



SDI Review Form 1.6

Journal Name:	American Chemical Science Journal
Manuscript Number:	2014_ACSj_11705
Title of the Manuscript:	Physico-chemical characterization of Lagoon of the Indians in Macapá-AP-Brazil
Type of the Article	Original Research 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:

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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 paper presented appears very interesting due to the lack of information about the studied site. The declared aim of the paper was to characterize the physico-chemical parameters of lagoon of the Indians in the framework of 357 CONAMA Resolution. The authors decided to include also Alkalinity, Electrical Conductivity, Ca and Mg Hardness and TSS but they did not reveal the reason. In conclusion they speculate that the anthropogenic factors influenced the measured factors but they do not explain the benefit of measuring other parameters than those suggest by the CONAMA. Methods are appropriate but the site description is very incomplete. I suggest inserting more detailed information about hydrology, geology, the surrounding urban impact or land use and to describe the criteria followed in sampling site selection (Is there a reference station? Can you presume a gradient of impact among them? Are they replicates?) Results are generally well exposed but the graphical representation needs more efforts. Since the stations have not a recognized order, data should be presented as histograms with a graphical representation of data dispersion (standard deviation preferably). Fig. 3 should describe pH, DO, Fe, Mn¹²³ and Colour but is a replicate of Fig.2. The authors should also try a better spatial description of relationships among the great amount of data collected. No attempt to explain the origin of heterogeneity in the lagoon was made and the relationships between the	The insertion of the parameters electrical conductivity and TSS were justified Hardness and alkalinity were compared to EPA Some data suggested the area were not included because they are non-existent The graphical representation was replaced by representation in tables. The figures were replaced by tables The use of replicates was justified by Article



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	improper occupancy of the areas and the variability of measured parameters remain unclear. For this reason the paper will improve very much if the authors can describe some more human-related parameters (compatibly with their skills and available equipment, e.g. simple biomarker, biological indicator and so on...). However the paper is valid and, in my opinion deserves to be published after major revisions or in a new revised version.	
<u>Minor</u> REVISION comments	I suggest maintaining the original name of the lagoon in order to avoid misunderstanding (specifically with Indian River lagoon in Florida). Graphical representation should be improved. Almost all the references cited are in Portuguese. This is understandable due to the strictly regional description of the area but discourages international readers to follow back the sources of informations.	The English name was kept because the location is explained in Article Additional references in English were added, besides comparing the data with values provided by EPA
<u>Optional/General</u> comments	The purpose of CONAMA resolution n.357 should be better described and a link between the domestic resolution and the United Nations policies in water management and monitoring could increase the international appealing of the paper. Authors should also report if their results agree with prior studies (if any) and, if not, try to explain the discrepancies	A small additional text was added to better explain the best CONAMA Further discussions were made on the basis of correlation analysis introduced in Article