Dear Prof. Ljiljana Damjanović,

Thank you very much for the helpful comments by the reviewers. The manuscript(No. 1452) has been corrected according to the reviewers comments as follows (My corrections are in red color in the REVISED MANUSCRIPT):

Reviewer A:

1- Line 11 – add (MIDA) after "methyliminodiacetic acid

Page 1, Line 11, " MIDA" has been added after " methyliminodiacetic acid "

2- Line 14 – add (KAT) Kamlet-Abboud-Taft

Page 1, Line 14, " KAT" has been added after " Kamlet-Abboud-Taft "

3- Line 46 – add full name after "MRI"

Page 2, Line 46, full name " Magnetic Resonance Imaging " has been added after " MRI ".

4- Line 82 – add "where" in front of aH*

Page 3, Line 82, " where " has been added in front of "a_H* ".

Reviewer B:

1- The "Introduction" has nothing to do with the rest of the text and better be completely deleted.

Since Reviewer A opinion is that the length of the manuscript is enough; On the other hand according to the " Instructions for authors " of the journal every paper (full paper, Communication, Note, etc) must contain the " Introduction " section, therefore I did not delete the " Introduction " section of the REVISED MANUSCRIPT.

If it is necessary please let me know more specifically so that I delete the "Introduction" section.

2- The calibration of the potentiometric equipment to measure hydrogen concentration in mixed solvent is poorely documented.

In reference (15), the page number (243) has been added and the year (1964) has been corrected to (1973). Also some more sentences have been added on page 3 of the REVISED MANUSCRIPT as follows:

" Therefore the calibration has been done by using the buffers (pH 4.00, 7.00) which were from Metrohm AG, Herisau, Switzerland, similar to the work by Sigel[11] and then the correction factors[15,16] have been applied for different solvent mixtures. "

11. G. Liang, N.A. Corfù, H. Sigel, *Z. Naturforsch.* **44b** (1989) 538

15. R. G. Bates, Determination of pH, Wiley, New York, 1973, p. 243.
16. K. Majlesi, S. Rezaienejad, N. Doustmand Sarabi, M. Fahmi, F. Tahamtan, *J. Serb. Chem. Soc.* **78** (2013) 1547

3- Statistical parameters from Hyperquad calculations are missing as well as fitted titration curves that nothing could be said about reliability of potentiometric data.

The following sentence was added on page 4 of the REVISED MANUSCRIPT:

"Figures 2 and 3 show the speciation diagram and fitted titration curves from Hyperquad 2013 program respectively (for 25% methanol).

Figures 2 and 3 were added as new Figures on page 5 of the REVISED MANUSCRIPT.

The standard deviations in Tables 1 and 2 (are statistical parameters) for the current work from Hyperquad2013 calculations.

More statistical parameters together with observed and calculated data and the related speciation and titration curves from Hyperquad2013 program were gathered in Excel file(for 25% as an example) and was sent as a supplementary file for the REVISED MANUSCRIPT.

4- Input total errors in pH and volume for Hyperquad were not quoted and this further adds to uncertainity of the quality of data.

Input total errors in pH and volume for Hyperquad were added on page 4 of the REVISED MANUSCRIPT as follows:

" Errors for pH and volume in the Hyperquad2013 program were 0.001. "

5- It is not clear what type of constant was calculated from the spectrophotometric Job curve - conditional or thermodynamic.

It is not thermodynamic constant, because it is not at $I = 0$.

Therefore the word " conditional " has been added in the related sentence on page 7 of the REVISED MANUSCRIPT:

"The values of conditional stability constants can be obtained by inserting the values of $[MoO_3L^{2-}]$, $[MoO_4^{2-}]$, $[H^+]$ and $[L^{2-}]$ in Eq. (5)."

6- How the errors in calculated constants were obtained?

The errors in calculated protonation constants are the output of Hyperquad2013 program which have been gathered in an Excel file (for 25% as an example) and was sent as a supplementary file for the REVISED MANUSCRIPT. They are in fact

standard deviations after refinements. Then the final stability constants have been calculated form the summation of formation constants (from Job calculations) and the protonation constants, therefore the standard deviation for the final stability constants is calculated on the basis of the following formula(From: Fundamentals of Analytical Chemistry By Skoog & West):

$s_y = (s_1^2 + s_2^2 + \ldots\ldots)^{0.5}$ $s_1, s_2, \ldots\ldots$ are standard deviations for the protonation constants and formation constant.

7- I can not whether ionic medium was present in spectrophotometric measurements.

The first sentence in the abstract of the FIRST SUBMITTED MANUSCRIPT(page 1) shows that the spectrophotometric measurements were done at a fixed ionic strength as follows:

" The complexation of molybdenum(VI) with methyliminodiacetic acid (MIDA) at pH = 6.00, T = 298 K , I = 0.1 mol.dm^{-3} of sodium chloride and different water + methanol solutions (0-45% v/v) was studied by using potentiometric and UV spectrophotometric measurements."

Also the following sentence had been written in the FIRST SUBMITTED MANUSCRIPT(page 3):

" All measurements were carried out at T = 298 K and an ionic strength of 0.1 mol.dm $^{-3}$ sodium chloride."

But in order to be more clarified, the above sentence has been corrected on page 3 of the revised manuscript:

" All of the spectrophotometric and potentiometric measurements were carried out at T = 298 K and an ionic strength 0.1 mol.dm $^{-3}$ of sodium chloride."

Also another sentence on page 4 of the REVISED MANUSCRIPT has been corrected as follows:

" Spectrophotometric measurements were performed with a PerkinElmer Lambda 25 UV-Vis spectrophotometer between 245 nm and 280 nm in thermostatted 10-mm quartz cells at T = 298 K and an ionic strength 0.1 mol.dm $^{-3}$of sodium chloride. [5-8,10] "

8- The obtained stability constant was not discussed and compared with other similar ligands.

There was a section entitled " Comparison with literature data " in the FIRST SUBMITTED manuscript.

The following sentence has been corrected on pages 8 and 9 of the REVISED MANUSCRIPT:

" Literature survey showed that although there are only a few reports for the complexation of Molybdenum (VI) with ethylenediamine-*N*,*N*′-diacetic acid (EDDA)

in methanol-water[22,23] and complexation of tungsten (VI)[24] and molybdenum (VI)[25] with EDDA in propanol-water mixtures there is no paper about the stability constants data in different water + methanol solutions for the interaction of molybdenum (VI) with MIDA."

Also the following sentence has been added on page 9 of the REVISED MANUSCRIPT:

" It was seen from the literature data[22-25] that the stability constants increased with polarity decrease of the alcohol-water mixtures which confirms the pattern which has been obtained in the current research. "

Therefore new References (22-25) have been added in the REVISED MANUSCRIPT in this regard.

9- If MIDA is parent compound for Taft equation what homlogous series it is addressed for?

MIDA belongs to the class of aminopolycarboxylic acids which was mentioned in the FIRST SUBMITTED MANUSCRIPT, therefore it is addressed for aminopolycarboxylic acids. So in the REVISED MANUSCRIPT the following sentence has been added on page 11 in the " Conclusions " section of the REVISED MANUSCRIPT:

" …….. and therefore it is predicted that it can be valid probably for the complexation of molybdenum (VI) with other aminopolycarboxylic acids."

Finally I have made appropriate corrections and changes in the manuscript according to the reviewers' comments. If there is anything left due to my misunderstanding please let me know so that I can do the necessary corrections.

Thank you very much for your kind assistance in advance and I look forward to hearing from you soon.

Best regards
Kavosh Majlesi