

Guide to IES-UPM's MOVPE process services request

Introduction

The MOVPE reactor at IES-UPM is managed by the III-V Semiconductors Group. The usage schedule of this reactor is defined in accordance with the workload required for projects and collaborations, as well as for external service requests. The reactor schedule is defined 2-3 months in advance and is structured in different Work Sessions grouping processes with similar characteristics (wafer size, main material to grow, etc).

The reactor process service offer is made through IES-UPM website, and the web is open for requests around the year. The cost of service depends on the characteristics of the work requested (type of materials, number of layers in the structure, total thickness, etc). Given the complexity of the MOVPE reactor operation, the service is provided with our own operator performing the MOVPE processes. It is possible to include characterization services to the request.

Access protocol

Step 1: Access request

To issue a service request, an email must be sent to the responsible person: Prof. Carlos Algora (algora@ies.upm.es). The requestor information and a brief description of the work must be included in the request. The responsible person will contact the requestor to define in detail the work, study the viability and provide a cost estimation.

Once an agreement is reached, a formal Access Request will be issued, which will include a normalized description of the work and associated costs.

Paso 2: Internal evaluation

Each request will be evaluated by the MOVPE reactor Access Committee (Prof. Ignacio Rey-Stolle and Dr. Iván García), including the verification of the scientific-technical quality and viability of the work, and will determine the suitable schedule for it. The criteria to prioritize the request will comprise:

1. Scientific-technical quality.
2. Viability
3. Fit of the proposal to the reactor work windows and sessions.

In requests corresponding to work in the frame of competitive R&D projects funded by national or European entities, the scientific-technical quality will not need to be evaluated. In this case, the code and name of the R&D project will be included in the request.

Step 3: Performing the work

Once the request has been approved by the Access Committee, the responsible person will inform the requestor of the work schedule. The technical staff in charge will timely inform of the development of the work. In addition to the growth work, the characterization of the epilayers can be also requested.