

**INSTITUTE OF NANO OPTOELECTRONICS**

**RESEARCH AND TECHNOLOGY (INOR)**

UNIVERSITI SAINS MALAYSIA (USM)

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**FABRICATION PROCESS REQUEST FORM**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Requestor Name | : |  | | | | | | | | | | | | | | | | | |
|  |  |  | | | |  | |  | |  | | | |  | | | |  |  |
| Contact No. | : |  | | | | Email | | : | |  | | | | Date | | | | : |  |
|  |  |  | | | |  | |  | |  | | | |  | | | |  |  |
| School/Company | : |  | | | | | | | | | | | | | | | | | |
|  |  |  |  | | |  |  | | | | |  |  | | | | | | |
| Category | : |  | INOR Staff/Student | | |  | Other Dept. | | | | : |  |  | | | | | | |
|  |  |  |  | | |  |  | | | | |  |  | | | | | | |
| Sample Type | : |  | Powder |  | Thin Film | | | |  | | | | No. of Sample | | : | |  | | |
|  |  |  |  |  |  | | | |  | | | |  | |  | |  | | |
| Materials | : |  | | | | | | | | | | | | | | | | | |
|  |  |  |  |  |  | | | |  | | | |  | | |  |  | | |
| Substrate | : |  | | | | | | | | | | | | | | | | | |

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***Please Tick Appropriate Box*** | | | | | | | | | | | | |
|  | | **EQUIPMENT** | | | | | | | | | | |
|  | | | | | | | | | | | | |
|  |  | | | | | | | |  |  |  | |
|  | **3-Zone Furnace** | | | | |  | **Single Zone Furnace** | |  |  | **E-Beam Evaporator** | |
|  |  | | | | | | | |  |  |  | |
|  |  | | Metallization | | | |  | Metallization |  |  |  | Without source material and crucible |
|  |  | | | | | | | |  |  |  |  |
|  |  | | Oxidation | | | |  | Oxidation |  |  |  | With source material & crucible |
|  |  | | | | | | | |  |  |  |  |
|  | **3-Zone Furnace with NH3 Cracker (Nitridation)** | | | | | | | |  |  | **Inductive Couple Plasma Etching System (ICP)** | |
|  |  | | | | | | | |  |  |  | |
|  | **Degas Vacuum System** | | | | | | | |  |  |  | Using Cl & BCl3 (e.g. GaN) |
|  |  | | | | | | | |  |  |  |  |
|  | **UV-Ozone Cleaner** | | | | | | | |  |  |  | Other gases except Cl & BCl3 (e.g. Si, ITO, ZnO) |
|  |  | | | | | | | |  |  |  |  |
|  | **Glove Box** | | | | | | | |  |  | **Rapid Thermal Processor System (RTP)** | |
|  |  | | | | | | | |  |  |  | |
|  |  | | Vacuum |  | Nitrogen | | | |  |  | **Mask less Lithography [direct write, complete process]** | |
|  |  | | | | | | | |  |  |  | |
|  | **Spin Coater** | | | | | | | |  |  |  | Sample with pre-coat PR |
|  |  | | | | | | | |  |  |  | |
|  | **Hotplate** | | | | | | | |  |  |  | Sample without pre-coat PR |
|  |  | | | | | | | |  |  |  | |
|  | **Laminar Flow** | | | | | | | |  |  |  |  |
|  |  | | | | | | | |  |  |  | |
|  | **Fume Hood** | | | | | | | |  |  |  | |
|  |  | | | | | | | |  |  |  | |
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| --- | --- |
| **Other information about the sample** *(e.g. sample stability/temperature)* **:** | |
|  | |
|  |  |
| **Requestor Signature:** | **Supervisor Approval:**  *(if Students, need to get the approval from Supervisor)* |