Run 1 (did not add any more K2SO4 and will	be doing elemental analyusis)			
Static Data	Jo domy demental analyusis)			
Size of cold stage:	51 mm			
Height of cold stage:	8 mm			
vacuum pressure (set)	50 Pa			
Z/TILT (distance of detector from stage)	5um			
vacuum current	12kv			
probe current	85			
Additional Comments				
Additional Comments				
Kinetic Data				
Time	Action/observation	Temperature (actual)	Crystal Size	
12:45	presssurizing the chamber			
12:48	taking elemntal analysis of "clean copper" 2020	00720Copper		
12:57	taking elemental analysis #2 labeled v2 (20200	)720Copperv2)		
1:06	set temp to -34			
1:09	crystals observed			
1:12 (about)	took image			
1:17	took image			
1:17	accidentaly set to 30			
1:18	set to -34 to re-grow			
took image of re-growth				
	set temp to -31			
took photos and 1 (not supper usefull) elem		dge		
Runing elemental analyusis of specs on side				
took pictures of ablating crystal untill was a		720Spec(2))		
		. ,,		
potasium sulfate hydrate				
eutectic mixture of potasium sulfate?				
waht is the lowest temperature the eutectic can	have?			
phase diagrahm for kso4 and water				
princes and and restrict water				
2.47	ended run			
2.41				
Run 2 (K2SO4)				
Static Data				
Size of cold stage:	51 mm			
Height of cold stage:	8 mm			
vacuum pressure (set)	50 Pa			
Z/TILT (distance of detector from stage)	5um			
vacuum current	12kv			
probe current	85			
Additional Comments	waited for pressure to hit 60 before temp on			
Additional Comments			the surface roug	hness**
AUGINORAL COMMISSION	Larkeen in mind that the electron heam was on t	this crystal and that attacts		1111033
	**keep in mind that the electron beam was on	this crystal and that affects		
Kinetic Data			_	
Kinetic Data Time	Action/observation	Temperature (actual)	Crystal Size	
Kinetic Data Time 3:51	Action/observation started pressurizing	Temperature (actual) 26.3	Crystal Size	
Kinetic Data Time 3:51 3:54	Action/observation started pressurizing took elelmental analysis while waitign for press	Temperature (actual) 26.3 sure to hit 60 (20200720R)	Crystal Size	
Kinetic Data Time  3:51 3:54 3:58	Action/observation started pressurizing took elelmental analysis while waitign for press set temp to 10 while waiting for puressure to his	Temperature (actual)  26.3 sure to hit 60 (20200720R)  9.7	Crystal Size	
Kinetic Data Time  3:51 3:54 3:58 4:00	Action/observation started pressurizing took elelmental analysis while waitign for press set temp to 10 while waiting for puressure to hi set temp to 1 while waiting for elemetal analysis	Temperature (actual)  26.3 sure to hit 60 (20200720R)  9.7	Crystal Size	
Kinetic Data Time  3:51 3:54 3:58 4:00 4:01	Action/observation started pressurizing took elelmental analysis while waitign for press set temp to 10 while waiting for puressure to hi set temp to 1 while wating for elemetal analysis set temp to -34	Temperature (actual)  26.3 sure to hit 60 (20200720R)  9.7	Crystal Size	
Kinetic Data Time  3:51 3:54 3:58 4:00 4:01 4:06	Action/observation started pressurizing took elelmental analysis while waitign for press set temp to 10 while waiting for puressure to hi set temp to 1 while wating for elemetal analysis set temp to -34 crystals observed	Temperature (actual)  26.3 sure to hit 60 (20200720R)  9.7	Crystal Size	
