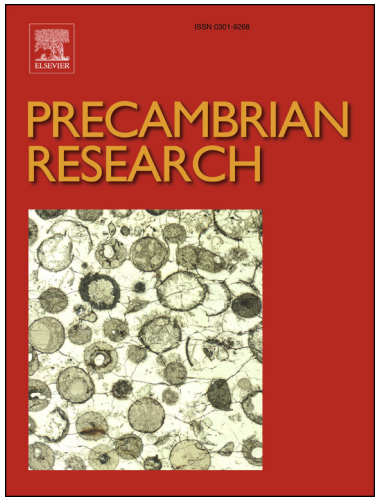

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Provenance shift from a continental margin to a syn-orogenic basin in the Neoproterozoic Araxá nappe system, southern Brasília belt, Brazil

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ABSTRACT

In the southern Brasília belt of central Brazil, prominent east-verging systems of stacked nappes caused the thrusting and tectonic interleaving of metasedimentary rocks of different provenance, age and metamorphism. Detrital zircon U-Pb analysis of metasedimentary rocks of the Araxá Group show very distinct age spectra and provenance patterns for samples collected in different sites of the Brasília belt. While samples collected in the external zone of the belt yielded zircon age peaks mainly from 790 Ma to 2.5 Ga, samples of the internal zone of the belt, close to the Goiás Magmatic Arc, yielded important age peaks around 650 Ma. This suggests an important provenance shift recorded by the metasedimentary rocks of the Araxá nappe system. The lower and easternmost rocks might represent the western passive margin of the São Francisco paleocontinent, and thus are correlated to the Canastra Group, while the upper and westernmost rocks show a striking influence of the late Cryogenian (ca.