



SDI Review Form 1.6

PART 1:

Journal Name:	International Journal of Biochemistry Research & Review
Manuscript Number:	MS: 2012/IJBcRR/2458
Title of the Manuscript:	STUDY OF THE TOXICITY OF PARA SUBSTITUTED ANILINES ON METHANE GAS BIOSYNTHESIS BY METHANOGENIC BACTERIA.

General guideline for Peer Review process is available in this link:

(<http://www.sciencedomain.org/page.php?id=sdi-general-editorial-policy#Peer-Review-Guideline>)

- This form has total 9 parts. Kindly note that you should use all the parts of this review form.



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PART 2: 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)
<u>Compulsory</u> REVISION comments	Dear Authors, The manuscript is very poorly written. In introduction part you discuss about the Aniline (which is not Scientifically true) then you say that how to prepare benzene to aniline >then you didn't say about aniline derivatives but still you say like aniline derivatives >then you say reactions of aniline.....I don't understand what you say in introduction part You used the biomass VSS of 56.59 g/l concentration. I have no idea what type of biomass it is? The author shows the main result IC50 of aniline = 1407.39±22.90 mg/l IC50 of benzene =208.78±6.32 mg/l but According to literature and Scientific protocol It is IC50 aniline = 900 mg/l IC50 benzene = 1970 mg/l For your satisfaction you see the link http://www.uasb.org/SCIENCE/data_page_toxicity.htm I am strongly recommended that this work is not suitable for the publication	Rewritten The quantity of inoculum used is 1.5 g VSS/l and it is now well described in the manuscript. 1. The web site uasb.org belong to J. Field and R. Sierra who were the Lecturers, under sponsorship of Pr. Lettinga the inventor of the famous uasb reactor, of one the authors during his specialisation in anaerobic waste and wastewater treatment at TU/IHE Delft and WAU /Wageningen in the Netherlands. 2. In this site except the table, they are no literature, scientific protocol, book or paper on methanogenic inhibition/toxicity. The values given in this table are measured with granular sludge as inoculum and the nature of substrate is not given; C2, C3 , C4 or the mixture this VFA because the value of IC50 value change with the used VFA. According to Field and Sierra [6], the



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		IC50 values depend of the nature of the inoculum, substrate, temperature, acclimation, etc. 3. In this table the IC50 values of Cyanide are 1 and 25 g/l. see also for Formaldehyde: 100 and 400 mg/l. Same behaviour for Chloroform 0.5 and 45 mg/l. In the book of Field and Sierra the IC50 of benzene is 40 mg/l.[6] 4. In the paper of Sierra and Lettinga [18], the IC50 value determined with granular sludge is 1800 mg/l but the literature value of benzene in this paper is IC50 = 50 mg/l. Donlon et al [5] found the IC50 value of benzene with granular sludge =1599 mg/l 5. The scientific protocol used in our manuscript was designed by field and Sierra [6] and many of our references in this paper, are from Field, Sierra and Lettinga [5,6,13,]and one of the authors carried out the researches in this field with these specialists. 6. Our IC50 values were determined with pig digested manure as inoculum which is a great contribution in this field. 7. Our benzene IC50 value was verified about 50 times and aniline IC50 was many times verified. These values are in agreement with many aromatic chemical structures theories. 8. See also the new introduction.
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Minor REVISION comments		
Optional/General comments		