Kinetic Data Time  3:51 3:54 3:58 4:00 4:01 4:06	Action/observation started pressurizing took elelmental analysis while waitign for press set temp to 10 while waiting for puressure to hi set temp to 1 while wating for elemetal analysis set temp to -34 crystals observed image taken	Temperature (actual)  26.3 sure to hit 60 (20200720R)  9.7	Crystal Size	
Kinetic Data Time  3:51 3:54 3:58 4:00 4:01 4:06 4:06 4:11	Action/observation started pressurizing took elelmental analysis while waitign for press set temp to 10 while waiting for puressure to hi set temp to 1 while wating for elemetal analysis set temp to -34 crystals observed image taken took 3D image of crystal with good morphology	Temperature (actual)  26.3 sure to hit 60 (20200720R)  9.7	Crystal Size	
Kinetic Data Time  3:51 3:54 3:58 4:00 4:01 4:06 4:06 4:11 4:12	Action/observation started pressurizing took elelmental analysis while waitign for press set temp to 10 while waiting for puressure to hi set temp to 1 while wating for elemetal analysis set temp to -34 crystals observed image taken took 3D image of crystal with good morphology set temp to -31 to get ablation	Temperature (actual)  26.3 sure to hit 60 (20200720R)  9.7 s	Crystal Size	
Kinetic Data Time  3:51 3:54 3:58 4:00 4:01 4:06 4:06 4:11 4:12 4:14	Action/observation started pressurizing took elelmental analysis while waitign for press set temp to 10 while waiting for puressure to hi set temp to 1 while wating for elemetal analysis set temp to -34 crystals observed image taken took 3D image of crystal with good morphology set temp to -31 to get ablation took 3D image (case 1.1)	Temperature (actual)  26.3  Sure to hit 60 (20200720R)  9.7  s  ( (case 1.0)	Crystal Size	
Kinetic Data  Time  3:51 3:54 3:58 4:00 4:01 4:06 4:06 4:11 4:12 4:14 1:17	Action/observation started pressurizing took elelmental analysis while waitign for press set temp to 10 while waiting for puressure to hi set temp to 1 while wating for elemetal analysis set temp to -34 crystals observed image taken took 3D image of crystal with good morphology set temp to -31 to get ablation took 3D image (case 1.1) took 3D image (case 1.2)	Temperature (actual)  26.3 sure to hit 60 (20200720R)  9.7 s  (case 1.0)  -31.8 -31.8	Crystal Size	
Kinetic Data Time  3:51 3:54 3:58 4:00 4:01 4:06 4:06 4:11 4:12 4:14 1:17 4:18	Action/observation started pressurizing took elelmental analysis while waitign for press set temp to 10 while waiting for puressure to hi set temp to 1 while wating for elemetal analysis set temp to -34 crystals observed image taken took 3D image of crystal with good morphology set temp to -31 to get ablation took 3D image (case 1.1) took 3D image (case 1.2) took 3D image (case 1.3)	Temperature (actual)  26.3  Sure to hit 60 (20200720R)  9.7  s  / (case 1.0)  -31.8  -31.8	Crystal Size	
Kinetic Data Time  3:51 3:54 3:58 4:00 4:01 4:06 4:06 4:11 4:12 4:14 1:17 4:18 4:20	Action/observation started pressurizing took elelmental analysis while waitign for press set temp to 10 while waiting for puressure to hi set temp to 1 while wating for elemetal analysis set temp to -34 crystals observed image taken took 3D image of crystal with good morphology set temp to -31 to get ablation took 3D image (case 1.1) took 3D image (case 1.2) took 3D image (case 1.3) took 3D image (case1.4)	Temperature (actual)  26.3 sure to hit 60 (20200720R)  9.7 s  (case 1.0)  -31.8 -31.8 -31.8	Crystal Size	
