Required  
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### **Questionnaire**

Does the manuscript contain new and significant information to justify publication?\*

Yes

Does the Abstract (Summary) clearly and accurately describe the content of the article?

Yes

Is the problem significant and concisely stated?

Yes

Are the methods or research design described comprehensively? Is the statistical analysis adequate?

Yes

Are the interpretations and conclusions justified by the results?

Yes

Is adequate reference made to other work in the field?

Yes

Is the language acceptable?

Yes

### **Manuscript Structure**

Length of article is:\*

Adequate

Number of tables is:

Adequate

Number of figures is:

Adequate

**Please state any conflict(s) of interest that you have in relation to the review of this paper (state “none” if this is not applicable).**

None

**Rating**

Interest\*

Excellent

Quality

Good

Originality

Good

Overall

Good

**Recommendation**

Minor Revision

**Would you be willing to review a revision of this manuscript?**

Yes

**Comments**

*Comments to the Author*

Dear Authors,

A few clarifications are recommended:

1. Laser application: The irradiation was performed manually. Please discuss potential operator variability and how it was minimized.
2. Sample size: No justification or power calculation is presented. Please justify or present the calculation.
3. Statistical Analysis: The statistical approach is appropriate. Clarify whether normality and homoscedasticity assumptions were verified prior to ANOVA.
4. Figures : The SEM images (Figure 1) show relatively subtle differences among laser irradiation protocols. The authors should enhance the figure legend and/or provide a more detailed description of the observed surface features to better support the interpretation of morphological changes.
5. References: Some duplication (Ref 30 and 36 are identical)

#### Final Recommendation

This is a well-conducted and clinically relevant in vitro study with solid methodology and appropriate interpretation of results. The manuscript requires only minor revisions related to clarity, methodological transparency, and figure interpretation.

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Reviewer E:

Recommendation: Revisions Required

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#### Questionnaire

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Are the interpretations and conclusions justified by the results?

Yes

Is adequate reference made to other work in the field?

Yes

Is the language acceptable?

No

### **Manuscript Structure**

Length of article is:\*

Adequate

Number of tables is:

Adequate

Number of figures is:

Adequate

**Please state any conflict(s) of interest that you have in relation to the review of this paper (state “none” if this is not applicable).**

none

**Rating**

Interest\*

Good

Quality

Average

Originality

Good

Overall

Average

**Recommendation**

Major Revision

**Would you be willing to review a revision of this manuscript?**

Yes

**Comments**

*Comments to the Author*

The overall organization of the manuscript could be improved. Although the Results section generally follows the sequence presented in the Materials and Methods section, the pilot study findings are partially embedded within both the methodology and the discussion, which reduces structural clarity. In addition, the Discussion section does not consistently follow the order of the reported results, since flexural strength findings are discussed before bond strength outcomes, despite the latter being presented first in the Results section. Reorganizing the Discussion according to the sequence of the Results would improve readability and scientific flow.

The terminology used for surface treatment is inconsistent throughout the manuscript. The authors alternately use the terms “airborne abrasion,” “airborne-particle abrasion,” and “air abrasion.” One standardized term should be selected and used consistently throughout the text.

Furthermore, the pilot study methodology requires clarification. Although the pilot study was used to determine the irradiation protocol, important methodological details are missing. The manuscript should specify how many specimens were evaluated per protocol, whether any flexural or adhesion tests were performed during the pilot phase, and whether protocol selection was based solely on qualitative SEM observations. In its current form, the pilot study appears largely descriptive and subjective.

Finally, Reference 36 appears to be duplicated from Reference 30 and should be corrected.

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