Run 1 (observations and growth rate at -40C and 50Pa)				
Static Data		Start Time (peltier on):	12:20 PM	
Size of cold stage:	51 mm	End Time (peltier off):	13:00	
Height of cold stage:	8 mm			
vacuum pressure (set)	50 Pa			
Z/TILT (distance of detector from stage)	5um	Side note: Would be intersted in determining the amount of water nessesary to grow the cystals and then have it run out at the correct atmospheric size		
vacuum current	12kv			
probe current	85			
Additional Comments	As time went on and the crystals grew at this temperature they got more circular and blob like at about the 12: 27-29 time marks			
Additional Comments	Almost all crystals were growing on the edges of the			
Kinetic Data				
Time	Action/observation	Temperature (actual)	Crystal Size	
12:20	Set peltier to -40C			
12:23	First crystal growth seen		tiny specs of crystals seen	
12:25	larger more defined crystals seen (with good geometry)	at -36 now (not hit 40)	crystals roughtly 500um	
12:27	Cyrstals are not larger but growing slower	at -38 now (not hit 40)	crystals roughtly 700um	
12:29	Crystals are now growing more slowly	at -39 now (not hit 40 but seems to now be going any more	crystals roughtly 1000um	
12:32	Crystals are now holding constant	fluctuation between -38 and -39	crystals roughly 1000um but might be a little larger	****somewhere around here htye started to become blobular I belive***** (I would have to re-do this and pay attenton for when they exactly were exhibiting these traits)
12:37	crystals are showly (very slowly) growing	at about -38	crystals about 1500um	
12:39	crystals are same	at about -38	crystals are experiencing growth roughening	
12:40	smaller "second wave" of crystals occuring more centered on the slide	at about -38	smaller growing crystals are hexagonal (good for analysis) and are exoeruebcubg growth roughening	
12:43	larger crystals are growing at a slow constant rate	at about -38	larger crystals are now about 2000um	
12:44	smaller 'second wave" crystals are now blobular	at about -38	smaller crystals are roughly 800um	
12:47	smaller "second wave" crystals are growing slow	at about -38	"second wave" crystals are about 1000um	
12:50	smaller "second wave" crystals are growing slow	at about -37	"second wave crysatls are about 1100 um	
12:52	observation	while still containing growth roughness there are no identifiable facets (has been this way since they turned more blobular)		
12:54	larger crystals	about -37	larger crystals can be up to 2500um now but have mostly merged into those aroung them	
12:56	smaller "second wave" crystals are growing slow	at about -37	"second wave" crystals are about 1500um	
12:57	observation	I belive that most if now all of the ice in the vial has evaporated and very little is now occuring	most ice crystals have now merged into eachother with ice located almost exclusivly at the edges of the slide	
1:00	experiment ended			
Potential Conclusion: -40C is a little too cold for growing ice crystals at 50Pa and might be contibuting to the blobular structures at the later times in the SEM				
I will attempt to grow the crystals at -35C next and see if this holds them more constant				
Vial was roughly 2/3 - 1/2 full but most of the DI had melted (due to clean up procedure most likely) (hard to tell with the pointed bottom)				
******Note: no immages were taken for this run (I was focouysing on making more observations)*******				
Run 2				
Static Data		Start Time (peltier on):	3:03 AM	
Size of cold stage:	51 mm	End Time (peltier off):	4:08	
Height of cold stage:	8 mm			
vacuum pressure (set)	50 Pa	Actual vacume is closer to 80 (at least at start)		
Z/TILT (distance of detector from stage)	5.1um			
vacuum current	12kv			
probe current	85			
Additional Comments				
Kinetic Data				
Time	Action/observation	Temperature (actual)	Crystal Size	
3:03	set temp to -35	23		
3:05	observed ice particles (but not definite)	-9		
3:09	perfect growing ice crystals	-35	400x200um	
3:11	growth roguhening observed on basal and pyrimidal facets	-35	300x500um	
3:14	Slight deformation observed (is is going to a more globular shape?)(could be from the electron beam)	-35	400x700um	
3:17	set temp to -30 (to try and get ablation)			
3:19	ablation occuring	-30.7		
3:19	seting temp to -35 to stop ablation			
3:20	crystal seems to be ever so slowly repariting itself	-35		
3:24	crustal seems to be growing agian	-35		
3:24	setting the temp to -33 to see if it will stop growing			
3:27	The crystal seems to still be growing but a much slower pase	-33.6		
3:28	seting the temp to -30 to induce ablation			
3:29	ablation occuring immediatly	-30.7		
3:36	seting to -32 to stop ablation			
3:48	it seems to be holding and not growing & a 3D immage was taken (Case 1.0 of 2020-06-23 Run 2 on GitHub)	-32.6	**side note: I took a 3D immage (hopefully correctly) (it is not pretty but wanted to test)	
3:48	setting the temp to -33 to test for growth at that temp			
3:51	it is growing at a low rate again	-33.6		
3:52	rouhness is slowly going away due to growth	-33.6		
3:57	seting the tempt to -34 to see how this affects growth			
3:59	observed a slight increase in growth rate (would need to test this further) (I belive that I am almost out of water in the vial)	-34.5		
4:01	experiment ended			