Kinetic Data Time  3:51 3:54 3:58 4:00 4:01 4:06 4:06 4:11 4:12 4:14 1:17 4:18 4:20 4:22	Action/observation started pressurizing took elelmental analysis while waitign for press set temp to 10 while waiting for puressure to hi set temp to 1 while waiting for elemetal analysis set temp to -34 crystals observed image taken took 3D image of crystal with good morphology set temp to -31 to get ablation took 3D image (case 1.1) took 3D image (case 1.2) took 3D image (case 1.3) took 3D image (case1.4) took 3D image (case1.5)	Temperature (actual)  26.3  Sure to hit 60 (20200720R)  9.7  S  (case 1.0)  -31.8  -31.8  -31.8  -31.8	Crystal Size	
Kinetic Data Time  3:51 3:54 3:58 4:00 4:01 4:06 4:06 4:11 4:12 4:14 1:17 4:18 4:20 4:24	Action/observation started pressurizing took elelmental analysis while waitign for press set temp to 10 while waiting for puressure to hi set temp to 1 while wating for elemetal analysis set temp to -34 crystals observed image taken took 3D image of crystal with good morphology set temp to -31 to get ablation took 3D image (case 1.1) took 3D image (case 1.2) took 3D image (case 1.3) took 3D image (case1.4) took 3D image (case1.5) took 3D image (case 1.6)	Temperature (actual)  26.3  Sure to hit 60 (20200720R)  9.7  (case 1.0)  -31.8  -31.8  -31.8  -31.8  -31.8  -31.8	Crystal Size	
Kinetic Data Time  3:51 3:54 3:58 4:00 4:01 4:06 4:06 4:11 4:12 4:14 1:17 4:18 4:20 4:22 4:24	Action/observation started pressurizing took elelmental analysis while waitign for press set temp to 10 while waiting for puressure to hi set temp to 1 while waiting for elemetal analysis set temp to -34 crystals observed image taken took 3D image of crystal with good morphology set temp to -31 to get ablation took 3D image (case 1.1) took 3D image (case 1.2) took 3D image (case 1.3) took 3D image (case1.4) took 3D image (case1.5) took 3D image (case 1.6) took 3D image (case 1.7)	Temperature (actual)  26.3  Sure to hit 60 (20200720R)  9.7  S  (case 1.0)  -31.8  -31.8  -31.8  -31.8  -31.8  -31.8  -31.8	Crystal Size	
Kinetic Data Time  3:51 3:54 3:58 4:00 4:01 4:06 4:06 4:11 4:12 4:14 1:17 4:18 4:20 4:24 4:24 4:26 4:28	Action/observation started pressurizing took elelmental analysis while waitign for press set temp to 10 while waiting for puressure to hi set temp to 1 while waiting for elemetal analysis set temp to -34 crystals observed image taken took 3D image of crystal with good morphology set temp to -31 to get ablation took 3D image (case 1.1) took 3D image (case 1.2) took 3D image (case 1.3) took 3D image (case1.4) took 3D image (case1.5) took 3D image (case 1.6) took 3D image (case 1.7) took 3D image (case 1.7)	Temperature (actual)  26.3  Sure to hit 60 (20200720R)  9.7  5  7 (case 1.0)  -31.8  -31.8  -31.8  -31.8  -31.8  -31.8  -31.8  -31.8  -31.8	Crystal Size	
Kinetic Data Time  3:51 3:54 3:58 4:00 4:01 4:06 4:06 4:11 4:12 4:14 1:17 4:18 4:20 4:20 4:22 4:24 4:26 4:28 4:31	Action/observation started pressurizing took elelmental analysis while waitign for press set temp to 10 while waiting for puressure to hi set temp to 1 while waiting for elemetal analysis set temp to -34 crystals observed image taken took 3D image of crystal with good morphology set temp to -31 to get ablation took 3D image (case 1.1) took 3D image (case 1.2) took 3D image (case 1.3) took 3D image (case1.4) took 3D image (case1.5) took 3D image (case 1.6) took 3D image (case 1.7) took 3D image (case 1.8) took 3D image (case 1.9)	Temperature (actual)  26.3  Sure to hit 60 (20200720R)  9.7  S  (case 1.0)  -31.8  -31.8  -31.8  -31.8  -31.8  -31.8  -31.8  -31.8  -31.8  -31.8	Crystal Size	
