

Interactive comment on “Stability of soil organic matter in Cryosols of Maritime Antarctic: Insights from 13-C NMR and electron spin resonance spectroscopy” by Evgeny Abakumov and Ivan Alekseev

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Overall, this article showed chemical constructions in humic acids from three different soil samples in different conditions in Antarctica. The authors pointed out the pronounced differences of free radicals and aromatic carbon between superficial layer and isolated soil materials. This was explained by the process of humification and comparing carbon species, which is quite interesting topic. However, this article needs a revision of the language. For example, there were several incorrect tense and too long sentences which are too difficult to understand. Besides, one paragraph (Page

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6, line 243-259) is too long (394 words) so that it's hard to follow. Each paragraph should keep one simple idea. Table1-4 isn't shown in the article. In Table 1, O and CRH should be elaborated. In Table 3, what the second row stands for? The same for table 4. Please, add the title to each figure. From figure 3-5, there are even no x and y coordinates. Some other minor errors and questions are as below (not all):

Line 108, (Cravahlo et al., 2010) Line 114, “endolitic”, is it “endolithic”? Line 156, the information of soil profile is better shown in form of table. Line 218, “describe”, “described” Line 223, “is”, was Line 235, “aromatic”, aromatic compound content was generally lower than the alkyl components Line 240, what argument the authors mentioned here? The carbon splices in humification? Line 241, “shows”, showed Line 260 and 266, alkyl-C and C-alkyl, are they the same? Line 268, the whole name of CAPMAS and Py-FIMS Line 270, “suggest”, suggested Line 272, “that formed”ijNthat was formed Line 275, “show”, showed Line 279. “connect”, connected Line 281-284, please rephrase this sentence. Too long to follow. Line 290-291, “Has. . . . bulk SOM”, HAs contained three-fold more aromatic carbon than that in bulk SOM

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