

***Interactive comment on “Tracking atmospheric
and riverine terrigenous supplies variability
during the last glacial and the Holocene in central
Mediterranean” by V. Bout-Roumazeilles et al.***

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I have reviewed the above manuscript and found the paper interesting and the data of good quality. This is the first study in the region that uses the terrigenous records from marine sediments to reconstruct paleoenvironnements. The objective of this study as defined by the authors is to use, in the marine sediment of the Sicilian-Tunisian Strait, the terrigenous fraction to define the source area as clay mineral composition and geochemical characteristics are different from area to area. A weak point of the paper is in the discussion that does not address the interaction between climate and depositional environments of clay and other minerals. For example, the Palygorskite is neoformed

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today in salty and confined environments in southern Tunisia. The disappearance of this mineral during the Holocene wet period is not surprising. So, I do not agree with the authors that use the absence of palygorskite in the sediment during the last sapropel as an indicator of distant origin of the smectite. The studied core presents also a record of the surface water oxygen isotope composition (directly linked to salinity, Es-sallami et al., 2008). This record indicates precisely the timing of the last wet period in the Central Mediterranean Sea. It would be interesting to add this record to the figures and to integrate it in the discussion.

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