

Interactive comment on “Physical and chemical characterizations of biochars derived from different agricultural residues” by K. Jindo et al.

Anonymous Referee #2

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In my opinion this article does not suit the aims and scope of biogeosciences. Different temperatures can alter the characteristics of biochar. But what is the implication that this has in the soil biogeochemistry or soil microbiology? This article is much more suited for a journal focused on pyrolysis like Journal of Analytical and Applied Pyrolysis.

The article is not very well written, both with numerous grammar mistakes. See, for example, lines 11 and 21 in the abstract or the first line in the introduction. In many instances there are also inadequate links between ideas.

The authors conclude that low temperature biochars are better for soil microbial population and for improving crop yields, but they do not measure any of them. The conclusions of this study are either flawed, like the one just mentioned, or already known. As an example of the latter, it is well known that high temperature biochars have more

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potential for carbon sequestration. There is not the level of novelty required to publish in Biogeosciences.

Page 11728, lines 1-6: This is mentioned only in the abstract and not in the introduction section. Lines 20-21: This is never proved in this article. These constitute examples of inadequate links between ideas.

Page 11729, line 10: This reference is a very poor choice here. Lammirato did not measure any indicator related to plant performance. Line 20: “Eucalyptus”

There is a lack of hypothesis in the introduction. It is not clear what the authors aim to learn from this experiment. In addition they justify the use of rice husk and rice straw, but not other materials.

Page 11730, line 8: What was the approximate size of the pieces? This has important implications for the pyrolysis process.

Page 11732, lines 17-19: This is highly speculative. Lines 24 to end of the page: This is again highly speculative. How would Si content affect the pyrolysis process?

Page 11733, lines 7-9: This sentence is really difficult to understand. It needs serious re-writing.

Page 11736, line 1: As substitute for what?

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