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Carbon isotope of Magnesite as indicator of past climate and age of mineralization.

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Stable isotope values obtained for vein-type magnesite hosted in Archaean ultramafic-mafic rocks of southern India, indicate differences in the contemporary climate conditions between Europe and India. Whereas ä18C of majority of vein- and stock work-type magnesites of Europe derived from weathering cluster around -10 L' PDB, those of the study area are slightly enriched in ä18C yielding - 2.6 L' PDB. The observed variation reflects differences in the nature of contemporary vegetation between Europe and India in the recent past in response to climatic conditions. This attribute also constrains the age of magnesite mineralization in the study area to 7-8 Ma.