

SHRIMP data acquisition logsheet

SHRIMP A or **B**

*Perovskite*  
Zircon or Titanite

Date	Sample/Mount(s)	Sample owner	SH operator	Night-runner(s)
7/7/16 + 18/7/16	A32 N16-33	McN + CT	CT	Auto

Deadtime.....ns Kohler aperture..... Retard.....volts Resoln.....

Primary O<sub>2</sub> on: epoxy .....nA standard .....nA PostESA BM on std .....

Raster: Time (mins) ..... Aperture ..... No. of scans .....

Zircon/Badd.	196	204	Bk	206	207	208	238	248	254
Count time (secs)	2	10	10	10/20	30/10	10	5	5	2
Delay time (secs)	8	4	2	4	2	2	3	3	3
Peak centring time (secs)	3	-	-	6	-	-	3	3	2
<i>PEROVSKITE</i>									
Titanite	200*	204	Bk	206	207	208	248	254	270
Count time (secs)	2	10	10	10/20	30/10	5	5	5	7
Delay time (secs)	8	4	2	4	2	2	4	3	3
Peak centring time (secs)	3	-	-	6	-	-	2	3	3

Offsets					
Zircon/Badd.	196-204	204-Bk	204-206	206-207	206-208
Expected offset	8.170	0.040	2.001/9	1.001/5	2.001/9
Setup offsets					
Titanite	200*-204	204-Bk	204-206	206-207	206-208
Expected offset	4.136	0.040	2.001/9	1.001/5	2.001/9
Setup offsets					

Standards

Zircon: BR266 206/238 age = 559 Ma; 903 ppm U  
 TEM2 206/238 age = 416.78 +/- 0.33 Ma; U = variable  
 OGC-1 207/206 age = 3465.4 +/- 0.6 Ma; U = variable  
 CZ3 206/238 age = 561.5 Ma; 551 ppm U  
 M257 206/238 age = 561.3 Ma; 840 ppm U

Titanite: ~~Khan~~ 206/238 age = 522.2 Ma; 700 ppm U  
 ORBA 207/206 age = 2691.5 +/- 1.1 Ma; 140 ppm U

\* Titanite reference peak for m/z 200 is a doublet: use low-mass peak.

*Perovskite* PVI 206/238 age = 463 Ma; 6709 ppm U

N16-33

Filename	Time	UO/U	196	206	206	U	Sensit-	Age/Ma	Age/Ma	SBM
Alternatives		254/238	Kcps	-cps-	(%)	ppm	ivity	206/238	207/206	(%)
		UO2/UO	Ref.		204/206	254/270		Pb/U ratio	207/206	
		270/254	Kcps		$\times 10^4$	Kcps		206/270		
KH. 1-1	11:44	0.89	1.7	2400	.42	17	—	.141	658 ± 22	4.4
KH. 2-1	12:05	0.39	12	1600	.26	20	—	.080	572 ± 22	
ORBA. 1-1	12:27		20	3500		4.0	—		2766 ± 8	
PV1. 1-1	12:52		3.7	1400		14	—		1108 ± 27	
PV1. 1-2	13:14		3.7	1300		15	—		1151 ± 30	4.6
GAVE UP										
CONTINUED — New Session 18/7/16										
KHAN-1	09:59	1.0	1.5	1700	0.48	700	19.7	0.121	618 ± 20	3.6
KHAN-2	10:22	1.0	1.5	1800	0.289	736	18.7	0.129	645 ± 17	3.6
ORBA-1	10:41	1.030	1.7	2700	0.709	268	2.5	0.794	2744	5.7
PV1-1	11:06	1.754	2.7	860	2.001	202	—	0.086	1082	2.6
PV1-2	11:27	1.786	2.8	880	1.755	194	—	0.088	1035 ± 19	2.0
MG4-1p1	11:51	0.625	2.0	44	6.188	31	—	0.169	—	1.9
MG4-1p2	12:13	0.625	1.8	44	15.46	35	—	0.169	—	2.3
MG4-1p3	12:37	0.589	1.9	45	29.81	32	—	0.173	—	2.3
KHAN-3	13:05	0.929	1.5	1600	0.420	693	18.2	0.123	647 ± 21	3.3
PV1-3	13:29	1.785	2.6	870	2.248	210	2.0	0.087	1081 ± 17	2.0
MG4-1p4	13:56	1.938	3.0	62	9.184	24	—	0.2	—	6.0
MG4-1p5	14:17	1.889	3.1	63	12.15	25	—	0.185	—	4.2
MG4-1p6	14:42	1.765	2.8	56		24	—	0.187	—	1.6
PV1-4	15:03	1.695	2.8	910	2.540	200	—	0.091	1060 ± 24	1.3
MG4-1p7	15:26	1.842	3.1	67	7.369	26	—	0.209	—	1.5
MG4-1p8	15:48	1.895	3.1	69	11.96	25	—	0.192	—	2.4
PV1-5										
ORBA-2.1										
MG4-1p9										
" -1p10										
" -1p11										
PV1-6										
MG4-1p12										
" 1p13										
" 1p14										
PV-7										
MG4-1p15										

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Offsets: 196-204 = 4.152 204-Bkg = 0.042 204-206 = ~2.006 206-207 = 1.006 206-208 = 1.010

\* ANOMALOUS → 204-206 offset changed !!

