

Review Form 1.6

Journal Name:	Chemical Science International Journal
Manuscript Number:	Ms_CSIJ_83444
Title of the Manuscript:	Introducing of Thermodynamic Van't Hoff Equation in Aqueous Solubility and Dissociation Process of Benzoic Acid at Ordinary Temperature Range
Type of the Article	Review Article

General guideline for Peer Review process:

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound. To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

(<https://www.journalcsij.com/index.php/CSIJ/editorial-policy>)

PART 1: Review Comments

	Reviewer's comment	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)
Compulsory REVISION comments The author's use of non-metric units The author must revise the manuscript using SI units, in particular Replace all temperature values with appropriate numbers in kelvin. Because T (in C) x Boltzmann's constant does not equal energy, Whereas T(K)x k Boltzmann = energy! Expressing temperature by degree C in any thermodynamic equation including Van't Hoff equation is incorrect. Particularly, for this manuscript equation # 7 will yield wrong values with T in C! For publication it is mandatory, that throughout the text including the table heading, T(C) be replaced with corresponding correct values in T(K). Likewise, update Mass in grams to kg, and volumes in Cubic centimetre to mL. Also, redraw of mislabelled graph/plot (figure 2) using T(K).	<p>The primary goal of a Review article is to elucidate extant published literature relevant to the topic under review. This article presents and "Van't Hoff" analysis of some results obtained in actual measurements of water solubility of benzoic acid. Consequently, this is not a Review Article! Furthermore, prospective readers of this article (if published) will remain uninformed about the extensive information already available in print and online.</p> <p>However, in accordance with this journal publisher's premiss that I am willing to review the technical and scientific merits of the manuscript. Research.</p> <p>First, I would like the author to explain Why is figure 2 of this manuscript so surprisingly similar to figure 3 of an article by S.J. Khouri published by the American Journal of Analytical Chemistry- 2015, 6, 429-436.</p> <p>In fact the two figures are almost exactly the same, both show the number (7) of data points at the same X & Y values, even though the Y axis of this manuscript plots "log(Ka)".</p>	
Minor REVISION comments This manuscript has a severe language and grammar problem. At least the obvious errors that are flagged by software should be corrected, for example in the abstract "six concentration" should be replaced by" six concentrations" etc.	<p>As stated in the manuscript, investigation of solubility in water of benzoic acid, a commercially important chemical is of relevance. I suggest publication of this manuscript not as a "Review article" but rather as a research report/article.</p>	
Optional/General comments Readability will be greatly enhanced by a 'cleaning up' of the text. I would suggest that this manuscript go through a copy-editing process.		

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PART 2:

	Reviewer's comment	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:

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