Deciphering primordial environmental information from nitrogen trapped in Archean sedimentary rocks

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Nitrogen isotopes trapped in Archean sedimentary rocks may provide environmental information on the early Earth. However, it is necessary to verify the retentivity of such information in these rocks. We must be aware that nitrogen trapped in rocks is often altered (fractionated or later added) by secondary processes. We introduce here, using a 3.5Ga chert from Kitty's Gap, West-Australia, our efforts to decipher primordial information from a melange of primordial and altered informations.