Usages Policy:

Step I (at CSIR-NPL)	
Process	DC magnetron sputtering
Equipment Name	EXCEL Instruments (custom designed)
Processed at Lab/Center/Institute	PLD Lab, CSIR-NPL
Equipment Ambiance [Cleanroom Classes 10,100,1000,etc; Semi clean; Not Clean]	Ultra-thin superconducting films are grown on Sapphire substrate using DC magnetron sputtering facility at CSIR-NPL in semi clean environment. Samples were grown in 6N pure argon or argon/N_2 mixture
Highest Temp Observed by Sample/Substrate (^{o}C)	600 – 800 ^{o}C (in high vacuum or in argon or argon/N_2 mixture)
Equipment Usage Policy at the lab [What all materials have so far allowed in the system from its installation date, what restrictions incoming sample has, what cleaning is done prior if any, etc.]	Metals and metal nitrides
Process Description	DC magnetron sputtering in argon or argon/N_2 mixture

Step II (at IITBNF)				
Process Nos.	**Process Sequence**	**Tools Required***	**Contamination Category of tools***	**Process Parameters**
1	PMMA coating	Spin coater		
2	Pattern writing using EBL	EBL		
3	Pattern developing	Developer solution		
4	Cr/Au deposition for contact pads	Thermal or e-beam evaporation		
5	Lift-off	Lift-off in acetone		
6	HSQ coating	Spin coater		
7	Pattern writing using EBL	EBL		
8	Pattern developing	Developer solution		
9	Selective removal of thin films for meander formation	Reactive ion etching		

Step III (at IITBNF) Characterization Process Details			
Sample No.	**Sample Name**	**Characterization Equipment**	**Required Characterization Parameters (e.g. step height for Profilometer/scan angle for XRD/ feature size for SEM)**
	Fabricated samples at IITBNF	SEM	Observation of meander patterns [patterned area: 10micron X 10micron] for its uniformity, continuity, defects, line width, line spacing etc.