



IIT Bombay Nanofabrication Facility

Tool Name: Sputter Orion

Training and Usage Policy

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Reading Material:

1. Text Book: Silicon VLSI Technology Fundamentals, Practice and Modeling” by J. D. Plummer, M. D. Deal, P. B. G Griffin, chapter no. 9
2. Video Lecture: <https://www.youtube.com/watch?v=oTRmC0eJnYs>

Cleaning Protocol

1. Use lint free cloth and IPA only for cleaning substrate holders.
2. If you want to clean the instrument body, working table with IPA soaked cloth.

If any problem arises in the system while you are working: Please make a note of it in the logbook Call the system owner and inform him. Place a note near the system. Inform the users who have booked the next slots (mail/phone) Please do not try anything to rectify the problem unless you are with an experienced AU or SO or you have been instructed by the SO to do so.

Specifications

1. Target Size: 2”
3. Gases used in the system: O₂, Ar, PN₂
4. Substrates used: Si, Ge, GaN, GaAs, LSMO, PCMO, YIG, SRO, (No Glass), Lithium Niobate
5. Substrate size: Small samples, 2” and 4” diameter wafer.
6. Substrate temperature: Room temperature to 850 C

Sputtering Targets available:

Cr, Au, Ti, Pt, Fe, Co, CoFeB, CoFe, IrMn, Ru, Ag, W, Ta, Ni, NiFe, SiO₂, MgO, Nb, Gd, SnGe andCu.