Review Form 1.7

Journal Name:	**Asian Journal of Chemical Sciences**
Manuscript Number:	**Ms_AJOCS_109291**
Title of the Manuscript:	**Lactic Acid-Proline Solvent Pretreatment of Cowpea Shells: Effects of Process Variables on Glucan, Xylan, and Lignin Composition**
Type of the Article	**Research**

Review Form 1.7

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 **1. Is the manuscript important for scientific community?** **2. Is the title of the article suitable?** **3. Is the abstract of the article comprehensive?** **4. Are subsections and structure of the manuscript appropriate?** **5. Do you think the manuscript is scientifically correct?** **6. Are the references sufficient and recent? If you have suggestion of additional references, please mention in the review form.** **(Apart from above mentioned 6 points, reviewers are free to provide additional suggestions/comments)**	**Yes, the article presents the effect of temperature, reaction time and dilution ratio on glucan, xylan and lignin concentration during eutectic solvent pretreatment of cowpea shell. This topic is important to obtain experimental conditions to improve glucan recovery from lignocelluloses.** **Yes. The title is brief and precise to the article content.** **Yes. Is desirable a major description of the article highlights. As example, authors can describe xylan removal and the importance to improve glucan recovery.** **Yes. Structure of the article is well defined.** **Yes. This article is an exploratory research. However, the findings are interesting and contribute to knowledge in lignocelluloses pretreatment area.** **The references are sufficient and are in agreeing to the article content.** **1.- In abstract section, a major description of the highlights are suggested.** **2.- Cowpea shells term was abbreviated as CW. Please place this acronym throughout the paper. In some sections author employs CW or cowpea shell. Homogenize the term.** **3.- Introduction section: Authors can consider adding information about the importance, impact, mechanisms and structural alterations of eutectic solvents on lignocellulosic biomass. Some previous references can improve the understanding and the importance of the paper.** **4.- Results section: Authors mentioned "pretreatment severity". It can be important to define what is the meaning of this term and how does it calculate? In addition, in the third paragraph of results section, authors mentioned that pretreatment severity diminishes as water content raises. Please explain this asseveration.** **5.- In the fifth paragraph of the 3.1 section. Authors comment that undiluted solvent achieved higher lignin and xylan removal yield than diluted solvent. The asseveration is correct; however, experimental data does not show an important lignin removal. Please revise this paragraph.** **6.- In the fourth paragraph of the 3.2 section. Please describe the raw material employed by Yu and co-workers [32].** **7.- Figures can be categorized as a), b) and c) for each reaction temperature, i.e. The title of the figure 1 can be modified as: Figure 1. Composition of CS treated with a) neat and b), c) diluted eutectic solvent at 130 °C.**	

	8.- Conclusion section: There are not conclusions. Please concluded considering experimental variables and the scope of the paper. The sentence "These pretreated CS hold promise for conversion into biofuels and other biochemicals" is out of the paper scope, since is not the focus of the work. **9.- Please add the DOI identifier for each reference.** **Suggestions.** **Despite this article is an exploratory research, there are interesting findings that need to be published to contribute in further works.** **In order to increase the impact of further researches is necessary to consider biomass characterization prior and after pretreatment by using instrumental techniques. Physicochemical properties such as thermal stability, morphology, crystallinity, porosity and dominant functional groups are usually analysed to define the application of the obtained material.** **The use of degradation kinetic equation to model mass loss could increase the impact of the article.**	
Minor REVISION comments **1. Is language/English quality of the article suitable for scholarly communications?**	Ye	
Optional/General comments	Despite this article is an exploratory research, there are interesting findings that need to be published to contribute in further works.	

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)*	

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