**Responses to Reviewers and Editor**

We have appreciated for all suggestions that make the manuscript more valuable study. All suggestions were responded and with demanded suggestions, the manuscript was reorganized.

The corrections were suggested by reviewers were carried out by us point by point and colored as yellow in the manuscript.

***Reviewer D’s Comments:***

1-      IUPAC names of the synthesized or studied compounds may be given in an appropriate part of the MS.

Correction was made; they have been written in supp. İnfo.

2-      Line15  were------>was

Correction was made.

3-      Line19  taoutumerism---->tautomerism

Correction was made.

4-      Line61 Scheme1 needs a caption

Schemes were fused, correction was made.

5-      Line84 “Determination of Enol Forms with 1D NMR C-311.1” ---->What does C 311.1 mean?

Correction was made, it was typing error

6-      Line96 Scheme2 needs a caption

Correction was made, schemes were fused.

7-      Line100 possess---->possesses for subject verb agreement

Correction was made.

8-      Line116  “However”------>”However,”

Correction was made.

9-      Line 117   “substituent”------>” substituents”

Correction was made.

10-     Line 140-141  “PCM/B3LYP/6- 311G(d,p)//B3LYP/6-311G(d,p)”----> “PCM/B3LYP/6-  
311G(d,p)"

Correction was made.

***Reviewer H’s Comments:***

1. Page 1, row 1, title of the manuscript. During the experiment, authors used only HMBC experiments to determine enol form of investigated components in CDCl3 solutions so, from my opinion, the article title should be changed in to …"2D HMBC NMR data"… instead just …"2D NMR data"...

Correction was made, titled changed in to “**Determination of enol form of asymmetric 1,3-dicarbonyl compounds: 2D HMBC NMR data and DFT calculations”.**

2. Page 1, row 9. Instead: "According to the 1D-NMR," …; Change in to: "According to the 1H and 13C NMR," …

Correction was made; According to the 1H and 13C NMR, all investigated compounds have been found into single enol form in the CDCl3 solution.

3. Pages 1 and 2. In rows from 32 to 35. Authors should provide adequate references for the statements in the sentences that they gave as.

 Correction was made; . In addition, protein–ligand interaction studies show that exchange of a hydrogen may convert an acceptor into a donor and changes the interactions of a protein–ligand complex. This is one of the most important reasons that why molecular modeling community gather attention to tautomerism.**24**

4. Page 2, row 61, Schema has no title.

Correction was made, schemes were fused.

5. Page 3, Schema 1. Compounds does not have systematic and/or trivial names.

Correction was made.

6. Pages 3 and 4, Schema 1. and following paragraph (rows from 65 to 73). The paper was named Determination of enol forms of asymmetric 1,3-dicarbonyl compound’s…, still in Scheme 1. and following paragraph, authors present two symmetric compounds, 5 and 9, without any explanation way and without any further discussion in the text except in page 12 row 214.

Compounds 5 and 9 have symmetric moieties, but they are also in enol form (see supp. İnfo). For his reason they are investigated within all compounds (rows from 65 to 73).

7. Page 4, Figure 1. The resolution of figure is insufficient and it was difficult anything to see.

Correction was made.

8. Page 5, row 84. In subtitle: Determination of Enol Forms with 1D NMR C-331.1, wat is C-331.1?

Correction was made, it was typing error.

9. Page 5, row 96. Schema has no title.

Correction was made, schemes were fused.

10. Page 6, row 102. Delete word "other" in the phrase …"keto or the other enol form"…

Correction was made; However, although all reactions were done at room temperature, we decided to control whether or not we can observe any keto or enol form by changing temperature while recording NMR data.

11. Page 6, row 103. Change the phrase "NMR scanning"… in to "The 1H NMR experiments"... From the text I conclude that this wasn’t continuing process. Only if the authors were use dynamic 1H NMR scanning experiment, then can say as it ware written, bat in that case should gave as experimental conditions.

