Author’s response to reviews

Title: Assessing staining resistance of a CAD/CAM interpenetrating network composite material

Authors:
Mustafa Ozarslan (drmustafaozarslan@gmail.com)
Sebnem Buyukkaplan (sbuyukkaplan@gmail.com)
Cagatay Barutcugil (cbarutcigil@akdeniz.edu.tr)
Merve Ozarslan (m_ars@hotmail.com)
Kubilay Barutcigil (kubibarut@hotmail.com)
Nurullah Turker (nurullahturker@hotmail.com)

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Author’s response to reviews:

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To: Head and Face, Editorial Board

We have completed the revision of our article titled “Assessing staining resistance of a CAD/CAM interpenetrating network composite material” and resubmit to you this revised version of our manuscript. Kindly find below a detailed point-by-point response to all comments. Additionally, the changes/additions were highlighted in the revised manuscript. We gratefully acknowledge the comments and thank you for giving us the opportunity to revise and submit this manuscript once again. We sincerely hope that the manuscript, in its revised form, meets requirements for acceptance for publication.

Thank you profoundly for your time and consideration. We look forward to hearing from you at your convenience.

Mehmet Mustafa Özarslan, DDS, PhD.
Assistant Professor
Response to Reviewer #1:

We thank the reviewer for his/her constructive comments and suggestions. We appreciate the comments and the answers were given one by one for the suggestions. We give special thanks to reviewer for the advancement of the manuscript.

1. In the abstract only abbreviations should be used that have been explained or are commonly known.

Answer: We appreciate the comment of the reviewer and in the Abstract all the abbreviations were written openly except CAD/CAM since the CAD/CAM is a commonly known term.

2. The selection of the color space used (CIEDE2000) should be justified.

Answer: The selection of the color space used (CIEDE2000) is added to the manuscript after page 5-line 92 as the reviewer suggested.

“It was stated that using the CIELAB color system color differences between two subjects could be calculated and it can be used for clinical evaluation. However, this system has some limitations such as representing the hue values [23]. Thus, various CIELAB based color differences formula were introduced to overcome the limitations of the system [24]. A recent research suggests that CIEDE2000 can be used for better evaluation of color differences [25]. This formula incorporates specific corrections for nonuniformity of CIELAB color space especially for the interaction between chroma and hue differences in the blue region, and a modification of a* coordinate of CIELAB, which mainly affects colors with low chroma [26]. Shade differences were transformed to CIEDE2000 using the formula previously described [27] and recorded as ΔE00.”

3. The variables used in the equation for transforming color values from CIELAB space to CIEDE2000 should either be explained or the formula should be omitted. In this case an appropriate reference should be provided.
Answer: We appreciate the comment and the formula was excluded as the reviewer suggested. Instead of formula, the related reference was added.

“Shade differences were transformed to CIEDE2000 using the formula previously described [27] and recorded as ΔE00.”

4. The cited perception threshold (delta-E00=2.23) should be rounded to a meaningful number of decimal places, e.g. 2.2.

Answer: In the manuscript, all the perception threshold values were corrected as 2.2 instead of 2.23 as the reviewer suggested.

5. Table 1 - 3: It should be explained how the uncertainties of the measured values (+- xy) are calculated (probably standard deviations?)

Answer: We appreciate the comment and the below explanation was made in the Table1, 2 and 3 as the reviewer suggested.

Table 1. The mean time dependent ΔE00 values and standard deviations calculated by descriptive statistics of the specimens finished with different methods and stored in distilled water

Table 2. The mean time dependent ΔE00 values and standard deviations calculated by descriptive statistics of the specimens finished with different methods and stored in red wine

Table 3. The mean time dependent ΔE00 values and standard deviations calculated by descriptive statistics of the specimens finished with different methods and stored in coffee

Responses to Reviewer 2:

Reviewer #2: I would recommend to accept the manuscript with minor revisions.

The topic is of interest and the technical and statistical methods were adequate. Recent literature was included into the Introduction and Discussion section.

However, to my mind, it would be advisable to have the manuscript emended by an English language native speaker. I made some corrections as follows.
We would like to thank the reviewer for his/her constructive comments and suggestions. We appreciate the comments and all the corrections suggested by the reviewer were made in the manuscript as highlighted. We give special thanks to reviewer for the advancement of the manuscript.

1. 5: To facilitate understanding of the abstract for itself, I would recommend writing "different translucency levels (T and HT) and various surface procedures"

Answer: The phrase “different translucency levels (translucent and high translucent) and various surface procedures” was added in page 1-line 4,5.

1. 11: The phrase "Color difference was only perceivable in the 7 days Glaze group kept in red wine" should be changed into "In the 7 days Glaze group, color difference was only perceivable in the specimens kept in red wine".

Answer: The phrase “In the 7 days Glaze group (ΔE00≥2.2), color difference was only perceivable in the specimens kept in red wine.” was added in page 1-line 12,13.

1. 37: "As results of interfacial stresses" should be changed into "as a result of interfacial stress".

Answer: The phrase “as a result of interfacial stress” was added in page 3-line 39.

1. 40: "it was showed" should be changed into "it was shown"

Answer: The phrase “it was shown” was added in page 3-line 42.

1. 43: "Decreasement the gloss of dental materials makes the surface more prone to staining" should be changed into "A reduced gloss makes a surface more prone to staining."

Answer: The phrase “A reduced gloss makes a surface more prone to staining” was added in page 3-line 45.
1. 47: The abbreviation PICN is explained in l. 302. However, to increase readability I would suggest doing just as in l. 28 with the abbreviation of IPN by writing "Polymer-infiltrated ceramic network (PICN) material"

Answer: The phrase was corrected as “IPN [polymer-infiltrated ceramic network (PICN)] materials” in page 3 line 48-49.

1. 64: I would suggest to change the term „superficies” into “surface”, because to my knowledge the former is more common in geology than in materials science.

Answer: The term “superficies” was changed to”surface” in page 4-line 65.

1. 68: I would suggest deleting the words "that was" and simply writing "the methods identified in a previous study"

Answer: The phrase “the methods identified in a previous study” was added in page 4-line 69.

1. 105: "The time-dependent discoloration of specimens that different surface finishing procedures applied…” should be changed into: "Time dependent discoloration of specimens finished by different procedures…”

Answer: The phrase “Time dependent discoloration of specimens finished by different procedures” was added in page 6-line 113.

1. 106: "was showed" should be changed into "was shown"

Answer: The phrase “was shown” was added in page 6-line 114.

1. 135: (Table 2) and l. 138 (Table 3): "Different upperscript letters point out that statistically differences…” I would suggest writing "superscript" instead of "upperscript" and the authors should either write "statistical differences" or "statistically significant differences”.

Answer: The term “upperscript” was changed to “superscript” in Table 1 and 3. The phrase “statistically significant differences” was added to the explanations of Table 1-3.
I. 164: I would suggest writing "In previous studies" instead of "In the previous studies"

Answer: The phrase “In previous studies” was added in page 10-line 172.

I. 210: "In the restrictions of this study" should be changed into "Within the limitations of this study"

Answer: The phrase “Within the limitations of this study” was added in page 11-line 218.