

Variation in transport pathway of aeolian dust to the Japan Sea during the last 150 ky

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In order to reconstruct past variations in aeolian dust deposition in the Japan Sea, we have analyzed chemical and mineral compositions of hemipelagic sediments from selected locations. Our results show that the sediments consist of 4 detrital subcomponents, which are attributed to aeolian dust from fresh loess and weathered loess, and the coarse and fine grained detrital materials derived from Japan Arc, respectively. Temporal variation of aeolian dust contribution to the sediments suggests humid arid cycle associated with summer monsoon variability. The contribution of weathered loess derived material within aeolian dust seems to have varied with the change in dust transport pathway associated with winter monsoon variation.