Dear Prof. Ražić,

we would like to thank again you and the Reviewer for consideration of our corrected manuscript.

We have made all Reviewer’s corrections which are incorporated and highlighted in our revised manuscript. We are grateful to the Reviewer for useful suggestions and comments which, we believe, improved our manuscript.

Our responses to the specific points are given in the appendix to this letter.

We hope that our responses and changes we have made are satisfactory and that you will be able to accept our manuscript for publication in Journal of the Serbian Chemical Society.

Best wishes,

Ljiljana Damjanović-Vasilić

**Appendix: Detailed responses to Reviewer’s comments**

**Reviewer A:**
The article in its revised form is definitely improved.
Therefore I recommend its publication in Journal of the Serbian Chemical Society with several minor modifications listed below.

Abstract and Conclusions: copper and iron ions – even you are writing about ions in the text of the article! Oxidation state matters! The same metal, in different oxidation states, can produce different colors!

Initially suggested: ‘…copper and iron ions were responsible for the coloring of the green and yellow glazes’;
Changed as requested.

Abstract: ’Medieval glazed ceramics, dated to the early 15th century’;

Changed as requested.

Abstract: ‘characteristic of workshops from different areas’;

Changed as requested.

Page 3 – ‘dated to the 14th to early 15th century’;

Changed as requested.

Page 3 – ‘in accordance with museum practice’;

Changed as requested.

Page 4 – please, also provide the value of the current intensity;

Changed as requested. Inserted in the text: .. “applied voltage U = 40 kV and current intensity I = 40 mA”…

Page 4 - Ward’s method and squared Euclidean distance – please, check what distances did you actually used (squared or not, as the graph is the same in the initial and revised version); I was not advocating for the use of one kind of distance or another – definitely you should state exactly which distance you have used when drawing the dendrogram;
In our work we have used Euclidean distance and Wards’ method. In the initial steps of statistical analysis, the program uses Euclidean distance and during the calculation it squares the distances, as is in the base of Ward’s method. As Ward’s method joins two clusters, whose merger leads to the smallest increase within-cluster sum of squares (i.e. minimum within-group variance). The within-cluster sum of squares is defined as the sum of the squares of the distances between all objects in the cluster and the centroid of the cluster.

Therefore, in accordance with the Reviewer’s comment, in revised version we changed only the text (from Euclidean distance to squared Euclidean distance), and the graph remained the same.

In this version of the manuscript, we made changes and specified that we used Euclidean distance with Ward’s method for HCA.

Page 4 – ‘For statistical analysis, the values of oxides that were under the detection limits were replaced with value of 0.1 wt%.’;

No need to write this sentence, so please, erase it – you actually removed only TiO2 values from the statistical analysis; all other oxides were detected in amounts higher than DL;

Erased, as requested.

Page 5: ’Noticable’ – replace by ’noticeable’;

Changed as requested.

Pages 6-7 ‘The HCA of ceramic body chemical composition data showed that the results have been influenced by variable TiO2 wt% which has low absolute presence (see Table I- values for some samples are missing and some have poor precision), variation and meaning. Thus, the titanium oxide variable is
omitted from presented statistical analysis in order to gain better insight into structure of compositional data.’ – please, rephrase it like this, as what you wrote is too general and not at all appropriate in your case: “As TiO2 was under the detection limits for certain samples, this variable was omitted from the statistical analysis”.

Changed as requested.

Page 7 – ‘in the dendrogram obtained by Ward's method and squared Euclidian distances.’ – it is always important to mention what kind of distance you used when performing HCA: always state the clustering method and distances;
Changed as requested. Inserted in the text: .. “Euclidean distance ”…

I did not get figure S-2 – I suppose that this figure does exist;

Yes, it is given in Supplementary material. We have inserted in the text: …(Fig. S-2 is given in Supplementary material)….

Page 14 – ‘When Raman spectra of glaze show only glassy signature, then color is achieved by dispersion of ions (Fe3+ or Cu2+) in glassy matrix.’

Changed as requested.

Page 14 – ‘…but the amount of Fe2O3 was rather high and varied from 2 wt% to 7 wt%. Green color can be produced by Fe2+ ions formed in reducing atmosphere even when there is no copper in the glaze31.’

Changed as requested.

Page 15 – superscript the references: ‘e.g. 28,30,32.’
Changed as requested.

Page 4 of SM (lines 37, 40) – ‘Byzantine castle’ – better check the spelling throughout the entire text – main article and supplementary material, as they might be still some more such mistakes.

Changed as requested.

REPORT:
    The article in its revised form is definitely improved.
Therefore I recommend its publication in Journal of the Serbian Chemical
Society with several minor modifications listed below.