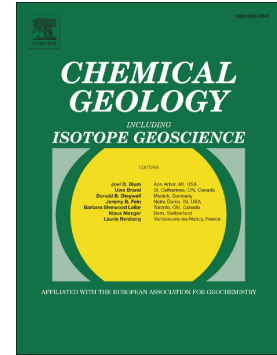


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Mass transport and fractionation during monazite alteration by anisotropic replacement

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Keywords monazite, anisotropic replacement, experimental alteration, nanoscale observations (TEM), structural defects, fluid inclusions

Highlights:

- Anisotropic propagation of the reaction front during monazite alteration (<600°C).
- Anisotropic replacement leads to a nanomixture of Mnz1+ Mnz2 in the altered domain.
- Nanomixture in the altered domain can reproduce incomplete U-Th-Pb age resetting.

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