Supplementary Information (SI) for Journal of Analytical Atomic Spectrometry. This journal is © The Royal Society of Chemistry 2025	
	Supplementary materials
	Supplemental Table S1. Minor and trace element ($\mu g/g$) mass fractions of the GJ-1, Qinghu, and
	Tanz zircon RMs determined using LA-ICP-MS.
	Supplemental Table S2. Element compositions of the GJ-1 zircon RM determined using different method.
	Supplemental Table S3. Variation of detection limits (ppm, 3σ) for Yb, Al, Th, and Ti under different analytical conditions.
	different analytical conditions.
	Supplemental Table S4. Major, minor and trace element results (wt.%) in GJ-1, Qinghu, and Tanz
	zircon RMs analyzed using EPMA. Supplemental Table S5. Major, minor and trace element data of the zircon in CE-6 anorthosite

determined using EPMA.

and Tanz zircon RMs analyzed using LA-ICP-MS.

Supplemental Fig.S1. Compositional variation plots for key trace elements in GJ-1, Qinghu,