# Methods

## U–Pb zircon dating

Zircon crystals were separated using standard techniques (Wilfley or Rogers water table, heavy liquid, Frantz magnetic separation). Zircons from the non-magnetic fraction were picked under alcohol, mounted in 1-inch diameter epoxy resin mounts and polished to expose an equatorial section through the grains.

The analyses were carried out at the Geological Survey of Norway (NGU) on an ELEMENT XR single collector, high-resolution ICP–MS, coupled to a UP193–FX 193 nm short-pulse excimer laser ablation system from New Wave Research. The laser was set to ablate single, up to 60 m-long lines, using a spot size of 20 or 15 m, a repetition rate of 10 Hz and an energy corresponding to a fluence of 3 J/cm2. Each analysis included 30 s of background measurement followed by 30 s of ablation. Masses 202, 204, 206-208, 232 and 238 were measured. The reference material GJ–1 ([Jackson et al., 2004](#_ENREF_1)) was used for fractionation correction of isotopic ratios, whereas 91500 ([Wiedenbeck et al., 1995](#_ENREF_4)) and an in-house standard ([OS–99–14; 1797 ± 3 Ma; Skår, 2002](#_ENREF_2)) were used to check precision and accuracy. The data were not corrected for common lead but monitoring of the signal for 204 allowed exclusion of data deemed to be influenced by common Pb from further calculations. The data were reduced using GLITTER® ([Van Achterbergh et al., 2001](#_ENREF_3)).

# References

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