

Manuscript Title: "Cement and clinker production by indirect mechanosynthesis process"

This is study about the production of clinker and cement through a combination of mechanical and thermal treatment of the raw materials. The topic is actual, since the authors present an effort to produce building materials with reduced environmental impact. The following comment should be addressed for improving the quality of the paper.

1. Please revise carefully and thoroughly the language of the manuscript.

Authors answer:

Thank you for your comments, it has been taken into account in the revision. We invite reviewer to read our new version.

2. Please provide an informative abstract, summarizing the materials used, the processed employed, the tests performed and the results obtained.

Authors answer:

Thank you for your comments, it has been taken into account in the revision. We invite reviewer to read our new version.

3. Line 31: Please use "setting" instead of "sitting".

Authors answer:

Thank you for your comments, it has been taken into account in the revision. We invite reviewer to read our new version.

4. Line 35: Please use "emitted" instead of "rejected".

Authors answer:

Thank you for your comments, it has been taken into account in the revision

5. Line 39: Limestone is not a by-product.

Authors answer:

Thank you for your comments, it has been taken into account in the revision

6. Are there any studies in literature that employed mechanosynthesis. If yes, please provide details about their approach and results. Based on them, please highlight the innovative aspect of your work.

Authors answer:

Thank you for your comments, it has been taken into account in the revision. We invite reviewer to read our new version.

7. Please avoid repetitions. Please highlight the difference of this work from the previous one (Ref. 14).

Authors answer:

Thank you for your comments, it has been taken into account in the revision. please read the lines 87 to 100.

8. Line 133: What is 0.15?

Authors answer:

Thank you for your comments, it has been taken into account in the revision. We invite reviewer to read our new version.

9. Line 141: How many days were the specimens stored in water?

Authors answer:

the specimens were stored for 7 days, please see the line 157 to 158.

10. Please use "XRD" instead of "DXR".

Authors answer:

Thank you for your comments, it has been taken into account in the revision

11. The use of variable gypsum content introduces differences in the composition of the produced cements, which is also depending on the employed temperature. Please explain why these differences are observed.

12. Line 282: Which is the PSD of this clinker?

Authors answer:

Thank you for your comments, the paragraph has been erased due to repetition.

13. Lines 296-298: Please show the PSD of the cement produced at 1200 oC.

Authors answer:

14. Figure 12: Please indicate on the image the phases detected. EDS analysis would confirm the claims of the authors.

Authors answer:

Thank you for your comments, it has been taken into account in the revision

15. The mechanical performance of the produced cements is weak. For which applications would these cements be suitable? Is there any perspective to improve the properties of these cements? Please include in the manuscript answers on these questions.

Authors answer:

the cements produced has a close performance to a masonry cements or as hydraulic road binder. please read line 332-334 and 385 to 387

Conclusion

We thank reviewer for all recommendation and comments which allow us the improving of our paper.