Response to Reviewer 1 Comments

Point 1: In Figure 2a, I suggest improving the presentation because the wavelengths are not adequately visualized; they overlap with the spectrum.

Response 1: It has been done.

Point 2: Improve the presentation of Figure 3 (KHC4 derivatograms) and use colors to facilitate the analysis.

Response 2: The picture has been improved.

Point 3: In Figure 5, remove the decimals from the axes to make them uniform with those of the other figures.

Response 3: It has been done.

Point 4: In Figure 11 (N2 adsorption-desorption isotherms), limit the X-axis to relative pressures 1.0. Improve the presentation of Figure 11b since the isotherms of the samples are not differentiated.

Response 4: We have made corrections required.

Point 5: The information in Figure 12 (Textural characteristics of cellulose-based materials) could be put into a table to facilitate the analysis. The information in the Figure needs to be clarified.

Response 5: We have changed the diagram. It looks better.

Point 6: Figure 13 should include error bars.

Response 6: The required information has been added to the picture.

Point 7: In Figure 14 (Sorption of Re (VII) from solutions with its different initial concentrations by the KHC4600VA for 30 and 60 min), it is necessary to include more experimental data for analysis. I suggest comparing the isotherms obtained with contact times of 60 min with the Giles isotherm classification.

Response 7: The choice of initial concentrations of Re (VII) in the range from 20 to 100 mg dm^{-3} is explained by concentrations of solutions which can be prepared during local man-made rare metals processing using a technology developed in our company. Thank you for your recommendation to compare our data with the Giles isotherm classification. We have put added information and highlighted it in red.

Point 8: The justification for selecting the KHC4-600VA material as Re(VII) adsorbent should be included since it is only mentioned that it presented the highest specific surface area. What effect does the pH of the solution have on the adsorption process? What is the pHzpc of the adsorbent?

Response 8: The KHC4-600VA sample had the largest specific surface area and total pore volume. It is known, the higher the specific surface area of the sorbent, the higher its sorption activity. Therefore, this sample was chosen to be tested in the sorption of Re (VII) ions process. As for pH, it wasn't the task of current study to investigate pH influence. We developed the technology of local man-made rare metals processing (not within the scope of this study). Solutions prepared using this technology have pH 5.3-5.6. Furthermore, according to published papers (review and research articles), the pH range of 5-6 is preferable to provide REEs maximum adsorption by different kinds of sorbents including Re (VII) removal by rice husk-based carbon. That is why, it was necessary to test new sorbent at a certain pH value, and it was done accordingly. We noted in the Discussion Chapter about our plans to continue this study. We'll keep in mind your questions in future studies. In any case, the justification required has been provided in the manuscript and highlighted it in violet and red .

Point 9: The fit of the adsorption isotherm data to the Langmuir and Freundlich models should be done with nonlinear methods, and the parameters include the deviations.

Response 9: The majority of research articles present this data in a linear form. We would like to ask you to support our decision to keep this data intact in this work.

Point 10: It would be interesting to include desorption and adsorbent reuse analyses.

Response 10: You are quite right. It is an important part of sorption technology research and we will study these processes as mentioned above and in the Discussion Chapter (highlighted in red).