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Climate of the Past Discussions
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Interactive comment on "Paleoclimate and weathering of the Tokaj (NE Hungary) loess-paleosol sequence: a comparison of geochemical weathering indices and paleoclimate parameters" *by* A.-K. Schatz et al.

Anonymous Referee #1

Received and published: 24 February 2014

Although this paper appears as providing an interesting approach to address paleo-climatological issues, it is very difficult to evaluate. This paper seems to be based on newly acquired data and nothing is provided to evaluate the scientific quality of the analytical work. This step is the first one and is the one on which the whole paper is based on. No information is provided on sampling, samples preservation, even on the analytical technics (I guess XRF was done on this sequence but this is not mentioned!).

I appreciate the exhaustive state of the art of the different weathering index available in the literature (even if strangely done in the Âń methods Âż part). A similar rigorous

handling of the methodological aspects should complete the paper. I would be pleased to review the paper once the methodological part meets the common requirements.

The methodological part should have a stand-alone value. Anybody, based on this single part, should be able to reproduce all analytical work and to reproduce the same dataset. Authors don't provide any information on this aspect. 3 equations are their single 'methods' part!

How did you clean the section? How did you perform the sampling? How do you select the 35 samples? What is the size of your samples? Based on the preliminary chronological framework, how many years do you encompass for each sample? How did you preserve the samples? How many times and in which conditions (which containers?) did you store them prior analysis? How did you handle the 35 samples? Did you crush them to homogenize? Which tools? Did you quarte to divide them by keeping the whole representativity of each sample for all types of analysis? Which kind of analysis did you perform (XRF, magnetic susceptibility, Loss in Ignition, carbonate-d13C, what else?)? What was the format of the sample you used for each type of analysis? Did you duplicate analysis? What are the uncertainties associated to the analysis itself? And to the sample heterogeneity?

Can you provide a stratigraphical log with the sampling to help us to set up possible contaminations and representativity of the samples? Can you give all results within a table or on a figure in regards to the loess stratigraphy.

By the way, choose the way you'd like to provide some paleotemperature and paleoprecipitation information: either absolute or anomalies to present. You give both but never the present values. The comparison is impossible. Provide also original references and avoid "references therein", especially when the referred article does not provide any temperature by itself. Please always associate all MAT (MAP) to its location and to its methodological approach (sometimes it is, sometimes not).

The location map should also show all sequences and paleoclimatological records you

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refer to within the paper. Please do so. When comparing

I would be able and pleased to review the interpretation aspect of paper as soon as I will be able to acknowledge the quality of the data the paper is based on. I'm thus waiting for these fundamentals parts of a scientific article.

Interactive comment on Clim. Past Discuss., 10, 469, 2014.

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Interactive Discussion

Discussion Paper