Correction was made; The 1H NMR experiments were therefore recorded for compound **2** at 50 oC, 25 oC,15 oC,-10 oC and -20 oC (Fig 3).

12. Page 6, row 104. The phrase "The NMR data of compound 2 at room temperature"… should change in to "The chemical shifts of compounds 2 at\_\_°C temperature"…

Correction was made; The chemical shifts of compound **2** at room temperature were shown at Fig. 2.

13. NMR data includes additional information as integrals, line shape and coupling constants, not just chemical shifts as was presented on Figure 2. Additionally, from the text and presented experiments I was conclude that NMR system has VTU (Variable Temperature Unit) which allows control of sample temp.  In that case, authors should gave as precise temperature instead room temperature.

Integrals, line shape and coupling constants were presented on supp. İnfo. For that we thought it is not necessary to explain here again. In addition, since the reactions were carried out at room temperature and NMR recorded at room temperature, room temperature and high- low temperatures were considered to be comparable to each other to see whether another enol form is observed., the enol form observed at room temperature was compared with all temperatures.

14. Page 7, Figure 2. Authors should give us chemical shifts of aromatic protons as single values that presents the central line distance of the broad and/or complex signals.

Correction was made; chemical shifts of aromatic protons give as single values in Figure 2. However, to our knowledge, multiple signals should be given as a range so that readers can easily understand, for this reason these multiple signals are given as a range in supp. info.

15. Page 7, rows 111 and 112. The beginning of the sentence: "Recorded NMR data during temperature scanning between"… need to be changed in to " Recorded 1H NMR data on different raining temperatures"…

Correction was made; Recorded 1H NMR data on different temperatures show that any keto form or second enol form do not occur.

16. Page 7, row116. The phrase "However 1D NMR"… should change in to "However 1H NMR"…

Correction was made.

17. Page 7, row118. There is also 1D HMBC NMR experiments, so this is why this should be pointed out. The phrase "For this reason, 2D NMR data"… need to be changed.

Correction was made; For this reason, 2D HMBC NMR data of the compounds were recorded.

18. Page 8, row 119. In subtitle, "Determination of Tautomers with 2D NMR" should change guided by a previous commentary.

Correction was made; **Determination of Tautomers with 2D HMBC NMR**

19. Page 8, row 121. The beginning of the sentence: "2D NMR spectroscopy"…, should change in to "2D HMBC NMR spectroscopy"…

Correction was made; 2D HMBC NMR spectroscopy was applied to reveal observed enol form and for this reason, correlations between certain protons of R1 or R2 group and C1 or C2 carbon atoms were utilized (Fig. 4).

20. Page 8, rows 130 and 131. Liter’s that indicate the different forms of molecules (a and b) should be italic.

Correction was made.

21. Page 8. The paragraph on end of the page should be part of no existing Experimental section.

Expermental section was formed in the manuscript and some of exoerimental information was transfered from supp. İnfo. to this section.

22. Page 9, Table I. I suggest authors to reorganize table by changing the positions of column three with a column four so theoretical and experimental data for itch of C=O and C-OH carbons while bi close to each other.

Correction was made.

23. Page 9, row 152. The subtitle is unnecessary from my point of view.

We have thought that this subtitle provides convenience to readers. So we did not remove the subtitle.

24. Page 10, Figure 5. In HMBC external projection of 1H NMR were present signals (at 1.0 and 1.5 ppm respectively) who don’t belong to the presented compounds. Authors should explain origin of signals or reorganize figure.

Correction was made; it was reorganized.

25. Page 11, row 179. Liter’s that indicate the different forms of molecules (a) should be italic.

Correction was made.

26. Page 12, rows 205, 210 and 213. Liter’s that indicate the different forms of molecules (a and b) should be italic.

Correction was made.

27. There was almost no experimental data in the manuscript. Authors should read

carefully Author Guidelines on link below:

This comment was answered as it was done in 21.