Kinetic Data Time  3:51 3:54 3:58 4:00 4:01 4:06 4:06 4:11 4:12 4:14 1:17 4:18 4:20 4:24 4:24 4:26 4:28 4:31 4:33	Action/observation started pressurizing took elelmental analysis while waitign for press set temp to 10 while waiting for puressure to hi set temp to 1 while waiting for elemetal analysis set temp to -34 crystals observed image taken took 3D image of crystal with good morphology set temp to -31 to get ablation took 3D image (case 1.1) took 3D image (case 1.2) took 3D image (case 1.3) took 3D image (case 1.4) took 3D image (case1.5) took 3D image (case 1.6) took 3D image (case 1.7) took 3D image (case 1.8) took 3D image (case 1.9) took 3D image (case 1.10)	Temperature (actual)  26.3  Sure to hit 60 (20200720R)  9.7  s  ( (case 1.0)  -31.8  -31.8  -31.8  -31.8  -31.8  -31.8  -31.8  -31.8  -31.8  -31.8  -31.8  -31.8  -31.8  -31.8	Crystal Size	
Kinetic Data Time  3:51 3:54 3:58 4:00 4:01 4:06 4:06 4:11 4:12 4:14 1:17 4:18 4:20 4:20 4:22 4:24 4:26 4:28 4:31 4:33 4:35	Action/observation started pressurizing took elelmental analysis while waitign for press set temp to 10 while waiting for puressure to hi set temp to 1 while waiting for elemetal analysis set temp to -34 crystals observed image taken took 3D image of crystal with good morphology set temp to -31 to get ablation took 3D image (case 1.1) took 3D image (case 1.2) took 3D image (case 1.3) took 3D image (case 1.4) took 3D image (case1.4) took 3D image (case1.5) took 3D image (case 1.6) took 3D image (case 1.7) took 3D image (case 1.8) took 3D image (case 1.9) took 3D image (case 1.10) set temp to -33 and started 3D image (case 1.	Temperature (actual)  26.3  Sure to hit 60 (20200720R)  9.7  5  ( (case 1.0)  -31.8  -31.8  -31.8  -31.8  -31.8  -31.8  -31.8  -31.8  -31.8  -31.8  -31.8  -31.8  -31.8  -31.8  -31.8  -31.8  -31.8	Crystal Size	
Kinetic Data Time  3:51 3:54 3:58 4:00 4:01 4:06 4:06 4:11 4:12 4:14 1:17 4:18 4:20 4:22 4:24 4:26 4:28 4:31 4:33 4:35 3:37	Action/observation started pressurizing took elelmental analysis while waitign for press set temp to 10 while waiting for puressure to hi set temp to 1 while waiting for elemetal analysis set temp to -34 crystals observed image taken took 3D image of crystal with good morphology set temp to -31 to get ablation took 3D image (case 1.1) took 3D image (case 1.2) took 3D image (case 1.3) took 3D image (case 1.4) took 3D image (case1.5) took 3D image (case 1.6) took 3D image (case 1.7) took 3D image (case 1.8) took 3D image (case 1.9) took 3D image (case 1.10) set temp to -33 and started 3D image (case 1.7) took 3D image (case 1.12)	Temperature (actual)  26.3  Sure to hit 60 (20200720R)  9.7  s  (case 1.0)  -31.8	Crystal Size	
