

SHRIMP data acquisition logsheet

SHRIMP A or B

Mineral = RUT+W+Ta+Nb+Sn

Primary beam O^- or O_2^-

Date	Sample/Mount(s)	Sample owner	SH operator	Night-runner(s)
26/10/16	N16-36 → WOD 08-03 → WH	MeN	CT	Auto

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

Primary on steel: O^- Bits/nA O_2^- Bits/nA

Primary O_2^- on: epoxynA standardnA PostESA BM on std

Raster: Time (mins) Aperture No. of scans

Rutile	192	197	200	202	204	Bkg	206	207	208
	Ti3O3	TaO	WO	Nb2O	Pb	bkg	Pb	Pb	Pb
Count time (secs)	2	2	2	2	10		10/20	30/10	10
Delay time (secs)	8	4	4	4	4	2	4	2	2
Pk centring time (secs)	3	3	3	3	-	-	6	-	-

Rutile (cont.)	216	240	248	254	256	270
	WO2	Sn2	ThO	UO	Sn2O	UO2
Count time (secs)	4	4	5	5	4	3
Delay time (secs)	4	4	4	2	2	3
Pk centring time (secs)	4	-	-	3	-	3

Offsets									
							206-WO	WO-Sn2	UO-Sn2O
Rutile	192-200	200-204	204-Bk	204-206	206-207	206-208	206-216	216-240	254-256
Expected offset	~8.060	4.040	0.040	-2.001/9	1.001/5	2.001/9	10.000	23.850	1.780
Setup offsets									

Notes:

No peak centring on 248.....check peak position on NBS611 or zircon

WH has enough W to peak-centre, but no Sn

Use Universal Line Fit

Rutile Standard: WH (Windmill Hill) quartzite

207Pb/206Pb age = 2642 Ma

206Pb/238U age = 2625 Ma

U-content = 164 ppm U

Note to Neal: Check TaO @ 197 and Nb2O @ 202
Setup mount = N14-13

WOD

716 age = 2845 Ma

U = 165 ppm

Notes : TaO @ 197 → doublet; low mass peak probably TaO

Filename	Time	¹⁴ UO2/ ¹³ UO	¹ 192	⁷ 206	^{5/7} 4/6	¹⁴ UO2	³ 200	^{7/13} 206/278	Age/Ma	SMB
		270/254	Keps	cps	x10 ⁴	Keps	cps	254	207/206	%
0803										
WH.1-1										
WH.1-2	13:15	0.58	3.9	6700	-	6.5	980	0.58	2630	
Adjusted TRIM MASS for 197 + 202; switched to offset!										
WOD.1-1	13:15	0.58	3.9	6700		6.5	980	0.58	2630	
WOD.1-2										
WOD.1-3										
shifting peak of Nb peak										
WOD.1-4										32.4
N16-36										
WOD.1-1	14:28	0.59	4.1	5900	0.47	5.4	26	0.64	2804	
" 1-2	14:52	0.58	4.0	6100	0.24	5.5	27	0.64	2849	
" 1-3	15:16	0.57	3.9	5800	-	5.3	25	0.63	2846	
WOD.1-4	15:42	0.57	3.9	5200	.02	4.9	22	0.61	2861	

Offsets: 192-204 = 204-Bkg = 204-206 = 206-207 = 206-208 =

* identified that the selected Nb peak @ 202 was ¹⁸⁶WO → i.e. ¹⁸⁶WO/¹⁸⁴WO ≈ natural abundance
 # changed Nb peak to low mass peak of doublet

