## **Review Form2**

| Book Name:               | Recent Developments in Chemistry and Biochemistry Research   |
|--------------------------|--|
| Manuscript Number:       | Ms_BPR_3472  |
| Title of the Manuscript: | Dissociation Constant of N-(2-Acetamido)-Iminodiacetic Acid Monosodium (ADA) from (278.15 to 328.15) K |
| Type of the Article      | Book Chapter   |

#### **PART 1:** Review Comments

| <u>Compulsory</u> REVISION comments  | Reviewer's comment   | Author's Feedback(Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write |
|--|--|--|
|  |  | his/her feedback here)   |
| Please write a few sentences regarding the importance of this manuscript for the scientific community. Why do you like (or dislike) this manuscript? A minimumof 3-4 sentences may be required for this part.                        | <ol> <li>The pK<sub>a</sub> value(s) of a compound influence many characteristics of the compound such as its reactivity, and spectral properties (colour). In biochemistry the pK<sub>a</sub> values of proteins and amino acid side chains are of major importance for the activity of enzymes and the stability of proteins. This property is of general importance in chemistry because ionization of a compound alters its physical behavior and macro properties such as solubility and lipophilicity. For example ionization of any compound will increase the solubility in water, but decrease the lipophilicity. This can be exploited in drug development to increase the concentration of a compound in the blood by adjusting the pKa of an ionizable group. This must be done with caution, however, since an ionized compound will pass less easily through cell membranes.</li> <li>The precise emf method yields very stable, accurate, and reliable data with accuracy better than 0.04 mV in the entire temperature range.</li> <li>Thus the buffer solution would be useful for the measurement of pH in biological specimens. These pH data are needed by scientist for biomedical research and would formulate a database for pH standard reference "blood buffer".</li> </ol> |  |
| Is the title of the article suitable? (If not please suggest an alternative title)   | YES  |  |
| Is the abstract of the article comprehensive? Do you suggest the addition (or deletion) of some points in this section? Please write your suggestions here.  | YES  |  |
| Are subsections and structure of the manuscript appropriate?   | YES  |  |
| Please write a few sentences regarding the scientific correctness of this manuscript. Why do you think that this manuscript is scientifically robust and technically sound? A minimumof 3-4 sentences may be required for this part. | <ol> <li>The precise emf method yields very stable, accurate, and reliable data with accuracy better than 0.04 mV in the entire temperature range.</li> <li>Thus the buffer solution would be useful for the measurement of pH in biological specimens. These pH data are needed by scientist for biomedical research and would formulate a database for pH standard reference "blood buffer".</li> </ol>  |  |
| Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.  | <ol> <li>Insufficient references, Additional references are needed. Author should write the latest references mention at least 2-3 references after 2011</li> <li>20 and 21 references are quoted in conclusion. References should not be quoted in the conclusion part of the manuscriptQuite surprisingDelete the references from conclusion part .</li> </ol>   |  |

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| Minor REVISION comments   | YES   |  |
|---|---|--|
| Is the language/English quality of the article suitable for scholarly communications? |   |  |
| Optional/General comments   | <ol> <li>Arrange keywords in alphabetical manner</li> <li>The following equation: + (1)□K2 2 ADA H ADA ±- + - 1 where K2 is the thermodynamic equilibrium constant. The zwitterions structure of the buffer ADA is shown below (Figure 1 IT SHOULD BE Equation 1.).</li> <li>(DELETE Figure 1) AND PUT Equation 1.).</li> </ol> |  |

# PART 2:

|  |   | Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here) |
|--|---|---|
| Are there ethical issues in this manuscript? | (If yes, Kindly please write down the ethical issues here in details) |   |

#### **Reviewer Details:**

| Name:                            | Ravuri Hema Krishna                                   |
|----------------------------------|---|
| Department, University & Country | Amrita Sai Institute Of Science And Technology, India |

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