Kinetic Data Time  3:51 3:54 3:58 4:00 4:01 4:06 4:06 4:11 4:12 4:14 1:17 4:18 4:20 4:20 4:22 4:24 4:26 4:28 4:31 4:35 3:37 4:39	Action/observation started pressurizing took elelmental analysis while waitign for press set temp to 10 while waiting for puressure to hi set temp to 1 while wating for elemetal analysis set temp to -34 crystals observed image taken took 3D image of crystal with good morphology set temp to -31 to get ablation took 3D image (case 1.1) took 3D image (case 1.2) took 3D image (case 1.3) took 3D image (case1.4) took 3D image (case1.5) took 3D image (case 1.6) took 3D image (case 1.7) took 3D image (case 1.8) took 3D image (case 1.9) took 3D image (case 1.10) set temp to -33 and started 3D image (case 1.1 took 3D image (case 1.12) set temp to -30 and took 3D image (case 1.13)	Temperature (actual)  26.3  Sure to hit 60 (20200720R)  9.7  5  ( (case 1.0)  -31.8	Crystal Size	
Kinetic Data Time  3:51 3:54 3:58 4:00 4:01 4:06 4:06 4:11 4:12 4:14 1:17 4:18 4:20 4:22 4:24 4:26 4:28 4:31 4:33 4:35 3:37 4:39 4:41	Action/observation started pressurizing took elelmental analysis while waitign for press set temp to 10 while waiting for puressure to hi set temp to 1 while wating for elemetal analysis set temp to -34 crystals observed image taken took 3D image of crystal with good morphology set temp to -31 to get ablation took 3D image (case 1.1) took 3D image (case 1.2) took 3D image (case 1.3) took 3D image (case1.4) took 3D image (case1.5) took 3D image (case 1.6) took 3D image (case 1.7) took 3D image (case 1.8) took 3D image (case 1.9) took 3D image (case 1.10) set temp to -33 and started 3D image (case 1.1 took 3D image (case 1.12) set temp to -30 and took 3D image (case 1.13) took 3D image (case 1.14)	Temperature (actual)  26.3 Sure to hit 60 (20200720R)  9.7 S  ( (case 1.0)  -31.8	Crystal Size	
Kinetic Data Time  3:51 3:54 3:58 4:00 4:01 4:06 4:06 4:11 4:12 4:14 1:17 4:18 4:20 4:22 4:24 4:24 4:26 4:28 4:31 4:33 4:35 3:37 4:39 4:41 4:43	Action/observation started pressurizing took elelmental analysis while waitign for press set temp to 10 while waiting for puressure to hi set temp to 1 while waiting for elemetal analysis set temp to -34 crystals observed image taken took 3D image of crystal with good morphology set temp to -31 to get ablation took 3D image (case 1.1) took 3D image (case 1.2) took 3D image (case 1.3) took 3D image (case 1.4) took 3D image (case1.4) took 3D image (case1.5) took 3D image (case 1.6) took 3D image (case 1.7) took 3D image (case 1.8) took 3D image (case 1.9) took 3D image (case 1.10) set temp to -33 and started 3D image (case 1.1 took 3D image (case 1.12) set temp to -30 and took 3D image (case 1.13) took 3D image (case 1.14)	Temperature (actual)  26.3  Sure to hit 60 (20200720R)  9.7  5  ( (case 1.0)  -31.8	Crystal Size	
Kinetic Data Time  3:51 3:54 3:58 4:00 4:01 4:06 4:06 4:11 4:12 4:14 1:17 4:18 4:20 4:22 4:24 4:24 4:26 4:28 4:31 4:33 4:35 3:37 4:39 4:41 4:43 4:43	Action/observation started pressurizing took elelmental analysis while waitign for press set temp to 10 while waiting for puressure to hi set temp to 1 while wating for elemetal analysis set temp to -34 crystals observed image taken took 3D image of crystal with good morphology set temp to -31 to get ablation took 3D image (case 1.1) took 3D image (case 1.2) took 3D image (case 1.3) took 3D image (case 1.4) took 3D image (case1.4) took 3D image (case1.5) took 3D image (case 1.6) took 3D image (case 1.7) took 3D image (case 1.8) took 3D image (case 1.9) took 3D image (case 1.10) set temp to -33 and started 3D image (case 1.1 took 3D image (case 1.12) set temp to -30 and took 3D image (case 1.13) took 3D image (case 1.14) took 3D image (case 1.15) took 3D image (case 1.15)	Temperature (actual)  26.3 Sure to hit 60 (20200720R)  9.7 S  ( (case 1.0)  -31.8	Crystal Size	
