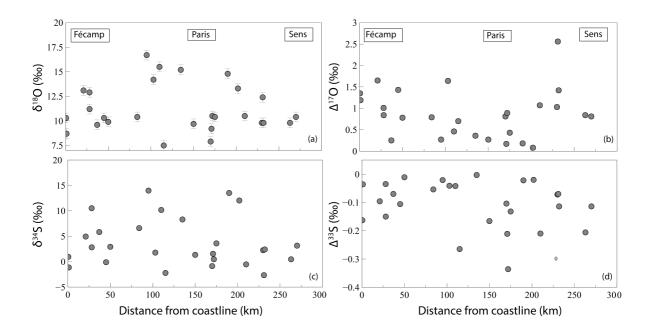
## Supplement



**Fig. 1 supplementary** Evolution of (a)  $\delta^{18}$ O, (b)  $\Delta^{17}$ O and (c)  $\delta^{34}$ S in function of the distance from coastline. No correlation between oxygen and sulfur isotopic compositions and the distance from the coastline are observed.

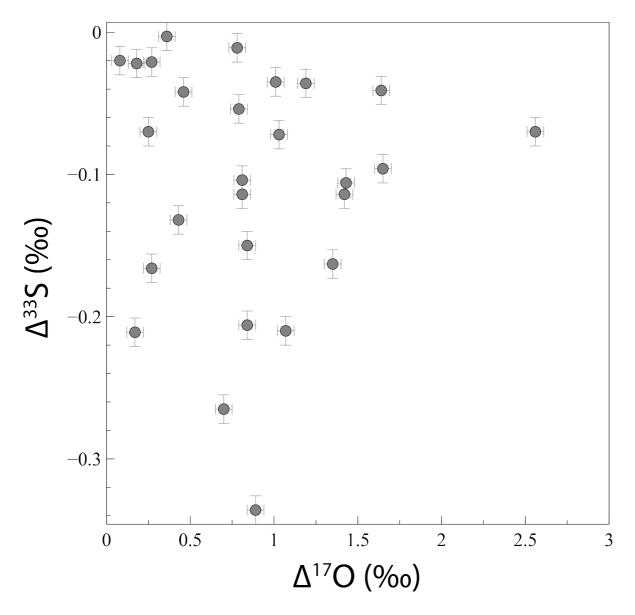


Fig. 2 supplementary Evolution of  $\Delta^{33}S$  with  $\Delta^{17}O$ -values.