

Supplementary Material 3. *Typical instrument, Agilent 7700x, operating conditions for LA-ICP-MS dating of detrital zircons*

Agilent 7700x

Forward power	1300 W
Reflected power	2 W
Sample depth	3 mm
Dwell time	0.01 s
Carrier gas	0.89 l min ⁻¹

Helex laser ablation system

Lambda Physik Compex 110 ArF excimer	193 nm
Laser fluence	~ 5 J cm ⁻²
Spot size	33 μm
Repetition rate	5 Hz
He gas to cell	500 ml min ⁻¹
