**Moorfield Nanotechnology- Multi Target Magnetron Sputtering System**

# Requisition form

|  |  |
| --- | --- |
| Name of the User |  |
| Registration No |  |
| Contact No and Email ID |  |
| No. of depositions |  |
| Name of Supervisor |  |
| Department/Institute |   |
| Payment Details (DD No./Cash Deposit Slip) |  |
| Sample Code | Substrate Material | Sample Shape/Dimensions\* (l×b×h) | Coating to be deposited | Substrate Temperature (oC) |
|  |  |  |  |  |

|  |
| --- |
| **Coating Parameters** |
| Power Supply | DC | RF-1 | RF-2 |
| Target Material |  |  |  |
| Power Density (W/cm2) |  |  |  |
| Base Pressure (mbar) |  |
| Working Pressure (mbar) |  |
| Coating Thickness (nm) |  |
| O2 % flow\*\* |  |
| N2 % flow\*\* |  |

**NOTE:**

1. The equipment features 3 magnetron guns: 1 DC and 2 RF power supplies, usable independently or for co-deposition.

2. N₂ and O₂ gases are available for reactive sputtering processes. \*\*For reactive gas sputtering only

.3. The substrate platen measures 7 cm; \*substrates must be smaller than 7 cm.

4. Commonly used targets are available at additional cost, subject to prior approval.

5. Target diameter must be 2 inches (strictly). Thickness: 5 mm for non-magnetic targets, 1.5 mm for magnetic ones (e.g., Fe, Ni, Co).

6. Non-conducting targets require a 1 mm Cu backing plate; total combined thickness must not exceed 5 mm.

***Instructions***

1. Only one coating will be deposited per requisition form.
2. Date for deposition will be given only after approval from the Chairman, CRFC, NIT
3. If the sample(s) are hazardous to the personnel or equipment, kindly provide appropriate handling instructions.
4. Allotment of slot will be communicated via mail /phone.
5. A maximum of two consecutive depositions or two weeks of machine use per slot, whichever occurs first.

 **Undertaking**

* I/We undertake to abide by the safety, standard sample preparation guidelines and precautions during testing of samples. I/We do understand the possibility of samples getting damaged during handling and analysis. I/We shall not claim for any loss/damage to samples.
* CRFC shall not take any responsibility about the analysis, interpretation and publication of data acquired by the end user.
* We agree to acknowledge CRFC, NIT SRINAGAR in our publications and thesis if the results from CRFC facility are incorporated/ used in them.
* I/We hereby declare that the results of the analysis will not be used for the settlement of any legal issue.
* CRFC, NIT Srinagar reserves the rights to return the samples without performing analysis and will refund the analytical charges (after deduction of GST) under special Circumstances.

Signature of the user Signature of the supervisor/PI

Signature of the HOD with stamp

# Sputtering System Slot Allotment Slip

Name……………………… Contact No…………………. Institute…………………………………

No. of samples:…………… Sample type……………… Invoice/Receipt no:……………………..…

Signature of Operator Signature of Laboratory in-charge