

Run 1					
Static Data			Start Time (peltier on):	3:21 AM	
Size of cold stage:	51 mm		End Time (peltier off):	16:20	
Height of cold stage:	8 mm				
vacuum pressure (set)	50 Pa		Startintg vaume pressure for inital growth: 70		
Z/TILT (distance of detector from stage)	5um		The pressure quickly reached 50 Pa and remained for the rest of the run		
vacuum current	12kv				
probe current		90			
Additional Comments					
Additional Comments					
Kinetic Data					
Time	Action/observation		Temperature (actual)	Crystal Size	
3:21	Set temp to -35				
3:24	hit -35			start	
3:31	set temp to -32 to stop growth			400x200um	
3:31	hit -32.8		-32.8		
3:32	vacume pressure is 50 Pa and temp is ablating the cyrstal				
3:33	set temp to -33		-33.7		
3:38	crystal has stabilized and a 3D image was taken of the smooth crystal (case 1.0)		-33.7		
3:40	set temp to -31				
3:41	ablation occuring		-31.8		
3:46	set temp to -32 to slow ablation				
3:49	3D image of ablation roughening taken (case 1.1 (note that the case number was determined to be the same crystal as case 1.0 a few days after immaging occurred		-32.8		
3:51	set to -34				
3:52	hit temp		-34.4		
3:54	set to -35 to speed up growth		-35.6		
3:59	crystals experiencing growth roughening		-35.6		
4:01	set temp to -33 to take pictures of growth roughening				
4:03	3D image taken (case 2.0 (note: case number/order determined a few days after immaging occurred using timestamps))		-33.7		
4:05	ablation may have been occuring				
4:06	set to -31 to try and induce more ablation		-32		
4:07	crystal seems to be losing shape		-31.7		
4:08	set to -35 to try and regain shape		-35		
4:12	crystal seems to be merging with another and has not regained its orignal shape				
4:12	other cystal observed with better geometry (is the electron beam affecting the growth?)				
4:18	seems the ice vial is low				
4:19	ended run				
Run 2 (observations and growth rate at -40C and 50Pa)					
Static Data			Start Time (peltier on):	5:23 AM	
Size of cold stage:	51 mm		End Time (peltier off):	17:47	
Height of cold stage:	8 mm				
vacuum pressure (set)	Started at 70 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	
5:23	Pressure at 110 and peltier set to -35				
5:25	Pressure at 90 and		-5	none	
5:26	Pressure at 70		-25	none	
5:28	Pressure at 50		-31	first crystals appear	
5:29	Pressure at 60		-35	many appear to be less symetrical but some are good	
5:33	Pressure at 70		-34.9	crystals appear more circular in general	
5:34	Pressure set to 60		-35		
5:36	Pressure finally reached 60		-34.9	appeareance is the same	
5:38	Growth roughness observed (the crystals seem fatter however)		-34.9		
5:40	Set pressrue to 50 Pa		-34.9		
5:42	Pressure has hit 50		-34.9	appeareance is similar	
5:45	Hard to tell but more angular sides to crystals may be forming (however they are still too blobular and their shape is not in the desired geometry)		-34.9		
5:47	Nothing more is being observed (in terms of growth pattern change)				
5:47	Experiment ended				