

Interactive comment on “Geological nature of mineral licks and the reasons for geophagy among animals” by Alexander M. Panichev et al.

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Dear reviewers!

We are obliged for your letter with the detailed referee's comments to our article. We have carefully considered all the comments and came to the following decisions. We examined the book of Young, 2011 and added it to the reference list. Taking into consideration, that the Young's book of 2011 was sum of the authors ideas, published in her (for example Young S.L., Sherman P.W., Lucks J.B., Pelto, G.H., 2011) earlier papers, the conclusions of the reasons of geophagy was mostly repeated in the book. So we did not find it necessary to add any additional information to our article. As for mineralogic and geochemical criteria, they were the additional methods in our article. The main aim was to investigate the geological nature of kudurs and to show the min-

C1

erals' contribution to the origin life. That's why we made the complete description of geological data and added to it the results of mineralogic and geochemical data. We added the information of provenance and sampling localities of rock samples in line 78. In the pictures 6 and 7 there are special boxes showing which kudurs match the concrete localization on the map. So we find unnecessary to give this information in the text. We presented data only for 2 coprolites because the detailed data of it was given in our previous work (Panichev et al., 1990). We changed the percentages for zeolites and clay minerals in the tables, because it was the technical error. The sample 5-1 is not opoka, it is rock, which resembles opoka by appearance. We noted it in note to the table 1. We took this sample into consideration for comparison. The chemical analysis was not made because the quantitative X-ray phase analysis of kudurites and chemical analysis were made simultaneous. So could take much more time if we would make the X-ray phase analysis twice. We did not present each sample on the figure 8 at both magnification, because the aim was to show the different structures. Sample 3-1 was made under electronic microscope. And sample 4-2 was made under thin section. We changed 1K and 4K in the table 4 to 1A and 4A, because it was the technical error. The values of sample 3-3 vary from on table to the other, because in the table 3 the values was given after Ignition, so ignition losses were proportionally distributed. We clarified in the note.

Thank you for your interest in our article. All the comment helped us to find and proofed all the errors in our work.

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C2