Dear Prof. Branislav Z Nikolic

Editor in Chief Journal of the Serbian Chemical Society

Thanks very much for your e-mail at 15-March-2019 about of our Manuscript entitled “Modified screen-printed electrodes for electrochemical detection of amlodipine”. I revised the manuscript on the basis of reviewer's comments. All changes and corrections were marked with red pen in the revised manuscript. I hope the revised paper may be suitable for publication in Journal of the Serbian Chemical Society. Kindly do the needful at an early date. Hope to hear from you soon.

With Best Regards

Dr. Sayaed Zia Mohammadi

**Response to Reviewer A**

REPORT:

The manuscript reported an electrochemical sensor for amlodipine based on manganese ferrite nanoparticles-modified electrode. The authors provided a detailed investigation on the electrochemical performance of the sensors using different electrochemical techniques, and the proposed sensor showed good results in real samples. The design and performance of the sensor is promising. Therefore, I recommend it to be published after minor revision.

The following are specific comments:

1) Introduction. Nanomaterials, especially metal nanomaterials, have been widely applied in electrochemical sensors due to their unique properties. Some key references related to this topic should be added, e.g. Electrochemistry Communications 2010, 12 (6), 777-780; Analyst 2014, 139 (16), 3860-3865.

Some references was added to text such as “Electrochemistry Communications 2010, 12 (6), 777-780; Analyst 2014, 139 (16), 3860-3865” and so on were added to manuscript as comment of reviewer A.

2) The manganese ferrite nanoparticles was used to fabricate the sensor. Therefore, it is recommended to provide some information related to the size, morphology of the nanomaterials.

SEM was added to manuscript and morphology of the nanomaterials was discussed as comment of reviewer A.

3) For the test in urine samples, I am wondering if the electroactive species in urine, such as uric acid will affect the electrochemical signals?

Dear reviewer, the interference study was studied and added to text.

**Response to Reviewer B**

* Magnetic core-shell manganese ferrite nanoparticles should be indicated in the title

Magnetic core-shell manganese ferrite nanoparticles was added to Title of manuscript as comment of reviewer B.

* The manuscript should be checked for typos error (electroactiveF, etc.)

The whole of the manuscript spell checked and some typos error was found and corrected as comment of reviewer B.

* All abbreviations should be introduced (CV, LSV, etc.) through all manuscript

All abbreviations through all manuscript checked and some abbreviations was introduced as comment of reviewer B.

* Page 5 – diluted to the mark with by using…

Page 5 – “…diluted to the mark with using…” was corrected to “…diluted to the mark by using…” as comment of reviewer B.

* Page 5 – Sentence “The amount of unknown AML in the tablet can be detected by extrapolating the plot.” is not well written.

Page 5 – Sentence “The amount of unknown AML in the tablet can be detected by extrapolating the plot.” Was rewritten as comment of reviewer B.

* Urine samples – author should state from who urine samples were collected? (Healthy volunteers, patients who take AMP???)

Dear reviewer, the urine samples were collected from Healthy volunteers and was added to text.

* Page 5 – author used term “prevent” matrix effect. By using standard addition method matrix effect is not prevented just is minimized or compensated, so prevent is not adequate in this regards. Also volume of urine samples used before dilution with PBS for analysis is missing.

Page 5: “Prevent” correct to “minimize” as comment of reviewer B. Also volume of urine samples used before dilution with PBS for analysis was added to text.

In section “Preparation of the electrode” authors described preparation of stock solution by dispersion and also used term “suspension solution”. It is not stock solutions because you have dispersion of NPs, so you have suspension, and also suspension is different from solutions, so cannot have suspension solution!

In section “Preparation of the electrode”: “suspension solution” was corrected to “suspension” as comment of reviewer B.

* What is the power of this method over other amlodipine detection studies? It should be stated well maybe with a table.

The linear range and detection limit of present work compared with values reported by other research groups for electro-oxidation of AML at the surface of chemically modified electrodes (Table 1) as comment of reviewer B.

* Electrochemical behavior of amlodipine at the surface of MCSNP/SPCE

Page 6 “of” was added to “Electrochemical behavior of amlodipine at the surface MCSNP/SPCE” and corrected as comment of reviewer B.

* “Thus the electrochemical behaviors of AML were studied in 0.1 M PBS in different pH values (2.0–9.0) at the surface of MCSNP/SPCE by voltammetry – authors should state what voltammetry? CV

The electrochemical behavior of AML in different pHs was studied by using cyclic voltammetry and this voltammetry was added to manuscript as comment of reviewer B.

* Effect of scan rate – which voltammetric technique authors used? It is shown on Figure, but author should state in discussion as well.

For study of the scan rate, linear sweep voltammetry was used and added to text as comment of reviewer B.

* On Figure 3 – Caption is not appropriate – Tafel plot can be seen in inset of Fig.3, not at LSV

Dear reviewer, Thank you for your attention. Caption of Figure 4 was corrected.

* Authors did not study influence of possible interferences. Why? Urine sample is so complex

Dear reviewer, the interference study was studied and added to text.

* Page 10 – Author should be precise how they calculate LOD - (3s) is not presenting clear which way they used to calculate LOD

The detected limit based on three times the standard deviation of the blank (3s) was calculated and added to text as comment of reviewer B.

* Page 12 – “Also, the reproducibility of the method was demonstrated by the mean relative standard deviation (RSD).” – what means the MEAN standard deviation?

Page 12 – “….. the mean relative standard deviation (RSD)” was corrected to “….. the relative standard deviation (RSD).” as comment of reviewer B.