

Run 1				
Static Data			Start Time (peltier on):	12:07 PM
Size of cold stage:	51 mm		End Time (peltier off):	1.03
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	started when the pressure was 60Pa			
Additional Comments	It seems that the 12kV accelerating volate might be affecting the roughness... I would like to try loweringn it to 11 or 10 and see the effects			
Kinetic Data				
Time	Action/observation		Temperature (actual)	Crystal Size
12:07	set temp to -35 (pressure at 60 Pa)		25	none
12:09	observation		-26	none
12:10	observation (pressure is 40 Pa)		-35.8	
12:11	crystals observed			
12:13	set temp to -34 to slow growth			
12:14	set temp to -33		-34	
12:15	took 3D image (case 1.0)		-33.8	
12:18	took 3D image (case 1.1)		-33.7	
12:21	took 3D image of roughened prismatic facet zoomed in (case 1.2)		-33.7	
12:26	took 3D image of other corner of prismatic facets (case 1.3)		-33.7	
12:26	overall crystal has lost its hexagonal shape			
12:29	took 3D image of 1st prismatic that was imaged in case 1.2 (case 1.4)		-33.7	
12:32	took 3D image of same prismatic facet (case 1.5)		-33.7	
12:34	changed the accelerating voltage to 10		-33.7	
12:37	took 3D image of prismatic facet (case 1.6)		-33.7	
12:38	leting the crystal grow without any electron beam on it		-33.7	
12:41	turned on beam and immediatly took a 3D image (case 1.7) **potential pockmarks on this image**		-33.7	
12:49	took 3D image of 2nd prismatic facet same as case 1.3 (case 1.8)			
12:52	took 3D image of pyrimidal facets at bottom of crystal (case 1.9)		-33.7	
12:54	re-immaged 3D image of left side prismatic facet (case 1.10)			
12:58	took 3D image of overall final crystal (case 1.11)		-33.7	
1:01	took 3D image of trianglular cutout at top of crystal (can be seen in case 1.11 as well) (case 1.12)		-33.7	
1:03	ended experiment			
Run 1				
Static Data			Start Time (peltier on):	2:21 AM
Size of cold stage:	51 mm		End Time (peltier off):	3:30 AM
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	started when the pressure was 60Pa			
Additional Comments				
Kinetic Data				
Time	Action/observation		Temperature (actual)	Crystal Size
2:21	set temp to -34 (pressure 60Pa)		25	none
2:25	crystals observed (50 Pa)		-34	
2:27	taking 3D image (case 1.0)		-33.9	
2:29	taking 3D image (case 1.1)		-33.9	
3:32	taking 3D image (case 1.2)		-33.9	
3:35	taking 3D image of top prismatic facets (case 1.3)		-33.9	
2:37	taking 3D image of whole crystal (case 1.4)		-33.9	
2:40	taking 3D image of whole crystal (case 1.5)		-33.9	
2:42	taking 3D image of pyrimidal facets (case 1.6)		-33.9	
2:44	set temp to -30 to induce ablation and see roughening diffrence			
2:45	observation		-30.9	
2:46	taking 3D image of ablation (case 1.7)		-30.7	
2:48	taking zoomed in 3D image of ablation (case 1.8)		-30.8	
2:50	taking 3D images of ablation pockmarks (case 1.9)		-30.8	
2:52	taking 3D image of whole crystal (case 1.10)		-30.8	
2:55	taking 3D image of pyrimidal and prismatic facets (case 1.11)		-30.8	
2:57	set temp back to -34 to see how it re-grows			
2:59	taking 3D image of growth after ablation (case 1.12)		-34.6	
3:02	taking 3D image of growth after ablation (case 1.13)		-34.6	
3:05	taking 3D image of growth after ablation (case 1.14)		-34.6	
3:10	ending experiment			