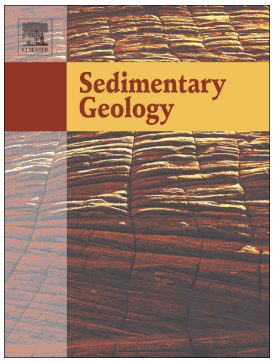

Maximising data and precision from detrital zircon U-Pb analysis by LA-ICPMS: The use of core-rim ages and the single-analysis concordia age

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Special Issue: "Analyses of sediment properties: Tools for paleo-environmental reconstructions"

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ABSTRACT

U-Pb detrital zircon geochronology is a powerful and well-established tool in provenance studies. Modern analytical techniques (particularly LA-ICPMS) increasingly facilitate the rapid acquisition of large datasets. While improvements in data handling approaches have been explored in detail (e.g., more robust propagation of analytical uncertainties and inter-laboratory age reproducibility studies), there currently are no commonly established protocols for target spot location on polyphase detrital zircon grains: should the analyst ablate the zircon core, rim, or both? Here, we present two regional U-Pb detrital zircon