Kinetic Data Time  3:51 3:54 3:58 4:00 4:01 4:06 4:06 4:11 4:12 4:14 1:17 4:18 4:20 4:24 4:24 4:24 4:26 4:28 4:31 4:31 4:35 3:37 4:39 4:41 4:43 4:45 4:45	Action/observation started pressurizing took elelmental analysis while waitign for press set temp to 10 while waiting for puressure to hi set temp to 1 while wating for elemetal analysis set temp to -34 crystals observed image taken took 3D image of crystal with good morphology set temp to -31 to get ablation took 3D image (case 1.1) took 3D image (case 1.2) took 3D image (case 1.3) took 3D image (case 1.4) took 3D image (case1.4) took 3D image (case1.5) took 3D image (case 1.6) took 3D image (case 1.7) took 3D image (case 1.8) took 3D image (case 1.9) took 3D image (case 1.10) set temp to -33 and started 3D image (case 1.1 took 3D image (case 1.12) set temp to -30 and took 3D image (case 1.13) took 3D image (case 1.14) took 3D image (case 1.15) took 3D image (case 1.15) took 3D image (case 1.16)	Temperature (actual)  26.3 Sure to hit 60 (20200720R)  9.7  (case 1.0)  -31.8	Crystal Size	
Kinetic Data Time  3:51 3:54 3:58 4:00 4:01 4:06 4:06 4:11 4:12 4:14 1:17 4:18 4:20 4:22 4:24 4:24 4:28 4:31 4:33 4:35 3:37 4:39 4:41 4:43 4:45 4:45 4:47 ~ 5:53:00 AM	Action/observation started pressurizing took elelmental analysis while waitign for press set temp to 10 while waiting for puressure to his set temp to 1 while wating for elemetal analysis set temp to -34 crystals observed image taken took 3D image of crystal with good morphology set temp to -31 to get ablation took 3D image (case 1.1) took 3D image (case 1.2) took 3D image (case 1.3) took 3D image (case 1.4) took 3D image (case1.4) took 3D image (case1.6) took 3D image (case 1.6) took 3D image (case 1.7) took 3D image (case 1.8) took 3D image (case 1.9) took 3D image (case 1.10) set temp to -33 and started 3D image (case 1.1 took 3D image (case 1.12) set temp to -30 and took 3D image (case 1.13) took 3D image (case 1.14) took 3D image (case 1.15) took 3D image (case 1.16) took elemental analysis scan (20200720R2K2)	Temperature (actual)  26.3 Sure to hit 60 (20200720R)  9.7 S  (case 1.0)  -31.8 -31.	Crystal Size	
Kinetic Data Time  3:51 3:54 3:58 4:00 4:01 4:06 4:06 4:11 4:12 4:14 1:17 4:18 4:20 4:24 4:24 4:26 4:28 4:31 4:31 4:33 4:35 3:37 4:39 4:41 4:43 4:43 4:45 4:47 ~ 5:53:00 AM	Action/observation started pressurizing took elelmental analysis while waitign for press set temp to 10 while waiting for puressure to hi set temp to 1 while wating for elemetal analysis set temp to -34 crystals observed image taken took 3D image of crystal with good morphology set temp to -31 to get ablation took 3D image (case 1.1) took 3D image (case 1.2) took 3D image (case 1.3) took 3D image (case 1.4) took 3D image (case1.4) took 3D image (case1.5) took 3D image (case 1.6) took 3D image (case 1.7) took 3D image (case 1.8) took 3D image (case 1.9) took 3D image (case 1.10) set temp to -33 and started 3D image (case 1.1 took 3D image (case 1.12) set temp to -30 and took 3D image (case 1.13) took 3D image (case 1.14) took 3D image (case 1.15) took 3D image (case 1.15) took 3D image (case 1.16)	Temperature (actual)  26.3 Sure to hit 60 (20200720R)  9.7  (case 1.0)  -31.8	Crystal Size	