**Responses to** **Reviwers’ comments and the description of revisions in the revised manuscript**

We would sincerely thank the Review for the time and effort in carefully reading the manuscript and in preparing the review reports. We truly appreciate your positive comments on our work, as well as for raising interesting points, which lead to the improvement of the manuscript. We have revised our manuscript accordingly. The point-by-point responses to the comments are enclosed. We hope we have satisfactorily addressed all Referees’ concerns and questions.

Reviewer's comments and authors' replies:

[Reviewer comments in black; Author response in blue.]

--------------------------------------------------------------------

**Response to Reviewer 2**

The manuscript is interesting research about developing a chemosensor array for metals ions detection simultaneously. It is very well written and presented. A detailed supplementary material is very helpful and useful for readers. Here are some comments:

**1. Comments:** line. 57-58. It seems that Figure 1 should be placed in other section, namely Section 3.1. , where it is mentioned for the first time (line 176).

**Reply:** Thanks for the valuable comment. We have changed the position of Figure 1 to line 182, and adjusted the arrangement of the figures in the article.

**2. Comments:** line 59. Remove "2. Results".

**Reply:** Thanks for the valuable comment. We have removed the heading “2. Results” in the revised manuscript.

**3. Comments:** line 148. What does NAA mean?

**Reply:** Thank you for your valuable opinion. NAA is an abbreviation for amino acid, and we have added the description of NAA in the section of “2.3 Construction of sensor array”.

**4. Comments:** line 251. Write "On TEM images " instead of "Transmission electrone microscopy can be observed..."

**Reply:** Thanks for the valuable comment. We have made the appropriate changes in the text to make the sentences more concise and highlighted them in red (line 248).

**5. Comments:** line 284. Remove the word "that".

**Reply:** Thanks for the valuable comment. We have removed the word “that” in the revised manuscript.