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The authors thank the Reviewers for excellent comments on the manuscript. The itemized response to each comment is given below and the manuscript is modified accordingly. These modifications helped to improve the quality of the manuscript. The discussion added to the manuscript are based on the Reviewers' comments and are highlighted in the rebuttals below. Also, please note that the title of the manuscript is slightly shortened.

Reviewer Comments:

Reviewer #1

The present article dealing with the incorporation of HPW on γ-Al2O3, MAP, and MAS for simultaneous esterification and transesterification reactions of biodiesel production using unrefined green seed canola oil, is overall well written and contains interesting results. However, in the introduction some important references on the use of heteropolyacids are missed. Please improve the introduction and discussion citing some recent references dealing with HPW supported on different oxides, such as TiO2, ZrO2, CeO2, SiO2, highlighting the effect of the interaction of the heteropoly acids with the supports.

The part related to NH3-TPD must be revised. The only TCD is not appropriate for the evaluation of the NH3 desorbed, another detector such as QM or specific analysers should be considered. Moreover, no details about experimental details are given. So the suggestion is to revise such part.

Our response: We thank the Reviewer for nice comments. Based on the recommendation, new references are added to the introduction with papers related to the use of HPW supported catalysts. Please see lines 70-79 on page 2 in the revised manuscript as follows:

Various support materials were employed for immobilization of heteropoly acids for different applications. Srilatha et al. [26] studied the esterification reaction of palmitic acid using TPA supported on ZrO_2 catalysts. This resulted in ~95% conversion of palmitic acid to biodiesel with better reusability confirming strong interaction between TPA and ZrO_2. Kumbar et al. [27] reported the use of TiO_2 supported TPA as a suitable solid acid catalyst in alkylation process. It is reported that titanium oxide improved the catalytic activity, which attributed to the strong attachment between TiO_2 and the active phase. $H_4SiW_{12}O_{40}$-SiO_2, synthesized by one-step method, was used for biodiesel production [28]. $H_4SiW_{12}O_{40}$ was successfully loaded inside the mesoporous channels of -SiO_2 which enhanced reusability and diffusion of reactants.

26. K. Srilatha, N. Lingaiah, P. S. Sai Prasad, B. L. A. Prabhavathi Devi, and R. B. N. Prasad, "Kinetics of the esterification of palmitic acid with methanol catalyzed by 12-tungstophosphoric acid supported on ZrO2," React. Kinet. Mech. Catal., vol. 104, no. 1, pp. 211–226, 2011.

27. S. M. Kumbar, G. V. Shanbhag, F. Lefebvre, and S. B. Halligudi, "Heteropoly acid supported on titania as solid acid catalyst in alkylation of p-cresol with tert-butanol," J. Mol. Catal. A Chem., vol. 256, no. 1–2, pp. 324–334, 2006.

28. K. Yan, G. Wu, J. Wen, and A. Chen, "One-step synthesis of mesoporous H4SiW12O 40-SiO2 catalysts for the production of methyl and ethyl levulinate biodiesel," Catal. Commun., vol. 34, pp. 58–63, 2013.

For TPD experiment, the sample was first pretreated in helium at 300° C for half an hour. The temperature was then decreased to room temperature in flowing helium (20 mL/min). Catalyst sample was then saturated with 15% NH_3 in helium at a flow rate of 20 mL/min. Then the sample temperature was increased at a ramp rate of 10°C/min with a constant helium flow rate of 20mL/min and the spectrum for the desorption of NH_3 was recorded with TCD with temperature rise from100°C to 700°C for the evaluation of the NH_3 desorbed and total acidity. This procedure is added in lines 164-170 on page 4 in the revised manuscript.