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Table *In situ* U-Pb age and Sm-Nd isotope obtained results of monazite, titanite and perovskite in this work compared with literature data

Minerals (Name)	$^{206}Pb/^{238}U$ Age (±2σ) (Ma)	Analysis number	$^{147}Sm/^{144}Nd$	±2SD (*10^4)	$^{143}Nd/^{144}Nd$	±2SD (*10^6)	$\varepsilon_{Nd}t$	±2SD	Analysis number	Methods	References
Monazite	381.1± 2.3	n=24	0.5074	23	0.513064	48	-6.82	0.95	n=24	Laser	This work
(Jefferson)	365.2 ± 2.6	n=32	0.5011	378	0.513057	93	-6.03	2.53	n=39	Laser	Liu et al., 2012
	362.3 ± 4.4	n=12								Laser	Alagna et al., 2008
	363.9 ± 0.5										
	~ 382.1 ±0.4									CA-ID-TIMS	Petermanet al., 2012
Monazite	494.3 ± 1.0	n=26	0.1264	40	0.511430	31	-19.15	0.66	n=26	Laser	This work
(Diamantina)	495 ± 3	n=19	0.1177	13	0.511427	23	-18.65	0.46	n=60	Laser	Goncalves., 2018
	494 ± 2	n=36								Laser/QMS	Goncalves., 2018
	494 ± 2	n=21								Laser/SF-MS	Goncalves., 2018
	495.26 ± 0.54	n=8								ID-TIMS	Goncalves., 2018
Monazite	1048.0 ± 2.1	n=26	0.0996	5	0.511899	31	-1.39	0.61	n=26	Laser	This work
(Namaqualand)	1046.5 ± 7.1	n=33	0.0977	2	0.511896	39	-1.21	0.77	n=39	Laser	Liu et al., 2012
Monazite	908.9 ± 1.9	n=23	0.1807	86	0.512421	39	-2.38	1.26	n=23	Laser	This work
(RW-1)	909.00 ± 0.60	n=6								ID-TIMS	Ling et al., 2017
	906.6 ± 1.5	n=206								SIMS	Ling et al., 2017
Titanite	1014.9 ± 4.5	n=20	0.1249	7	0.512207	27	0.92	0.54	n=20	Laser	This work
(OLT-1)	1011 ± 6	n=21	0.1237	20	0.512214	41	1.18	0.84	n=184	Laser	Ma et al., 2019
	1014.5 ± 2.4	n=6								ID-TIMS	Kennedy et al., 2010
	1015 ± 5	n=24								Laser	Sun et al., 2012
Titanite	1044.2 ± 4.6	n=20	0.1940	9	0.512813	31	3.78	0.62	n=20	Laser	This work
(Ontario)	1047 ± 6	n=21	0.1916	32	0.512815	41	4.15	0.91	n=145	Laser	Ma et al., 2019
	1053.3 ± 3.1	n=6								ID-TIMS	Spencer et al., 2013
	1056 ± 5	n=28								Laser	Sun et al., 2012

Perovskite	380.6 ± 1.9	n=23	0.0782	47	0.512590	42	4.83	0.85	n=23	Laser	This work
(AFK)	378.6 ± 4.1	n=4	0.0659	22	0.512609	27	5.77	0.54	n=6	ID-TIMS	Wu et al., 2013
	383.5 ± 3.5	n=38								SIMS	Wu et al., 2013
Perovskite	378.6 ± 2.0	n=18	0.0676	80	0.512601	31	5.53	0.72	n=18	Laser	This work
(10AFK-2)	379.3 ± 4.9	n=20	0.0740		0.512612	10	5.44	0.20		Laser	Wu et al., 2013

The U-Pb age of titanite and perovskite reported here means after ^{207}Pb correction.