

Referee ١

Greetings and courtesy, respected referee

First of all, we need to thank you for your valuable time to review the article. The authors of this article would like to improve and increase the quality of the article with the help of you, respected referees. Therefore, all the cases mentioned by the respected referees are examined by the group of authors.

According to the explanations mentioned in the text of the article, loess sediments are one of the most important indicators of ancient climate reconstruction. The sequence of loess sediments in Nodeh section was investigated because this sequence was previously investigated by Kohl et al. in ٢٠٠٩ in relation to stratigraphy and climatic changes and had an acceptable age. Therefore, in this research, magnetic and geochemical reception methods have been investigated to obtain more details about the past climate changes in this region.

Regarding the question they have raised, the stratigraphy of the studied sequence has not been explained at all, it should be pointed out that the discussion of the stratigraphy of the Noda sediments sequence has been studied before and its rereading is a kind of repetition, so we tried to explain the stratigraphy of the Do not check. Regarding mentioning the source of historiography results, this can be corrected and will be corrected. Also, the quality of the figures can be changed and the shapes can be presented with a higher quality so that they can be recognized and read.

Referee ٢

Thank you to the esteemed reviewer for dedicating time and guiding the authors in enhancing the article. In response to the esteemed referee, we would like to clarify that, as stated in the article, the dating of the specific section was conducted by Kohl et al. in ٢٠٠٩. The charts are included in the dates article. Thus, the case mentioned by the esteemed referee is excluded, and the article carries a scientific weight, supported by laboratory findings. The authors have attempted to rectify the writing and grammar issues in the revised version.

Referee ٣

Line 14: They state that there are dating but there is no reference and no dates are shown in the figure 1. Actually, the figure 1 is pretty poor. There is no geological, structural and ages of the soils.

Geology, structure and age of soils are available in Figure 2.

Line 15: how many are the “all samples”? it seems that the MS resolution is much higher than the environmental magnetism parameters resolution. Why? It seems that there are only 15 samples of environmental magnetism... this is very low sampling resolution for an section of 24 meters,

For this study, we had 222 samples, and the magnetic sustainability of all samples was measured, and a smaller number of samples were selected based on the fluctuation points for other parameters. The reason for choosing the samples was the high cost of testing.

Line 16: in which equipment have been measured the SIRM?

It was done by magnetic field inducing device and JR-6A device from 10 mT to 2 T. By doing this, in fact, the isothermal residual magnet was brought to the saturation state or SIRM, which was later calculated by the obtained numbers.

Line 17: Name NRM and why this is not described in the methods? Is it demagnetization? AF or Thermal?

Natural Remnant Magnetization, yes.

Line 18: What are Bw, Bt, Btk that have not been presented in the methods?

Bw, Bt, Btk are geological layers, not study methods.

Line 19: specify the steps of the NRM demagnetization.

To measure the magnetic resonance, after creating a file to store the measured information, in the computer memory connected to the device, put the samples in the order of naming and each time after entering the names of the samples, Their NRM was measured. When measuring the NRM of the samples, they were placed along the three axes of xz, yz and xy and their NRM was measured along these three axes each time and then from the sum of the measured numbers  $\Sigma$ , in these three directions the total NRM was calculated and obtained.

Line ١٤٢: what are BW and BWK?

They are geological layers.

Line ١٤٨: Deterrent? What do you mean? They speak of goethite, maghemite, hematite increase, but this should be in the discussions and it is not clear which are the base to affirm this.

Based on the obtained results, the measured samples were megamite type.

Figure ٢: Environmental magnetic parameters missing units. Numbers are illegible. The lithological description and legend are unreadable. Overall quality of the figure is very bad. Actually, all figures are very poor and immature.

In the new edition, high resolution images were replaced in the article.

Line ١٥٦: who measured those geochemistry parameters? Which reference? If they did it which equipment and method? How many samples?

To study the geochemistry of the sample, ٧٠ samples were selected based on magnetic receptivity, and each of the samples was sieved with a spring number of ٣٢٥ and dried in an oven. After the samples are dried, they are sieved with Cheshme ٤٠٠ sieve and their very soft sediments are packed and labeled as the tested material in special containers. The main and minor elements were analyzed by the geochemical laboratory located in the Geological and Mineral Exploration Organization of Iran with the ICP device in the laboratory.

Line ٢٢٧: typo of loees for loess

Was corrected

Line ٢٥٢: I do not understand how magnetic intensity is related to glacial-interglacial. The phrase is badly written and the concept is very immature.

Was corrected

Line ٢٢٧: typo of loees for loess

Was corrected

Line ٢٣٥: I cannot see the brown layers in the figure ٢

This item in the figure ٢ Was shown

Line ٢٥٢: I do not understand how magnetic intensity is related to glacial-interglacial. The phrase is badly written and the concept is very immature.

Was corrected

Line ٢٦٥: typo - .last years's ka???

Was corrected