Prof. Dr. Rada Petrović

Editor

Dear Prof. Dr. Petrović

Thank you very much for your letter concerning our paper entitled: "A study of the barrier properties of polyethylene coated with nanocellulose/magnetite composite film". We appreciate the opportunity to revise our work for consideration of publications in Journal of the Serbian Chemical Society. We have carefully taken your comments into consideration in preparing our revision. The following summarizes our detailed reply to them.

Editor comments:

Issue 1: *You haven't answered in appropriate way on the comment of Reviewer II. You added the sentence: “The tailoring of magnetic properties of polymer composites with dispersed magnetic nanoparticles has also been extensively investigated.” But, it is not clear if the magnetic properties are important for the barrier properties of the material used in this investigation (polyethylene coated with nanocellulose) and if similar composites with magnetite have been used previously for improving the barrier properties.*

Discussion 1: We acknowledge Editor valuable comments and suggestions. Indeed, we made mistake by adding unsuitable references. This overlook is corrected in a revised manuscript and appropriate references (concerning this paper) have been inserted: *The magnetite has been mostly used as a filler for improving LDPE super-paramagnetic properties and to prepare flame-retardant low-density polyethylene*. *The investigations dealing with influence of magnetite or nanocellulose\magnetite composites on barrier properties of LDPE, to best of our knowledge, have not been published in literature.*

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*Some other comments:*

Issue 2: - *Add the type of instrument used for textural paremeters determination*

Discussion 2: The textural properties were investigated by Brunauer-Emmett-Teller (BET) and Barrett-Joyner-Halenda (BJH) methods using Micromeritics ASAP 2020 surface area and porosity analyzer. This sentence is included in *Characterization methods* section of the revised manuscript.

Issue 3: - *Page 12: "The distinct signals appear at 30.3º, 35.8º, 42.8º, 57º and 63º indicate the presence of pure Fe with spinel structure" - I suppose "pure Fe3O4"*

Discussion 3: This has been corrected in a revised manuscript.

Issue 4: *- Izvod: Instead "filer" use "punioc"*

Discussion 4: The "filer" is replaced with "punioc"

We appreciate Editor for taking the time to offer us your comments and insights related to the paper.

Sincerely Yours,

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